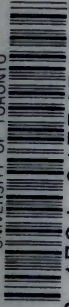


UNIVERSITY OF TORONTO



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Ex  Libris
Oskar Klotz

A Physiological Fact.—A surgeon in the U S Army recently desired to know the most common cause of enlistments. By permission of the captain of the company, containing fifty-five, in a pledge never to disclose the name of any officer or private, except as a physical fact, the true history was obtained of every man. On investigation, it appears that nine-tenths enlisted on account of some female difficulty, thirteen of them had changed their names, and forty-three were either drunk or partially so, at the time of their enlistment. Most of these were men of fine talents and learning, and about one-third had once been men in elevated stations of life; four had been lawyers, three doctors, and two ministers. The experimenter believes if it were not for his pledge of secrecy, that this would be as interesting a history, and would exhibit the frailty of human nature as full as any experiments ever made on the subject of passions.

MR
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Dunghison's American Medical Library.

Albert G. Walter

ON THE

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DISCHARGING AND PENSIONING
OF
SOLDIERS,

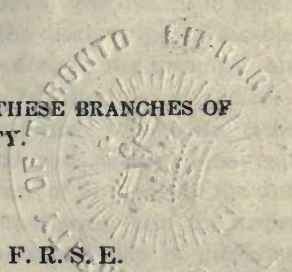
WITH

THE OFFICIAL DOCUMENTS ON THESE BRANCHES OF
MILITARY DUTY.

BY

HENRY MARSHALL, F. R. S. E.

DEPUTY INSPECTOR-GENERAL OF ARMY HOSPITALS.



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FROM THE SECOND LONDON EDITION.

WITH THE
REGULATIONS FOR THE RECRUITING SERVICE IN THE
ARMY AND NAVY OF THE UNITED STATES,
AND A PREFACE.

BY W. S. W. RUSCHENBERGER, M. D.

Surgeon U. S. Navy; Fellow of the College of Physicians of Philadelphia;
Surgeon of the U. F. Naval Rendezvous, Philadelphia, &c. &c.

PHILADELPHIA:

PUBLISHED BY A. WALDIE, 46 CARPENTER STREET.

1840.

MR
M

Department of the Army, Washington, D.C.

Handwritten signature

ENLISTING,
DISCHARGING AND PENSIONING
SOLDIERS.



5.7.38
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THE OFFICIAL DOCUMENTS ON THE
MILITARY TOPIC
HENRY MARSHALL T. LITTLE
FROM THE SECOND EDITION
FOURTH
REGULATIONS FOR THE REGIMENTAL SERGEANT IN THE
ARMY AND NAVY OF THE UNITED STATES
AND A PRACTICE

BY W. R. WOODRUFF, M. D.

PHILADELPHIA:
PUBLISHED BY A. WADE & CARPENTER STREET
1880

PREFACE.

In the following pages I have endeavoured to give a practical commentary on the regulations which have been issued in regard to the duty of examining recruits, and the discharging of disabled soldiers; and, in the execution of this design, my principal aim has been to explain the practice of carrying the rules into effect—not to argue their policy, or to suggest reforms; to narrate, rather than to discuss. In a financial, a political, and, perhaps I may add, in a medical point of view, I am not aware of any part of the duty of a medical officer which is of more importance than the inspection of recruits on a large scale, and the examination of inefficient soldiers; and, consequently, these duties deserve a very careful consideration.

Should this manual contribute, in however small a degree, to the compilation of a comprehensive work on military *hygiene*, including a treatise on the duties of medical officers, I shall be much gratified. In the simple but expressive language of Sir John Pringle, it may be asked, "What inquiry can be so useful as that which hath for its object the saving of the lives of men?" "The prevention of diseases," he very justly observes, "cannot consist in the use of medicines." To preserve the health of soldiers, and to promote their efficiency in all climates, and under the various circumstances of peace and war, are highly important objects which should engage not only the attention of government, but the careful study of both military and medical officers. There is, I fear, too much truth in the following observation of Vaidy: "*Tant que les peuples seront gouvernés par des hommes et que les hommes auront des passions, la guerre sera un mal inevitable.*" "Peace," says Segur, "*is the dream of the wise; war is the history of man.*"

I am under many obligations to Sir James M'Grigor, for his liberality in offering me permission to examine the valuable documents in the record room of the medical department of the army,

mar 1*

for the purpose of gleanng materials for my volume; and I take this opportunity of sincerely thanking him for his kindness, of which I should have been most happy to take advantage, had I been a resident in London.

From my worthy friends, Major Tulloch and Dr. Balfour, Assistant Staff-surgeon, I have received much assistance in revising the proof-sheets; and I avail myself of the present occasion, with great pleasure, to return them my grateful thanks.

H. M.

EDINBURGH, *June*, 1839.

In the following pages I have endeavoured to give a practical commentary on the regulations which have been issued in regard to the duty of examining recruits, and the discharge of disabled soldiers; and in the execution of this design, my principal aim has been to explain the practice of carrying the rules into effect—not to argue their policy, or to suggest reforms; to narrate, rather than to discuss. In a historical, a political, and perhaps I may add, in a medical point of view, I am not aware of any part of the duty of a medical officer which is of more importance than the inspection of recruits on a large scale, and the examination of individual soldiers; and consequently, these duties deserve a very careful consideration.

Should this annual contribution be however small a degree to the completion of a comprehensive work on military Hygiene, including a treatise on the duties of medical officers, I shall be much gratified. In the simple but expressive language of Sir John Pringle, it may be asked, "What industry can be so useful as that which aims for the object of the saving of the lives of men?" "The prevention of disease," he very justly observes, "cannot consist in the use of medicines." To preserve the health of soldiers, and to promote their efficiency in all climates and under the various circumstances of peace and war, are highly important objects which should engage not only the attention of government, but the careful study of both military and medical officers. "There is, I fear, too much truth in the following observation of Voltaire: 'You can see the people's sword quarrels you has honour of the far however count the nations in wars and is not inconsiderable.' 'I want,' says Voltaire, 'is the dream of the vain; war is the folly of man.'"

I am under many obligations to Sir James M'Gillivray, for his liberality in allowing me permission to examine the records deposited in the record room of the medical department of the army.

CONTENTS.

PART I.

ON THE ENLISTING OF SOLDIERS.

	Page
Enlistment of recruits,	1
Stature, weight, and circumference of the chest of recruits,	3
Class of the population from which recruits are procured,	5
Minimum and maximum age of recruits,	9
Instructions for the guidance of medical officers in the duty of examining recruits—Object of the instructions—Disabilities which disqualify men for the army,	14
1. Feeble constitution, &c.	16
2. Weak or disordered intellect,	20
3. Chronic cutaneous affections,	20
4. Severe injuries of the bones of the head,	20
5. Impaired vision,	21
6. Deafness,	21
7. Loss of many teeth,	22
8. Impediment of speech,	22
9. Want of due capacity of the chest (heart),	22
10. Inadequate efficiency of the superior extremities,	23
11. Curvature of the spine,	24
12. Hernia,	25
13. Disease of a testicle,	26
14. Inadequate efficiency of the inferior extremities,	27
15. Ulcers, cicatrices, &c.	30
16. Traces of corporal punishment,	30
17. Diseases requiring medical treatment,	30
Routine of examination,	31
Medical boards on ineligible recruits,	35
Importance of the duty of inspecting recruits,	36
Form of returns,	41
Obscure and doubtful disabilities,	43
Efficiency required for different branches of the service,	43

NOTES AND ILLUSTRATIONS.

NOTE I. Form of attestation,	45
II. Evidence of the Duke of Wellington in regard to a better class of recruits,	48
III. Influence of age on the mortality of troops,	48
IV. Recruits required for the British army,	49
V. Circular letter respecting <i>flat feet</i> and <i>broad feet</i> ,	50
VI. On the examination and the rejection of recruits,	52
VII. Town and country recruits,	61
VIII. Contribution to statistics of the depots of recruiting districts,	62

PART II.

ON THE DISCHARGING OF SOLDIERS.

	Page
General order, 1st January, 1838,	64
On the duty of discharging disabled soldiers,	72
Examination of alleged inefficient soldiers,	74
Diseases and disabilities which disqualify soldiers for service in the army,	81
CLASS I. Diseases of the eyes—Total or partial loss of vision.	
1. Ophthalmia,	82
2. Amaurosis,	85
3. Cataract,	86
II. Diseases or impaired function of the ear.	
1. Deafness and deaf-dumbness,	86
III. Diseases of the organs of respiration and circulation.	
1. Stammering,	88
2. Consumption, asthma, dyspnoea,	89
3. Hæmoptysis,	90
4. Diseases of the heart or large blood-vessels,	91
5. Varicose veins,	92
IV. Diseases or impaired function of the organs of digestion.	
1. Visceral turgescence (Physconia),	93
2. Chronic disease of the liver,	94
3. Vomiting,	95
4. Bowel complaint,	96
5. Hernia,	96
V. Diseases and lesions of the genito-urinary organs.	
1. Diseases of the testicles,	99
2. Incontinence of urine,	99
3. Calculus vesicæ,	100
VI. Diseases and lesions of the skin and cellular membrane.	
1. Ulcers,	100
2. Œdema—Swelled leg,	102
VII. Diseases and impaired function of the organs of locomotion.	
1. Rheumatic pains,	104
2. Lameness—Old fractures,	106
3. Deformity of the spine,	108
4. Contractions,	109
5. Mutilations,	114
6. Wounds,	119
VIII. Diseases and lesions of the lymphatic system, and of the constitution generally.	
1. Scrofula,	120
2. Cachexy,	121
3. Dropsies,	122
4. Worn out,	122
IX. Diseases and lesions of the nervous system.	
1. Palsy, general or partial,	123
2. Epilepsy,	128
3. Mental alienation—Weakness of intellect,	131
X. Moral disabilities,	138

NOTES AND ILLUSTRATIONS.

NOTE I. Intemperate language—Coercive measures,	140
II. Statistics of hernia,	142

PART III.

PENSIONING OF SOLDIERS.

	Page
I. Military pensions—Chelsea hospital—Out-pensioners,	144
II. Pensioning warrant 1829,	155
1. Division of pensions into four classes,	155
a. Length of service,	156
b. Wounds received in action,	159
c. Disabilities contracted after fourteen years' service,	159
d. Disabilities under fourteen years' service,	160
2. Special cases of debility,	161
3. Forfeiture of pension,	162
4. Commutation of pension,	167
5. Rules in recording service,	167
6. Conditions under which discharges may be obtained,	169
7. Deductions to which a pensioner is liable,	178
III. Warrant regulating the grant of pensions, allowance, and relief to soldiers on their discharge from the army (7th February, 1833),	179
1. Permanent pensions,	180
2. Temporary pensions, or gratuities in lieu thereof,	184
3. Discharges by indulgence,	185
4. Rewards for meritorious conduct,	186
5. General provisions,	187
IV. Warrant (18th August, 1836),	191
V. Instructions consequent upon his majesty's warrant of the 18th August, 1836, (13th September, 1836,)	195
VI. Good conduct warrant (9th May, 1839),	196

NOTES AND ILLUSTRATIONS.

NOTE I. Diet table of the pensioners in Chelsea hospital,	204
Hotel des Invalides and Chelsea hospital,	204
II. Recrciting of the army, and the medical examination of recruits,	205

ADDITIONAL CONTENTS.

Preface to American edition,	ix
Regulations for the recruiting service of the navy,	xiii
Regulations for the enlistment of boys in the navy,	xv
Remarks on the fourth article of the regulations for the recruiting service of the navy,	xvii
Regulations for the discharge of persons from the naval service,	xix
Regulations for the general recruiting service of the army of the United States,	xx
Pensions,	xxx
Opinion of the attorney general on the description of disability which entitles the claimant to a pension,	xxxix
"Total disability" understood to apply to the nature, and not to the extent of disability in certain cases,	xxxiii
Surgeon's affidavit,	xxxiv
Rules of evidence relative to invalid pensioners,	xxxvi
Letter from the commissioner of pensions to the secretary of the navy,	xxxvii
Proposed pensioning regulations,	xxxix
Naval Asylum,	xli
Proposed alteration in the pension laws,	xlii
Remarks on granting pension certificates,	xliii

PART III

REVISIONS OF THE BILL

178	VI. Good conduct warrant, 1832
181	V. Warrant (18th August, 1832)
187	IV. Warrant (18th August, 1832)
188	IV. Warrant (18th August, 1832)
189	V. Warrant (18th August, 1832)
190	V. Warrant (18th August, 1832)
191	V. Warrant (18th August, 1832)
192	V. Warrant (18th August, 1832)
193	V. Warrant (18th August, 1832)
194	V. Warrant (18th August, 1832)
195	V. Warrant (18th August, 1832)
196	V. Warrant (18th August, 1832)
197	V. Warrant (18th August, 1832)
198	V. Warrant (18th August, 1832)
199	V. Warrant (18th August, 1832)
200	V. Warrant (18th August, 1832)

NOTES AND ILLUSTRATIONS

202	II. Description of the bill, and the several alterations proposed
203	III. Description of the bill, and the several alterations proposed
204	IV. Description of the bill, and the several alterations proposed

ADDITIONAL CONTENTS

205	Remarks on the several alterations proposed
206	Remarks on the several alterations proposed
207	Remarks on the several alterations proposed
208	Remarks on the several alterations proposed
209	Remarks on the several alterations proposed
210	Remarks on the several alterations proposed
211	Remarks on the several alterations proposed
212	Remarks on the several alterations proposed
213	Remarks on the several alterations proposed
214	Remarks on the several alterations proposed
215	Remarks on the several alterations proposed
216	Remarks on the several alterations proposed
217	Remarks on the several alterations proposed
218	Remarks on the several alterations proposed
219	Remarks on the several alterations proposed
220	Remarks on the several alterations proposed
221	Remarks on the several alterations proposed
222	Remarks on the several alterations proposed
223	Remarks on the several alterations proposed
224	Remarks on the several alterations proposed
225	Remarks on the several alterations proposed
226	Remarks on the several alterations proposed
227	Remarks on the several alterations proposed
228	Remarks on the several alterations proposed
229	Remarks on the several alterations proposed
230	Remarks on the several alterations proposed
231	Remarks on the several alterations proposed
232	Remarks on the several alterations proposed
233	Remarks on the several alterations proposed
234	Remarks on the several alterations proposed
235	Remarks on the several alterations proposed
236	Remarks on the several alterations proposed
237	Remarks on the several alterations proposed
238	Remarks on the several alterations proposed
239	Remarks on the several alterations proposed
240	Remarks on the several alterations proposed
241	Remarks on the several alterations proposed
242	Remarks on the several alterations proposed
243	Remarks on the several alterations proposed
244	Remarks on the several alterations proposed
245	Remarks on the several alterations proposed
246	Remarks on the several alterations proposed
247	Remarks on the several alterations proposed
248	Remarks on the several alterations proposed
249	Remarks on the several alterations proposed
250	Remarks on the several alterations proposed

PREFACE TO THE AMERICAN EDITION

The great object of this work is to present to the American people a complete and accurate account of the life and character of the author. It is a work of high interest and value, and one which will be read with pleasure and profit by all who are interested in the life and character of the author.

The author's life and character are described in a clear and concise manner, and the work is well illustrated with numerous portraits and vignettes. It is a work of high interest and value, and one which will be read with pleasure and profit by all who are interested in the life and character of the author.

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PREFACE TO THE AMERICAN EDITION.

The great value of the work of Mr. Marshall, to medical and other officers of the army and navy, will at once be perceived, after perusing the very meagre regulations which have been issued from the war and navy departments, to be observed in the medical inspection of recruits. And when it is remembered that physicians and surgeons in private practice may be called upon for certificates to excuse men from serving in the militia, as well as to obtain pensions, it will be admitted that the editor of "The American Medical Library and Intelligencer" deserves thanks for placing this work within the reach of the profession of the United States.

In order to render the work more useful to the medical and other officers of the army and navy of the United States, I have added the few regulations which are now in force for enlisting, discharging, and pensioning men in our own service. For copies of these regulations I am indebted to the politeness of the Hon. J. K. PAULDING, Secretary of the Navy, and to Dr. THOMAS LAWSON, the Surgeon-general of the Army.

The inspection of recruits, both for the army and navy, involving as it does the consideration of the interests of the government and of individuals, which are often conflicting, is perhaps the most important and difficult duty which the surgeon is called upon to perform. (See page 36.) Men who, through vice, dissipation, or misfortune, find it difficult to obtain a livelihood from private patronage, are very apt to seek employment in the army or navy, often with the sole view of obtaining medical attendance, and ultimately an asylum or pension; and even when the greatest caution and circumspection are observed, some unworthy and inefficient individuals gain admission into the service. Nor is this very surprising, when we consider that, prompted by their interests, recruits resort to every means within their knowledge to deceive the inspecting officer, whose examination is generally limited, for each recruit, to ten or fifteen minutes—a period much too short to ascertain the qualities of a horse, in which the most astute and wary jockey may be deceived.

The requisite qualifications of men for the army and navy are nearly the same, except that, in the latter, personal appearance and a certain stature are not indispensable; hence the rules applicable to the inspection of men for one branch of the service apply, generally, with equal force to the other.

It is self-evident that men who are perfect in structure, and whose organs are in the healthful exercise of their several functions, are to be preferred for the naval service; but as those persons who offer as recruits are frequently marked by some blemish, arising from the exposures to which their manner of life renders them obnoxious, it becomes a serious consideration to estimate with what degree of ability less than perfect a man may be useful in the service. Experience has taught that certain imperfections of physical and moral constitution entirely destroy the fitness of an individual for the performance of nautical duties. Upon most of these points medical opinion is definite, and, what is more important, it is uniform. There are, however, points upon which medical officers in the navy do not agree; and these opinions, I believe, in many instances, are swayed by the exigencies of the service.

Although it may be argued that no rule can be formed, of so definite a character as to dispense with the deliberate exercise of the judgment of the inspecting officer, it is nevertheless true that certain differences of opinion, on the eligibility and ineligibility of recruits, might be settled by an order, and thereby an approximation to uniformity be produced which does not now exist. For example, in the minds of some surgeons, gonorrhœa, recent venereal sores, (which are so common amongst sailors recently discharged from vessels of war after a cruise,) scars from wounds, slight deformities from fractures, even where there is no evidence of loss of power of limb, are sufficient causes to reject, not only individuals offering for the first time, but also those who offer after having served many years; in cases, too, where the men have only a few days previously completed, satisfactorily to the officers under whom they may have served, the term of their enlistment. The reason assigned for this decision, so prejudicial to the service when men are scarce, is, that the period necessary for the cure of some of the above named affections is uncertain; yet the medical officers who entertain these views would not consider any of the above disqualifying causes in a raw recruit, sufficient, when occurring in a veteran, to entitle him to pension, smart-money, or other gratuity. Military custom in almost all countries has established as a principle that previous services give an individual a claim to serve again, and in this way receive a remuneration for his corporeal wear and tear, as well as for having lost in the public service his aptness to pursue advantageously his peculiar vocation under private patronage. Notwithstanding this principle strongly influences the medical officer in estimating a recruit, under the present regulations, he is often at a loss to determine to what extent he should permit the above consideration to have weight in making up his opinion, because the regulations have no retrospective principle expressed or implied in them.

The want of some definite regulation which shall have the effect of establishing, as far as the subject will permit, a uniformity of opinion among medical officers themselves, upon the eligibility and

ineligibility of recruits, subjects this branch of the service to many unnecessary difficulties. Such a regulation is required to prevent an individual who has been rejected at one rendezvous from being accepted at another, as well as to guard against passing at a rendezvous an individual who may be considered unfit for the service, when he is subjected to a second or third inspection, at another station.

If this subject should be confided to the deliberate consideration of a board of experienced medical officers, as has been suggested to the navy department as long ago as August, 1831, and more recently, in the past year, I feel confident that regulations would be formed to obviate most, if not all, the difficulties which arise from the cause here alluded to. It is no reflection upon any one to remark, that this subject should be confided to medical officers exclusively, because none other than those who possess a competent knowledge of anatomy, physiology, and pathology, can reasonably be expected to form practically efficient regulations, which entirely depend upon this kind of information for their principles and application. The force of this remark will be more apparent upon reading the fourth article of the regulations for the recruiting service of the navy.

With a desire to hasten the collection of recruits, doubtful cases are sometimes approved, which would not occur if all doubts should be cast against the recruit. And this should be the general rule, because the interests of the service are best consulted by enlisting only those who are calculated to be efficient; some exception may be made in favour of veterans who have received blemishes in the service. The extent of this exception must rest with the judgment of the recruiting officers, who should be careful to exclude all who may be entitled, in any considerable degree, to the benefits of the pension laws. Recommendations from officers, no matter how high may be their rank, should never influence the decision of the inspecting officer, who is required to certify as to the soundness of an individual in his bodily and mental condition; nor should officers who give recommendations consider themselves slighted when they learn that men have been rejected, notwithstanding the favourable testimonials which they may have furnished. I have heard of men being shipped at the instance of a captain in the navy, who were afterwards found to be ruptured. The officer was of course imposed upon.

I sent a man home from on board of the U. S. Ship Falmouth at Rio de Janeiro, in 1831, who twice imposed himself upon the recruiting officers with a fistula in perineo of several years' standing, for which he had been unsuccessfully treated at several civil hospitals. This could not have occurred had the recruit been subjected to the routine examination prescribed by Mr. Marshall, (see page 31,) which should in no case be omitted. When it is neglected, the benevolence of the inspecting officer is very apt to subject

him to imposition, and consequently to reprimand from the head of the department.

The re-enlistment of unfit and unworthy persons, (in the service of the United States, men engage for periods not exceeding five years,) might be prevented to some extent by adopting a form of certificate of discharge, similar to that on page 72, and establishing a rule that no man shall be re-entered who does not produce a certificate of discharge.

It is not intended to be understood that the present system of a board of appointed medical officers has been entirely abandoned. In the past year I feel confident that regulations would be framed to obviate most of the difficulties which arise from the cases here alluded to. It is an irrefragable principle to remain that the subject should be confined to medical officers exclusively, because none other than those who possess a competent knowledge of anatomy, physiology and pathology can reasonably be expected to form practically efficient regulations, which would be based upon the kind of information in their possession and application. The force of this remark will be more apparent upon reading the fourth article of the regulations for the re-enlistment of the army.

With a desire to hasten the collection of records, doubtful cases are sometimes approved, which would not occur if all doctors should be sent against the record. And this should be the reverse of the case, because the interests of the service are best promoted by retaining only those who are calculated to be efficient. Great expectations may be made in favour of veterans who have received discharges in the service. The extent of this exception must rest with the judgment of the recruiting officer, who should be careful to exclude all who may be entitled, in any considerable degree, to the thanks of the nation for their services. Recommendations from officers of high rank for their rank should never influence the decision of the recruiting officer, who is required to see to the soundness of an individual in his body and mental condition; nor should officers who give recommendations consider themselves obliged to give any rank that may have been received, notwithstanding the favourable testimonials which they may have furnished. I have heard of men being shipped at the instance of a captain in the navy, who were afterwards found to be imbecile. The officer was of course implicated upon.

I went a short time from on board of the U. S. Ship Enterprise at the instance of 1831, who twice imposed himself upon the recruiting officers with a desire to procure of several years for which he had been unsuccessfully recruited at several ports. This could not have occurred had the various health certificates to the routine examination prescribed by Mr. Marshall (see page 71) which should be seen to be omitted. When it is required, the probability of the inspecting officer is very rare to suspect

REGULATIONS

For the Recruiting Service of the Navy.

ARTICLE I.—As the appointment of officers to attend to the recruiting service is intended not only to hasten the collection of recruits for the navy, but to guard against the enlistment of improper, unsound, or incompetent persons, they are to give strict and constant attendance to their duties at the rendezvous. The junior officers who may be ordered upon this duty are intended as assistants to the commanding officer, and not to act as his substitutes, except in cases where he is unable to attend by reason of sickness, or when absent on leave with the sanction of the department. Under all other circumstances, he will be expected to attend daily at the rendezvous, morning and evening, and to personally question the persons offering to enter, examine into their qualifications, and determine whether they may enter or not, and in what capacity or rating.

ARTICLE II.—Recruiting officers shall enter no boy under thirteen years of age without the consent of his parent or guardian, if any such may be found: nor any landsman over twenty-five years of age, unless he shall have a knowledge of some mechanical trade which will be useful on board a vessel, nor any landsman having such mechanical trade, unless he is under thirty-five years of age. No person is to be entered as ordinary seaman unless he shall have been at sea at least two years, nor as seaman unless he shall have been at sea at least five years.

ARTICLE III.—Recruiting officers are not to enter persons as petty officers, excepting for yeoman, master at arms, armourer, cooper, carpenter's mates, ship's stewards, officers' steward, officers' cook, or master of the band: nor must he enter any of these ratings, or boys to serve until they are twenty-one years of age, except by the special order or permission of the commander of the station. Free blacks or other free coloured persons are only to be entered by the approbation of the commander of the station.

ARTICLE IV.—The surgeon or other medical officer who may be appointed to examine persons offering to enter, or upon their first joining a receiving or other vessel after enlistment, shall not certify to the fitness of any person unless he shall be of sound mind, possess the power of seeing and hearing distinctly, and have no serious impediment of speech—have the free use of his muscles and joints—the proper use of his hands and feet—be free from external and internal tumours, and from all cutaneous diseases and chronic ulcers—nor if his appearance indicates the presence of or danger from consumption, scrofula, or dangerous diseases from the effects

of intemperance or other causes—nor if known to be subject to epilepsy or similar diseases. If persons should be entered for particular stations as petty officers, with ruptures, or other injuries, which, in the opinion of the medical officer and commander of the station, may not interfere with the proper performance of their duties, those injuries are to be fully described and carefully noted on all the descriptive lists containing the names of those persons, that no improper claims for pensions may be subsequently allowed on account of such injuries.

ARTICLE V.—Recruiting officers shall cause the shipping articles to be read to every person before such person signs them: nor shall they allow any person to sign such articles when intoxicated: nor shall they enter any person known to have been convicted of a felony; nor is any slave ever to be entered for the naval service, or to form a part of the complement of any vessels of war of the United States.

ARTICLE VI.—Recruiting officers shall make no advance of pay, nor give any bounty, except by express order from the secretary of the navy, or of the officer under whose orders he may be placed; and in all cases of making advances, the *amount* advanced to petty officers shall not exceed the amount authorised for seamen, and he is to take good security for the same, until the person receiving it shall have been duly received and mustered on board the receiving vessel, or some other vessel of the United States.

ARTICLE VII.—Recruiting officers shall not pay over any advance money or bounty except to the person entitled to receive the same, nor until he shall be found fit for service; and they are, if possible, to induce the men to repair on board with their effects, and to receive the amount of their advance in clothing and other necessaries from the vessel, in which case the recruiting officer is to give the necessary information to the commander of the receiving vessel, and will be excused from taking security. When an advance is to be made, the recruiting officer shall take care that each person furnishes himself with one good suit of thick clothing, two frocks or shirts, a pair of shoes, a pair of stockings, hat and handkerchief, as nearly of the navy pattern as possible, or as many of these articles as can be procured with two thirds of their advance, and that the articles are sent on board with them.

ARTICLE VIII.—Recruiting officers must produce receipts for the amounts advanced from the persons to whom they make advances or pay bounty, a receipt for the individual from the commanding officer of the vessel on board which they may be sent, and a certificate from the purser of such vessel that he has received lists showing the rating, the date of entry and term of service, and the amounts advanced to the individuals respectively, before he can receive credit for the advances made.

ARTICLE IX.—Recruiting officers shall not receive, without the sanction of the commanding officer of the station, more than one thousand dollars at any one time, which they may obtain by requisition.

tions upon the navy agent when duly approved by the senior officer in command of the port or station, who shall not approve such requisition unless satisfied that the amount asked is required for the public service.

ARTICLE X.—The recruiting officer must report weekly to the secretary of the navy, and to the commander of the station, the number of men he may have entered, and the amount of money remaining in his hands, as per form annexed and marked A.

ARTICLE XI.—No recruiting rendezvous is to be opened in the United States without the order or consent of the secretary of the navy; commanders of vessels may, however, when at places where there is no rendezvous, fill small deficiencies in their complement by entering men on board their vessels after the required examination by medical officers; but no advance in money is to be given, and no allowance will be made to officers who enter men in this manner, as no responsibility or risk is incurred.

J. K. PAULDING.

Navy Department, 1st July, 1839.

These regulations were drawn up, under the provisions of an act of Congress, dated May 19, 1832, by a board of captains in the navy, over which the late Commodore John Rodgers presided. It seems necessary to state this fact here, that it may not be supposed, the ignorance displayed in the fourth article is characteristic of the medical officers. I fear it is a weakness in some of the grades in the navy to put no credence in the maxim—*non omnia possumus omnes*—or they would not expose themselves by writing on such medical topics as are purely professional.

REGULATIONS

For the Enlistment and Employment of Boys who may be entered to serve in the Navy until they arrive at the age of twenty-one years.

In the enlistment of boys to serve until twenty-one years of age, as authorised by the act of Congress approved on the second day of March, 1837, none are to be entered who shall be under thirteen or over sixteen years of age, and who, after careful examination and inquiry, shall not be deemed of sound constitution, good health, and free from all injuries, defects, or disease, which would be likely to render them unfit to perform the duties which are expected from them.

No boy is to be entered who shall have been convicted of any criminal or disgraceful offence, or who shall have been sent to any house of correction or refuge, or other place of punishment.

No advances are to be made by the recruiting officer to the boys who may enter, or to their parents or guardians: but such clothing and other articles as may be necessary to their comfort, will be fur-

nished upon the order of the commanders of the receiving vessels when they repair on board for duty.

Whenever it can be ascertained that a boy wishing to enter has a parent or guardian whose presence can be obtained, such parent or guardian must sign his or her name in the proper column of the shipping articles, as evidence of his or her assent to the enlistment.

When the parent or guardian cannot be present, and can be referred to, they must sign duplicate certificates of assent in presence of, and to be certified by some justice of the peace, or other magistrate, according to a form which will be furnished, one of which certificates must be transmitted to the secretary of the navy with the monthly reports of the recruiting officer, and the other sent to the commander of the receiving vessel, to be transferred with the account of the boy from one vessel to another, whenever he is transferred himself.

At the time of their enlistment they are to be rated as of the *second* or *third* class boys, according to their age, size, and qualifications.

The pay of boys of the third class shall be five dollars a month, and the pay of boys of the second class shall be six dollars a month. First class boys to receive seven dollars.

When they cannot be attached to vessels in commission, they shall serve on board some one of the three large receiving vessels.

They are to be supplied under the immediate direction of the commander of the vessel, with such articles of clothing and other necessaries as may contribute to their health and comfort: but, after the first supply, the amount which may be due to them is on no account to be exceeded; on the contrary, it is desirable that they should have as large an amount due to them as possible at the expiration of their service.

They are not to be allowed to draw the spirit part of their ration, nor to receive tobacco, but, on the contrary, they are to be encouraged, and required if possible, to abstain from the use of both.

Whenever their rate of pay will allow it, they may allot to a *parent* such amount as shall not reduce the amount left for their own use below six dollars a month, nor more than one half their pay, when the half shall exceed six dollars a month.

They shall receive no part of their pay for their personal use until their discharge, excepting for clothing and necessaries as herein before provided, and occasional small advances in money, under direction of their commander, for the purchase of articles conducive to health, and for small expenses when permitted to go on shore on liberty; care must be observed, however, that this indulgence is not abused.

Every commander of a vessel in which any of these boys may serve, shall cause them to be well instructed in reading, writing, and arithmetic, and to be employed on all such duties which they may be competent to perform, as may give them a thorough know-

ledge of seamanship, and best qualify them to perform the duties of seamen and petty officers.

They are never to be required or permitted to attend as waiters or servants to the officers whenever there are other persons present who can properly perform those services.

As an inducement for exertion and a reward for good conduct, all persons enlisted under this provision shall be eligible to promotion in the same manner as other persons of the ship's company, as vacancies may occur, and their qualifications and conduct may merit: but all such promotion of boys shall be gradual and regular from third to second, and from second to first class boys, landsmen, ordinary seamen, seamen, and petty officers; and, on the other hand, they shall also be subject to a reduction of rating, like all other persons, for neglect or misconduct.

If they shall serve the full term of their enlistment in a manner satisfactory to their respective commanders, they shall, upon their discharge, receive a certificate stating the length of such service, and time served in each rating, and the opinion which is then entertained of their conduct, qualifications, and merits.

Should they subsequently wish to re-enter the service, and produce to the recruiting officer a certificate of good conduct while serving under their first enlistment, such officer shall, if men are required, and there shall be no objection on the score of health or other disqualification, give a preference to them over persons who have not previously served in the navy.

Should any of them give decided evidences of the talents and conduct which might, by proper attention and cultivation, make them valuable boatswains, gunners, or masters for the navy,* they are to be specially reported to the secretary of the navy, and the commander of the vessel shall give all proper facilities to advance their instruction.

At the expiration of their service, or at their regular discharge, they shall receive the amount which may then be due to them.

These regulations to be subject at all times to such alterations and modifications as the secretary of the navy for the time being may deem necessary or expedient, and it is to be understood that they form no part of the agreement between the United States and the other parties, all of which are contained in the shipping articles.

By order of the President,

J. K. PAULDING,

Secretary of the Navy.

Navy Department.

It will be perceived that a very small part of these regulations apply to the duties of the medical officer; and even this small part is liable to several objections. The fourth article of the regulations

* A proposition has been submitted to Congress to appoint, in future, one fourth of the midshipmen of the navy from amongst the apprentices.

for the recruiting service of the navy provides against enlisting any man who shall not "possess the power of seeing and hearing distinctly;" but it is very clear that a recruit might be short-sighted, might have lost one eye, the function of one ear, together with both external ears, and still be within the expressed terms and meaning of the regulation. I do not doubt, officers may be found who do not think the loss of one eye a disqualifying blemish, although such a loss, if sustained in the service, would be considered by them ample grounds for claiming a pension.

He shall have "no *serious* impediment of speech."

The very slightest habitual impediment of speech is *serious*, because, under excitement, the difficulty increases, and almost always at times when rapid and unhindered utterance is required.

A recruit may have "the free use of his muscles and joints," and still be very inefficient from inequality in the length and size of his limbs, or from a disproportion between them and his body, or from tenuity.

The article provides that the recruit must "be *free* from *external* and *internal* tumours." There are some external tumours which do not hinder an individual from the performance of all the duties of a thorough-bred seaman. I have myself served with more than one such man. Although *external* tumours may be always perceived by superficial inspection, with the exception of such as may be situated at the very portals of the digestive apparatus, *internal* tumours are not so readily discoverable, (except by post mortem examination,) unless they be of considerable size, or aneurismal in their character. Even extraordinary tact might fail to discover internal tumours, existing beneath vast conglomerations of intestine, where the subject is desirous of deceiving.

"*All* cutaneous diseases" are set down as disqualifying causes; prickly heat, boils, and similar slight affections of the skin, although they cannot be generally considered as serious enough to reject a recruit, must still be included under the sweeping head of "all cutaneous diseases," and if the recruit be passed, the officer acts in disobedience to a very positive order, or at least, I presume, it should be so considered.

"*Chronic* ulcers" are certainly a disqualifying cause; but the article leaves the medical officer to decide for himself, how far ulcers of other kinds and characters than "chronic" are to be considered disqualifying or otherwise, affording opportunity for the effects of conflicting opinions to arise, in the form of appeals, surveys, reports, &c. which, as they might be rendered unnecessary, only serve to lumber the archives of the department.

The article requires that the recruit's "appearance" shall not "indicate" "the *presence* of, or danger from" "*dangerous diseases*" from the effects of "intemperance or *other causes*." Is it fair to infer from this part of the sentence quoted, that the surgeon is expected to decide by external corporeal signs or otherwise, upon the recruit's liability to such diseases as may result fatally, whether

said diseases arise from "intemperance or other causes," including perhaps contagion and miasmatic influences—or is he to decide upon the recruit's inherent and constitutional powers of escaping from and resisting the fatal termination of such perilous diseases as small-pox, acute fevers, &c. in the event of being attacked?

"Nor if known to be subject to epilepsy or *similar* diseases." If the regulations had laid down the signs by which an individual may be known, or even suspected, "to be subject to epilepsy," and named *some of the diseases which are similar to epilepsy*, they would certainly be of very great assistance to medical officers in the examination of recruits. As it is, the board which devised the regulations, has carefully kept this most important knowledge to itself, but perhaps without being aware how very much in the dark, the profession, generally, is upon the subject.

The above remarks are sufficient to show how unnecessarily vague the regulation is, and how little medical and surgical knowledge has been resorted to in digesting it.

The regulation on the subject of discharging men from the navy is very short, and requires all the illustration given to it by Mr. Marshall. The following rules are still in force.

REGULATIONS

For the discharge of persons from the Naval Service.

No petty officer, seaman, ordinary seaman, landsman, or boy, is to be discharged, except for one of the following reasons, viz. *expiration of term of service; sentence, of a court-martial; the written order of the commander of the fleet or squadron on a foreign station, reciting the reasons; or unfitness for service, from causes arising subsequently to enlistment; and when a discharge is specially requested by the person himself, and is authorised by the secretary of the navy, or by the commander-in-chief on foreign service.* When any petty officer, seaman, &c. is unfit for service, in the opinion of the commander of a vessel, he is, if within the United States, to report the fact to the senior officer in command; or, if on a foreign station, to the officer in command at the port at which he may be, who shall order a survey upon such person by two medical and three other commissioned officers, if there are so many on the station, who are to examine and report if unfit for service, and, if so, to state the nature and origin of the disability—which report is to be transmitted to the secretary of the navy or the commander-in-chief of the fleet, as the case may be, for decision. Oct. 16, 1824.

No discharge, excepting in the cases before mentioned, will be made from vessels or stations but by order of the secretary of the navy.

As a general rule, seamen and marines will not be discharged by permission of the department before the expiration of their term of

service, (unless at the expiration of a long cruise) without a settlement of their accounts, and leaving a balance of one month's pay by the former, and two month's by the latter, to cover the expenses of enlisting others in their place. The marine must also provide a substitute. (*Sept.* 1831.) If they ever deserted, they will not be discharged (unless ignominiously) till the expiration of their term. *Dec.* 1831.

Malingers in the army and navy of the United States are not very frequently met with. This may be attributable, in some measure, to the period of enlistment being limited, generally to three years, or five at most, instead of for life as in the British army. For this reason, the most dissatisfied soon learn to tolerate their situation, which is never in itself very unfortunate, and look forward with certainty to the day of their discharge, which is seldom so distant as to shut them off from the hope of being free from their engagement, without incurring the risk of punishment or disgrace. Besides, there is no advantage gained by being discharged, except freedom from the terms of contract, the law not having provided any pro rata pension based upon length of service. (See page 156-7.)

REGULATIONS

For the General Recruiting Service of the Army of the United States.

1. The recruiting service will be regulated at general head-quarters.
2. There will be selected such number of field officers to conduct the general recruiting of the army, as the interest of the service may require; to whom all officers assigned to the general recruiting duty, will report for orders and instructions, according to the district to which they respectively may be attached.
3. Selections for the recruiting service will be made without reference to the roster. The requisite number of recruiting officers will be determined at general head-quarters, and announced in general orders. The captains and subalterns for recruiting rendezvous will be selected by the colonels of regiments, unless otherwise directed. Officers on the general recruiting service are not to be ordered on any other duty, except by orders from general head-quarters.

Duties of Superintendents.

4. As soon as the recruiting stations are fixed on, the superintendents will notify the assistant commissaries of subsistence at the military posts nearest to their recruiting stations, to supply rations; and will make requisitions for funds on the adjutant general, and for clothing, camp equipage, arms and accoutrements, on the several

departments to which these supplies appertain: forwarding their requisitions through the adjutant general. They will settle with said departments for the items of expenditure under their different heads, rendering the proper accounts and vouchers for the same, quarterly.

5. Funds will be transmitted direct to each recruiting officer, on the monthly estimates of the superintendents. After the first remittance, estimates based on the monthly expenditures at each recruiting station, are to be transmitted by the several recruiting officers, at the close of the month, to their respective superintendents.

6. Each superintendent will transmit to the adjutant general, monthly returns of recruits, and of the recruiting parties under his superintendence, with a record of the names, the dates, and places, of all discharges, deaths or desertions, during the month: to be accompanied with the enlistment of each recruit enlisted within the month. He will transmit, in like manner, a muster roll of all enlisted men belonging to each recruiting station, including the names of all who may have joined since the last muster, or have died or deserted, been transferred or discharged, during the period embraced in the muster roll.

7. Whenever, in his opinion, the good of the service requires that the recruits, or any part of them, should be sent to regiments, the superintendent will report to the adjutant general for instructions in reference thereto. And whenever recruits are to be sent from a depot or rendezvous, to a regiment or post, a *separate muster and descriptive roll*, and a *separate account of clothing* of each detachment, will be placed in the hands of the officer ordered to conduct such detachment. A duplicate of the *muster and descriptive roll*, will, at the same time, be forwarded to the adjutant general, by the superintendent, who will report the name of the officer assigned to the command, and the day of the departure of the detachment from the depot or rendezvous.

8. A recruiting party will consist, as a general rule, of one commissioned officer, one non-commissioned officer, and two privates. The recruiting parties will be selected at the principal depots, and care will be taken that none but suitable non-commissioned officers and privates are sent upon this duty.

9. Music is not considered essential, but if musicians can be enlisted, the usual instruments will be supplied on requisitions properly made, and the musicians may be retained at the rendezvous.

10. Tours of inspection by superintendents, will be made only on instructions from general head-quarters; nor will officers on the recruiting service be sent from place to place without orders from the same source. No expenses of transportation of officers will be admitted that do not arise from orders emanating from general head-quarters.

Duties of Recruiting Officers.

11. Success in obtaining recruits depends much on the activity and personal attention of recruiting officers. They will be careful not to allow any man to be deceived or inveigled into the service by the tricks or false representations of the soldiers or non-commissioned officers of their parties. None but men of good character, sound in body and mind, of good appearance, and well formed, and fit, in every particular, to perform the duties of a soldier, will be received. The nature of the service, the length of the term, the pay, clothing, rations, and other allowances to which a soldier is entitled by law, must be fully set forth and explained to every man who offers to enlist; and it will be proper, at the same time, to caution him to consider well before he enters into the contract with the government, as no man is wanted who does not come voluntarily to the standard of his country. It will be equally proper to inquire whether the men who offer are married or single, as those with families are not to be enlisted without special authority from general head-quarters, obtained through the superintendent. This rule is not to apply to non-commissioned officers and soldiers who may re-enlist. If very young men present themselves, they are to be treated with great candour: the names and residences of their parents or guardians, if they have any, must be ascertained, and their friends must be informed of their wishes to enlist, that they may make their objections or give their consent.

12. After a man has been thus treated, and is willing to enlist, he may be allowed twenty-four hours to consider on the subject; the oath is, therefore, not to be administered to him until after that time, or even after two days, if the officer thinks he is not yet settled in his mind as to becoming a soldier: and if the recruit should see proper to cancel his engagement previously to taking the oath, he shall be at liberty to do so.

13. Recruiting officers must be very particular in ascertaining the true age of a recruit. They are not always to take the word of the recruit, but are to rely on their own judgment for the ascertainment of his probable, if not actual age.

14. It is in the power of any recruiting officer to make his party respectable and respected. He must, in his own person, set an example of that courteous and moral deportment which ought ever to characterise military men. A paternal care must be constantly extended to the recruits. Should they be sick, they will claim his particular attention, to see that they are not neglected, and that every essential comfort is procured for them. If the recruits are disposed to be troublesome to the neighbourhood, the officer must make it his duty to suppress every irregularity, and correct the disorderly, using first mild admonitions, which, if seasonably resorted to, will generally produce the desired effect. No instance of impropriety should go unnoticed.

15. The cultivation of a good understanding with the people of

the town, village, or neighbourhood, on the part of the recruiting officers, may tend much to advance the interests of the service, and often be the means of procuring good men: when a distant deportment, a frigid unbecoming hauteur, will not only repel the thinking and worthy part of the community, but frequently defeat the very object for which an officer may have established his party in the place.

16. The magistrate employed to swear in the recruits, may, if treated with due respect and confidence, be often instrumental in discovering the true character of those who may propose to enlist. It would then be well to ask his opinion and advice, as to the propriety of enlisting any individual brought before him to be sworn in. If it be generally known around the country that the enlistment is on fair terms, that the pay is sufficient to induce respectable young men to enter the service, and that none others will be received, the character of the army will be held in due estimation, and the objections to join it, will, in a great measure, be removed.

17. The personal appearance of the men is highly important. The recruiting officer will give his particular attention to this subject. He will see that the men under his command are neat in their appearance, and that they are made to wear their military dress in a becoming manner.

18. These instructions are thus particular, that the officers interested may know that it is not desirable to fill the ranks, unless it can be done fairly and honourably, and with men of suitable character.

19. All free white male persons, above the age of 18, and under 35 years, being at least 5 feet 6 inches high, who are "*effective able-bodied citizens of the United States,*" native or naturalized,¹ sober, and free from disease, may be enlisted. This regulation, so far as it respects the *height* and *age* of the recruit, shall not extend to musicians, or to those soldiers who may re-enlist into the service.

20. No person under the age of 21 years, is to be enlisted without the written consent of his parent, guardian, or master, if he have any.

21. Before a minor, as such, can be enlisted, the written consent of his parent, guardian, or master, must be first obtained, and appended to the enlistment. If the minor assert that he has no parent, guardian, or master, the recruiting officer, in order to prevent imposition on the public, as well as to guard himself against the penalty of the law, shall procure the best authentication of the fact, which he will in like manner append to the enlistment.

22. Enlistments must, in all cases, be taken in duplicate, one of which the recruiting officer will transmit to the superintendent for the adjutant general; the other he will forward direct to the second

¹ Naturalized citizens must speak and understand the English language. —Circular to Sup. Rec'g. Service, August 16th, 1834.

auditor of the treasury, as a voucher in the settlement of his accounts. The enlistments will be filled up in a fair and legible hand, and the real name of the recruit be ascertained and correctly spelled. Each enlistment will be endorsed as follows :

No. —.
 A ——— B ———
 enlisted at
 _____,
 January —, 183—,
 By Lt. C ——— D ———,
 — Regiment of —.

The number to correspond with the names alphabetically arranged.

23. Whenever a soldier re-enters the service, the officer who enlists him will endorse on the enlistment, next below his own signature, "second (or third) enlistment," as the case may be, together with the name of the regiment and the letter of the company in which the soldier last served.

24. The filling up of, and endorsement on, the enlistment, will be in the hand writing of the recruiting officer, or done under his immediate inspection; as evidence of which he will sign his name on the margin.

25. As there is no bounty allowed to recruits, they are to be mustered and paid with the recruiting parties, and those at the depots are to be regularly mustered and paid in the same manner as other soldiers.

26. After a man has enlisted, the recruiting officers will have his hair cut according to the military fashion, and cause him to be well washed from head to foot; after which he will have him dressed in the clothing furnished by government; properly fitted to his person, and cause his citizen's dress to be disposed of. No soldier is to be allowed to keep in his possession any articles of clothing, other than such as he receives from government, and belong to his military character.

27. It is the duty of the recruiting officer to see that the quarters for the men are comfortable, and supplied with such conveniences and bedding as are allowed in barracks; that the provisions are good, and regularly supplied; that they are properly cooked and economised; and that there be regularity in the messes, and due decorum preserved at all times.

28. In order to make a fund for obtaining the necessary equipage for the table of his men, the recruiting officer will be permitted to commute for money with the assistant commissary, the rations due the party, and not consumed, believing that by proper management and economy, the rations allowed will more than suffice; out of which fund the table furniture and other comforts are to be procured. For the accountability of this fund, the principles laid down under the head of council of administration, will apply. The

instruction of the recruits will commence from the moment of enlistment, as well to provide against the vice of idleness, as to qualify them to join some regiment. In general, and under favourable circumstances, two months ought to be sufficient to make them acquainted with the first duties of police and the schools of the soldier and company in infantry tactics.

29. Every officer commanding a recruiting party where there is no quartermaster, will procure the necessary transportation, forage, fuel, straw, and stationary, taking the requisite vouchers; but no non-commissioned officer or soldier is to be allowed to become a contractor for the supplying of any article which may be required of the quartermasters or subsistence departments.

30. The necessary blank enlistments, muster rolls, printed returns and forms, will be furnished by the adjutant-general, to all officers employed on the recruiting service, on their requisitions; they are, therefore, prohibited from using any other forms or blanks whatever.

31. Recruiting officers in charge of rendezvous will transmit to the proper officers the following rolls, returns, and documents :

To the Superintendent.

32. *A monthly return* of recruits and of the recruiting party, accompanied with the enlistment of every recruit enlisted within the month.

33. *Regular muster rolls* of the permanent recruiting party and of the recruits; also muster and pay rolls, in duplicate, for pay; which latter may be sent direct to the nearest paymaster, when authorised by the superintendent.

34. *Muster and descriptive rolls* of every detachment of recruits ordered to the principal depot. If the recruits be ordered to proceed from the rendezvous direct to join any regiment or post, these rolls will be made in duplicate, one of which will be delivered to the officer placed in charge of the detachment, and the other sent to the superintendent.

35. *An account of clothing* issued to each man belonging to the detachment of recruits ordered to principal depots, or to regiments direct.

To the Quartermaster-General.

36. *A quarterly return of clothing*, of camp equipage, and of all public property in his charge; a copy of each to be sent to the superintendent.

To the Ordnance Department.

37. *A quarterly return* of arms, accoutrements, ammunition, and of all ordnance stores.

To the Second Auditor of the Treasury.

38. Recruiting accounts, and accounts current, monthly, accompanied with one set of enlistments.

39. Abstract of contingent expenses for recruiting, monthly, to be forwarded within the three first days of the month; copies of which abstracts will be transmitted to the superintendent.

40. Whenever an officer is relieved or withdrawn from the recruiting service, he will pay over the balance of any unexpended recruiting funds in his possession, to the officer appointed to succeed him, or to the paymaster, if no officer be so designated; and if there be no paymaster or other proper officer convenient to receive such balance, the amount will be deposited, to the credit of the treasury of the United States, in some bank in which the public moneys are kept. In either case, the officer will forward to the second auditor the evidence of the disposition he may make of the funds, and report the fact to the adjutant-general and to the superintendent; or to his colonel, if on regimental recruiting service.

Regimental Recruiting Service.

41. Every colonel or commandant of a regiment will endeavour to keep his regiment up to its establishment; and, for that purpose, will obtain the necessary funds in the manner prescribed for the superintendents of the general recruiting service, by requisitions on the adjutant-general, at Washington.

42. At each station occupied by his regiment, or any part of it, the colonel will designate an officer to attend to the recruiting for his regiment, which designation will not relieve such officer from his ordinary duties. The officers thus designated will be furnished by the colonel with the necessary funds, on estimates and requisitions made on him, (in the manner prescribed for the officers on the general recruiting service,) and they will, with the approbation of the commanding officer of the station, enlist all suitable men, and make all the disbursements incidental to such enlistments, rendering their accounts monthly for settlement, in the manner prescribed for officers on the general recruiting service. The colonel will transmit to the adjutant-general a monthly return of recruits, with an enlistment of each man enlisted within the month.

Inspection of Recruits.

43. The superintendent or commanding officer will cause a minute and critical inspection to be made of every recruit received at a depot, three days after his arrival; and should any recruit be found unfit for service, or to have been enlisted contrary to law or regulations, he shall assemble a "board of inspectors," to consist of the three senior officers present for duty, and the senior officer of

the medical staff, to examine into the case. If the board decide to *reject* the recruit, and recommend his discharge, the reasons therefor will be stated in detail, in a special *report* to the adjutant-general, which report will be accompanied with the surgeon's certificate of disability.

44. Every detachment ordered from a principal depot to any regiment or post, shall, immediately preceding its departure, be critically inspected by the superintendent or commanding officer and surgeon. Should it be necessary to assemble the board of inspectors, and any recruit be then rejected, the report and surgeon's certificate in the case will be forwarded to the adjutant-general, as above prescribed.

45. Every detachment of recruits received at a military post or station shall be carefully inspected by the commanding officer and surgeon, on the fourth day after its arrival; and if, on such inspection, any recruit, in their opinion, be unsound or otherwise defective, in such *degree* as to disqualify him for the duties of a soldier, then a board of inspectors will be assembled to pass upon the recruit; and should he be *rejected* by the board, the required *report* in the case, with the surgeon's certificate, will be transmitted to the adjutant-general, by the commanding officer of the post, for the decision of the general-in-chief.

46. Whenever a recruit is *rejected*, the board will report whether, in its opinion, the disability or other cause of rejection existed or originated before or after the date of his enlistment; and, if the former, whether, with due care and *proper examination*, such disability might not, in its opinion, have been discovered by the recruiting officer and examining surgeon, at the time the recruit enlisted.

47. As the decision of boards of inspectors may often involve the recruiting officers in pecuniary liabilities, by being required to refund to the United States the amount of any loss occasioned by the discharge of a *rejected* recruit, the board will, in all cases, make the proper discriminations, and always state whether the want of due examination of recruits at the time of enlistment be attributable to the recruiting officer or examining surgeon, or to both; and, as far as may be practicable, to state the amount with which either ought, in its opinion, to be chargeable.

48. *Boards of inspectors* for the examination of recruits will be composed of the three senior officers present on duty in the line, and senior medical officer of the army present; and when organized at the principal depot, the superintendent, or, in his absence, the commanding officer, will preside; if at a military post, the commanding officer will preside at the board of inspection.

49. When a recruit is rejected and discharged in consequence of the non-observance of the recruiting regulations by the recruiting officer and examining surgeon, they shall be charged with the amount of the bounty and clothing which the recruit, so rejected,

may have received from the public, to be deducted out of the pay and emoluments of such officers.

Recruits sent to Regiments.

50. An officer intrusted with the command of recruits ordered to regiments, will, on arriving at the place of destination, complete "the muster and descriptive roll" furnished him at the time of setting out, by inscribing in the column of remarks the time and place of any death, desertion, apprehension, or other casualty that may have occurred on the route; and present the same, properly signed, to the commanding officer of the regiment or post, together with the "account of clothing" issued to each recruit. He will furnish the adjutant-general and the superintendent, each, with a descriptive roll of such men as may have deserted, died, or been left on the route from any cause whatever. He will forward, in like manner, a special *report* of the execution of his orders, and will notice all circumstances worthy of remark which may have occurred on the march; he will also report the condition and strength of the detachment when turned over to the commanding officer, as well as the day of his arrival at the post.

Duties of Examining Surgeons.¹

51. Medical officers, whose duty it may be to examine recruits, will be particular in causing each recruit to be stripped of all his clothes, and to be made to move about and exercise his limbs in their presence, in order to ascertain whether he has the free use of them; that his hearing and vision are perfect; that he has no tumours, ulcerated legs, rupture, or chronic cutaneous affections, or other infirmity or disorder which may render him unfit for the active duties of a soldier, or be the means of introducing disease into the army; and it shall be their duty to ascertain, as far as practicable, whether the recruit is an habitual drunkard, or subject to convulsions of any kind, or has received any contusions or wounds in the head, which produce occasional insanity. With any of these defects, the man is to be refused as unfit for service. It will also be the duty of the examining surgeon to ascertain whether the recruit has had the variolous or vaccine affection; and if he have not, to see that he be vaccinated immediately after enlistment, or as soon thereafter as practicable. It is the duty of the recruiting officer to be always present at the examinations of the recruits by the examining surgeon.

52. No citizen surgeon shall be employed to inspect or attend recruits at any post or place where there is a surgeon or assistant surgeon of the army. Where there is more than one recruiting party in a place, the senior officer will engage a surgeon to attend the whole.

¹ See Routine examination, page 31.

53. Surgeons will attend at the rendezvous at least twice a day, at such hours as the recruiting officer shall establish.

Depots for Collecting and Instructing Recruits.

54. For the purpose of collecting and instructing the recruits enlisted at the several rendezvous, there will be established *depots* at convenient points.

55. To each depot there will be assigned a suitable number of officers to command and instruct the recruits. The recruits, as they arrive, are to be thoroughly inspected and examined as to their fitness for the service, by a board of inspectors.

56. It will be determined at general head-quarters what number of recruits may be required for each arm, and, on instructions from the adjutant-general, the number will be assigned accordingly.

57. The recruits are to be dressed in uniform like the other troops, according to their respective arms, and are to be mustered and paid in like manner. They are to be regularly drilled in the infantry tactics, from the school of the soldier to that of the battalion, and in the exercises of the field and garrison pieces. Duty is to be done according to the rules of service as set forth in the regulations.

58. In order to furnish the requisite number of musicians for the several regiments, such of the recruits as are found to possess a natural talent for music may, besides the drill, be instructed on the fife, bugle, drum, or other military musical instrument.

59. As it is desirable to give encouragement to the recruits, and to hold out inducements to good conduct, the commanding officer of the depot may promote such of them to be *lance-corporals* and *lance-serjeants*, as exhibit superior military tact and requisite qualifications, not exceeding the proper proportion to the number of recruits at the depot. These appointments will be announced in orders in the usual way, and will continue in force until they join their regiments, unless sooner revoked. No allowance of pay or emoluments is to be assigned to these appointments; they are only to be considered as recommendations to the captains of companies, and colonels of regiments, for the places in which they may have acted; they are nevertheless to be treated with all the respect, and to have all the authority, which may belong to the stations of serjeant and corporal.

60. The rules and articles of war are to be read to the recruits every week, after the inspection, particularly so much thereof as relates to the duties of non-commissioned officers and soldiers. The commanding officer is to see that each recruit is furnished with a "*soldier's book*," and that his accounts are regularly entered, and that the book is properly filled, according to the directions contained in it. The sutler of the post is to supply these books, and receive payment for the same from the recruits at their first payment.

61. Whenever recruits are permitted to go abroad, they are to be dressed in their full uniform, and to appear in a neat, soldierly manner: every reasonable indulgence ought to be extended towards them, and they ought at all times to be treated with kindness and propriety.

62. The recruits are not to be put to any labour or work which would interfere with their instruction, nor are they to be employed but as soldiers, in the regular duties of garrison or camp.

Recruits in Depot at Military Posts.

63. When recruits are received at a military station, the commanding officer will place them under the charge of a commissioned officer, whose duty it will be to see that they are comfortably quartered, kindly treated, and well taken care of, and that they are properly drilled and instructed in their duties as soldiers. They are not to be put on any fatigue duty or working parties, except for the ordinary police, and then only by regular detail, in common with the other men of the garrison.

64. When recruits are ordered from a post, or are attached to companies, the commanding officer of the post will be responsible that the regular descriptive rolls and account of clothing and pay of each recruit are furnished to the captain or other officer who is to receive the recruits. The original muster and descriptive roll of each detachment, with remarks showing the final disposition of each recruit, and the regiment and letter of the company to which attached, will be signed by the commanding officer, and forwarded to the adjutant-general.

By command of MAJOR-GENERAL MACOMB, Commanding in chief.

R. JONES,
Adjutant-General.

PENSIONS.

All officers, non-commissioned officers, musicians, and privates, whether of the regular forces, militia, volunteers, rangers, or seafencibles, if disabled by wounds or otherwise, while in the service of the United States since the close of the revolutionary war, may be placed on the invalid pension-list, at such rate of pay and under such regulations as shall be directed by the President of the United States for the time being: *Provided*, always, that the rate of compensation for such wounds or disabilities shall never exceed, for the highest disability, half the monthly pay received by any commissioned officer at the time of being so wounded or disabled; and that the rate of compensation to non-commissioned officers, privates, and musicians, shall never exceed eight dollars per month.

Similar provision has been made for all classes of officers, men and boys employed in the navy of the United States.

The following regulations and legal opinions are taken from "An abstract of the several pension laws now in force, for invalid, revolutionary, or other pensioners, together with the constructions which have been placed upon such laws by the war department or the attorney-general, and the forms necessary to be followed by the applicants for pensions under the several laws," compiled by *J. L. Edwards, Commissioner of Pensions*, in conformity with a resolution of the house of representatives, October 9, 1837.

Description of disability which entitles the claimant to a pension.

WASHINGTON, April 6, 1815.

The secretary of war having, in a letter of the 4th instant, desired my opinion on the true meaning of the first clause of the fourteenth section of the act of congress, passed on the 16th of March, 1802, for fixing the military peace establishment, I have the honour to submit the following:

The words of the clause are, "That if any officer, non-commissioned officer, musician, or private, in the corps composing the peace establishment, shall be disabled by wounds or otherwise, while in the line of his duty in public service, he shall be placed on the list of invalids of the United States, at such rate of pay, and under such regulations, as may be directed by the President of the United States for the time being."

The question made is, In what other way than by wounds must the disability have been incurred, to entitle the party to the pay provided?

The words of the section are not quite so distinct as to remove all grounds for diversity of opinion; yet, unless some liberality in their interpretation be allowed, it is to be feared that the benignant intentions of the law might be in danger of being curtailed or frustrated. The expression "or otherwise" is placed in contradistinction to wounds. In its primary signification, it may be taken to import a disability brought on by the direct and apparent agency of accidents or inflictions from the hand of God or man, happening to the party while in the immediate and obvious discharge of his duty, but which could not, with technical propriety, be denominated wounds. Instances of the kind may readily be conceived: as if an officer, while exercising his men on a hot day, should receive a stroke of the sun; a musician, while obeying an order to sound his bugle, should rupture a blood-vessel; or a soldier, while working upon fortifications, should dislocate a limb: in such and similar cases that may be imagined, it cannot be doubted but that the disability would be brought on in a mode to meet the alternative stated in the act. It will be to enlarge it but a little more, and, as it is conceived, to uphold its genuine and humane spirit, as well as its legal sense, to say that the connection between the inflicting agent

and consequent disability need not always be so direct and instantaneous. It will be enough if it be derivative, and the disability plainly, though remotely, the incident and result of the military profession. Such are the changes and uncertainties of the military life; such oftentimes its toils as well as its hazards, that the seeds of disease, which finally prostrate the constitution, may have been hidden as they were sown, and thus be in danger of not being recognised as first causes of disability in a meritorious claim put forth for the bounty of the act. It would not, I think, be going too far to say that, in every case where an officer or private loses his health while in the service, to such a degree as to be disabled from performing his duty any more, he is contemplated, *prima facie*, as an object of this charitable relief from the legislature. I feel more doubtful in fixing, by any undeviating standard, what is meant by being in the line of his duty. Upon this point I should presume, however, that every officer in full commission, and not on furlough, must be considered in the line of his duty, although, at the moment, no particular or active employment is devolved upon him. The same of a soldier who is kept in pay; for it is presupposed of both the one and the other that they are at all times prepared for duty; and it is surely of indispensable obligation upon them to keep themselves detached from other pursuits, so as to be ready, at a moment, to answer any call emanating from those who may be authorised to command them. Perhaps a voluntary absence, too long continued, on the part of an officer, from his station, might form an exception, so as to exclude the idea of his having been in the line of his duty during any accident or sickness palpably proceeding from causes while he was away. But the officer who, by reason of marches in damp or cold weather, or who, from living in a garrison exposed to marshy exhalations, finds, even at some interval, his constitution broken down by rheumatism, or enfeebled by the constant recurrence of fevers, is surely as just an object of this humane stipend at the hands of government, as he who may have had his arm shattered by a bullet. Others may also be supposed, in which the performance of military duty, in some of the various shapes it may be made to assume, has proved the original, though it may not be admitted as the proximate, cause of the disability superinduced.

In the discretion which is vested in the President, a sufficient guard is established that an interpretation of the act, such as is indicated by the foregoing remarks, will not open the way to abuse. If the loss of health should have proceeded from careless or irregular habits in the party—much more if from vicious ones; or if he brought to the service or ranks of his country a constitution already impaired, or rankling with the germ of maladies that afterward do nothing more than ripen into activity; these will form occasions for caution, or for an entire exclusion from the bounty, when the executive duty comes to be performed in the way congress have pointed out. A claimant who was suspected not to stand in lights altogether meritorious or innocent, must expect that his application

would meet a severe scrutiny, and certain rejection at the discovery of any thing that could taint it with unfairness or imposition. But if the sound construction be not at least as broad as I have supposed, we shall be at some loss to know what meaning the words "inferior disabilities," used in the concluding sentence of the fourteenth section, were intended to convey.

It may, perhaps, be said that, to earn the bounty, the disability should have been incurred by accidents or sickness peculiar to the employments of military men, and such as it may reasonably be supposed would have been avoided in other occupations. But it is conceived that this would prove a vague and deceptive rule of interpretation. With what safety or with what certainty could it be applied? The soldier asleep in garrison may suddenly, when he awakes, find his eyesight gone, without being sensible himself, or without its being imagined by others, that the predisposing and latent cause of his affliction was imbibed in ascending the Mississippi months before, while a hot and vertical sun was flashing its fires around him. Another may linger in consumption, the consequence of perhaps a slight cold in the beginning, but of which the labours and hardships of his life may never have allowed him an opportunity to get rid; and a third may be bed-ridden under a palsy, which the change of habits and aliment after his enlistment may have been the chief though occult causes in producing. It would be easy to multiply, indefinitely, such illustrations applicable alike to the condition of officers and men.

I would remark, as giving strength to the principles which I suppose the legislature to have had in mind in framing this section, that we find it recorded in the Digest of Justinian, that "he who has hired his services, is to receive his reward for the whole time, if it has not been his fault that the service has not been performed." So, too, by the maritime law it is well understood, that if sickness or disability overtakes a seaman, which was not brought on by vicious or unjustifiable conduct, he is entitled to his full wages for the voyage: nor does it make any difference whether it came on during the time he was on actual duty, or was merely accidental while he continued in the service. These principles have been sanctioned by time, and it is hoped that it will not have been deemed out of place to advert to the analogies they hold up.

RICHARD RUSH, *Attorney General.*

"Total disability" understood to apply to the nature of the disability, and not to the extent, in certain cases.

DEPARTMENT OF WAR, *October 23, 1828.*

Sir,—In answer to your inquiry of this morning, I unhesitatingly give it as my opinion that the words "total disability," as used in the proviso of the act entitled "An act regulating the payments to invalid pensioners," passed March 3, 1819, were intended as de-

scriptive only of the *nature* or *character*, and not of the *extent*, of those disabilities; the biennial repetition of the proof of which is declared to be unnecessary.

The object of the enacting clause of this law, which contains but one section, is to oblige pensioners to exhibit proofs of the state of their respective disabilities at given periods, with a view to graduate the amount of the pension by the extent of the disability for the time being.

The object and spirit of the proviso is to save those pensioners, who are placed on the list in consequence of disabilities which are in their nature permanent and unchangeable, the trouble and expense of a useless repetition of proof; and they equally embrace cases (technically speaking) of partial and total disability. The word "total," therefore, as here used, in connection with "disability," should not be taken in its technical sense, as indicating that extent of disability which entitles to a full pension; but in its ordinary sense, and conveying the same meaning as if the word *perfect*, or *complete*, or *permanent*, (for each of which it is often used as a substitute,) had been employed. The proviso, indeed, explains itself, by adding to the words "total disability" the following exemplification of its meaning, viz: "In consequence of the loss of a limb, or other causes which cannot, either in whole or in part, be removed."

If a soldier loses an arm or a leg, he presents a case of total disability, which entitles him to a full pension; and he need not repeat his proof, because the record shows that the disability is such as cannot, in the nature of things, be removed. But if a man lose only two fingers or two toes, it is a case of partial disability, and he receives only a part pension. It would, however, be equally idle and absurd to require him, in this case, to prove, every two years, that his fingers or toes have not grown out again, as it would, in the other, to oblige him to show that his arm or leg has not been restored.

P. B. PORTER.

JAMES L. EDWARDS, Esq. *Pension Office.*

Surgeons' affidavit.

[Date.]

It is hereby certified that _____, a _____ in the company of _____, in the _____ regiment of the United States _____, is rendered incapable of performing the duty of a soldier, by reason of wounds or other injuries inflicted while he was actually in the service aforesaid, and in the line of his duty, viz:

By satisfactory evidence and accurate examination, it appears that on the _____ day of _____, in the year _____, being engaged _____, at or near a place called _____, in the

state (district or territory) of _____, he received _____ in his¹

And he is thereby not only incapacitated for military duty, but, in the opinion of the undersigned, is² _____ disabled from obtaining his subsistence from manual labour.

} *Surgeons.*


Application for an increase of pension.

It is hereby certified that _____, formerly a _____ of Captain _____'s company, in the _____ regiment of _____, who, it appears by the accompanying (a) _____, was placed on the pension-roll at the rate of _____ dollars per month, on account, as he states, of having received a (b) _____ while in the line of his duty, and in the said service, on or about the day of _____, in the year _____, at a place called _____, in the state (or territory) of _____, is not only still disabled in consequence of the said injury, but, in my opinion, is entitled to more than he already receives as a pensioner, being disabled to a degree amounting to (c) _____ of a total disability.

} *Surgeons.*

¹ Here give a particular description of the wound, injury, or disease; and specify in what manner it has affected the applicant, so as to produce disability in the degree stated.

² N. B.—The blank in the last line but one is to be filled up with the proportional "degree" of disability; for example, "three fourths," "one half," "one third," &c. or "totally," as the case may be.

 The magistrate who may administer the oaths to the surgeons must certify that they are reputable in their profession; and the official character and signature of the magistrate must be certified by the proper officer under his seal of office.

Mode of authenticating papers.—In every instance where the certificate of the certifying officer who authenticates the papers is not written on the same sheet of paper which contains the affidavit, or other paper authenticated, the certificate must be attached thereto by a piece of tape or small riband, the ends of which must pass under the seal of office of the certifying officer, so as to prevent any paper from being improperly attached to the certificate.

If the claimant is within thirty miles of an army surgeon, he must obtain his testimony.

(a) The pension certificate issued from the war office, which must be returned to the commissioner of pensions.

(b) Here give a particular description of the wound, injury, or disease, and specify in what manner it has affected the applicant, so as to produce disability in the degree stated; and show its origin and progress.

(c) N. B.—The blank in the last line is to be filled up with the proportional "degree" of disability; for example, "three fourths," "one half," "one third," &c. or "totally," as the case may be.

Member of congress may certify as to the character of a surgeon.

WAR DEPARTMENT, June 17, 1834.

The rule of November 17, 1831, is hereby so amended as to allow the certificate of a member of congress, as to the character of a surgeon or physician, to be received in a case where the pensioner cannot conveniently obtain the certificate of the agent for paying pensions.

LEWIS CASS.

Rules of evidence relative to invalid pensioners.

Any officer, non-commissioned officer, musician, or private, who has been wounded or disabled since the revolutionary war, while in the line of his duty in the actual service of the United States, whether he belong to the military establishment or to the militia, or to any volunteer corps called into service under the authority of the United States,¹ may be placed on the pension-list of the United States, at such rate of compensation, and under such regulations, as are prescribed by the act entitled "An act to provide for persons who were disabled by known wounds received in the revolutionary war," passed April the tenth, one thousand eight hundred and six. In substantiating such claim, the following rules and regulations shall be complied with, that is to say: all evidence shall be taken on oath or affirmation, before the judge of the district, or one of the judges of the state or territory² in which such claimant resides, or before some person specially authorised by commission from said judge. Decisive disability, the effect of a known wound or injury, received while in the actual service and line of duty, must be proved by the affidavit of the commanding officer of the regiment, corps, company, ship, vessel, or craft, in which such claimant served, or of two other credible witnesses to the same effect, setting forth the time when, and place where, such known wound or injury was received, and particularly describing the same. The nature of such disability, and in what degree it prevents the claimant from obtaining his subsistence, must be proved by the affidavit of some reputable physician or surgeon, stating his opinion, either from his own knowledge and acquaintance with the claimant, or from an examination of such claimant on oath or affirmation, which, when necessary for that purpose, shall be administered to said claimant by said judge or commissioner; and the said physician or surgeon, in his affidavit, shall particularly describe the wound or injury from whence the disability appears to be derived. Every claimant must prove, by at least one credible witness, that he continued in service during the whole time for which he was detached, or for which he

¹ Act 25th April, 1808, sec. 4.

² Act 18th April, 1814, sec. 3.

engaged, unless he was discharged, or left the service in consequence of some derangement of the army, or in consequence of his disability resigned his commission, or was, after his disability, in captivity or on parole; and, in the same manner, must prove his mode of life and employment since he left the service, and the place or places where he has since resided, and his place of residence at the time of taking such testimony. Every claimant shall, by his affidavit, give satisfactory reasons why he did not make application for a pension before, and that he is not on the pension-list of any state; and the judge or commissioner shall certify, in writing, his opinion of the credibility of the witnesses, whose affidavits he shall take, in all those cases where, by this act, it is said the proof shall be made by a credible witness or witnesses; and, also, that the examining physician or surgeon is reputable in his profession. The said judge of the district, or person by him commissioned as aforesaid, shall transmit a list of such claims, accompanied by the evidence, affidavits, certificates, and proceedings had thereon, in pursuance of this act, noting particularly the day on which the testimony was closed before him, to the secretary for the department of war, &c. And it shall be the duty of the judge or commissioner aforesaid to permit each claimant to take a transcript of the evidence and proceedings had respecting his claim, if he shall desire it, and to certify the same to be correct. An increase of pension may be allowed to persons already placed upon the pension-list of the United States, for disabilities caused by known wounds received during the revolutionary war, in all cases where justice shall require the same: *Provided*, That the increase, when added to the pension formerly received, shall in no case exceed a full pension. Every invalid making application for this purpose, shall be examined by two reputable physicians or surgeons, to be authorised by commission from the judge of the district where such invalid resides, who shall report in writing, on oath or affirmation, their opinion of the nature of the applicant's disability, and in what degree it prevents him from obtaining a subsistence by manual labour; which report shall be transmitted by said physicians or surgeons to the secretary for the department of war.

PENSION OFFICE, 24th June, 1840.

Sir—In answer to Doctor Ruschenberger's inquiry respecting "the several rules, regulations, &c. relating to pensioning sailors," I have to state, that the applicant must prove that he is permanently disabled by injury received in the line of duty in the naval service.

If disabled by disease, he must prove that the disease was exclusively caused by peculiar exposure in the performance of some particular act of duty in the service. The proof of having been disabled in the line of duty is to be made by the certificate of the surgeon of the ship on board of which the injury was received—

approved by the commander—and stating the date of the injury, with all the circumstances of the case.

If the commander and surgeon are dead, the certificate may be supplied by any commissioned officer of the ship.

When such proof has been furnished, the secretary of the navy will order two naval surgeons to examine the applicant, and report the degree of permanent disability in his case, whether total, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, &c. according to their opinions.

After an examination of all the proof, and merits of the case, the rate of pension will be fixed by the department, not to exceed half pay for total disability. But, in cases of extraordinary merit, the department is authorised to allow any rate of pension not exceeding full monthly pay.

A pension, exceeding one fourth of his monthly pay, will not be granted to any person who continues in the service. And no pension will be allowed for an injury received twenty years before date of the application, unless full record proof of all the facts shall be produced.

These rules and regulations, may, in any case, be dispensed with by the department, at the discretion of the secretary of the navy.

Dr. Ruschenberger's communication is herewith enclosed.

I have the honour to be, very respectfully,

Your obedient servant,

J. L. EDWARDS, *Commissioner of Pensions.*

HON. JAMES K. PAULDING, *Secretary of the Navy.*

Under these several regulations and opinions, the surgeon is left without any guide to estimate the proportional rate of disability in any case; and hence, it is possible that very different opinions might be obtained by the same applicant for a pension, particularly in the minor cases. Although we should find a strict uniformity of opinion among surgeons and physicians in setting down the loss of both arms as a total and permanent disability, claiming the highest rate of pension, it is not certain they would agree as to the rate which should be paid for the loss of the great toe, loss of one or more fingers, loss of all the teeth by violence, anchylosed joints, &c. It is well known that different persons, under the same circumstances, evince different capability of labouring for themselves, or, in other words, so great is the moral energy of some men that what is a very serious loss to others, is to themselves merely an inconvenience. But it would scarcely be just to estimate the rate of pension upon such considerations. The opinion should be based on a well digested scale of disabilities, which might be formed for the military and naval service by a board of medical officers. Such a scale would afford at least an approximation to uniformity in the payment of pensions in like cases. Until such a scale shall be digested, considerable assistance will be afforded to the surgeon in forming his estimate in the following

PENSIONING REGULATIONS, *proposed by the Board of Revision.*

ARTICLE I.—Persons making application for pensions in consequence of injuries received in the service should forward a certificate, as per form marked, from the surgeon of the vessel or yard where the injury was received, countersigned by the commanding officer, stating particularly the circumstances under which, and the time when, the injury was received—the nature and extent of the injury, and the extent of the disability which it may have produced. If the applicant is unable to forward such certificate, he must forward the best evidence which he can collect in relation to the circumstances, and particularly as to the name of the vessel, and her commander, in which, and the time when the injury was received.

ARTICLE II.—After a pension shall have been granted to any person in consequence of his disability, it may be paid to him quarterly, on his presenting himself to the person who may be directed to make the payments; but if the payments are to be made to any other person on behalf of the pensioner, it shall only be done upon a regular power of attorney, made before, and attested by some justice of the peace or notary public, accompanied by a certificate from some commission officer of the navy, judge of the United States court, district attorney, or collector of the customs, that the pensioner was, to his knowledge, living at the time when the payment demanded became due, or that he had deceased on some given day since the preceding payment.

ARTICLE III.—Before any pension will be granted, the secretary of the navy will, if he should think proper, order an examination of the applicant, in addition to the certificate of the surgeon and commander, to determine more satisfactorily the degree of disability produced by the injury received; and he may, at any subsequent period, direct similar examinations to be made, if he has reason to believe that the disability has been diminished or increased. When it can be conveniently done, these examinations shall be made, and the certificates given by two medical officers and a captain or a commander of the navy.

ARTICLE IV.—The injuries received shall be classed in the following manner, viz.

1st. Injuries which produce total disability in the claimant to contribute by his own labour to his support, and which requires the aid of another to attend to his person.

2d. Injuries which render the claimant unable to contribute to his own support, but leave him able to attend to his own person.

3d. Injuries which leave the claimant unable to contribute more than one fourth to his own support.

4th. Injuries which leave the claimant unable to contribute more than one half to his own support.

5th. Injuries which leave the claimant unable to contribute more than three fourths to his own support.

Those of the 1st class may receive as a pension the full amount of their pay. Those of the 2d class seven eighths of their pay. Those of the 3d class five eighths of their pay. Those of the 4th class three eighths of their pay. Those of the 5th class one eighth of their pay. When the injury received does not diminish the power of the individual to support himself as much as one fourth, he will not be considered entitled to any pension.

ARTICLE V.—When any applications are made for pensions, in consequence of the death of any person who may have been killed, or died from wounds received in action, they must state the name of the person for whose death the claim is made, the name of the vessel, and the action in which the death or the wounds occurred, and the time when the death took place, if subsequent to the action. The applicants must also forward legal proof of their right to claim a pension, as the widow or child of the deceased, according to the provisions of the law, and of the age or ages of the child or children, who may be the claimants.

ARTICLE VI.—After a pension shall have been granted, the widow must make affidavit before some justice of the peace or notary public, at each period when payment may be due, that she is still legally entitled to receive the same, and present it to the person authorised to make the payment. When payments are to be made to children, their guardian must make affidavit before some justice of the peace or notary public, that such children are still living, and under the age required by the law.

ARTICLE VII.—When pensions shall be granted for wounds received in action, they shall not be withdrawn, although the pensioner may be employed afterwards in the naval service, provided the disability continue; but when they shall have been granted for injuries received otherwise than in action, they shall be suspended whenever the pensioner shall be employed in any branch of the naval service with a compensation equal to the pay he was entitled to receive when he was injured; and when his compensation shall not be equal to his pay when he was injured, the amount of the pension granted to him shall, if necessary, be diminished, so that, during such employment in the naval service, it shall not increase his compensation beyond his pay when the injury was received. But the pension may be renewed on his leaving the naval service, according to the nature and extent of the disability.

ARTICLE VIII.—The conviction of a pensioner of any felony, or any wilful attempt to deceive the government, by any false pretences, declarations, or certificates, in relation to his claim for a pension, shall be sufficient authority for withholding it, and shall operate as a forfeiture of any pension to which the guilty person may otherwise have been entitled.

The first class of injuries under the proposed regulations will embrace men who have lost both arms, or both eyes, or who are palsied in their limbs, and perhaps some others.

The second class will include those who have lost both legs below the knee, or who have anchylosed knee joints, or who have lost one leg, a foot, or a hand, or the use and control of one of these members; or who have incontinence of urine, in consequence of mechanical injury of the urinary organs; or who have herniæ of considerable size. The other three classes will include a great variety of injuries, in estimating which a great deal of judgment and experience are requisite. It should be borne in mind, that the sailor has an avocation which he can exercise under private patronage, when able-bodied and in health; and from the nature of his profession he is rarely capable of gaining a livelihood on shore by pursuing only a part of his profession after having been disabled by injuries or wounds. For this reason a liberal construction should be adhered to in classing his disability, and it should always have reference to answering the question, How far does his injury incapacitate him from the exercise of his profession? With soldiers the case is somewhat different, for the reason that they generally have some mechanical trade; or, previous to entering the public service, have been able to gain a living as labourers, farmers, gardeners, or mechanics. Perhaps it would be proper, in all cases, in estimating disability, to take into consideration the length of service, and whether the individual had borne a good character, discharged his duties with ability, or distinguished himself in action or otherwise. If these circumstances were known universally amongst the men to have weight in awarding pensions, it would serve as a stimulus, in many instances; to good conduct, and thus assist in the preservation of discipline.

To preserve the popularity of the service, and make it desirable, under the voluntary system, the only one admissible under our institutions, every thing in relation to its advantages or rewards as respects pensions should be definite, certain, and stable as possible; and further, the laws and regulations should be well known to all interested, and rigidly adhered to by those who administer them. The adoption of such a system, as far as practicable, would tend to diminish the scarcity of men for the public service; for men will always go where their interests lead, when they have the opportunity, which all have in the United States.

Besides the benefits of the pension laws, men who serve in the navy have provided for them an asylum, situated on the eastern bank of the Schuylkill river, near Philadelphia, as a reward for long and faithful services. There they are furnished with excellent food, good clothes, and comfortable accommodations. The advantages of this noble institution, I fear, are not sufficiently known and appreciated amongst our seamen. There is at present only a few within its walls; but it may become the happy home of hundreds of weather-beaten sailors and marines, where they may

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pass the evening of their lives, free from the storms and vexations of life, and proud in feeling that their services have gained for them a substantial reward in the gratitude of their country. The institution is still in its infancy, but it, in spite of the unfortunate location of the edifice, may become, if its present distinguished governor¹ be enabled to carry out his liberal views, the blessing and pride of the navy. Let us indulge the hope that it will one day contain all our naval trophies, the portraits of our illustrious commanders, pictures of naval engagements, a museum and library, where the war-worn and storm-blemished veteran will find a resource to relieve his mind, in the contemplation of all that is noble and dear in the memory of his profession.

At present, all those who have faithfully served for twenty years, or who are entitled to pensions for wounds, injuries, or meritorious services, are received upon relinquishing their pensions while in the asylum.

Owing to several circumstances, which have been duly considered in the proper place, it is thought a change is called for in the existing pension laws of the navy. With this view, the board of revision of the rules, regulations, and laws of the navy, propose the following in place of certain existing laws relating to pensions:

ART. 103. Be it enacted, &c. that all money accruing, or which has already accrued to the United States, from the sale of prizes, shall be and remain for ever a fund for the payment of pensions to the officers, seamen, and marines, and to the widows and children of such officers, seamen, and marines, as may be entitled to receive the same, by the provisions of this act; and if the said fund shall be insufficient for the purpose, the public faith is hereby pledged to make up the deficiency; but if it should be more than sufficient, the surplus shall be applied to the making of further provision for the comfort of the disabled officers, seamen, and marines, and for such as, though not disabled, may merit, by their bravery or long and faithful services, the gratitude of their country.

ART. 104. The said fund shall be under the management and direction of the secretary of the navy, for the time being, who is hereby authorised to receive any sums to which the United States may be entitled from the sale of prizes, and employ and invest the same, and the interest arising therefrom, in any manner which he may deem the most safe and advantageous; and it shall be the duty of the said secretary to lay before Congress annually, in the first week of their session, a minute statement of his proceedings relative to the management and disbursement of said fund.

ART. 105. Every officer, seaman, or marine, disabled in the line of his duty while subject to the laws for the government of the navy, shall be entitled to receive for life, or during his disability, a pension from the United States, under such regulations as have

¹ Commodore James Biddle.

been, or may be, established and approved by the President of the United States, and according to the nature and degree of his disability, not exceeding the amount of his pay at the time he was disabled.

ART. 106. Any officer, seaman, or marine, who shall be killed, or die by reason of a wound received in battle, while subject to the laws for the government of the navy, leaving a widow, such widow shall be entitled to receive half the pay to which the deceased was entitled at the time of his death, which allowance shall continue during her widowhood; and in case of no widow, or of the intermarriage of such widow, the same allowance shall be made to any child or children of such officer, under eighteen years of age, until they shall arrive at the age of eighteen years: provided, that the said half-pay shall cease on the death of such child or children.

In adding to the very valuable work of Mr. Marshall the rules and regulations relating to the enlisting, discharging, and pensioning men in the navy and army of the United States, I hope I have added something to its interest. The excellence of the work itself leaves no room for commentary from me; and, in conclusion, I would respectfully ask the attention of my professional brethren, both in and out of the service, to its pages. Here the young surgeon will find assistance in the discharge of what he will discover, upon being called to inspect recruits and furnish certificates of disability, to be an important, arduous, and often difficult duty; and the civil practitioner, who is without experience in this branch of the profession, will be better qualified after reading this volume, without overlooking the interests of any one concerned, to decide upon the kind of certificate he should furnish to those who may claim pensions, or ask to be excused from military duty in the militia, or to receive the advantages of any of the various beneficial societies on account of bodily disabilities.

It has happened more than once, that surgeons, from not having reflected upon the importance of the subject, have yielded their own judgment too far to the representations and bare statements of the interested party, and granted certificates which they would have been afterwards glad to withdraw, upon finding that their professional opinion had been instrumental in transferring thousands of dollars from the pension fund to the pockets of an individual whose claims were exaggerated. When an officer comes forward to claim a pension for an injury received thirty years before, who in the mean time has been actively employed by the government, receiving the while full pay and emoluments, without any one even suspecting him of suffering in his health,—I say, there may be something in the preference of such a claim, wearing very much the aspect of fraud; and if the surgeon who certifies in the case be not very careful, he may learn, when too late, that he has unwittingly

lent his name to assist in defrauding his country. I have been told of a distinguished officer who received, at one payment, the amount of thirty years' pension, under the law of March, 1837, for a mere flesh wound, although he had been in the receipt of full pay the whole time. And I have heard of another case, where the surgeon who granted the certificate was anxious to withdraw it, on finding that it proved equivalent to a draft for eight thousand dollars, and a stipend of six hundred dollars a year for life; on reflection, he discovered that he had certified to a higher rate of disability than the circumstances warranted.

In consequence of the occurrence of cases like those alluded to, surgeons have been charged with being so easy as to yield acquiescence to the influence of rank, or of personal friendship; and some who are grieving over the comparatively small remnant of the pension fund, which has been almost absorbed by the act of March, 1837, have insinuated, in pretty strong terms, that the fund has been robbed through this facility of medical men. But this is a partial and unjust view, and entertained by those who deny the propriety of paying for wounds, hurts, or injuries, although they may entail great misery at times, enfeeble the general health, and abbreviate the life of an individual, without impairing, to a great extent, his capability of discharging duty of a particular character. For example, all the duties of a commander of a ship, or of a commander-in-chief of a squadron, may be most efficiently discharged by an individual who has lost a hand:—If this loss have been sustained in the public service, should the country refuse to pay for the hand because the individual continues to discharge his duties without it? Should not the effects of such a loss fall, if possible, rather upon the country than upon the individual?

It is the practice of the British government to pay for all wounds, hurts, and blemishes, which do not incapacitate individuals for service, what is termed "smart money," which is less than the amount paid under the name of pension. Nelson received a consideration for the loss of an arm, which loss did not interfere with the victory of Trafalgar. I can find no good reason why an officer who has lost a hand in action, and, in spite of the loss, continues to render efficient service, should not receive more than he who comes unharmed from the conflict. And I may add, it is to be regretted that the acceptance of such bounty should be accompanied by the obloquy and harsh reflections which have been occasionally cast upon those who receive pay and pension at the same time. The fault, if there be a fault, rests in the liberality of the law, and not with those who *honestly* receive its benefits. Nor should surgeons who conscientiously discharge their duties under the provisions of the pension laws, be charged with being accessory to plundering the pension fund.

PART I.

ON THE ENLISTING OF SOLDIERS.

Enlistment.—The British army is recruited by voluntary enlistment. Recruits enlist with parties acting under the immediate control of the commanding officer of the regiment in which a man engages, or with recruiting parties which are placed under the command of the inspecting field officer and subdivisional officers of a recruiting district. Enlistment for limited service was abolished or discontinued by authority on the 18th April, 1829, consequently all the men who now enlist engage to serve an unlimited period, or till they shall be legally discharged. Every person who has received enlisting money from a soldier employed in the recruiting service is considered as having voluntarily enlisted. After enlistment, a recruit is to be taken to a military medical officer, or should there not be one stationed within a convenient distance, he is to be brought to a civil medical practitioner, for the purpose of being examined as to his fitness for the army; when, if found fit, a certificate to that purpose is inserted on the attestation. If a recruit be found unfit, he is dismissed, and the person who enlisted him loses the enlisting money; but should he be approved, he may, after the lapse of twenty-four hours from the time he enlisted, be brought before a magistrate for attestation, and if he then admits that he enlisted voluntarily, the magistrate puts to him the several questions comprehended in the schedule or attestation, viz. respecting his name, parish, age, trade, &c., and particularly whether he is willing to be attested. (*Vide Note I.*) Should his answer be in the affirmative, the magistrate reads to him the articles of war relating to mutiny and desertion, administers the oath of allegiance, and he is then a soldier. The attestation is signed by the recruit, and also by the magistrate; and if the former refuses to take the oath, he may be imprisoned until he does so. The ceremony of attestation must, however, take place within four days, Sunday not included, from the date of enlistment; and if a

recruit during any of these days prior to attestation declares before a magistrate his disinclination to enter the service, and returns the enlisting money, with twenty shillings of smart money, and the amount of the subsistence he may have received, he must be forthwith discharged. "Any officer who shall act contrary to the provisions of the mutiny act in regard to the enlisting and attesting of recruits, shall, upon proof thereof before a court martial, be cashiered, and disabled from holding any civil or military office or employment in his majesty's service." Government allows one guinea for the enlistment of each recruit, who is finally approved at the regiment for which he enlisted, namely, 15s. to the serjeant and party, 5s. to the subdivisional officer, and one to the clerk and the attesting magistrate. Each recruit receives a nominal bounty of L.3, of which sum only 10s. are paid him in cash, the remaining L.2, 10s. being reserved to purchase clothes and other articles of equipment.

In the French service a *remplaçant*, or substitute, for a conscript, commonly receives from the principal from 1500 to 2000 francs, (L.60 to L.80.) The substitutes are generally men who have been in the army as volunteers or conscripts, and who sell themselves for seven years to conscripts, who, having been drawn, prefer paying the above amount to serving in person. Neither volunteers nor conscripts receive any bounty upon becoming soldiers in France, but they are provided with the requisite equipment.

There are nine recruiting districts in the United Kingdom, namely, London, Coventry, Bristol, Leeds, Liverpool, North Britain, (including Glasgow and Edinburgh,) Dublin, Cork, and Newry. The staff of each of these districts consists of an inspecting field-officer, an adjutant, a paymaster, and a staff surgeon. The elements of stature and period of life in recruits fall peculiarly under the superintendence of the military branch of the service, while those of health and general efficiency are usually in a great measure left to the decision of a medical officer. According to the existing regulations, soldiers are not entitled to reckon service under eighteen years of age as a claim for a pension, and consequently recruits commonly allege that they have reached that period of life. The *minimum* age of recruits for regiments serving in India is twenty years, but for all other regiments no specific age is fixed by authority. Provided a youth have attained the *minimum* height, he is eligible for enlistment, however young he may be. "Growing lads" are sometimes enlisted, although they are under the *minimum* height. In the French army the minimum age of volunteers is eighteen, and of conscripts twenty years. The *maximum* age at present in the British army is twenty-four years for regiments of the line, and thirty for the army of the East India Company; but as there is seldom any mode of obtaining information respecting the age of recruits, except from themselves, it is not to be presumed that the statements in that respect are always very accurate. Sometimes the inspecting field-officer refuses to approve

of a man whom he thinks above the maximum age, unless a suitable certificate of birth be produced.

Stature of Recruits.—A certain degree of stature is indispensably required to qualify men for being soldiers, partly on account of appearance, but chiefly because stature is considered a tolerably accurate measure of physical power. A due degree of strength is essentially necessary to enable a soldier to surmount the fatigue incident to a military life. Within a certain range of stature men may be deemed equally efficient, but soldiers who are either much below the mean height, or much above it, are not so well fitted for all the duties of the army as men of a medium height. Very tall men are said to be deficient of energy, and comparatively incapable of enduring fatigue. Men of a medium height are commonly very efficient soldiers, being often as powerful as tall men, and generally more able to undergo severe exertion. The *minimum* height of recruits for infantry regiments is usually 5 feet 5½ or 5 feet 6 inches, for light cavalry corps 5 feet 7, and for heavy dragoons 5 feet 8 inches. The mean height of the men of an infantry regiment is commonly about from 5 feet 7 inches to 5 feet 8 inches; in the heavy dragoons it varies from 5 feet 9 to 5 feet 10 inches. The *minimum* height of soldiers in the French army is 5 feet 2 inches. The duty of ascertaining the height of recruits, which is one of considerable importance, belongs to the staff of regiments and the staff-officers of recruiting districts. During the month of June, 1819, an order was issued to examine recruits without shoes and stockings, probably in consequence of frequent imposition. The position of a recruit when he is measured ought to be exactly that of a soldier under arms, with his eyes looking straight before him. Sometimes when a recruit is very anxious to be approved, he endeavours to appear taller than he really is, and various artificial means have been successfully adopted for that purpose, such as pasting buff leather on the soles of the feet, or concealing a small piece of wood under the hair of the head. At other times, when he wishes to be relieved from his engagement, he endeavours to appear below the *minimum* height, by reducing his apparent stature. This object is occasionally effected by flexing the head forwards a little, protruding the abdomen, and slightly bending the knees. By these means, and by removing the thick cuticle which covers the sole of the foot, and cutting the hair closely to the head, a man may appear to be half an inch or perhaps a whole inch lower than he really is, without being detected by an inexperienced measurer. Many intelligent and experienced officers have been imposed upon in this way. When the slightest suspicion of fraud exists, the recruit should be placed under the standard in a state of nudity. But the best means of obviating deception in regard to stature, is to measure a suspected person extended on his back. To ascertain how much the horizontal length of a man exceeded his perpendicular height, I measured 52 recruits with the same standard, and the following statement is the result:

Horizontal length exceeded the perpendicular height in	5,	by $\frac{1}{2}$ of an inch,
	5,	$\frac{3}{8}$ do.
	13,	$\frac{1}{4}$ do.
	14,	$\frac{1}{8}$ do.
	15,	no appreciable difference.
	<hr/>	
	52	

which is a mean difference of $\frac{3}{16}$ of an inch that a man is taller in a horizontal than in a vertical position.

Weight.—The chief physiological qualities which require to be attended to in the selection of recruits for the army, are a due degree of stature and weight, a suitable age, sound health, a perfect condition of the organs of sense, particularly the eyes and ears, with aptitude of the limbs. A man may have the requisite stature, but unless he has also a certain weight, he may not be able to perform the duties of a soldier, or to endure the labour incident to an army, and, with the view of appreciating his efficiency, I would recommend a recruit to be weighed. Hitherto it has been the usage to estimate the strength of recruits by the eye, as was formerly the case in regard to stature. The weight is perhaps a better criterion, as it affords a definite standard, which is of great importance when recruits are to undergo more than one inspection, and by different examiners. According to the investigations of Quetelet, the mean weight of males at

17 years of age is	116 lbs. 9 ounces	avoirdupois.
18 do. do.	127	9 $\frac{1}{2}$ do. do.
20 do. do.	132	7 $\frac{1}{2}$ do. do.
25 do. do.	138	12 $\frac{1}{2}$ do. do.

Consequently, when athletic men are required, recruits should not be approved who weigh less than the medium weight of the respective ages at which they may be enlisted.

Magnitude of the Chest.—To ascertain the magnitude or circumference of the chest of a recruit, is a good method of appreciating his physical power. In popular opinion, which is probably well founded, persons who have large capacious chests are capable of executing much labour, and of enduring great fatigue. In as far as the efficiency of troops is concerned, it would perhaps be as advisable to fix a *minimum* circumference of the chest for recruits as a *minimum* height.

For the purpose of ascertaining the mean girth round the chest of men of different heights, Dr. Balfour, assistant staff-surgeon, while he was acting in London as district surgeon, measured 1439 recruits, and constructed the following very interesting table.

It will be observed that the average magnitude of the chest was about 32 $\frac{1}{2}$ inches, the minimum of the whole number was 28 inches, and the maximum 37 inches. The magnitude of the chest does not appear by the above table to increase in the same ratio as the height, but the numbers examined above 5 feet 8 inches are too few to warrant a physiological conclusion on the subject. But it is the

minimum, not the *maximum* magnitude, which it is of importance to settle, as is done in regard to the height of recruits. Perhaps no recruit should be approved whose chest does not measure 30 or 31 inches, even at the minimum height.

Table showing the average circumference of the chests of the recruits examined in the London District, from the 13th October, 1838, to the 12th January, 1839, inclusive, arranged according to the height of the recruits.

Height of the recruits.		Town Recruits.				Country Recruits.				Aggregate.			
		No. exam- in.	Aver. size of chest.	No. found fit.	Aver. size of chest.	No. exam- in.	Aver. size of chest.	No. found fit.	Aver. size of chest.	No. exam- in.	Aver. size of chest.	No. found fit.	Aver. size of chest.
F. I.	F. I.		In. dec.		In. dec.		In. dec.		In. dec.		In. dec.		In. dec.
5 5 to 5 6	6	83	32.44	53	32.54	23	32.77	20	32.66	106	32.51	73	32.57
5 6 to 5 7	7	425	32.03	279	32.19	233	32.71	197	32.80	658	32.15	476	32.44
5 7 to 5 8	8	223	32.24	127	32.53	103	33.11	93	33.13	326	32.52	220	32.79
5 8 to 5 9	9	1:2	32.57	79	32.81	56	33.00	47	33.18	178	32.70	126	32.93
5 9 to 5 10	10	58	32.76	33	32.59	28	33.75	23	33.57	86	33.08	56	33.00
5 10 to 5 11	11	44	32.54	27	32.94	13	33.61	8	33.81	57	32.77	35	33.14
5 11 to 6	6	20	32.92	10	33.00	3	33.67	2	35.00	23	33.02	12	33.33
and upwards.		4	32.38	1	32.00	1	33.00	1	33.00	5	32.50	2	33.50
		979	32.06	609	32.22	460	32.91	391	32.99	1439	32.47	1000	32.66

Class of the population from which recruits are procured.—The following statement¹ is intended to show the state or condition of life of recruits, and the relative ratio of each trade or occupation among men who enlist at Dublin. A table of this kind, embracing all the recruits enlisted for the whole army during a series of years, would be very interesting.

This statement shows that 64 per cent. of the recruits enlisted in the Dublin districts, during the three years specified, were husbandmen and labourers, and, consequently, considerably more than one-half belonged to the agricultural class. Whether a higher relative ratio of men belonging to this class enlist than of artisans, I am unable to state. The question is an interesting one, but I have not access to adequate statistical materials to enable me to arrive at a satisfactory conclusion on the subject.

Agricultural labourers generally enter the army in consequence of some family difficulty or discord, or some scrape in which they are involved, or from want of work; and it is alleged by competent authority that they become the most trustworthy soldiers. Recruits who are enlisted in the manufacturing districts and large towns are frequently idle and dissolute, and require all the means in the power of their officers to correct the intemperate and vicious habits in which they have indulged, and to enforce subordination.

¹ See Table, next page.

Statement of the condition of life, or occupations of the Recruits inspected at the Dublin recruiting depot, during the years 1825, 1826, and 1827.

Condition of life or occupation of the Recruits.	Examined.				Ratio per 1000 examined.
	1825.	1826.	1827.	Total.	
Apothecaries and druggists, . . .	3	5	11	19	1
Bakers,	59	25	21	105	8
Basket-makers and brush-makers, . . .	9	3	3	15	1
Blacksmiths and armourers, . . .	116	55	52	221	18
Boys, . . . . .	...	...	26	26	2
Bricklayers and masons,	23	26	15	64	5
Butchers,	35	31	18	84	7
Carpenters,	107	68	48	223	18
Chandlers and merchants,	5	7	2	14	1
Clerks,	144	133	131	408	31
Coachmakers,	2	5	5	12	1
Coopers,	30	18	4	52	4
Cotton-spinners,	11	15	7	33	3
Dyers,	7	13	6	26	2
Farmers, . . . . .	...	23	30	53	4
Gardeners,	3	26	11	40	3
Gentlemen,	4	12	7	23	2
Hairdressers,	9	5	1	15	1
Hatters,	11	9	3	23	2
Husbandmen and labourers,	4414	2368	1487	8269	645
Millers and millwrights,	10	9	7	26	2
Miners,	9	15	9	33	3
Nailers,	36	14	7	57	4
Painters,	61	3	10	74	5
Printers,	6	33	3	42	3
Saddlers,	22	12	8	42	3
Sawyers,	10	19	6	35	3
Schoolmasters and land-surveyors . . . . .	...	2	10	12	1
Servants,	361	268	192	821	65
Shoemakers,	252	194	112	558	43
Slaters and stone-cutters,	6	15	17	38	3
Surgeons, . . . . .	...	4	2	6	...
Tailors,	132	128	53	313	24
Tanners,	1	11	1	13	1
Tinsmiths,	8	9	6	23	2
Weavers,	300	351	163	814	63
Forty-two other trades,	23	86	94	203	16
	6229	4018	2588	12835	1000

I believe it is very generally observed, that, wherever manufactures and commerce prevail, so as to be a source of opulence to the people, the military profession is held in very low estimation. Wealth, with domestic comfort, discourages any enterprise which is attended with danger and uncertainty. A very poor man may gain something by enlisting, and he has little or nothing to lose.

It is remarked by Professor Millar, and indeed the fact is notorious, that "when the son of a tradesman enlists in the army, he is looked upon as a profligate who has been deluded to his ruin, and, if he cannot be bought off, he is given up for lost." The amount of the pay and contingent recompense of a soldier is less than the mean wages of the manual labour classes of the population, and a very inadequate return for the dangers, the toils, and the privations to which they are exposed. Dr. Jackson says, "the desire of money to buy bread fills the military ranks;" and I may add, the comparatively idle, dissipated, and adventurous life of a soldier seems to have a very seductive influence over the young and inconsiderate. Necessity, not an ardent liking for the profession, compels many to enlist, they having lost their character, or contracted habits of idleness or improvidence, which more or less exclude them from the better paid walks of civil industry, by which means they are constrained to devote themselves to a military life.

The unpopularity of the army may be expected to increase, in proportion as the condition of the manual labour class of the population is improved; and there are many reasons for presuming that the circumstances of the working classes are greatly meliorated within the present century. As an evidence of the operation of the improved condition of the people upon the recruiting of the army, I may state that, on an average, about from one-fourth to one-third of the men who enlist at the head-quarters of ——— recruiting district, obtain a relief from enlistment, by paying each the smart money of L.1., together with all the other expenses which have been incurred on their account. I have no reason to believe that an equal ratio of recruits was relieved from enlistment twenty or thirty years ago.

I am not enabled to class the recruits inspected at Dublin according to the degree of instruction they had received. Had I been able to arrange them under the following five heads, the result would have conveyed some interesting information :

1. Neither read nor write.
2. Read, but not write.
3. Read and write imperfectly.
4. Read and write well.
5. Instruction beyond reading and writing.

The manual labour class of the population, from which recruits for the army are drawn, may, in general, be placed under the first three heads; and as it may be presumed the men who enlist for soldiers have not commonly received a degree of instruction equal to the average of the class, their literary attainments must be extremely limited. Hitherto no means have been adopted by authority to obtain any information respecting the intellectual and moral character of recruits, or the instruction they have received. From some attempts which have been made to ascertain the degree of education among recruits raised in Scotland, it would appear that

from 7 to 10 per cent. can neither read nor write, and that 1 out of 5 is unable to sign his name. Out of every 100 young men enrolled in France during the years 1823 and 1829, in the military census, 35 could read and write. The highest degree of enlightenment was in the department of the Meuse, where 74 per cent. could read and write, and the lowest is in Corrèze, where only 12 per cent. were so far instructed.

When a man possesses the requisite physical strength and aptitude, and is of sound mind, he is considered fit for military service, no farther investigation being commonly made in regard to his mental qualities, except to ascertain that he has not a "weak or disordered intellect." As to his moral character, it is generally deemed inexpedient to make any inquiries on the subject; for what is generally called a good character—namely, a character for morality and good behaviour, such as would be required for a servant—does not appear to be absolutely necessary in a recruit. The condition of a soldier is very little calculated to induce an industrious man, who can obtain subsistence in any other way, to embrace it; consequently, those who enter the service are commonly thoughtless youths, petty delinquents, men of indolent habits, persons who are unable to procure work, or who are in very indigent circumstances. The great desideratum of military officers—namely, that of inducing the parents and friends of young men of a better and more educated class of life than that of which the army is now composed, to encourage their enlistment, and by that means to improve the moral character of the army—is not likely to be realised. Experience holds out no hope, that, under existing circumstances, any but the worst educated, and certainly not the best conducted, of the manual labour rank of the population, will deliberately make choice of a military profession. The army is unpopular, and will ever continue to be so in this country, not in consequence of the severity of the punishments of military service, but on account of the necessary restraints upon the habits of the man who becomes a soldier, and the severity of the service and duties which he has to perform—namely, service for life at moderate pay, in unwholesome climates, at great distances, and incurring enormous risk to health and life. (Vide Note II.)

By an ordinance of the 21st March, 1832, neither a substitute nor a volunteer can be received into the French army without producing a certificate of good character from the mayor of the commune in which he last resided; and in the case of a volunteer who may be under twenty years of age, the sanction of his relations must be given before he be enrolled. A similar rule obtains in the army of the United States of America; for no officer is permitted to enlist a recruit who is under age, unless the consent of his parents, guardians, or master, should previously have been obtained in writing. Some of the officers of the French army entertain a very unfavourable opinion of the measure of recruiting by voluntary enlistment. Baron Rogniat (*Considerations sur l'Art de la*

Guerre) states that *voluntary* enlistment made the French army a receptacle for deserters and foreigners of all nations, idle profligates, by whom the noblest of all professions was rendered contemptible and degraded to such a degree, that an honest man, instead of being proud when his son engaged in the service of his country, blushed with shame when he saw him enrolled as a soldier. I presume this account of the volunteers of the French army applies to the period of the war, for at present the substitutes are excellent soldiers, and not remarkable for misconduct. General Foy characterizes that class of the population who voluntarily enlist, as "the scum of society," "the dregs of the people," whose constitutions are impaired, and whose morals are depraved, by the vices and excesses of large towns; persons who engage, as in the time of Francis I., "*tuer pour vivre*." The French government does not seem to encourage the recruiting of the army by voluntary enlistment. The care that is taken to prevent profligate characters from entering the service will, in some measure, operate as a means of preserving the morals of the conscripts, of whom the army is principally composed.

Minimum age of Recruits.—The period of life when a youth may be deemed fit for military service, is a highly important element in the selection of recruits. Before a youth has acquired the physical and moral qualities calculated to enable him to endure the fatigue, and to execute the duties, incident to a military life, a certain age must be attained. When a youth is examined by a medical officer, regard should be had to the nature of the duties which may be required of soldiers, before he is approved. The arms, clothing, and necessities, carried by an infantry soldier, commonly amount to about 60 or 62 pounds; and as troops, even during a period of peace, are constantly liable to move from one place to another, a man cannot be considered an efficient soldier who is not easily able to undergo a march of a few weeks. It will be recollected that, when bodies of troops are obliged to act simultaneously, any exertion to which they are exposed may be easily executed by the general mass; but if a portion of the men is unable to surmount the fatigue without great difficulty, the operations of the corps or army are thereby retarded, as the exertions of the whole must be more or less regulated by the men who are the least efficient. Great and long-protracted exertions, whether in marching with a heavy knapsack, or in military exercises, tend to exhaust the frame, more especially of young striplings, who may be very willing, but who are commonly unable to undergo the fatigue which men a few years older are capable of executing with ease.

Dr. Fallot, in his excellent work on the duty of inspecting conscripts, &c., thus expresses himself: "To conclude, conscripts at the age of 18 have not attained their full growth; and medical men are well aware that the complete development of the human body requires an exemption from great fatigue, abundance of healthy nourishment, undisturbed sleep, and a tranquil mind—a concur-

rence of circumstances which never occurs in the army."—(*Memoiral de l'expert dans la Visite Sanitaire des Hommes de Guerre*. Bruxelles, 1837.)

During a period of war, the necessity of physical power as well as health, in carrying on aggressive operations, is universally admitted. When a stripling soldier complains that he is unable for a particular duty, he is frequently sent to the surgeon of the corps, who, in his turn, sends him back to his company, because physical weakness, without disease, is not always recognised as an adequate reason for receiving a man into hospital, or admitting him on the sick list. Over-exertion, however, soon produces disease in a youth, when he must become an inmate of the hospital. War in modern times consists so much in the science of making men march for the purpose of striking an unexpected blow on the enemy, that the efficiency of soldiers depends greatly on their capacity for executing long marches with comparative ease. Marshal Saxe and General Foy, both of whom had great military experience, do not hesitate in stating that the secret of war lies in the power of marching; namely, in the strength of the legs. Young lads will fight with great gallantry, but they are unable to endure the fatigue of long marches in wet weather, or upon heavy roads. Napoleon sometimes transported his young infantry soldiers to distant stations by post carriages, for the purpose of preserving their health, strength, and efficiency.

Recruits for an army should therefore be selected with a view to their capabilities of resisting the influence of the physical and moral causes of disease to which they may be exposed, and the fatigues and privations they are liable to undergo. These facts are well known, and indeed familiar, to all classes of officers who have lived with soldiers, and who have encountered difficulties with them; so that any argument calculated to show the impolicy of enlisting very young recruits may appear to be superfluous. M. Coche, in his valuable work entitled "*De l'Operation Medicale du Recrutement et des Inspections Générales*," says, "I shall conclude these important considerations by stating my deliberate opinion, that recruits at 18 years of age are commonly unfit for the duties of the army, not only in time of war, but even in a period of peace." "Even during peace, volunteers of 18 or 19 years of age, who do not possess unusual strength, frequently pass two, three, and even four years of their period of engagement (eight years) in hospital, should they not be discharged. This is what takes place in corps of the line, as must have been observed by military as well as medical officers."

Numerous examples might be adduced to show that young lads are much less able to endure the fatigue of marching than men a little more advanced in life. During the year 1805, a French army, which was cantoned in the neighbourhood of Boulogne, marched about 400 leagues to join the grand army in Moravia, before the battle of Austerlitz, which was fought on the 2d Decem-

ber. This object it effected without leaving almost any sick in the hospitals on the route. The men of this army had served two years, and were all above 22 years of age. Compare the above result with the march of another army under different circumstances. During the campaign of 1809, the troops cantoned in the north of Germany marched to Vienna, which is a much shorter distance than that which the other army travelled; but, by the time they arrived at the place of their destination, all the hospitals on the road were filled with sick. The first battle which took place this campaign was that of Eckmühl, which was fought on the 22d April. More than one half of the men composing this army were under 20 years of age, the annual levy of conscripts having been anticipated. After the battle of Leipsic, Napoleon made great exertions to recruit his army, and called upon the members of the legislative senate to give him their assistance, to which they showed some reluctance. "*Shame on you!*" cried the emperor. * * * "I demand a levy of 300,000 men—but I must have grown men—boys serve only to fill the hospitals, and encumber the road-side." During the last three years and five months of the Peninsular war, the period when the greatest activity prevailed, the mean strength of the British army amounted to 61,511 men, and the sick to 13,815, being 22½ per cent. There is perhaps little doubt that a large portion of the inefficient troops were unfit, in consequence of inadequate physical strength, more than from actual sickness. The mean ratio of inefficiency from wounds did not exceed 1½ per cent.—(*Edmonds.*)

Although young lads are unfit to surmount the fatigue of warlike operations and long marches so well as full-grown men, it has been satisfactorily ascertained, that, in time of peace, and when they are not exposed to much physical exertion, the ratio of mortality is invariably lower among young than old soldiers. This result obtains in all climates where British troops are employed; and it would appear, that the mortality rises in nearly an exact ratio with the age of individuals. Age has been found the chief regulator of the ratio of mortality among the indigenous inhabitants of all countries; and this law of nature does not appear suspended or interrupted among British troops serving in tropical climates. (*Vide Note III.*)

In a moral point of view, it appears to be impolitic to enlist lads at a very early age. What degree of prudence or discretion can be expected of a stripling of 16, 17, or even 18 years of age?

He cannot be aware of the importance and consequence of his engagement; and it appears rather an anomaly in the law of the country, that while a young man is incapacitated for making a will, so as to dispose of real or even personal property before he has reached 21 years of age, he is, nevertheless, permitted to surrender his liberty for life. By an order which was issued from the Horse Guards, dated 28th December, 1804, L.2, 2s. was allowed to *parents* who

brought a boy under 16 years of age, and who was 5 feet 2 inches in height. A similar sum was allowed to the bringer of a boy, although no relationship existed between them. Young lads rarely enlist from a decided predilection for a military life: this irretrievable and important step is commonly taken in consequence of some sudden thought or fit of passion, occasioned by a domestic broil, chagrin or disappointment, inebriety, want of work, indigence, and perhaps a few are excited to take "the shilling," the symbol of enlistment, by the *finesse* of a recruiting serjeant. "They figure to themselves, in their youthful fancies, a thousand occasions of acquiring honour and distinction which never occur. These romantic hopes make the whole price of their blood. Their pay is less than that of common labourers; and, on actual service, their fatigues are much greater. A young man may go to sea with his father's consent; but if he enlists, it is always without it."—(*Wealth of Nations*.)

As enlistment is seldom or never entered upon from mature deliberation, it may easily be inferred, that stripling recruits frequently soon feel more or less the sentiments of regret, remorse, and depression of spirits, followed by impaired health, home-sickness, and comparative inefficiency. The army is not a natural state of society; and every considerable deviation from the natural condition of mankind brings with it a corresponding deleterious influence on the constitution of individuals, more especially upon youths, who are very susceptible of the injurious consequences of sudden changes. The indissoluble and interminable nature of a man's engagement—hopelessness, change of diet, new comrades, and new habits—removal from friends—the thralldom of command, and the restraints of discipline—all contribute to occasion great mental disquietude, which in young lads is a frequent precursor of impaired health and physical inefficiency.

"How often does it happen," says Kirckhoff, (*Hygiène Militaire*), "that an inexperienced youth is deluded by a recruiting serjeant, or excited by an ebullition of passion, or a paroxysm of inebriety, to enlist—a measure which he deeply regrets before the succeeding morning! He becomes dejected—the love of home, and of friends whom he may never see, paralyses his mind and ruins his health; he is incapable of being made an efficient soldier, and frequently terminates his career in hospital." This is a picture of what occurs in the army of the King of the Netherlands, which has very little foreign service, and in which the period of engagement extends to only five or six years. How different is the prospect of a soldier in the British army! two thirds or three fourths of whose service must be abroad, chiefly in tropical climates, and, as his engagement is unlimited, he can have no hope of regaining his liberty until his health is gone, and his constitution irrecoverably exhausted. To enlist recruits before they have acquired sufficient strength to qualify them to execute the duties, and to undergo the fatigues

of a military life, is to multiply the victims of disease and vexation, and to augment the expenses of an army without adding to its strength.

In general, no great dependence can be placed upon the age of a recruit as stated by himself on enlistment; but a suitable age is only one important element in the choice of a recruit. Lads of 18 are sometimes more matured, and possess in a greater degree the qualities which constitute an efficient soldier, than some men of 20 or 21 years. The changes in the physical character of man are so imperceptible, and the transition so little apparent, that no very definite marks of particular age can be assigned. During the age of adolescence the head is often comparatively large, the spine straight and long, and the inferior extremities proportionally attenuated. At about 19 or twenty years of age some of the wisdom teeth generally appear. This circumstance, although liable to many exceptions, is the most specific mark that organisation affords of a particular period of life. The bones become gradually thicker, the joints strong, and the shoulders broad—the muscles firmer and better developed.

Maximum age of Recruits.—It is desirable that a young man should join the army as soon as he has acquired the necessary physical power, and his constitution has been so far matured as to enable him to undergo the bodily exertion which may be required of soldiers. Kirckhoff, physician to the army of the King of the Netherlands, who had much experience of active warfare, thus expresses himself in regard to the *minimum* and *maximum* age of recruits. "We ought to establish it as a general rule not to receive a recruit into the army below 20 years of age, or above 25. Under 20 years of age a man has not the requisite strength to enable him to undergo the fatigue of military duty, and after 25 his joints do not possess that flexibility or freedom of motion which is necessary for acquiring the discipline of a soldier." As recruits engage for an unlimited period, it is of great importance that they should not be enlisted at an advanced period of life, and perhaps 24 or 25 is, under existing circumstances, the utmost age at which a man should be received into the army. An extremely small proportion of the men belonging to infantry corps of the line exceed 40 years of age, I believe about 5 per cent. By the time they reach that age they have nearly all become unfit for active service, and require to be discharged on account of disabilities. The period, therefore, during which a man's efficient service may be depended upon, is limited to between 20 and 40 years of age. But there is another consideration which ought not to pass unnoticed,—namely, that many of the men who enlist after 25 or 26 years of age, are habitually dissipated and profligate characters, or persons who have been unsuccessful in business, broken-down gentlemen, discharged soldiers, deserters, &c. all of which classes of society are very ineligible recruits. It has already been stated, that implicit credit should not always be given to the statements of men in regard to their age. This is particularly

the case in the older class of recruits, as men of 35 not unfrequently assert that they are not above 25 years of age; and to promote the deception, *Warren's blacking* is employed, when required, to conceal the brightness of gray hairs. In such cases the period of life must be estimated by physiological appearances, not by the testimony of a recruit. After 25 or 26 years of age, corpulency, to a certain extent, commonly supervenes, with more or less prominence of the belly. The approach to an advanced period of life is indicated by wrinkles on the forehead, particularly round the eye, in consequence of the absorption of fat, and by the muscles becoming less firm, the skin softer, and the extremities less plump.

I have no materials which are calculated to enable me to state with any degree of accuracy, the average annual number of recruits required for the British army in time of peace. The annual mortality may perhaps be estimated at about 4000, and the men discharged at an equal number,—amounting together to 8000; but this number does not include the annual decrement by desertion. I am disposed to presume that from 11,000 to 12,000 recruits will be annually required to supply the vacancies which occur in the army.—(*Vide Note, No. IV.*)

Having premised these remarks on the mode of enlisting recruits, and the general qualifications necessary for soldiers, I shall now proceed to consider in detail the causes on account of which a recruit ought to be considered unfit for the army by a medical officer.

(Circular, No. 686.)

SIR,

WAR OFFICE, 30th July, 1830.

I have the honour to forward for your information, a copy of instructions dated the 30th July, 1830, which have been issued with my concurrence by the Army Medical Board, to medical staff, and regimental officers, relative to the inspection of recruits, and of soldiers brought forward for discharge, and to desire that you will cause these instructions to be strictly attended to in the regiment under your command.

I have the honor to be, Sir,

Your most obedient humble Servant,

H. HARDINGE.

Officer Commanding

Regiment of

ARMY MEDICAL DEPARTMENT.

Instructions for the Guidance of Staff and Regimental Officers belonging to the Medical Department, in the duty of examining Recruits who may be brought before them for Inspection.

I. The leading object of the following instructions is to guard against the approval of recruits for the army, whose health of body or mind is unsound, who have any suspected taint of disease or dis-

ability, and who, at the period of inspection are incapable of undergoing the fatigue to which troops are liable.

II. Medical officers of the army are, from their professional knowledge and experience of the duties of a soldier, presumed to be capable of forming a correct opinion of the health of recruits, their capacity for exertion, and general efficiency. The external characters of a sound constitution and efficient limbs may be briefly stated, viz. a tolerably just proportion between the trunk and different members of the body, a countenance expressive of health, with a lively eye—skin firm and elastic—lips red—teeth in good condition—voice strong—chest capacious and well formed—belly lank—limbs muscular—feet arched and of a moderate length—hands rather large than small. The reverse of these marks of a good constitution and efficiency, may be considered to indicate infirm health or inefficiency.

III. The question of fitness or unfitness in a recruit, must in a great measure be determined by the discretion and experience of the officer who inspects him, for no rule can be formed of so definite a character as to dispense with the exercise of the deliberate reflection and judgment of a medical officer.

[The essential qualities of a good recruit may be comprehensively stated in a few words, namely, *a suitable age; aptness for military duty; a healthy body, and a sound mind.* These principal or essential qualities may exist with a number of blemishes, which in the opinion of an unfettered, conscientious, skilful, and experienced medical officer, may be considered of no material importance, inasmuch as they do not impair a man's efficiency, or diminish his prospective longevity. It is very desirable that medical officers should arrive at some degree of uniformity in regard to their estimation of the fitness or unfitness of recruits. One medical officer fixes his attention upon the *maximum* of the good qualities of recruits, and rejects about 2000 out of every 3000 whom he examines; while another, who is guided by the spirit of his instructions keeps in mind the *minimum* of efficiency of recruits, and approves of 2000 out of every 3000 whom he inspects. The difference of these two results is highly important in a financial as well as military point of view.]

IV. As soldiers are liable to serve in every variety of climate, to endure great changes of temperature, to be exposed to frequent vicissitudes of weather, to undergo much fatigue, to brave the greatest danger, and often to sustain considerable privations of the common necessities of life, recruits should possess vigorous constitutions and great muscular capability;—hence no man ought to be approved for the service whose health is unsound, and who does not possess adequate strength for the duties which he may be called upon to perform.

[Until towards the end of the last century, it appears that the duty of examining and approving of recruits for the army belonged chiefly to the captains and field officers of regiments, and that the assistance

of medical officers was not essentially required for that purpose. In the business of inspecting recruits medical officers have usually had their attention directed chiefly to the assumed indications of *inefficiency* or *inaptitude* of candidates for the army; whereas the instructions of military officers uniformly bear prominently in mind the *efficient* qualities of recruits. Two examples may be given from military writers.

"Forasmuch as the profession of a souldier is of all other the most painefull, it is requisite that he be of a strong composition of body to abide both heate and cold, hunger, and thirst, travell and watching, and that when he enter into this course of life, he put on a resolution to abide all kind of hardnesse."—*Stratiticos by Thomas Digges, Esq.* London, 1590.

"In recruiting the regiment no man shall be entertained exceeding 6 feet; nor under 5 feet 11 inches, in stockings. They must be *well-faced, well-shouldered, well-limbed, light-timbered* men, and known to be Protestants. Their age from 18 to 23."—(*Standing orders for the Royal Dragoons of Ireland, 1738.*)

V. The following enumeration of the more common causes for which a recruit should be rejected, when any of them exist to such a degree as will immediately, or in all probability at no very distant period, impair a man's efficiency, is intended as a general guide to medical officers in the performance of the duty of inspecting recruits.

1.—Feeble constitution:—unsound health from whatever cause, indications of former disease, as leech-bites, traces of blisters, thereby showing a liability to infirm health, nodes, glandular swellings, or other symptoms of scrofula, &c. &c.

[*Feeble Constitution.*—The disqualifying effects of a feeble constitution will, perhaps, be better appreciated by a few observations relative to a robust healthy frame than by any other means. A good constitution implies a due proportional developement and healthy condition of the various organs of the body. Persons who have strong constitutions are not only less liable to disease than those whose constitutions are weak, but when they are attacked, the symptoms commonly yield to remedial means, and recovery is not often tedious. Tall men are presumed to be more liable to disease than middle-sized persons, and their complaints are alleged to be more apt to become chronic. They are seldom able to endure long continued fatigue so well as men of a medium height, and in general they act with less energy. "*Les petits resistant long-tems, les colosses succombent de bonne heure. La campagne de Moscou est decisive à cet égard.*" (Coche.) Men of short stature are usually thicker and stouter in their relative proportions than persons who are much above the medium height. A tall man has in general very obviously a less capacious thorax in proportion to his height than a middle-sized man. Certain trades, occupations, and conditions of life, are, in some degree, indicative of the state of the health or consti-

tution. A very small proportion only of the children of soldiers reach the age of manhood; and those who survive the privations and exposure they undergo are commonly stunted, often scrofulous, and frequently vicious. This observation applies not only to boys brought up with their parents, but also to the children of soldiers who have been received into the Royal Military Asylum at Chelsea, and the Royal Hibernian Military School, Dublin. Men of idle habits and greatly depraved morals make excessively bad soldiers; they are seldom long out of the hospital or the guard-room. Persons who have been abundantly supplied with food, and who have been engaged in rural employments, are presumed to be more likely to become healthy efficient soldiers, than artisans and the enfeebled or often vicious inhabitants of large towns. A great many of the conscripts found unfit for the army in the French service are rejected in consequence of a weak habit of body. The mean annual number of conscripts examined during the years 1831, 1832, and 1833, amounted to 126,669, of which number 11,007 were exempted from serving on account of feebleness of constitution, being 87 per 1000, or nearly 9 per cent. But notwithstanding all the care that can be taken to execute the duty of examining recruits, in a conscientious manner, towards the country, the recruits themselves, and the persons employed on the recruiting service, individuals may be occasionally approved who will not become good soldiers,—sometimes on account of physical inefficiency, and sometimes from intellectual incapacity. The Romans were well aware of this circumstance; and, consequently, a conscript was never finally approved until he underwent a probation of four months. If, by the end of this period, it had been satisfactorily ascertained that he possessed the requisite aptitude and strength, to enable him to surmount the hardships of a soldier's life, with a sufficient mental capacity for acquiring a knowledge of his profession, and a due degree of courage, he received the military mark, which was indelibly imprinted on the hand, probably by branding. This mark served not only to show that a man had, after trial, been approved, but also to discover deserters. The Apostle Paul is supposed to allude to this military custom, GALATIANS, vi. 17.

Unsound Health.—The causes on account of which recruits may be found unfit for military service are comprehended under three heads, namely, *low stature*, *deformities*, and *infirmities* (unsound health.) The duty of a medical officer is limited to an examination of the last two heads. Disease, or imperfect health, implies a state of the body in which the exercise of some of its functions is impaired. Unsound health comprehends, therefore, every variety of disability which is not included under the head *deformity*. It includes not only all the obvious infirmities, but also obscure and periodic disabilities, which consequently may be simulated. Among the latter class may be enumerated mental alienation, stammering, deafness, epilepsy, vertigo, lameness, rheumatism, pain in some part of the body, morbid paleness, indicative of an unhealthy constitution.

When the evidence of the existence of a disability depends solely upon the testimony of a recruit, a medical officer must consider well how far he is warranted in finding him unfit on that account. The man may no doubt state the truth, and he may be liable to epilepsy, for example; but the presumptive evidence against his statement may be stronger than his testimony; and a medical officer ought to incur no blame for approving of a man under such circumstances. Commonly, however, in alleged epileptic cases, not a word is said of a disability at examination; the recruit swears, on being attested, that he has never been subject to fits; he is transferred from the depot, where he enlisted, to the head-quarters of the regiment to which he belongs, inspected by the surgeon of the corps and finally approved. By and by the man alleges that he is affected with epilepsy, and states that he has suffered from this disability for several years. He is discharged; and the staff-surgeon who primarily examined him, receives a reprimand, sometimes by being directed to pay increased attention to the orders issued for the examination of recruits. Persons who have not had much practical experience of the examination of recruits are not aware of the difficulties of the duty, and the contending interests which it involves. With respect to epilepsy, they frequently presume, that a man who is liable to the disease has a particular cast of countenance, whereby his alleged disability may be discovered. This presumption of knowledge is, I believe, a complete fallacy. A case of this kind happened to a staff-surgeon, a friend of mine, who, being conscious that, in the performance of his duty, he was minute, vigilant, cautious, and strictly attentive to all the orders and instructions which had been issued in regard to the inspection of recruits, felt somewhat vexed and hurt when he received the usual admonition or reprimand. In his defence he addressed the following query to three eminent medical gentlemen, whose character for talents and experience was well known:—

“Are you acquainted with any peculiarities of appearance by which you are able to detect the existence of epilepsy, where the general health of an individual liable to that disease appears to be good?”

The answer from each of the three medical gentlemen was in the negative. They knew of no sign by which, on viewing a recruit subject to epilepsy, the disease could be detected. My friend considered this vindication due to his own character, for professional knowledge and attention to his duty. In the *Ordnance Medical Regulations* for the examination of recruits, careful inquiry is directed to be made, as to a man's ever having been troubled with fits; but, it may be asked, where is the inquiry to begin and where is it to end? The statement of a recruit, in regard to the disability in question, either negatively, or affirmatively, is not very conclusive; and there is no other more satisfactory source of information.

Numerous orders and instructions have from time to time been issued, for the purpose, among others, of preventing the loss sus-

tained by the public service, in the admission of recruits who have, on intermediate or final inspection, been considered unfit, and discharged. The loss incurred has, I believe, frequently arisen from the premature discharge of men who have feigned disabilities, and by that means effected their release from the army. In the performance of the duty of inspecting recruits, the utmost vigilance is absolutely indispensable. On a large scale the attention ought never to flag, or the mind of the examiner for a moment be withdrawn from the subject before him: if it is, there is a probability of something escaping him necessary to form an accurate estimate of the fitness of a recruit. This observation is, of course, more especially applicable where the subjects under examination are pretty numerous, as, for example, 15, 20, or 30, daily. The most accurate external view is not always conclusive, as to the ultimate eligibility of a recruit, and men are sometimes approved on an inspection and examination of from five to ten minutes (the time usually required for each), who, on an acquaintance of a month or more, would have been rejected. But the process is necessarily a summary one;—the recruit must be promptly rejected or approved. The best set of external tests or marks are fallible; a man may become or may be already epileptic, whose countenance betrays no sign of the disease: another may have that obtuseness of mind which unfits him for being an efficient soldier; he may be practically an idiot, and yet his replies, and conversation, and countenance evince no want of comprehension; and men of this class are occasionally approved. In the great diversity of manner and aspect, no single examination will always be sufficient to detect these defects; to be recognised they must be experienced. Others may have a liability to pulmonic, hepatic, or febrile affections, without any obvious indication of such a predisposition. But it may be reasonably presumed, that, in the great majority of cases, the ordinary marks of health and sufficiency will be fully adequate to protect the public from any considerable loss. This is undoubtedly true; but in numerous inspections, for example 2000 or 3000 annually, these exceptions will amount to something; and in every such exception the medical officer is liable to censure. Every promising recruit will not become a good soldier; and every youth raised in Kerry or Caithness will not be an available man when he reaches Chatham barracks. Young men seldom enlist from any rational preference to a military life; it is generally the result of folly, misfortune, poverty or intemperance. Until a recruit is domesticated with a corps, his attachment to the service can never be calculated on, and recruits raised for regiments serving abroad, in the period between enlisting and reaching the place of final embarkation, often betray great reluctance to the service. Sometimes they endeavour to accomplish their discharge by feigning disabilities, and sometimes they try to relieve themselves from the thralldom of military control by desertion. A very considerable number of recruits desert within three or four days after enlistment.

10 *Indications of former disease.*—The traces of leech-bites, blis-

ters, setons, cupping, &c. all deserve attention, and the probable consequences require to be duly appreciated. Taken in connection with the appearance of infirm health, they ought to have considerable weight in determining a medical officer to reject a recruit, but when the man under consideration is evidently robust and in excellent health, they become of less importance. In cases where any suspicion is entertained that a recruit has previously been in the army, every trace of former disease ought to be carefully scrutinised, (*vide Article 40, Pensioning Regulations, 1829.*) I have frequently detected men who had served in India, where leeches are much employed, and who had been discharged on account of ill health, by the cicatrices of numerous leech-bites on the body. Attempts are sometimes made to conceal scars on the neck, by bringing the chin close to the neck. In the same manner I have seen a cicatrix, resulting from an unsuccessful attempt to commit suicide by cutting the throat, temporarily concealed.

Nodes.—Inequalities of the surface of a bone are not always the result of syphilis; they are occasionally found in robust healthy individuals, where no suspicion can be entertained of the existence of disease, and consequently are not infirmities which invariably disqualify a recruit.

Glandular swellings.—Scrofula is commonly indicated by a short thick neck, fair hair, blue eyes, face puffy, or slightly swelled, particularly the upper lip, abdomen prominent, glands of the neck and groin swelled. Scrofula is an adequate cause for the rejection of a recruit.]

2. Weak or Disordered Intellect.

[The attention of medical officers should be invariably directed to the mental capacity of recruits. In almost all regiments there are some men who never acquire the art of performing the duty of soldiers correctly, seemingly on account of want of intellect. But a medical officer must be prepared not to pay implicit credit to the testimony of interested persons in this respect. I have been repeatedly waited upon by the relations of a recruit, for the purpose of informing me that his mind was unsound,—a character he had obtained, apparently, because he had enlisted without their approbation.]

3. Chronic Cutaneous Affections, especially of the Scalp.

[This class of disabilities almost invariably renders a recruit ineligible. With respect to *tinea capitis*, *Souville*, in his Thesis on the Diseases which disqualify Conscripts for the French army, says, "Cette maladie est quelquefois rebelle à tout traitement interne et bien raisonné: Si celui qui est affecté de la teigne approche de vingt ans et au-delà, elle peut être réputée incurable."]

4. Severe Injuries of the Bones of the Head.

[Great injuries of the skull, followed by exfoliation, extraction, or

depression of the bones, should invariably cause a recruit to be rejected. Injuries of this kind are frequently succeeded by alleged disabilities of the mind or body, and it is often difficult to distinguish whether these consequences are real or feigned. Slight blemishes or defects in recruits are sometimes magnified into serious disabilities when they become soldiers; and as it is impossible to estimate the intensity of a complaint, or the influence it may have on the general health, medical officers often find much difficulty in coming to a conclusion in regard to such cases. A blemish of this kind may be concealed by long hair, and hence the propriety and expediency of applying the fingers to the head.* Wigs are sometimes employed to conceal fractures of the skull as well as *tinea capitis*. On this subject I may quote an extract from Isfordink (*Military Police of the Austrian Army*):—"Men who have grown bald from some internal cause, or in consequence of a previous disease, use scalps to conceal this blemish. Though at first sight it appears extremely easy to find out the deception, yet it will certainly not be discovered unless a medical officer directs his attention particularly to the covering of the head, because the modern art of wig-making very closely imitates nature. The detection of this defect is, however, important, not only with regard to baldness, but also with respect to a cutaneous eruption on the head, and depression of the bones of the cranium. Hence, when a medical officer inspects a volunteer recruit, or a substitute, the soundness of the hairy covering of the head should be satisfactorily ascertained. The eyebrows likewise will require his attention; he must examine whether they are natural or false." In the examination of recruits I have certainly found wigs where I did not anticipate that there was any artificial covering of the head employed.]

5. Impaired Vision from whatever cause, Inflammatory Affections of the Eyelids, Immobility, or Irregularity of the Iris, Fistula Lachrymalis, &c. &c.

[Vision is sometimes impaired by obvious causes, as specks, ulcers of the cornea and cataract. Complete or even partial amaurosis of an eye is a decidedly disqualifying defect, and one which may escape detection. Chronic inflammation of the eye, together with such affections of the eyelids as *ectropion*, or a turning out of the eyelid, and *entropion*, or a turning in of the eyelid, render a recruit unfit for the service. Any considerable irregularity of the iris implies that the eye has suffered from inflammation, and consequently, that it may be liable to a similar affection. During the years 1831, 1832, and 1833, of the conscripts examined in France, 7.3 per 1000 were exempted from serving in the army on account of short sight. *Strabismus*, which is frequently a modification of imperfect vision, disqualifies a recruit for the army, when it exists in any considerable degree.]

6. Deafness, copious discharge from the Ears.

[Deafness may no doubt exist without any physical evidence of

loss of hearing; but it will be recollected that an impaired function of the ear is easily feigned, and, consequently, the truth of an allegation of deafness must generally be decided rather by moral than physical evidence.]

7. Loss of many Teeth, or the Teeth generally unsound.

[When the incisors and canine teeth of the superior or inferior jaw are wanting, a man is deprived of the means of easily and rapidly tearing a cartridge—he is consequently said to be unable to execute the different modes of firing with precision. Rather more than one per cent. of the conscripts examined for the French army, during the years 1831-1833, were exempted from serving on account of loss of teeth. Recruits often endeavour to conceal the loss of teeth by covering the gums with the lips. The assistance of the dentist is occasionally resorted to. So widely, and perhaps absurdly, is this article sometimes interpreted, that I have known a healthy efficient recruit rejected upon medical inspection, because he had lost *one incisor tooth* by an accident; and others returned unfit because they had lost *two* molar teeth by accident.]

8. Impediment of Speech. (Stammering.)

[It may be observed that some stammerers can utter a few short sentences in succession without any remarkable hesitation of speech. When any doubt is entertained in regard to the existence of this defect, a recruit should be placed for some time under probation; and if he be unable to speak distinctly, the circumstance will commonly become soon obvious. But stammering is easily feigned; and recruits sometimes simulate it for the purpose of being rejected. As it is extremely difficult to detect impostors of this kind, perhaps they are frequently successful. Stammering often exists where there is no apparent deformity of the organs of sound, by which means, if a recruit persist in stammering, he will have a considerable prospect of being rejected. Dr. Fallot, principal physician to the Belgian army, very cleverly detected a conscript who feigned hesitation of speech. He was, in consequence of violent contortions of the muscles of the face when he began to speak, suspected of being an impostor,—in fact, he overacted his part. Fearing that stammering was not likely to effect his purpose, he pointed out a small goitre which he had as an additional reason for his being exempted from serving. Dr. Fallot assumed a serious countenance, and observed to another medical officer, that, as the tumour was a large aneurism, it disqualified the conscript for the army, and proceeded apparently, to make out the certificate of his unfitness for serving. The man was delighted, forgot to stammer, and was finally approved. *Hare-lip* is a decided disqualification of a recruit.]

9.—Want of due capacity of the chest, and any other indication of a liability to pulmonic disease, (Disease of the Heart.)

10 The practical application of this rule must be left to the discretion

and skill of medical officers, for it is impossible to give specific instructions in regard to so wide and indefinite a subject. Dr. Fallot says, "Tout homme dont la poitrine est *mal conformée ou trop rétrécie*, doit être jugé impropre au service militaire." Every medical officer who is employed in the duty of examining recruits must judge for himself in regard to the degree of deviation from symmetry of the chest, which may be considered an indication of an unusual liability to pulmonic disease, and as disqualifying a man for the army. Different minds will unavoidably arrive at different conclusions on this as on many other presumed disabilities.

Heart.—While a recruit is under examination, the circulation is commonly quicker than usual, and the heart palpitates strongly, so much so as occasionally to be obvious to spectators. Anxiety of mind, and the novelty of a man's situation, will satisfactorily account for these circumstances, without concluding that they indicate disease of the heart or large blood-vessels. I have never rejected a recruit on account of an affection of the heart; but I am aware that men have been found unfit for the army in consequence of the alleged disability of "organic disease of the heart." A satisfactory diagnosis of disease of the heart, so as to warrant a medical officer to reject a recruit on that account, will very rarely be obtained during a period of five or ten minutes, the time usually employed in examining a candidate for the army.

10.—Impaired or inadequate efficiency of one or both of the superior extremities, on account of palsy, old fractures, especially of the clavicles, contraction of a joint, mutilation, extenuation, deformity, ganglions, &c. &c.

Palsy.—Loss of power of one or more of the fingers of a hand, occasionally occurs, sometimes as a consequence of mechanical injury. The degree of the infirmity which follows will require to be duly appreciated.

Fractures.—Due care should be taken to ascertain that the long bones are sound. When a man is approved whose arm has been fractured, he is liable to allege at a future period that his arm is painful and inefficient, consequently, unless the fractured bone has been well united, he should not be found fit for the service. The late Dr. Brown, staff-surgeon, examined a recruit who performed satisfactorily all the evolutions to which recruits are commonly subjected, although he had a disunited fracture of the *radius* and *ulna* of the right arm. For a similar reason, men who have had a clavicle fractured ought almost invariably to be rejected. They frequently complain that the strap of the knapsack excites uneasiness.

Contraction of a Joint.—Impaired motion of one of the large joints, such as the shoulder or elbow, is a very important defect, and a cause of inefficiency that occasionally escapes observation. The little and sometimes also the ring-finger are found contracted, apparently in consequence of heavy manual labour, which is a disability that requires to be carefully examined, and duly estimated, so as to

ascertain whether the hand is sufficiently apt to handle the firelock. Each finger should be examined separately, for the purpose of ascertaining that the flexor and extensor muscles are sound, and their functions unimpaired.

Mutilation.—By the regulations comprehended in the French *Code de la Conscription*, a conscript is not to be exempted from service on account of any mutilation of a hand less than the loss of a thumb or the fore-finger of the right hand. But regulations for inspecting conscripts apply much better to the examination of alleged disabled soldiers, than to the examination of recruits who voluntarily enlist. The loss of any finger of a hand should cause a recruit to be rejected; and no man who had lost the last joint of the index finger of the right hand should be approved.

Extenuation.—In general, the right arm has a circumference of about one fourth or one third of an inch greater than the left; but even where the difference of bulk is a little more than one third of an inch, there is commonly no unusual inferiority of power in the smaller arm. Occasionally, however, instances occur where one arm is so much smaller than the other, as to be a sufficient cause for rejecting a man. The want of symmetry, or difference of size between the right and left arm, does not seem to depend much upon the nature of the man's employment, for it is sometimes observed in youths and in persons who have not been liable to much exercise, to as great a degree as in mechanics, such as carpenters &c.

Deformity.—Any deviation from the natural formation of one or both arms, which impairs a man's efficiency, should be considered as an adequate cause for rejecting him. A congenital deviation from symmetry commonly affects both sides of the body; a circumstance which helps to distinguish natural blemishes from traces of injuries.

Ganglions.—Tumours of this kind may impair the efficiency of soldiers; they certainly give some colour for an alleged disability, and consequently should be carefully considered before a recruit is approved.

11. An unnatural excurvature or incurvature of the spine.

Stooping or round-shouldered men are objectionable as recruits, more especially if they are above 21 or 22 years of age, even although they possess sound health and adequate muscular power.

The spine is frequently deflected laterally, but unless the curvature is considerable, this deviation does not by any means disqualify a man for the army. In lateral curvature, there are commonly two inflections, by which means the spinal column has a sigmoid form. The convexity of the lower or lumbar curve is generally towards the left, while the convexity of the upper is to the right side.

Lateral curvature of the spine is intimately connected with civilised life. In the male sex it occurs most frequently among boys who study very closely, clerks, and persons who exercise sedentary

trades. The agricultural peasant is seldom affected with it, and the tribes of people commonly denominated savage, perhaps never. I have had good opportunities of observing the natives of India, and of the Malay Islands, and I do not recollect having seen a single case of this deformity among them.

There is a variety of lateral curvature which is occasioned by an unequal length of the inferior extremities. When this is the case, the pelvis is oblique, and the convexity of the curve is towards the shorter limb. In this deformity the spinal column may be made straight by placing a body equal to the difference of the length of the extremities under the foot of the limb on the convex side of the curve. When a deflection of the spine depends upon a short limb, the curve may be observed by viewing the body in front, as the sternum and *linea alba* have a flexure corresponding with that of the vertebral column. Unless one limb is more than half an inch shorter than the other, and there is some inequality as to development, so as to render it probable that the extremity is deficient in power, a recruit need not be rejected.

In the examination of recruits, I found so frequently a slight deviation of the spine, more especially laterally, and often in individuals who possessed great aptitude for the duties of the army, with sound health and well developed muscles, that I did not consider that blemish, when in a moderate degree, a disqualifying defect. It is expedient, however, not to say a word of the circumstance in the hearing of a recruit, as he might at some future time found a disability upon the unnecessary, if not injudicious surmises of a zealous, well-meaning medical officer. I believe that not a few, perhaps I may say many, very eligible recruits have been rejected in consequence of this hypothetical disability.

12. Hernia, or a tendency to that disability from preternatural enlargement of the abdominal ring.

Three varieties of hernia are occasionally found upon examining recruits, namely, ventral, umbilical, and inguinal hernia. The first two varieties are commonly of little importance, and rarely incapacitate a man for military duty; the latter is a decided cause of disqualification. The cases of *ventral hernia* which come before a medical officer in the inspection of recruits are, in most instances, scarcely perceptible even during the act of coughing, the protrusion being often not larger than a pea or half a hazel-nut. *Umbilical hernia* is also commonly trifling or unimportant in degree. It may be mentioned that a large proportion of the natives of Tropical Africa have this affection, and perhaps no class of people in the world are capable of enduring greater fatigue. Recruits sometimes endeavour to conceal the existence of inguinal rupture, and when the protrusion is but small, and appears after violent exertion only, it may escape notice. The dissimulation is promoted by a purgative, and by a short abstinence from food, and, as may be supposed, a recruit under such circumstances, will not greatly exert himself

in coughing or jumping. It sometimes happens that the protrusion of the intestine, and consequently the appearance of the disability, does not take place until towards the end of the inspection, and particularly after the man has been directed to put one knee on the ground. The inspecting medical officer should invariably direct his attention to the usual situation of hernia immediately before a man leaves the inspection room. Sometimes the existence of hernia is not detected except by the stain or discoloration of the skin in the neighbourhood of the groin, caused by wearing a truss, an instrument which is occasionally found concealed under the clothes of a recruit. Hernia has been simulated by persons who possessed the power of elevating one or both of the testes to the rings of the external oblique muscles so effectually as to deceive medical officers. Little or no dependence can be placed upon the allegations of a recruit, in regard to the previous existence of a disability, as it is not an uncommon circumstance for a man to regret having enlisted, and with the view of being rejected by a medical officer, falsely to allege that he is occasionally affected with rupture, or some other disqualifying infirmity. Medical officers who inspect volunteers have not only to guard against being imposed upon by the concealment of diseases, but also by the simulation of infirmities.

“En France, la visite des conscrits avait spécialement pour but de leur prouver qu'ils étaient propres au service. En Angleterre la visite des recrues a spécialement pour objet d'examiner s'ils ne sont pas impropres au service.”—(*Force Militaire de la Grande Bretagne, par Charles Dupin.*)

13. A varicose state of the veins of the scrotum, or spermatic cord. Sarcocoele, hydrocele, hemorrhoids, fistula in perineo.

A varicose enlargement of the veins of the scrotum (*varicocoele*), or of the spermatic cord (*cirsocoele*), is occasionally attended with pain and inconvenience during much fatigue, and consequently a man who suffers under either of these affections to any considerable degree may allege that he is unable for a particular duty, such as a long march. *Cirsocoele* seldom occurs, except on the left side. I do not recollect having ever seen a well-marked case of it on the right side, although I have examined nearly 30,000 recruits. An enlargement of the veins of the cord is often much more evident at one period than at another, and hence a liability to this affection may escape observation during the time a recruit is under examination. In a moderate degree, a varicose state of the veins of the spermatic chord or of the scrotum is rather a nominal than a real disability. I never had occasion to admit a soldier into hospital on account of this affection, and I believe many highly efficient recruits have been rejected in consequence of this alleged disqualification.

Sarcocoele.—Any remarkable enlargement or induration of a testicle disqualifies a recruit.

Hydrocele.—This affection is often very slight, and in that state

can hardly be considered a disqualifying disability, but when there is any enlargement of the testicle a recruit should be rejected.

On an average of every 1000 recruits examined, I found one man in whom only one of the testicles had descended into the scrotum, and in about every 10,000 examined, one in whom neither of the testicles had descended. In some cases a testicle was situated in the ring, thereby simulating hernia.

14.—Impaired or inadequate efficiency of one or both of the inferior extremities on account of varicose veins, old fractures, malformation, (flat feet, &c.) palsy or lameness, contraction, mutilation, extenuation, enlargement, unequal length, bunions, overlying or supernumerary toes, ganglions, &c. &c.

Varices, or an unnatural and permanent dilatation of the veins of an inferior extremity, is a defect in a recruit which should in general be considered as a cause of rejection. Under the term *varicose*, three different conditions of the veins of an extremity are sometimes comprehended, 1st, a net-work of superficial blue veins: 2dly, a large size of the veins without the functions of the valves being impaired; 3dly, a preternatural dilatation of the veins, with a failure of the functions of the valves. In this state they frequently assume the appearance of a chain of cysts or bags, and the limb is commonly in some degree enlarged, the cellular membrane indurated, and the skin much disposed to ulcerate. The first and second conditions of the veins are of little importance, while the third incapacitates a man for the army. In the early stage of this affection, the turgidity of the veins is sometimes not very apparent until after exercise; hence the propriety of making a man walk smartly for a short period while he is under examination.

Fractures.—The same observations will apply to fractures of the inferior extremities which were made in regard to fractures of the superior extremities, No. 10.

Malformation.—Flatness of the soles of the feet (splay-footed) is the most common malformation in the inferior extremities among recruits. This deformity is found in every possible degree. Many of the slighter deviations from symmetry, however, do not disqualify a man for military duty; indeed, I believe a very small ratio of recruits is disqualified for the army on this account. Men who have the soles of the feet not merely flat, but in some degree convex, are ineligible as recruits; they are unable to walk steadily, or to undergo the fatigue of long marches with equal ease as men with well-formed feet. Great care should, however, be taken not to confound broad but sufficiently well-arched feet with the deformity in question—a mistake which I believe occurs very frequently. The arch of the foot is admirably adapted for saving the body from shocks by the elasticity of the supports, and for grasping the inequalities of the ground in standing or walking. The heels and the balls of the toes are the two extremities of the elastic arch upon which the leg rests. In the action of walking the heel is raised,

and the body supported by the muscles of the calf of the leg; the foot bends in some degree, and the weight of the body rests for some time on the toes. At each step the ankles and knee-joints are gently flexed, by which means the limb is made shorter or longer, as may be required, in different stages of the step, and thus the body is carried forward nearly perpendicularly. But when the sole of the foot is convex, the functions of the inferior extremities are greatly impaired; the weight of the body rests upon the centre of the sole, nearly in a line with the leg, and hence a mis-shapen foot of this kind is, in some degree, as inapt for graceful or easy motion as a wooden leg. Owing to there being no arch, there is very little elasticity of the foot, and the motion of the ankle and knee-joints is greatly diminished. In the action of walking, the leg in motion is but little flexed, consequently the body describes, at each step, a portion of a circle, of which the middle of the sole of the foot is the centre. On this account, the body is constantly rising and falling, and moving from side to side. The disabling effects of decidedly flat or convex feet may be artificially displayed, by placing a body, such as tying a handkerchief under the arch of the foot, so as to make the sole flat, and attempting to walk. When the sole of the foot is convex, there is little or no motion of the ankle-joint in walking, the muscles of the calf of the leg become nearly useless, the person is incapable of running, the toes are turned out, the side of the foot is thrust forward in progression instead of the toes, and walking is performed in a shackled unsteady (*shaughling*) manner. Inexperienced examiners are apt to mistake *large, broad*, but in other respects, well-formed and highly efficient feet, for deformed ineffective feet, and, in consequence of erroneously concluding that a broad foot is a disqualifying defect, I believe that many efficient recruits have been thus rejected. I have been informed that the returns of one district show that a seventh of the recruits rejected, or about 5 per cent. of the men examined, were found unfit on account of *flat feet*. Now, if 2000 men were taken indiscriminately on the street, I do not think above one individual would in general be found who walked so infirmly or so unsteadily as to disqualify him for military service.

Flat feet were, I believe, first comprehended in the "Rules to be observed by medical officers in the examination of recruits," issued from the army medical department in August, 1821.

On this subject I shall take leave to quote the excellent work of Coche on the Examination of Recruits, (p. 273.) He says, "Je ferai seulement remarquer, en passant, que celle si connue, sous la denomination de *pieds plats* (c'est-à-dire, n'offrant point de creux à leur partie inferieure,) ne saurait être un motif d'exemption ni une cause de réforme du service militaire, quand l'individu est bien conformé d'ailleurs, et qu'il parait jouir de toutes ses facultés intellectuelles."—(Vide Note V.)

Palsy or Lameness.—The efficiency of the limbs relative to the exercise of marching should be carefully investigated. Recruits

under examination for the Austrian army used to be obliged to walk upon wet clay, for the purpose of ascertaining, by the impression of the feet, whether both of the inferior extremities were equally efficient. Lameness is frequently feigned by recruits who wish to be rejected, and, consequently, a medical officer must sometimes exercise much discretion and caution before he either rejects or approves of a recruit who alleges that he is lame, provided there is no obvious cause of such an infirmity. In such cases disinterested evidence can scarcely be obtained.

Contraction of a Joint.—A permanent contraction of the flexor or extensor muscles of a limb implies incapacity for military service. This affection is occasionally the result of injuries received in early life.

Mutilation.—According to the French code, a conscript is not exempted from serving on account of a mutilation of the foot less than the loss of a great toe, or two other toes of one foot. The loss of a great toe incapacitates a man for the army, but a deficiency of any other toe of a foot is not of much importance.

Extenuation.—Frequent examples occur among recruits where one inferior extremity is from half to three fourths of an inch thicker than the other, without the function of the smaller limb being impaired. This condition of an extremity is to be carefully distinguished from partial atrophy, sometimes denominated *blight*, which is characterised by considerable extenuation and want of firmness of the muscles, and the slightest degree of which is a decided cause for rejecting a recruit.

Enlargement.—It has been observed that the right arm is generally larger than the left; but I am not disposed to think that the right leg is commonly thicker than the left. Sometimes one leg is disproportionately thick, and occasionally both are in this condition. In some cases the enlargement seems to be the result of an affection of the skin; but whether a natural deformity, or a consequence of disease, a man is thereby disqualified for service in the army.

Unequal length.—This is not a rare occurrence. When the short extremity is not extenuated, and the difference between the length of the limbs not more than half an inch, I do not consider this a disqualifying defect: it is only a blemish, and not an adequate cause for rejecting a recruit. (See page 24.)

Bunions.—A bunion is a partial dislocation of the great toe, which commonly lies under or over the second toe. The projection of the ball of the toe is occasioned by sublucation, and an unnatural separation of the distal extremities of the first and second metatarsal bones. Bunions are invariably a consequence of wearing short or tight shoes, by which means the foot is permanently maimed, and frequently a man is thereby rendered unfit for the army.

Overlying, distorted, and supernumerary Toes.—Any disabling infirmity of the feet is an important defect in a soldier; he

becomes soon fatigued, and is generally unable to endure a long march. Supernumerary toes, whether in one or in both feet, decidedly disqualify a man for the army; because soldiers do not individually get shoes made for their feet. *Ganglions* are commonly situated on the back of the foot, and frequently render the wearing of shoes irksome and painful.

15. Ulcers, or unsound cicatrices of ulcers likely to break out afresh.

Cicatrices of ulcers when they adhere to the bone, and particularly if surrounded by discoloured or diseased integuments, should invariably cause a man to be rejected. Attempts are sometimes made by recruits to conceal cicatrices, by covering them with paint.

16. Traces of corporal punishment, (this circumstance is an unqualified cause of rejection in regard to recruits.)

With the view of guarding against the admission of exceptionable characters into the service, the enlistment of recruits having marks of corporal punishment was prohibited by the commander-in-chief in 1818. I presume the prohibition comprehends corporal punishment in a general sense, whether on the back or breech, and that it is not limited to military flogging. Marks of corporal punishment, including the mark of the letter D, do not disqualify a *deserter* for the army. Traces of punishment are commonly attributed to the consequence of a blister or scalding water by recruits. The marks of punishment are generally the result of ulceration, which is not an invariable consequence of flogging. I have seen several instances of men who received 500 lashes, without bearing the marks of having undergone corporal punishment. I am aware of one instance where a man who received 700 lashes, and "was drummed out of a corps," re-enlisted and was finally approved; the medical officer who examined him was at first supposed to have overlooked the state of the back, but upon a subsequent examination, no trace of punishment could be perceived. The ulceration which follows flogging sometimes leaves extensive unsound cicatrices, which prevent a man from carrying his knapsack, and, consequently, he becomes permanently disabled and unfit for the service. Frequently the mark of the letter D is scarcely apparent, probably from the imperfect manner in which the marking operation was performed, and occasionally the obliteration seems to have been effected by means of artificial ulceration. When the tattooed mark is observed, the individual frequently alleges that it was made by a priest, and that it is the initial letter of the word *Jesus*.

17. Diseases, whether acute or chronic, for which medical treatment is required.

Some exceptions to this rule may be admitted, such as scabies, small incised wounds, abscesses, &c.; but with respect to syphilis, and other diseases, the duration of which is uncertain, they are adequate

causes of rejection. To conceal *gonorrhœa*, cobbler's wax is sometimes introduced into the urethra.

VI.—Every recruit is to be undressed before inspection, and it is directed that the examination shall be conducted agreeably to the following routine, by which means blemishes are not likely to escape detection.

No man should be examined while he is intoxicated, and recruits who have been intermediately approved in the country ought not, unless under pressing circumstances, to be inspected the same day they arrive at a depot. Serjeants should be instructed not to bring forward a recruit for examination until his feet have been washed. Should it be discovered during the inspection of a recruit that he has formerly been in the army, he should not be approved before he produces his "discharge," or his Chelsea "instructions," by which means the cause of his leaving the service may be ascertained. (*Vide Articles 40 and 41 of the Warrant for regulating the Pensions of Discharged Soldiers, 1829, and the Warrant of 1833.*) Discharged men who re-enlist, and deserters, who wish to re-enter the service, frequently omit to state that they have been soldiers, and consequently it is of importance to distinguish a man who has been in the army from the ordinary class of recruits. A well-drilled soldier is in general easily recognised, his posture is generally upright, both when he is in motion and at rest; his chest is full, partly from an elevation of the sternum, and also from a greater development of the pectoral muscles; the shoulders are drawn back, and the scapulæ nearly approach each other. When, however, he wishes to conceal that he has been in the service, he sometimes assumes a slouching manner, which commonly disappears when he is desired to march smartly backwards and forwards in the inspection-room, and if the word "halt" be given, the influence of discipline becomes instantly evident.

The examination of recruits has not hitherto been practically taught as a branch of medical education, and, like novices in other branches of information and duty, young examiners, who may not always be young officers, frequently arrive at very different conclusions from those who have had greater experience in this duty. Unaccustomed to frequent and careful examination of the human form, beginners do not readily discriminate the shades of difference in the development of the different organs of the body. Experience in this, as in all other branches of knowledge, is the best, indeed the only school where a medical officer can qualify himself for the accurate and skilful performance of the duty.

VII.—Upon entering the inspection-room, the recruit is to walk a few times pretty smartly across the apartment, for the purpose of showing that he has the perfect use of his lower extremities. He is then to be halted and set up in the position of a soldier under arms, with the knees about an inch apart, and examined both in

front and rear, from head to foot. Should no material defect be discovered during this survey, the examination may go on. The recruit is then to perform in imitation of the hospital serjeant the following evolutions:—to extend the arms at right angles with the trunk of the body, then to touch the shoulders with the fingers, next to place the backs of the hands together above the head; in this position let him cough, while at the same time the examiner's hand is applied to the rings of the external oblique muscles. Let the inspecting officer examine the spermatic cord and testes, then pass his hands over the bones of the legs. The recruit next stands upon one foot, and moves the ankle-joint of each extremity alternately; when any doubt is entertained respecting the efficiency of this joint, or any part of an inferior extremity, he should be made to test his strength by hopping upon the suspected limb for a short period, and the size and aspect of the corresponding joint or part of the opposite limb should also be accurately compared. He is next to kneel on one knee, then on the other, and subsequently on both knees. Let him then stoop forwards and place his hands on the ground, and while in this position it ought to be ascertained whether he be affected with hæmorrhoids.

He is then to extend the superior extremities forward, for the purpose of having his arms and hands examined, and with this intention he is to perform flexion and extension of the fingers, and to rotate the fore-arm.

The head is next to be examined, including the scalp, ears, eyes, nose, mouth; the surgeon is then to ascertain that he possesses the function of hearing, and the faculty of distinct enunciation. In regard to the mental faculties, the inspecting medical officer should invariably ask a recruit a few short questions—as what corps he belongs to, or what occupation he had previously followed, &c. &c.; or adopt any other means which he may deem necessary to ascertain the condition of the intellect.

In general, no dependence should be placed upon any account a recruit may give of his health and efficiency. Recruits are usually denominated volunteers, but, by the time they are brought to a medical officer, not a few of them would much rather be rejected than approved; so that they are quite ready to allege a cause of inefficiency, should an opportunity offer. Medical officers have therefore to guard against being imposed upon, not only by the concealment, but also by the simulation of infirmities. Were a recruit to be believed and rejected when he states that he is liable to an obscure or doubtful disease, such as epilepsy or incontinence of urine, very few men would pay smart money. Often have I been informed by the relations of a recruit, sometimes before examination, and sometimes after it, that he laboured under a variety of disabilities, was idiotic, or liable to epilepsy.

When a man is rejected, the cause of his unfitness is recorded in the recruiting register, and at recruiting depots the subdivision

officer is furnished with a copy of the entry. The pecuniary interest of the subdivisional officer, and the parties under his command, is directly opposed to the rejection of recruits, and consequently the conduct of the staff-surgeon in regard to the execution of his duty is narrowly watched by that branch of the service.

When men are much required for the public service, the minimum height is lowered, and the period of life during which they may be enlisted extended, and *vice versa*. The supply of recruits is thereby regulated according to the wants of the army, without relaxing the regulations in regard to *aptness, health—general efficiency*.

VIII. The next point is to learn whether a recruit has passed through small-pox, or has been vaccinated.

IX. When a recruit is approved, the attestation is to be filled up and signed by the inspecting medical officer.

X. Under the head "Remarks and Observations," in the register for recruits, all incidental facts of importance in regard to each individual case are to be recorded, including the causes for which recruits have been rejected; blemishes, peculiar marks, &c.

XI. Should a medical officer, or a private medical practitioner, intermediately approve of a recruit who has a trivial blemish, such as a slight cicatrix on the leg, he is to inform the surgeon of the corps to which the man belongs of the circumstance. He is also to inform him when he detects a recruit, previously examined, simulating disabilities; the requisite information on those subjects may be conveyed by means of attaching a slip of paper to a man's attestation. District surgeons are also directed to conform to this rule.

XII. The signature of a medical officer to an attestation will be considered tantamount to a declaration, that he has personally examined the recruit in question, according to the routine mode above described, and that the man had no blemish except as stated in the attestation.

The routine mode of examination should invariably be adopted. It is impossible to urge this point too strongly on the minds of officers who have not had much experience in the examination of recruits.

In the Austrian military service, when a medical officer approves of a recruit or a conscript, he is directed to state in his certificate that the man declares he is in the enjoyment of good health, or rather that he is not affected with any internal disease. This measure is intended to obviate the simulation of disabilities after a man joins his regiment. In the British service, when a recruit is attested, he swears that he is not lame, and that he has no disability or disorder which impedes the free use of his limbs, or unfits him for ordinary labour. Notwithstanding this precaution to prevent any but healthy efficient men from entering into the army, disabilities are frequently alleged by a recruit on joining a depot or regiment, and occasionally his simple allegation on that subject obtains

more credit than the oath he has taken, by which means he sometimes succeeds in procuring his discharge.

XIII. The certificate of surgeons or assistant surgeons of regiments, when they approve of recruits for the corps to which they themselves belong, will be considered final.

XIV. Recruits who have been intermediately approved by a regimental medical officer, or by a medical officer on the staff under the rank of staff-surgeon, or by a private practitioner, are to be re-examined by a district staff-surgeon, or by a medical officer of the regiment to which they belong. Should a district surgeon consider an intermediately approved recruit ineligible for the service, the man in question is to be reported to the inspecting field-officer, for the purpose of being brought before a board of medical officers, whose decision in regard to his eligibility or ineligibility shall be final. Whenever a medical board cannot be assembled, a reference shall be made, by order of the director general, to any army medical officer whom he may appoint, or he will, on the reports received, decide upon the case himself.

It will appear, by this article, that all the men enlisted in a recruiting district are eventually examined by the staff-surgeon of the district, except the few who occasionally enlist at the headquarters of a regiment or depot, and are inspected by the medical officer in charge. Those raised at the headquarters of a recruiting depot are usually denominated "*town recruits*," while those enlisted in other parts of the district are commonly named "*country recruits*." When the staff-surgeon considers a country recruit ineligible for the service, and a medical board concurs in that opinion, he is commonly discharged. By a circular letter from the War Office, bearing date 29th April, 1817, it appears that, in consequence of a number of recruits who had been intermediately approved by medical officers, having been rejected by the district surgeons on account of disabilities which ought to have been discovered, the Prince Regent directed that, in all such cases, the expense incurred on account of the recruits should be charged against the medical officer by whom they were passed in the first instance. In consequence of this order, a number of medical officers had to pay very heavy fines, and the ratio of recruits rejected was greatly increased. The regulation of the 29th April, 1817, was rescinded by a letter from the War Office, bearing date 11th March, 1822.

XV. A similar course will be adopted with respect to intermediately approved recruits, who may be deemed ineligible by a regimental medical officer of the corps to which they belong.—*Vide Form of Return, Nos. 1 and 2.*

XVI. The certificate of a district staff-surgeon, in regard to the fitness of a recruit for the service, will be deemed a *final* approval, in as far as respects a medical examination, except in the case of recruits for the Honourable East India Company's service.

“Whenever a recruit, who has been approved by a district staff-surgeon, joins the head-quarters of the regiment, whose fitness the regimental medical officer does not feel himself justified in confirming, the regimental medical officer is to transmit, through his commanding officer, to the Director-General of the Army Medical Department, a report of the case, showing in what the unfitness of the recruit consists, and whether, in the regimental medical officer's opinion, it has originated since the recruit was approved by the district staff-surgeon.”—*War Office Circular*, 22d Dec. 1832.

Hitherto this Article, (XVI.) has remained a dead letter, as far as the regular army is concerned; or rather in practice it has been usually abrogated, the approval of a recruit by a staff-surgeon being not more *final* than the approval of one by a civil medical practitioner. Although a man is certified as fit for the service by a staff-surgeon, if he be deemed ineligible by the medical officer in charge of the reserve companies, or regiment to which the recruit belongs, he is usually submitted to the decision of a board of medical officers, in the same manner as is directed in Article XIV. I am not aware that any reason has been officially assigned for annulling Article XVI., and, consequently, I plead ignorance of the circumstances which may have led to it. Regimental officers, I am aware, allege that they have a greater interest in selecting good recruits for the corps to which they belong, than staff-officers; and, perhaps, on this account they have obtained the privilege of disapproving of the decisions of the inspecting field-officers and staff-surgeons of recruiting districts. A staff-surgeon, who has been some time employed in the duty of inspecting recruits, is well aware that it is highly incumbent on him not to approve of a recruit who is unfit for the duty of a soldier, but he is also aware that it is equally obligatory on him not to reject men unless they are decidedly unfit for service in the army. The line of demarcation between these two points is so undefined, that I fear the most conscientious and skilful performance of the duty of a district surgeon will not always avert censure, in consequence of being supposed to incline too much either to one side or the other. Were the medical boards, to which ineligible recruits are referred, commonly constituted of officers who have had more experience in the inspection of recruits than district surgeons, an appeal to their opinion and decision might be highly expedient and satisfactory; but when a board happens to be composed of officers who have had little or no experience in this duty, and some of whom may never before have examined men with a view to their fitness for the service, its decision does not always give general satisfaction. Safety is not insured by a “multitude of counsellors,” except the counsellors have acquired wisdom from attention and experience. The examination of recruits is a daily occupation with district surgeons, and, provided they devote the requisite attention to the subject, they are more likely to perform that duty impartially, skilfully,

and correctly, in every respect, than officers who may not inspect ten recruits in a year.

With regard to the importance of the duty of inspecting recruits, and the attention and care which is required to perform that duty well, I shall subjoin two extracts, one from the Austrian, and another from the Prussian official instructions on the subject; together with the opinion of two medical officers of great experience, one belonging to the French, and the other to the Belgian army.

The first extract is from the Austrian recruiting regulations:—"The duty of inspecting conscripts and recruits requires the utmost impartiality, skill, and circumspection, on the part of a medical officer: he has to decide upon the fitness or unfitness of a man for the army, and if his decision be subsequently found incorrect, he becomes responsible for the consequences, and is liable to a penalty which will not be remitted."—(*Instructions from the Austrian War Office, January, 1809.*)

The second extract is from the Prussian regulations:—"The duty of inspecting recruits, and of determining whether they are fit or unfit for the military service of the country, is one of the most difficult and responsible an army surgeon has to perform. To enable him to execute it correctly, and with suitable promptitude, he would require more knowledge and experience than is generally believed; he must possess an intimate acquaintance with anatomy, physiology, and pathology. A knowledge of these sciences is essentially required to qualify him to decide on the health and general efficiency of recruits, and to distinguish between defects that may be real from those that are only feigned. He must also be well acquainted with the duties of the different classes of soldiers, infantry, artillery, and cavalry, during war as well as in peace. The qualifications for performing so important a duty can be acquired only by long service and much experience. It is impossible to frame specific rules for the examination of recruits, so as to obviate every difficulty. In a great variety of cases, the decision must depend on the discretion and experience of the inspecting medical officer."—(*Regulations for the Medical Examination of Recruits for the Prussian army.*)

The examination of conscripts in France resembles, in some measure, the inspection of men who are alleged to be disabled and unfit for further service in the British army. In the French army the inspection of conscripts is conducted by a recruiting board, composed of civil and military officers, assisted by a medical officer specially appointed for the purpose, and to whom the title of inspector is given. He does not, however, form one of the board, being only its assessor, and consequently has no vote in the deliberations. The duty of the medical officer has been summarily detailed in the following passage by Beaupré:—"Conscripts are entitled to have their alleged disabilities examined and duly appreciated, for the purpose of being exempted from serving, should they be unfit for

the army. This right is founded upon two principles, namely, that of justice and humanity, and the interest of government. Medical officers who are employed on this duty should invariably be guided, in the opinion they deliver, by impartial justice and the strictest equity. Neither power nor prejudice should have any influence upon their decision; they are equally the advocates of the state and of mankind; consequently, they may be alternately called upon to defend the cause of government and to plead the rights of the people. Before they decide on the fitness of a conscript, they should invariably keep in view the irksomeness of the profession and mode of life for which he is destined, more especially the constraint occasioned by military equipment, the weight he will be required to carry, the fatigue of marching, the wearisomeness of long standing in the ranks, the toil he must undergo in the performance of military manœuvres, and the influence these circumstances may have on the health, particularly upon the organs of the chest. They should never forget, that a feeble, puny conscript or recruit rarely becomes an efficient soldier. Slight disabilities or diseases become aggravated by a military life; and a conscript or recruit, who does not possess adequate strength and health to enable him to execute his various duties without much fatigue, soon droops, infirm health supervenes, he is admitted into hospital, and in the course of twelve or eighteen months his disabilities render it necessary to discharge him from the service.”—(*Beaupré sur le Choix des Hommes, &c.*)

Extract from a work by Dr. Fallot, Physician to the Belgian army, on the inspection of recruits, &c.:—“The duty of inspecting conscripts and recruits is not only an important, but a very difficult task, partly in consequence of the obscurity of the indications or symptoms of some disabilities. But to ascertain the existence or the name of a disability, is not the only difficulty a medical officer meets with; he has also to appreciate the disqualifying degree of an infirmity, for the purpose of deciding upon the fitness or unfitness of a man for the army. Rules and regulations on this subject, however carefully they may be devised, and however minutely they may enter into detail, are but very imperfect guides. They furnish an outline, it is true, of the track which requires to be followed, but they do not enable us to escape the many mistakes into which we may fall. Whoever is employed in the duty of inspecting recruits ought to be intimately acquainted with the anatomy, physiology, and the diseases of the human body; and, above all, he should have devoted a long and careful attention to the practice of his profession—for in this part of the duties of a medical officer there is no substitute for experience.”—*Memorial de l'expert dans la visite Sanitaire des Hommes de Guerre. Par L. Fallot.*

In Belgium, when a physician or a surgeon is employed to examine conscripts or substitutes for the army, he takes the following oath: “*Je jure (promets) de me conformer exactement dans l'examen de la constitution physique, tant intérieure qu'extérieure des*

volontaires, inscrits et remplaçants, designés pour le service de la milice nationale, aux dispositions arrêtées par la loi sur cette milice, de déclarer franchement et de bonne foi, sans haine ni faveur, s'ils sont sujets à des maladies ou des infirmités, qui les rendraient incapable de servir.—Ainsi Dieu me soit en aide."

Dr. Hamilton (*Duties of a Regimental Surgeon considered*), has very graphically described the difficulties which a medical officer had to contend with in the inspection of recruits for the army about the year 1782. "It is the surgeon's duty (he says) to pass recruits, *i. e.* to examine whether men enlisted be fit for the service. In performing this, he labours under some difficulties; for if this man be rejected by him as improper, the officer who enlisted him is offended,—indeed, in all probability he is a great loser; for if a recruit be not approved of, all that was given him is lost to the officer. But if, to please the officer, the surgeon accepts, and signs his name to the sound list, he is blamed afterwards by the regiment, as well as by the commanding officer, when it is discovered the man is always in the sick reports, and really unfit for a soldier. Hence he must be discharged; the king loses by him, and the service is injured. We may place this, however, among the surgeon's difficulties, for he oftentimes finds himself in a dilemma; and let him act as he will on these occasions, he may be sure of giving offence to some party. It is wrong to cheat the king and sign a falsehood; it is a pity to put an officer, who perhaps has only his pay to support him, and is now under the increased expense of the recruiting service, to the loss he must sustain by rejecting his recruit." Dr. Hamilton is, so far as I know, the earliest medical author who alludes to the duty of examining recruits. I have not been able to learn when the assistance of medical officers was first required in the examination of recruits in the British army.

In addition to the difficulties attending the duty of the inspecting recruits, enumerated by Dr. Hamilton, a district surgeon, when he approves of a recruit who is subsequently deemed ineligible for the service by a medical board, is liable to be called upon by the general commanding in chief, and by the director-general of the medical department, to give his reasons for passing him. The only reason which a district surgeon can render is, that he considered the recruit fit for military duty; and as he can have but a very imperfect, if any, recollection of the man, what more can be expected? In general, the members of medical boards have had but little practical acquaintance with the duty of inspecting recruits, and, consequently, no great deference is usually paid to their opinion. It is not a rare circumstance for a district staff-surgeon to approve of a recruit who he knows had been formerly found unfit by a medical board. Indeed, a district surgeon who considered a recruit qualified for the service would not be warranted in rejecting him, merely on account of a different opinion having been expressed in regard to his fitness by a medical board at a former period.

Colonel Robinson, who published *A Letter to a General Officer*

on the Recruiting Service, in 1811, highly disapproved of the mode of inspection and the rejection of recruits by district surgeons, who, he says, "are so hampered by their instructions, that they cannot freely exercise their own judgment in performing their duty, and great numbers of actually serviceable men are in consequence entirely lost to the army." When Colonel Robinson published his letter, he was Inspecting Field-Officer of the London district; and, as he had much experience in the recruiting service, his opinion deserves careful consideration.

Medical boards and military officers are commonly more credulous than district surgeons, who find from experience that they are very liable to be deceived, if much dependence is placed upon the testimony of recruits regarding disabilities which have no obvious cause. When a recruit is attested, he swears that he does not suffer under any disability or disorder which impedes the free use of his limbs, or unfits him for ordinary labour; but sometimes, when a man joins his depot, he alleges that he labours under some disability, such as lameness, or dimness of vision, and on account of these alleged infirmities, recruits are occasionally found unfit for the service by a board. I have seen a copy of a letter from a staff-officer, high in rank, serving on a foreign station, of which the following passage is an extract: "As old soldiers, who have been discharged and sent home, frequently are returned as recruits, and men suffering from fractured skulls, with *plates introduced into their heads*, have found means to be enlisted," &c. I have no doubt that men who wished to be discharged would relate such stories; but what opinion could they entertain of the common sense of the officers who credited their fictions?

In the duty of inspecting recruits, officers of experience and observation are guided, in a great degree, by their knowledge of the duties and habits of soldiers; whereas young officers, or officers who have had but little experience in this particular branch of duty, are apt to be more influenced by the letter than the spirit of the "Instructions," and frequently consider men disqualified for the service, on account of a blemish which a more experienced officer would not deem a disqualification for the service, or the existence of which they might think so doubtful as not to warrant rejection. I have known recruits who were approved by staff-surgeons of much experience, and who were reported ineligible by regimental medical officers, and subsequently found unfit by medical boards, on account of alleged blemishes of a very unimportant or doubtful character; for example, *a slightly enlarged state of the veins of the scrotum; imperfect execution of the "goose step;" loss of the first joint of the middle finger of the left hand; the cicatrix of a scald on the thigh, which was not concealed by a kilt.* A collection of the alleged disabilities for which medical boards have found recruits unfit for the service, would be both an amusing and an instructive document. I am well aware that instances occasionally occur of recruits, respecting whose efficiency two officers, of what-

ever standing, rank, or experience in the army, may conscientiously entertain different opinions, without any reflection upon the attention or ability of either.

XVII. To enable a man who secures a deserter to receive the usual reward, a certificate of his fitness for the service must be produced to the magistrate who commits him. In the examination of a deserter, medical officers will recollect that he is already in the service, consequently he should not be found unfit for military duty, unless he suffers under a serious disqualifying disability, such as would render it necessary to discharge a soldier from the army.

Were a similar degree of strictness observed in regard to the fitness of deserters as of recruits, many a soldier who knew that he had a slight blemish, such as a little enlargement of the veins of a leg, or might easily feign one, would desert in the hope of being certified unfit for the service, and thus obtain his discharge, when he pleased to surrender himself. Deserters who are returned unfit for service receive a protecting certificate from the adjutant-general. I have inspected deserters who were brought to me with extensive sloughs on the legs, apparently occasioned by the recent application of aquafortis: to have certified these men unfit, would have been to become the dupe of their knavery. Deserters sometimes voluntarily mutilate themselves after they are taken, and before they are brought to a medical officer for inspection.

XVIII. Every recruit who has not passed through small-pox, or vaccine disease, is, if possible, to be vaccinated by the inspecting medical officer; and if the exigencies of the service will not permit this to be done, the circumstance is to be reported to the surgeon of the corps to which the man belongs.

XIX. The books required to be kept, in regard to this branch of the duty of a medical officer, are:—

1. A register of recruits, which is to be ruled so as to contain the following heads:

- A.—Date of examination.
- B.—Regiment.
- C.—Name of each recruit.
- D.—Age.
- E.—Country of birth (as England, Ireland, or Scotland.)
- F.—Previous occupation, or station in life.
- G.—Small-pox or cow-pox.
- H.—Remarks and observations.

2. A letter and return book.

3. A vaccination register.

XX. Medical officers attached to recruiting depots will forward to the director general a numerical return, dated on the first of each month, of the recruits examined, with the numbers rejected and approved during the preceding month.

XXI. District surgeons and regimental medical officers are

directed to transmit to the director general an annual return of the recruits they examine.— *Vide form of return, No. 3.*

XXII. When district surgeons have the charge of sick, they are to comply with the regulations issued for the guidance of regimental medical officers in the exercise of their duty, and to forward similar returns.

(Signed) J. M'GRIGOR, *Director General.*

FORM OF RETURNS.

No. 1.

Return of (one or more recruits) who have joined the recruiting depot or regiment, and who, upon examination, have been considered ineligible for his majesty's service.

NAME.	Date of Enlistment.	Intermediately approved by	Cause of Ineligibility.

Signatures

Surgeon.
Commanding Officer.

No. 2.

Proceedings of a board of medical officers, assembled by order of _____ for the purpose of reporting upon the state of A. B., a recruit, who has been considered ineligible for service, by

} Members of the Board.

The board, having carefully examined A. B. a recruit belonging to _____ regiment, who has been deemed ineligible for the service, by _____ in consequence of [*here insert the cause of the alleged disability,*] and find that he [*here describe the kind and degree of whatever disability he may labour under,*] we are of opinion that the above-named recruit is _____ for the service.

Signatures of the members }
of the board.

The decision of a board of medical officers is commonly conclusive, and the opinion or finding forthwith acted upon, but their proceedings are, however, liable to be revised; at any rate I was a member of a medical board, which was called upon by the adjutant

general through Dr. Renny, director general of hospitals in Ireland, to assign reasons for the finding which we had given in regard to the inefficiency of a recruit, and in consequence of which he had been rejected. As the recruit in question was not produced for a second examination by the board, the members had it not in their power to reconsider the *evidence* upon which they had pronounced an opinion, namely, the appearance of the man himself, and, consequently, could not revise their finding and final decision in respect to his unfitness.

In Ireland, when a board was ordered to examine recruits who were considered ineligible by a district staff-surgeon, or by the medical officer of a regiment, it was customary, and perhaps the practice still prevails, to inform the members that, "in the event of the recruit being pronounced unfit to be retained, it is desirable that the board should express its opinion as to the probability of his being unable to impose on the public by re-entering the service;" and when a recruit was found unfit, the board usually added, "that he is not likely to re-enter the service." The question respecting "the probability of a recruit being again enabled to impose on the public," is often very difficult to solve. It involves two important points, *first*, the cognizable and disabling nature of the infirmity; and *secondly*, the talents, experience, and judgment of the medical officers before whom he is brought for examination. The circumstance of a recruit having been approved, appears satisfactory evidence of the possibility, if not the probability, of his being approved again, should he present himself for examination.

No. 3.

Return of recruits inspected at the recruiting depot or regiment, from the 1st January, to the 31st December inclusive.

Approved	.	.	.	.
Rejected	.	.	.	.
Total inspected	.	.	.	.

CAUSES OF REJECTION.

Unsound health	.	.	.	.	No.
Weak intellect	.	.	.	.
Traces of scrofula	.	.	.	.
Muscular tenuity	.	.	.	.
Chronic cutaneous affections	.	.	.	.
Specks on the cornea	.	.	.	.
Cataract	.	.	.	.
Deafness	.	.	.	.
Loss of many teeth	.	.	.	.

- Defective condition of the superior extremities in consequence of old fractures, contractions, &c. &c. }
 - Deformed spine }
 - Hernia, inguinal }
 - Right side
 - Left side
 - Laxity of the ring of the external oblique muscles }
 - Both sides
 - Right side
 - Left side
 - Varicose veins, left spermatic cord
 - Ditto right ditto
 - Disease of the left testicle
 - Ditto of the right ditto
 - Hydrocele, both testicles
 - Ditto right
 - Hydrocele, left testicle
 - Defective condition of the inferior extremities, in consequence of old fractures, malformation, &c. &c. }
 - Varicose veins of both legs
 - Ditto of the right leg
 - Ditto of the left
 - Ulcers, wounds, or cicatrices of ditto
 - Traces of corporal punishment
 - &c. &c. &c.—(Vide Note, No. VI.)

Obscure or doubtful disabilities.—The instructions relative to the inspection of recruits are more particularly calculated to prevent men from being approved for the army who suffer under concealed (dissimulated) disabilities; and when an army is recruited by voluntary enlistment, this is certainly the class of infirmities concerning which a medical officer should be especially on his guard. But as many recruits regret enlisting before they are inspected, some of them endeavour to be relieved from enlistment, by alleging that they are liable to certain disabilities, such as vertigo, frequent headache, short sight, occasional hæmoptysis, chronic rheumatism, epilepsy, periodic asthma, incontinence of urine, weakness of memory, and partial lameness. A medical officer requires to be on the watch, lest he should be imposed upon by the feigning (simulation) of disqualifying infirmities, as well as to detect and recognise concealed disabilities.

The following disabilities may exist without the knowledge of a recruit, and they may also escape the cognizance of a very careful medical officer, *incipient consumption, aneurism of an arterial trunk, lumbar abscess, certain degrees of weakness of intellect.*

Efficiency required of different branches of the service.—According to Dr. Jackson, the duty imposed upon medical officers in the inspection of recruits is, “not to select what is every way good, but to reject what is absolutely unfit.” The instructions, however, direct that no recruit is to be approved, unless he possesses “ade-

quate strength for the duties which he may be called upon to perform," and a medical officer will require to take into consideration the specific duties of different branches of the army, for which the recruit may be intended.

Ordnance Department.—Recruits for this branch of the service ought to be powerful athletic men. The duties of the field, and even of the arsenal, are laborious, and require great strength. In some respects, however, artillery-men undergo less fatigue than infantry of the line. They do not, in general, carry their knapsack on a march, and are little exposed to night duty.

Cavalry.—Dragoons are almost constantly employed either at drill or in the stables, but their duty is not commonly very fatiguing. As they do not carry their necessaries, a march does not add so much to their exertions as to those of infantry soldiers, and on active service they are generally much better protected from vicissitudes of weather. According to the Prussian regulations for the examination of recruits, an equal degree of care is not required in the examination of men whose chests are contracted, or whose limbs are ill-formed, if intended for cavalry, as if for infantry corps. The following blemishes do not disqualify men for service in the Prussian cavalry; the deformity usually denominated in-kneed, cicatrices of ulcers on the legs, loss of a great toe, moderately deformed feet, and flatness of the soles of the feet.

Infantry.—An infantry soldier does not usually undergo much fatigue during peace, but on active service he is exposed to perhaps greater fatigue than either artillery-men or dragoons. On a march he is obliged to carry his knapsack, accoutrements, &c., which weigh about sixty pounds. He is also liable to much night duty. Infantry soldiers look sooner old than persons in civil life, so do sailors,—a circumstance which perhaps depends chiefly on night duties and disturbed sleep. This branch of the army has always a larger proportion of sickness and perhaps of mortality than either the ordnance or cavalry, which probably arises from greater fatigue and more frequent exposure to the vicissitudes of weather. Recruits for the infantry should, therefore, as far as regards health and muscular capability, be selected with even more care than for cavalry corps.

NOTES AND ILLUSTRATIONS.

NOTE I. Page 1.

Form of Attestation.

UNLIMITED SERVICE.

ATTESTATION FOR REGIMENTS.

QUESTIONS.

ANSWERS.

To be separately asked by the magistrate.

To be sworn to by the recruit.

- | | |
|---|--|
| 1. What is your name? | |
| 2. In what parish, and in, or near what town, and in what county, were you born? | } In the parish of in or near the town of in the county of |
| 3. What is your age? | |
| 4. What is your trade or calling? | Years. Months. |
| 5. Are you an apprentice? | |
| 6. Are you married? | |
| 7. Are you ruptured, or lame; have you ever been subject to fits; or have you any disability or disorder which impedes the free use of your limbs, or unfits you for ordinary labour? | } |
| 8. Are you willing to be attested to serve in the regiment of until you shall be legally discharged? | |
| 9. On what day, and by whom were you enlisted? ¹ | } On the |
| 10. For what bounty did you enlist? | |

¹ The recruit cannot be attested sooner than twenty-four hours, nor later than four days after his enlistment.—33d clause of Mutiny Act.

- 11. Do you now belong to the militia?¹
- 12. Do you belong to any other regiment, or to the marines, ordnance, or navy?
- 13. Have you ever served in the army, marines, ordnance, or navy?²

I do make oath that the above questions have been separately put to me; that the answers thereto have been read over to me; and that they are the same that I gave, and are true.

I do also make oath, that I will be faithful and bear true allegiance to her majesty, her heirs, and successors, and that I will, as in duty bound, honestly and faithfully defend her majesty, her heirs, and successors, in person, crown, and dignity, against all enemies, and will observe and obey all orders of her majesty, her heirs, and successors, and of the generals and officers set over me.

So help me God.

Witness my hand,

Sworn before me, at _____ }
 this day of _____ } Signature of
 one thousand eight _____ } the recruit.
 hundred and _____ }
 _____ } Witness present.
 Signature of the Magistrate.

ARTICLES OF WAR.

First and Second Articles of the Second Section.

1. "Any officer or soldier, who shall begin, excite, cause, or join in any mutiny or sedition, in any of our land or marine forces, or in any party, post, detachment, or guard, on any pretence whatever; or who, being present at any mutiny or sedition, shall not use his

¹ The magistrate is directed, in putting the 11th question to the recruit, and before he receives his answer, distinctly to apprise the recruit, that if he belongs to the militia and denies the fact, he is liable to six months' imprisonment.

² If so, the recruit is to state the particulars of his former service, and the cause of his discharge, and is to produce the certificate of his discharge, if he has it with him.

his name, age, date of attestation, and every prescribed particular, to be recorded in the regimental register, with the No. affixed to his name; and I certify that I am satisfied with the correctness of this attestation, and that the forms required by the mutiny act appear to have been complied with.

Date

} Signature, officer
commanding.

NOTE II. Page 8.

Extract from evidence delivered before his majesty's commissioners for inquiring into the system of military punishments in the army, March 15, 1836.

FIELD MARSHALL THE DUKE OF WELLINGTON.

"Question 5806.—Has any mode ever suggested itself to your grace, by which a better class of persons might be induced to enter into the army, under the present mode of voluntary enlistment? I should say not. The objection to entering into the army, in my opinion, is the severity and regularity of the duty, the regularity of the discipline, and the life which the soldier is obliged to lead, and which you must oblige him to lead; the climates to which he is exposed, and the constancy of the service in those climates. I do not think that a better description of persons would be induced to enlist than at present, voluntarily, not even for any bounty, because the amount of the bounty is no consideration. *** I do not think any bounty would procure the service of a better description of men than is enlisted at present."

NOTE III. Page 11.

Statement of the mean ratio of mortality which occurred among the troops employed in the following stations, from 1st January 1831, to 31st December 1836, being a period of seven years.

Stations.	Mean annual ratio of Mortality per 1000 of all ages, from 1831 to 1837.					
	Annual ratio of Mortality within the specified periods of life, per 1000 of the mean strength.					
	18 to 25	25 to 33	33 to 40	40 to 50	50 to 60	60 to 70
United Kingdom.	13.9	14.0	17.3	26.7	15.3	14.5
Dragon Guards and Dragoons.	14.7	11.4	16.3	22.8	14.5	21.6
Household Cav.	22.3	22.5	17.7	27.5	21.6	22.3
Foot Guards.	18.7	23.6	29.5	34.4	22.3	22.3
Gibraltar.	13.0	23.3	34.0	56.7	22.3	19.3
Malta.	12.2	20.1	24.4	24.2	19.3	19.3
Ionian Islands.						
Windward and Leeward Islands.	50.0	74.0	97.0	123.0	67.0	91.0
Jamaica.	70.0	107.0	131.0	128.0	91.0	28.9
Bermuda.	16.5	42.0	42.0	76.	28.9	25.7
Upper and Lr. Canada.	19.7	27.7	37.7	35.7	25.7	25.7
Nova Scotia and New Brunswick.	14.	22.5	30.8	41.5	20.3	17.6
Cape of Good Hope.	9.	20.6	29.7	32.0	17.6	34.7
Mauritius.	20.6	38.0	52.7	86.7	34.7	48.3
Ceylon.	24.0	55.0	86.4	126.6	48.3	14.1
New South Wales.	9.8	18.2	17.6	20.9	14.1	33.1
Bombay.	18.2	34.6	46.8	71.1	33.1	52.2
Madras.	26.	59.3	70.7	86.5	52.2	83.3
Bengal.	23.8	50.3	50.6	83.3	44.5	44.5

Noxious agents or causes of mortality exist in all countries, and these causes of mortality will have greater or less influence upon the human body, in proportion to its conservative powers. The rate of mortality among a body of troops is therefore in some degree a test of the existence, and a measure of the power of these destructive agents. It has long been supposed that the conservative powers of the constitution acquired strength by length of residence in unhealthy climates; but this inference or conjecture derives no confirmation from statistical investigation, for example, the observation in regard to Jamaica, in the above statement, one man in seven dies annually in Jamaica, and the strength is usually kept up by young recruits, varying from 19 to 21 years of age. Now, if the conservative powers of the constitution gained strength by length of residence in Jamaica, the ratio of mortality between the ages of 25 and 33 should be very obviously lower than during the period between the ages of 18 and 25, but the reverse is the case, not only in regard to Jamaica, but also in regard to the Windward and Leeward Island station, and uniformly in all the other stations, both in the temperate and torrid zones. I may also state that the mortality of epidemics has been found to follow the general law of the mortality of age.

NOTE IV. Page 14.

Estimate of the annual number of recruits required for the British army.

Statement of the effective strength of the British army employed at home, and on foreign service—the number of deaths, and the ratio of mortality, together with the number discharged for a period of ten years,—or from 1819 to 1828 inclusive.

Years.	Effective strength, 25th Dec. at home.	Died.	Proportion of deaths per cent.	Effective strength, 25th Dec. Foreign Service.	Died.	Proportion of deaths per cent.	Discharged.
1819,	53,380	492	0.9	54,992	3755	6.3	15,940
1820,	54,527	740	1.1	50,557	2584	5.1	7,654
1821,	37,988	620	1.6	51,277	2220	4.2	19,965
1822,	41,530	560	1.3	46,709	2692	5.7	7,300
1823,	40,786	566	1.3	43,995	1981	4.0	5,250
1824,	42,585	651	1.5	49,888	2257	4.5	4,925
1825,	57,048	854	1.6	53,755	3849	7.1	5,703
1826,	48,826	1082	2.2	58,339	4513	7.7	8,613
1827,	47,747	824	1.7	58,440	3713	6.3	5,670
1828,	46,193	828	1.8	58,592	2814	4.7	4,471
Total,	470,610			531,534			
Mean of ten years,	47,061	721	1.5	53,153	3037	5.7	8,549

General Abstract.

Years.	Strength.	Decrement by deaths and discharges.
1819,	108,372	20,187*
1820,	105,084	10,977*
1821,	89,265	22,805*
1822,	88,239	10,552*
1823,	89,781	7,799
1824,	92,473	7,833
1825,	110,803	10,406
1826,	107,165	14,208*
1827,	106,187	10,207
1828,	104,785	8,113
Aggregate strength and decrement. }	1,002,144	123,078
Mean of 10 years,	100,214	12,307

From this abstract it appears that the mean annual decrement of the army by death and discharges, for a period of ten years, amounted to 12,308; but an exact or conclusive inference cannot be drawn from this circumstance in regard to the ordinary decrement by death and disabilities, and the annual number of recruits required to keep up the strength of the army, inasmuch as it is more than probable that during the years marked with an asterisk the number of discharges may have been considerably increased by the reduction or disbandment of one or more regiments. The decrement by desertions, it will be recollected, is not included in the above return. In all likelihood, the annual number of recruits required to fill up the vacancies in the British army arising from death, discharges, and desertion, during a period of peace, will amount to about 11,000 or 12,000 men.

NOTE V. Page 28.

Flatness of the soles of the feet. (Circular addressed to the medical officers of the Prussian army, by Gorceke, director-general of the medical department.)

In the examination of recruits mistakes are often made by confounding two different kinds of deformity of the feet, of which one is, in common language, termed *flat feet*, the other *broad feet*. Want of due discrimination in this respect gives rise to errors on the part of a medical officer who is directed to examine whether a recruit be fit for military service. The following observations will, it is hoped, obviate such mistakes in future. In the flat foot the bones of the leg are for the most part natural; there is, however, an irregularity in the manner in which the bones are placed on the foot, and in the relative position of their distant extremities with respect to the bones of the tarsus. The inner ankle is very promi-

ment, and is placed lower than usual. A hollow exists below the outer ankle, of a greater or less extent, according to the degree of the deformity. The dorsum, or back of the foot, is not sufficiently arched; the foot is broader in the neighbourhood of the ankle than near to the toes. The inner side of the foot, which in a well-formed person is concave, is flat and sometimes convex. When a flat foot is placed on the ground, the sole projects so much on the inside that the finger cannot be introduced below it. A person with flat feet usually walks with his knees bent, and assumes an attitude like a man when he pushes forward a wheelbarrow. He rests upon the inner side of the sole, and the usual degree of motion of the ankle joint is impeded.

Flatness of the soles of the feet is almost never seen among the higher ranks of society, and very rarely among females. Children under ten years of age are seldom affected with this deformity. It is therefore possible that the disposition to flatness of the soles of the feet may exist in childhood, although the full development of the deformity does not take place until the body is nearly fully grown.

The remote cause of flatness of the soles of the feet is not satisfactorily known. Individuals who have this deformity in one foot only, usually attribute it to an injury, as a sprain, &c.; and when both feet are affected, they commonly aver that they have had flat feet from childhood. Whatever notion we may entertain of the origin of the deformity, it has no other foundation but conjecture or analogy. There is no reason for supposing that the bones, or even the ligaments, are diseased in flat feet. In all probability the deformity consists in a sinking of the arch of the os calcis, and a corresponding displacement of the astragalus, whereby the inner surfaces of these bones become the inferior, and the exterior surface the superior. When a foot is remarkably flat, it is not unlikely that there is a subluxation of the anterior articular surface of the head of the astragalus from the posterior articular surface of the os naviculare, and an elongation of some of the ligaments which connect the bones. These circumstances would give rise to the appearances by which the deformity is distinguished, viz.: the altered position of the tibia and fibula, the flattening of the back of the foot, the convexity of the inner margin of the foot, the treading on the inner border of the sole, the peculiar gait, which depends on an unnatural degree of motion between the astragalus and the os naviculare, the difficulty of moving the foot in consequence of a stretching of the ligaments.

May not the deformity be owing to a displacement or flattening of the internal tubercle of the tuberosity of the calcaneum? Various causes may contribute to this effect, namely, a tardy ossification of the bones of the tarsus; infirm health, or a feeble constitution, scrofulous habit, &c., and the constantly increasing weight of the body. Flatness of the soles of the feet is particularly observable among the labouring classes of a community, which, per-

haps, may, in part, be occasioned by a practice which especially prevails among the poor, namely, that of placing children very early upon their feet. Scrofula seems to contribute to flat feet, and perhaps in a great degree on account of the weight of the swelled bellies of children, a very frequent symptom in this disease. Females may be less liable to the deformity, because boys are earlier employed in laborious occupations than girls.

By a very moderate degree of attention, a flat foot may be easily distinguished from a broad foot. In the broad foot, the bones of the leg are well placed upon the foot; the usual hollow exists under the inner portion of the sole; the back of the foot is arched, the foot is not disproportionately broad at the tarsus; the expansion of the foot commences with the bones of the metatarsus, and it is broadest near to the toes. Broad feet are usually more fleshy than flat feet.

The function of walking is in no degree impeded by this slight deviation from the regular form of a foot, which consists simply in an extension of the lateral ligaments of the heads of the metatarsal bones, occasioned, in all probability, by much use of the feet. It will therefore appear that men with broad feet, in consequence of being much inured to walking, are particularly well adapted for active military duty, more especially in the infantry; while men with flat feet are totally unfit for the army. When the deformity is considerable, a man is incapable of marching easily, for the feet swell, and the soles get chafed. A flat-footed man wears his shoes on the inside, so that the shoe of a person who is thus deformed may be readily discriminated.

The remote and proximate causes of this deformity are still but very imperfectly known, and it is therefore much to be wished that army medical officers would avail themselves of every opportunity which offers to investigate the subject. To do this effectually, deformed feet should not only be carefully inspected, but the parts of the foot ought to be examined after death. By this means we may be able to attain greater certainty in regard to the cause of the deformity, and perhaps to discover a rational plan of treatment.

Berlin, July 31, 1818.

NOTE VI. Page 43.

On the examination and rejection of recruits.

I have stated in the text, page 34, that the order which rendered medical officers approving of recruits who were subsequently rejected on final examination, liable to defray the expenses incurred on their account, was rescinded by the secretary at war in March, 1822. But although the order issued by the secretary at war was then cancelled, it will appear by the following circular letter from the adjutant-general, that medical officers continue to be liable to heavy penalties from the commander-in-chief for alleged professional delinquencies regarding the approval of recruits.

Recruiting Department.

(CIRCULAR.)

Horse Guards, 14th August, 1824.

Sir,—It appearing by reports which have been made to the commander-in-chief, that of the recruits which are raised, more especially for foreign service, the majority are of an ineligible description, notwithstanding the minute and positive instructions which have from time to time been issued for the guidance of those who are charged with the recruiting inspections, the commander-in-chief is at length obliged to declare that his royal highness will consider it to be his duty to recommend the immediate removal of the staff of any district, which, after the present warning, shall be reported to have produced objectionable recruits, as well as to fix on the culpable officer in every practicable case, the expense attending the enlistment of a subsequently rejected recruit. His royal highness finds that, however the instructions as to stature may be kept sight of by the inspectorial authorities, those relating to the general appearance of the recruit are overlooked. His royal highness, therefore, applies this caution more particularly to points connected with the constitutional appearance, mould of chest, size of bone, and likelihood of growth of the recruit. I have, &c.

(Signed) H. TORRENS, A. G.

*The inspecting field-officer,
District.*

In practice the circumstances or causes on account of which recruits are rejected, may be arranged under three classes:

1st. Diseases or deformities which a medical officer, from his professional knowledge and acquaintance with the duties of soldiers, concludes are infirmities which disqualify men for service in the army.

2d. Slight blemishes which do not disqualify a man for the army, but which an unwilling soldier may exaggerate, and allege that he is thereby rendered unfit for military duty. An old fracture may be considered a type of this class of blemishes.

3d. Unimportant deviations from symmetry, or slight variations from the usual form or condition of the body, technical or nominal blemishes which do not incapacitate a man for the army, or in the smallest degree impair a man's efficiency. Recruits are commonly ignorant of the existence of this class of causes of rejection. A lateral deviation of the spine, broad feet, loss of a few teeth, may be given as types of this class. District staff-surgeons reject recruits who come under the first two classes, from a conviction that they render a man unfit or ineligible for the army; but those under the third head are frequently rejected from fear of responsibility—a dread of an epistolary correspondence if objected to by

regimental medical officers, and an ultimate loss of professional character.

The following returns of recruits examined at the Centre recruiting district (Dublin) during the years 1825-28, comprehending part of the period I was attached to the staff of the Dublin district, will show the causes of the rejection of recruits, and the relative frequency of each disability.

Return of recruits inspected at the recruiting depot, Dublin, (Centre recruiting district) from 25th December, 1824, till 24th December, 1825.

Approved,	- - - - -	4839
Rejected,	- - - - -	1390
		<hr/>
Total inspected,	- - - - -	6229

Causes of Rejection.

Ophthalmia tarsi,	- - - - -	3
Pulmonic diseases,	- - - - -	2
Epilepsy,	- - - - -	3
Weakness of intellect,	- - - - -	7
Unsound health,	- - - - -	158
Traces of scrofula,	- - - - -	68
Syphilis primitiva,	- - - - -	26
----- consecutiva,	- - - - -	3
Gonorrhœa,	- - - - -	3
Chronic affections of the skin,	- - - - -	5
Tinea capitis, or traces of this affection,	- - - - -	15
Muscular tenuity,	- - - - -	30
Nebulous obscurity of the cornea,	- - - - -	3
----- specks on the cornea,	- - - - -	30
Cataract,	- - - - -	7
Closed pupil,	- - - - -	7
Amaurosis,	- - - - -	2
Strabismus,	- - - - -	2
Puriform discharge from the ears,	- - - - -	10
Deafness,	- - - - -	3
Loss of teeth, diseased gums, &c.	- - - - -	22
Enlarged tonsils,	- - - - -	1
Narrow chest,	- - - - -	10
Depressed sternum,	- - - - -	14
Deformed spine,	- - - - -	55
Defective condition of the superior extremities from malformation, contractions, mutilations, ganglions, &c.	- - - - -	90
Deformed pelvis,	- - - - -	7
Hernia, inguinal	{ both sides,	1
	{ right side,	14
	{ left side,	17
----- ventral,	- - - - -	44

Hernia, umbilical, - - - - -	6
Laxity or enlargement of both rings, - - - - -	19
of the right, - - - - -	6
of the left, - - - - -	56
Varicose condition of the veins of the left spermatic cord, - - - - -	46
Right spermatic process unusually large, - - - - -	3
Left testicle strangulated in the ring, - - - - -	1
Hydrocele, - - - - -	8
An unusually large state of both testicles, - - - - -	3
of the right, - - - - -	3
of the left, - - - - -	10
Defective condition of the inferior extremities from malformations, nodes, exostosis, mutilations, misplaced toes, ganglions, &c., - - - - -	155
Varicose veins of both legs, - - - - -	35
of the left leg, - - - - -	71
of the right leg, - - - - -	64
Ulcers, cicatrices of ulcers, wounds, &c. - - - - -	138
Old fractures, - - - - -	18
Tumours, - - - - -	7
Flatness of the soles of the feet, - - - - -	34
Traces of corporal punishment, - - - - -	36
Men who have been in the army, but who refused to show their discharge, - - - - -	3
Total, - - - - -	1390

Abstract.

	Inspected.	Approved.	Rejected.	Per cent. rejected.
Town recruits,	3315	2226	1089	32.8
Country recruits,	2914	2613	301	10.3
Total,	6229	4839	1390	22.3

(Signed) H. MARSHALL,
Staff-Surgeon.

According to the above abstract, it appears that 32.8 per cent. of the town recruits, or first inspections, were rejected, and 10.3 per cent. of the country recruits, or second inspections.

Of the 2914 country recruits who had been examined and approved in the country before they arrived at the depot, 585 were deemed ineligible for the service, of which number 20 were found unfit and discharged by the inspecting field-officer, 284 were found fit and 281 unfit by medical boards, the total finally unfit being 301, or 10.3 per cent.

Return of recruits inspected at the recruiting depot, Dublin, from 25th December 1825, till the 24th December 1826.

Approved	-	-	-	3,243
Rejected	-	-	-	775
Total inspected	-	-	-	4018

Causes of Rejection.

Unsound health,	-	-	-	-	71
Weak intellect,	-	-	-	-	3
Traces of scrofula,	-	-	-	-	52
Muscular tenuity,	-	-	-	-	27
Chronic cuticular affections,	-	-	-	-	7
Traces of tinea capitis,	-	-	-	-	4
Ophthalmia tarsi,	-	-	-	-	10
Obscurity of the cornea,	-	-	-	-	8
Specks on the cornea,	-	-	-	-	39
Closed pupil,	-	-	-	-	1
Amaurosis,	-	-	-	-	1
Cataract,	-	-	-	-	2
Puriform discharge from the ears,	-	-	-	-	5
Deafness,	-	-	-	-	2
Loss of teeth,	-	-	-	-	12
Impediment of speech,	-	-	-	-	5
Enlarged tonsils,	-	-	-	-	1
Narrow chest, sternum in some cases protruded,	-	-	-	-	6
Contraction of the chest,	-	-	-	-	2
Defective condition of the superior extremities, on account of old fractures, contractions, mutilations, extenuation, &c.	-	-	-	-	45
Projecting scapulæ,	-	-	-	-	2
Deformed spine,	-	-	-	-	19
Deformed pelvis,	-	-	-	-	3
Hernia, inguinal, both sides,	-	-	-	-	1
----- right side,	-	-	-	-	6
----- left	-	-	-	-	7
----- ventral,	-	-	-	-	3
----- umbilical,	-	-	-	-	1
Laxity of both rings,	-	-	-	-	7
----- right ring,	-	-	-	-	6
----- left ring,	-	-	-	-	17
Spermatic cord, right side thickened,	-	-	-	-	3
Varicose veins, left spermatic cord,	-	-	-	-	18
Right testicle strangulated in the ring,	-	-	-	-	1
Both testicles unusually large,	-	-	-	-	1
Right testicle unusually large,	-	-	-	-	1
Left testicle unusually large,	-	-	-	-	3
Hydrocele, both testicles,	-	-	-	-	4
----- right testicle,	-	-	-	-	5
----- left ditto,	-	-	-	-	5
Gonorrhœa,	-	-	-	-	3
Syphilis primitiva,	-	-	-	-	17

Syphilis consecutiva, - - - - -	2
Defective condition of the inferior extremities on account of old fractures, malformation, extenuation, nodes, misplaced toes, supernumerary toes, contractions, ganglions, &c. - - - - -	86
Varicose veins, both legs, - - - - -	13
_____ of the right leg, - - - - -	47
_____ of the left, - - - - -	36
Ulcers, wounds, and old cicatrices, - - - - -	66
Traces of issues, chiefly on the back of the neck, - - - - -	16
Traces of fracture of one or both of the clavicles - - - - -	17
Flatness of the soles of the feet - - - - -	16
Traces of corporal punishment on the back - - - - -	37
_____ on the breech - - - - -	2
An old soldier failed to show his discharge - - - - -	1
Total	775

Abstract.

	Inspected.	Approved.	Rejected.	Per cent. Rejected.
Town Recruits	2347	1675	672	28.6
Country Recruits	1671	1568	102	6.1
Total	4018	3243	775	19.2

(Signed) H. MARSHALL,
Staff-Surgeon.

Return of Recruits inspected at the Recruiting Depot, Dublin, from the 25th of December 1826, till the 24th of December 1827.

Approved, - - - - -	2006
Rejected, - - - - -	582
Total inspected,	2588

Causes of Rejection.

Unsound health - - - - -	48
Discharged from the service on account of visceral disease - - - - -	4
Weak intellect - - - - -	5
Traces of scrofula - - - - -	28
Muscular tenuity - - - - -	28
Chronic cutaneous affections - - - - -	10
Traces of tinea capitis - - - - -	7
Wen on the head - - - - -	1
Ophthalmia tarsi - - - - -	7
Obscurity of the cornea - - - - -	11
Falling down of the eyelids - - - - -	1
Specks on the cornea - - - - -	26
Fistula lachrymalis - - - - -	1
Cataract - - - - -	12
Strabismus - - - - -	3
Puriform discharge from the ears - - - - -	2
Deafness - - - - -	1

Loss of teeth	-	-	-	-	-	8
Impediment of speech	-	-	-	-	-	2
Transverse cicatrix on the front of the neck, supposed to be the result of an attempt to commit suicide	-	-	-	-	-	2
Excessively large tonsils	-	-	-	-	-	1
Want of due capacity of the chest	-	-	-	-	-	4
Defective condition of the superior extremities on account of old fractures, contractions, mutilations, extenuation, deformity, ganglions, &c. &c.	-	-	-	-	-	49
Fracture of one or both of the clavicles	-	-	-	-	-	5
Deformed spine	-	-	-	-	-	8
Inguinal hernia,	}	right side	-	-	-	7
		left side	-	-	-	6
Ventral hernia	-	-	-	-	-	3
Laxity of the ring	}	both sides	-	-	-	10
of the external		right side	-	-	-	7
oblique muscles,		left side	-	-	-	5
Varicose veins left spermatic cord	-	-	-	-	-	10
Left testicle strangulated in the ring	-	-	-	-	-	1
Both testicles unusually large	-	-	-	-	-	1
Left testicle enlarged	-	-	-	-	-	3
Gonorrhœa	-	-	-	-	-	1
Hydrocele, both testicles	-	-	-	-	-	2
_____ right	-	-	-	-	-	4
_____ left	-	-	-	-	-	5
Syphilis primitiva	-	-	-	-	-	5
_____ consecutiva	-	-	-	-	-	3
Defective condition of the inferior extremities from old fractures, malformation, extenuation, enlargement, disproportioned length, bunions, ganglions, &c.	-	-	-	-	-	65
Varicose veins of both legs	-	-	-	-	-	7
_____ of the right	-	-	-	-	-	28
_____ of the left	-	-	-	-	-	39
Ulcers, wounds, or cicatrices of injuries	-	-	-	-	-	48
Traces of issues, chiefly on the back of the neck	-	-	-	-	-	9
Flatness of the soles of the feet	-	-	-	-	-	16
Traces of corporal punishment on the back	-	-	-	-	-	23
Mark of the letter D under the left arm-pit	-	-	-	-	-	1
						582

Total, - 582

Abstract.

Recruits.	Inspected.	Approved.	Rejected.	Per cent. Rejected.
Town Recruits	1778	1253	525	29.6
Country Recruits	810	753	57	7.09
Total,	2588	2006	582	22.5

(Signed,)

H. MARSHALL,
Staff-Surgeon.

Return of Recruits inspected at the recruiting depot, Dublin, from
25th December 1827, to 24th December 1828.

Approved,	-	-	829
Rejected	-	-	285
Total inspected,			1114

Causes of Rejection.

Unsound health	-	-	-	-	-	25
Weak intellect	-	-	-	-	-	1
Traces of scrofula	-	-	-	-	-	11
Muscular tenuity	-	-	-	-	-	38
Chronic cutaneous affections	-	-	-	-	-	3
Traces of tinea capitis	-	-	-	-	-	2
Baldness	-	-	-	-	-	1
Obscurity of the cornea	-	-	-	-	-	3
Falling down of one of the eyelids	-	-	-	-	-	1
Specks of the cornea	-	-	-	-	-	2
Cataract	-	-	-	-	-	1
Amaurosis	-	-	-	-	-	1
Loss of teeth	-	-	-	-	-	5
Impediment of speech	-	-	-	-	-	2
Loss of the soft palate	-	-	-	-	-	1
Want of due capacity of the chest,	-	-	-	-	-	7
Defective condition of the superior extremities, on account of old fractures, contractions, mutilations, extenuation, deformity, gan- glions, &c.	-	-	-	-	-	14
Deformed spine	-	-	-	-	-	10
Hernia, inguinal, right side	-	-	-	-	-	8
----- left side	-	-	-	-	-	1
Laxity of the ring of the oblique muscles,	} both sides,		-	-	-	4
	} left side,		-	-	-	7
Varicose veins left spermatic cord	-	-	-	-	-	6
Right testicle strangulated in the ring	-	-	-	-	-	2
Left testicle enlarged	-	-	-	-	-	1
Right do. do.	-	-	-	-	-	3
Gonorrhœa	-	-	-	-	-	1
Hydrocele right testicle	-	-	-	-	-	1
----- left do.	-	-	-	-	-	4
Syphilis primitiva	-	-	-	-	-	4
Defective condition of the inferior extremities from old fractures, malformation, extenuation, enlargement, bunions, ganglions, &c.	-	-	-	-	-	35
Varicose veins, both legs	-	-	-	-	-	3
----- right leg	-	-	-	-	-	15
----- left leg	-	-	-	-	-	12
Ulcers, wounds, or old cicatrices	-	-	-	-	-	19
'Traces of issues chiefly on the back of the neck	-	-	-	-	-	5

Flatness of the soles of the feet	-	-	21
Traces of corporal punishment on the back	-	-	9
			285
		Total,	285

	<i>Abstract.</i>			
	Examined.	Approved.	Rejected.	Per cent. Rejected.
Town Recruits,	841	570	271	32.2
Country do.	273	259	14	5.1
	1114	829	285	25.5
Total,		(Signed)		H. MARSHALL, Staff-Surgeon.

Abstract of the preceding returns for four years.

	Inspected.	Approved.	Rejected.	Ratio per cent. rejected
Town Recruits,	8281	5724	2557	31
Country Recruits,	5660	5193	475	8.7
	13,949	10,917	3032	21.8

This abstract shows, that, for a period of four years, 31 per cent. of the town recruits (first inspections,) examined at the Dublin depot, were found unfit for the army; and 8.7 per cent. of the country recruits (second inspections), the mean being 21.8. But it is obvious that this abstract does not comprehend the men rejected at first inspection in the country.

NOTE VII.

Town and Country Recruits.

Table showing the relative proportion of Town and Country Recruits rejected at the head-quarters of the Dublin, Edinburgh, and London Districts, during the following periods:

	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836 15m.	1837
DUBLIN.												
<i>Town Recruits.</i>												
No. examined.	2347	1778	841	731	648	721	572	695	413	376	691	957
Of these rejec.	672	52	271	310	413	415	325	397	296	208	281	445
Cent. ratio rej.	28.6	29.5	32.2	42.4	63.7	57.3	56.8	59.1	71.7	55.3	40.7	46.5
<i>Country Recr'ts.</i>												
No. examined.	1671	810	273	92	54	682	266	356	177	193	449	571
Of these rejec.	103	57	14	9	7	88	63	97	41	34	48	132
Cent. ratio rej.	6.2	7.	5.1	9.8	12.3	12.9	23.7	27.2	23.2	17.6	10.7	23.1
EDINBURGH.												
<i>Town Recruits.</i>												
No. examined.	...	...	...	...	...	...	...	494	373	390	442	563
Of these rejec.	...	...	...	...	...	...	...	215	211	189	216	265
Cent. ratio rej.	...	...	...	...	...	...	...	43.5	56.5	48.5	48.9	57.1
<i>Country Recr'ts.</i>												
No. examined.	...	...	...	...	...	...	...	73	32	107	121	51
Of these rejec.	...	...	...	...	...	...	...	8	2	17	18	7
Cent. ratio rej.	...	...	...	...	...	...	...	19.6	6.2	15.9	14.9	13.7
LONDON.												
<i>Town Recruits.</i>												
No. examined.	...	...	...	...	...	...	...	1363	1479	1764	2972	3086
Of these rejec.	...	...	...	...	...	...	...	463	614	677	1069	1305
Cent. ratio rej.	...	...	...	...	...	...	...	34.	45.1	38.4	36.	42.2
<i>Country Recr'ts.</i>												
No. examined.	...	...	...	...	...	...	...	375	219	325	691	789
Of these rejec.	...	...	...	...	...	...	...	79	48	70	108	139
Cent. ratio rej.	...	...	...	...	...	...	...	21.1	21.9	21.6	15.6	17.6

By this table it appears that the range of the rejections of town recruits in Dublin extends from 28.6 to 71.7, being a difference of 43 per cent.; and of the country recruits from 5.1 to 27.2, showing a difference of 22 per cent.

NOTE VIII.

Contribution to a Statistical Report of the number of Recruits examined and rejected at the Depots of the Nine Recruiting Districts of the United Kingdom.

Years.	Ireland, Three Districts.					North Britain, One Dist.					England, Five Districts.																						
	Dublin.					Newry.					Edinburgh.					Glasgow.																	
	No. examined.	Rejected.	Centesimal ratio of rejections.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.	No. examined.	Ratio of rejected.										
1817	1426	437	30.6			661	140	21.	613	107	17.4																						
1818	1801	711	39.5			614	148	24.1	503	123	22.5																						
1819	2783	754	27.4			507	190	37.7	603	160	22.3																						
1820	1886	580	31.2			623	196	21.3	1138	243	21.3																						
1821	1986	600	31.			1041	227	31.	788	214	27.3																						
1822	3233	933	29.6			806	302	34.9	1122	315	28.1																						
1823	3100	971	31.5			866	302	34.9	1270	370	41.1																						
1824	3558	1062	30.			832	309	25.2	1270	370	41.1																						
1825	6229	1390	22.3			1406	304	14.5	2478	478	23.6																						
1826	4019	775	19.2			1457	210	14.4	1545	423	27.7	3023																					
1827	2585	582	22.5			1081	395	36.5	1144	337	29.4	2140	547	25.5	687	205	29.8	844	161	19.6	494	117	23.4	1434	329	23.1							
1828	1144	285	25.5			492	194	25.2	561	133	20.	136.5	423	30.5	332	4.	14.7	433	71	16.3	251	38	15.1	507	186	20.3							
1829	823	319	37.5			651	194	20.8	443	44	9.9	285	94	32.4	33	131	146	39	27.5	61	20.0	141	36	27.5	612	166	23.9						
1830	702	490	59.8			488	159	32.6	406	139	31.9	916	928	24.5	299	110	36.8	251	33	13.1	146	39	27.5	568	150	26.4							
1831	1402	503	35.8			680	227	33.4	1467	222	15.1	853	355	15.6	1061	544	32.1	920	706	29.9	749	225	31.6	1194	133	11.9	1016	990	91.6	1066	257	24.1	
1832	838	388	46.3			509	114	22.8	1613	207	12.8	369	117	31.7	1827	448	35.5	465	163	37.4	757	65	12.07	533	164	30.7	887	252	28.4				
1833	1051	404	47.			483	120	26.7	567	223	39.3	567	223	39.3	1738	342	31.2	617	134	21.4	616	80	12.9	336	150	33.7	554	256	31.0				
1834	580	327	57.1			386	147	37.8	405	213	52.6	437	191	44.3	1108	602	39.	473	132	29.3	560	121	22.2	138	56	40.6	504	163	32.3				
1835	568	229	42.5			345	106	30.7	497	204	41.5	682	209	30.6	2088	747	35.8	382	110	30.4	601	162	27.4										
1836	1140	329	29.8			563	204	15.5	1315	457	34.7	3663	1177	32.1	482	138	28.5	784	194	25.	416	148	35.6	1008	535	35.3							
1837	1528	577	37.7			614	272	45.9	1387	465	33.5	1444	372.2	612	250	41.8	940	224	24.	753	234	31.1	1277	341	28.1								

From this statement, it appears that the range of the ratio of rejections among the different depôts has been from 9.9 per cent. in Newry, to 59.8 per cent. in Dublin, being a difference of about 50 per cent.; and at the same depot, from 19.2 per cent. in Dublin in 1826, to 59.8 in 1830, showing a difference of about 41 per cent. A considerable addition may be made to the ratio of rejections in each district, for the purpose of comprehending the recruits rejected at first inspections at dependent stations, (country recruits,) consequently, it will appear that, in a number of districts, from 40 to 60 per cent., or 1 out of 2 of the recruits for the army are rejected upon medical examination. But another circumstance requires to be mentioned, namely, that when a high ratio of recruits is rejected, recruiting parties become very fastidious in regard to the men they enlist, lest they may lose by the transaction, and no doubt they refuse to enlist persons whom they fear may be found unfit upon examination. Recruiting parties are excited by the same motive which impels persons in civil life to active exertions—a little money. The object of recruiting parties is to enlist men who will be approved, by which means they obtain their remuneration. On an average, a recruiting party loses from about 2s. 6d. to 3s., by every recruit who is found unfit for the service,—a sum which is frequently considered too heavy a stake to risk upon a recruit.

The subdivisinal officers employed on the recruiting service, or the serjeants of parties, approve of all recruits in regard to their age, height, and general appearance, before they are submitted to a medical examination; consequently, it may be supposed that the recruits who are brought forward for examination in the different districts, or at the different depôts, are nearly equal, in as far as efficiency for military duty is concerned. Upon this assumption it will therefore appear, that the difference of the ratio of rejections in different stations, or in different years, depends on the judgment of medical officers, and the opinions they entertain respecting the efficiency or the inefficiency of recruits. It would be no small benefit to the recruiting of the army and to the public, if the views of medical officers were somewhat more uniform on this subject than they appear to be. Widely discordant conclusions in regard to recruits are calculated to convey an opinion that the examination they undergo is not regulated by fixed principles, but that the decision regarding their fitness or unfitness is, in some measure, a question of fancy, rather than the result of a knowledge of the anatomy and physiology of the human frame, and an intimate acquaintance with the duties, disabilities, and diseases of soldiers.

PART II.

ON THE DISCHARGING OF DISABLED SOLDIERS.

GENERAL ORDER.

Horse Guards, 1st January, 1830.

His Majesty having been pleased, by his royal warrant bearing date 14th November, 1829, to authorise certain alterations in the mode of discharging soldiers, the general commanding-in-chief deems it proper to issue the following orders to the army in consequence.

1. Non-commissioned officers or private soldiers are not to be discharged without the authority of the general commanding-in-chief, signified through the adjutant-general.

2. Previously to any soldier being proposed for discharge on account of *unfitness for service*, the commanding officer of the corps is to make a full report of the case to the general officer, under whose orders he is stationed, that he may personally inspect the man, assisted by the superior medical officer under his command; and if his opinion coincide with that of the commanding officer and the regimental surgeon, he is to certify the same at the bottom of a return prepared according to the annexed form (No. 1.) which return is then to be transmitted direct to the adjutant general by the commanding officer, for the purpose of being laid before the general commanding-in-chief, whose instructions relative to the disposal of the man will be communicated to the commanding officer.

3. If the regiment be stationed in Ireland, the return is to be transmitted to the deputy adjutant general in Dublin, for the purpose of being laid before the general officer commanding the forces in that part of the United Kingdom.

4. Before a soldier is henceforward permitted to leave the corps to which he belongs, preparatory to his removal from the service under any circumstances whatever, whether of unfitness for duty, or at his own request, a regimental board must be assembled, to investigate, verify, and record, the following particulars, viz.—

- 1st. His services :
- 2d. His disability :
- 3d. His character :
- 4th. His accounts and claims :

according to the mode prescribed in the regulations annexed to his majesty's warrant before-mentioned. The board is to be composed of three officers, viz. the major of the regiment, or the second in command, as president, and two captains as members.

5. From the proceedings of this board the discharge of the soldier, according to the annexed form (No. 2.) is to be filled up, and when signed by the president, and countersigned by the commanding officer, is in every case to be transmitted, together with a *duplicate* of the proceedings of the board, to the adjutant general.

6. Every soldier, on being *finally discharged*, is to be furnished with a parchment certificate, according to the annexed form (No. 3.) which must be confirmed in the adjutant general's department, before it is delivered to the man.

7. When soldiers are sent home from foreign stations for the purpose of being discharged, the general or other officer commanding will take care that the medical staff officers have had full opportunity of investigating the cases, before the men are permitted to embark. He will also take care that the same course with regard to the previous assembling of a regimental board, and the preparation of the prescribed documents, be pursued, and that the several discharges, parchment certificates, and duplicates of the proceedings of the board, be forwarded, carefully sealed up, to the commandant of the invalid depot at Chatham, which place is the destination of all invalids returning from foreign stations.

8. The serious evils which have resulted to the public, as well as to individuals, from the very careless and incorrect manner in which the regimental records have been kept, and discharges filled up, having been fully ascertained and placed beyond question, by the investigations recently instituted, and now in course of progress, throughout the whole army, the general commanding-in-chief feels it incumbent upon him to require officers in command, and all others concerned, to give the strictest attention to the preparation of the documents now required, for the accuracy of which in every respect they will be held personally responsible; and Lord Hill trusts that there will be no occasion or opportunity, in future, for recurrence to measures which are painful to his feelings, in proportion as they expose the misconduct of individuals, and reflect discredit upon the army at large.

9. In cases where soldiers serving on foreign stations may be desirous of being discharged on the spot, the general or other officer commanding, shall, if he see fit, forward their applications to the adjutant general, together with all the prescribed documents, in the same manner as if the men were on their way home, on the receipt of which documents the pleasure of the general commanding-in-chief will be signified.

10. With regard to soldiers who may be allowed, under certain conditions and limitations, to obtain their discharges at their own request, according to the scale laid down in *Article 46 of the Pensions Regulations, 1829*, the general commanding-in-chief desires

that commanding officers in recommending individuals for this indulgence, will be careful always to give the preference to men according to the goodness of their character; a course which, if steadily pursued, cannot fail to operate as a strong inducement to good conduct.

11. In the cases of soldiers who are prepared to pay the regulated compensation for their discharge, the mode of application now in use may be continued; but in the cases of men with length of service giving them a claim to pension on that account, who may be desirous of obtaining free discharges, with or without gratuity, commanding officers will allow a period of thirty days to intervene between the receipt of the soldier's application and its transmission to the adjutant general, in order to afford the man sufficient time to reconsider the step he is about to take, and to withdraw his request, if on mature deliberation it shall appear to him imprudent or unadvisable. It will also be the duty of the commanding officer to assist the man with the best information and advice in his power on so important a point; and it is presumed that every commanding officer will discharge this duty with the utmost alacrity, and in the most conscientious manner.

12. His majesty having been graciously pleased to authorise the general commanding-in-chief to exercise his discretion as to the extent of this indulgence which is to be granted, Lord Hill will be inclined to give it the utmost limits which may appear to him consistent with a due regard to the welfare of the service at large, and the particular circumstances and situation of the corps, from which the applications are made: and commanding officers are to keep a record, according to the order of date, of all applications which may be made to them for discharges, stating distinctly and fully in each the character and claims of the individual; a copy of which record shall be transmitted to the adjutant general at the termination of each half year, for the information and guidance of the general commanding-in-chief, with reference to any applications which may be addressed direct to head-quarters.

The general commanding-in-chief thinks it unnecessary further to enlarge the present orders, especially as the instructions issued from the war-office touching the financial bearings of the measure in question are so detailed; and his lordship requires a diligent perusal of these instructions, and a strict observance of them, from officers in command, and from all others in any way connected with the interior economy and discipline of regiments.

By command of the Right Honourable
The General Commanding-in Chief,
HERBERT TAYLOR,
Adjutant General.

FORM, No. 1.

RETURN OF MEN belonging to the		Regiment of				Inspected by		
and found unfit for the service of the Regiment.		Head Quarters.						
No.	Rank and Names.	Age.		Size.		Service.		Remarks.
		Years.	Months.	Feet.	Inches.	Years.	Months.		In what Corps.
								Fit for Home Duty, or totally unfit.
								Disease or Cause of Incapacity.
								General Character.

Signature of the Medical Staff Officer.	Signature of the Regimental Surgeon.
Signature of the General Officer.	Signature of the Officer Commanding.

FORM, No. 2.

HIS MAJESTY'S

REGIMENT OF _____

Whereof _____ is Colonel.

No. 55. **THOMAS ATKINS, Serjeant,**
 Born in the Parish of **St. Mary**, in or near the Town of **Portsmouth,**
 County of **Hants**, by trade a **Labourer.**
 ATTESTED for the **5th** Regiment of Foot, at **Coventry**, in the County of **Warwick,**
 on the **9th May, 1806,** at the Age of **Seventeen.**
1st SERVICE. AFTER the Age of 18 Years, which he is entitled to reckon up to the 30th September, 1829, is **Twenty-**
three Years and One Hundred and Forty-five Days, the Statement of which is as follows:

Regiment.	Promotions, Reductions, &c.	Rank.	Period of Service in each Rank.		Amount of Service	
			From	To	Years.	Days.
5th Foot.	Promoted	Private	9th May, 1807	24th December, 1812	5	230
	Ditto -	Corporal	25th December, 1812	18th May, 1814	1	145
	Ditto -	Serjeant	19th May, 1814	4th December, 1815	1	200
	Reduced	Serjeant-Major	5th December, 1815	14th December, 1820	5	10
	Promoted	Private	15th December, 1820	7th July, 1822	1	205
	Ditto -	Corporal	8th July, 1822	29th March, 1824	1	235
		Serjeant	30th March, 1824	30th September, 1829	5	185

For Soldiers enlisted previous to the 15th March, 1818.																	
* INDIES,	From		To	Years.	Days.	Half period, -											
	East,	24th December, 1812,	24th December, 1814,	2	-												
West,	15th December, 1820,	14th December, 1822,		2	-	Half period, -											
			* Waterloo	-	-	-	1										
				-	-	-	1										
				-	-	-	2										
Deduct, <i>Three Years not allowed to reckon as stated in the proceedings of the Regimental Board</i>																	
			Total of the foregoing Statement	-	-	-	26										
			Total Service up to the 30th September, 1829	-	-	-	3										
							23										
							145										
							145										
<table border="1" style="width: 100%;"> <tr> <td rowspan="3" style="width: 50%; vertical-align: middle;"> A Non-commissioned Officer enlisted after the 14th November 1829, must have served not less than Three Years without interruption as such, immediately preceding his discharge. Vide Art. 6 of the Pensioner Regulations. </td> <td rowspan="3" style="width: 10%; text-align: center; vertical-align: middle;">†</td> <td style="width: 30%; text-align: center;">Of which, as Corporal</td> <td style="width: 10%; text-align: center;">3</td> <td style="width: 10%; text-align: center;">45</td> </tr> <tr> <td style="text-align: center;">Serjeant</td> <td style="text-align: center;">7</td> <td style="text-align: center;">20</td> </tr> <tr> <td style="text-align: center;">Serjeant-Major</td> <td style="text-align: center;">5</td> <td style="text-align: center;">10</td> </tr> </table>							A Non-commissioned Officer enlisted after the 14th November 1829, must have served not less than Three Years without interruption as such, immediately preceding his discharge. Vide Art. 6 of the Pensioner Regulations.	†	Of which, as Corporal	3	45	Serjeant	7	20	Serjeant-Major	5	10
A Non-commissioned Officer enlisted after the 14th November 1829, must have served not less than Three Years without interruption as such, immediately preceding his discharge. Vide Art. 6 of the Pensioner Regulations.	†	Of which, as Corporal	3	45													
		Serjeant	7	20													
		Serjeant-Major	5	10													
† Further Service from the 1st October, 1829, to the 14th December, 1829, when finally discharged																	
			Total Service allowed to reckon to the day of final discharge	-	-	-	75										
							220										

† To be erased, when not required, by drawing the pen through the lines.

*Form, No. 2, continued.***SERVED.**

Two years in the East Indies, two years in the West Indies, six at Gibraltar, two in the Peninsula, the remainder at home. Wounded in the leg at Waterloo; present at the siege of Bhurtpore; distinguished himself at the storming of the place.

2d.
DISABILITY,
or cause of
Discharge.

According to the surgeon's report annexed, it appears that this is a case of disease or disability, contracted on duty; without being attributable to neglect, design, vice, or intemperance; and the regimental board approves of the opinion of the surgeon; as it is shown by the proceedings of the board hereto annexed.

Or, is a case of disease originating in constitutional infirmity, or in misconduct, and not contracted by the exigencies of the service.

Or, by purchasing his discharge for £

Or by receiving a gratuity of £ and
a free discharge.

3d.
CHARACTER.

The regimental board is of opinion, that his general conduct has been that of a good and efficient soldier, seldom in the hospital, trustworthy and sober.

Or think his character and conduct have been bad, for the reasons set forth in the proceedings of the board.

4th.
PAY and
CLOTHING.

He has received all just demands from his entry into the service, up to the 30th September, 1829.

I THOMAS ATKINS, &c.

Certified _____ Captain.

I certify that the foregoing statements are correct extracts from the regimental records, and the proceedings of the regimental board.

Major, and President.

Confirmed by me,

Lieutenant-Colonel Commanding.

Form, No. 2, continued.

OPINION. Of the principal medical officer, at

December 4th, 1829.

After a treatment of one month in the general hospital, I am of opinion that Thomas Atkins is unfit for service, and likely to be permanently disqualified for military duty, and I approve of the opinion of the surgeon.

Or, I am of opinion that the soldier is capable of further service, &c. &c.

Horse Guards, _____

Order Serjeant Thomas Atkins to appear personally before the commissioners of Chelsea hospital, or

By order of the general commanding-in-chief, the discharge of Thomas Atkins is confirmed.

DECISION. The commissioners award Thomas Atkins to receive a pension of _____ a day commencing _____

Secretary, or Chief Clerk.

DESCRIPTION of Thomas Atkins, at the time of his discharge. He is 40 years of age, 5 feet 10 inches in height,

{ bald }
 { or } hair, grey eyes, sallow complexion.
 { light }

By trade a labourer.

He has a scar or mark on his left hand.

When he left the regiment, Thomas Williamson was the pay-serjeant of his company.

MARCHING ALLOWANCE. Thomas Atkins received from pay-master _____ at Chatham, on the 14th December, 1829, ten days' marching allowance, to carry him to Coventry, _____ the place of his enlistment, or to _____ the port at which he is to embark on the way to _____ the place of his enlistment.

THOMAS ATKINS.

Form, No. 3.

PARCHMENT CERTIFICATE.

5th Regiment of Foot.

These are to certify that Thomas Atkins, serjeant, born in the parish of St. Mary, in or near the town of Portsmouth, in the county of Hants, was enlisted at Coventry, for the aforesaid corps, on the 6th May, 1806, at the age of 17 years. That he has served in the army for twenty-six years, and five months. Was a corporal six years, a serjeant ten years; was in the West Indies four years, and in the East Indies five years. That he is discharged in consequence of being unfit for further service, and has been granted a pension.

Signed _____ *Commanding Officer.*

Dated at *Manchester*, 30th September, 1829.

Horse Guards.

Discharge of Serjeant Thomas Atkins confirmed.

CHARACTER.

Thomas Atkins has been a well-conducted soldier; was wounded at _____, and has distinguished himself by several acts of bravery; and, in consequence of his long and meritorious service, he has received a special gratuity of £ _____, in addition to the pension to which he is entitled.

Signed _____ *Commanding Officer.*

The soldier's character is to be inserted only when recommendatory; if the general conduct of a soldier, whilst in the service, has been such as to give him no claim to have any thing said in his favour, the space for character in the above certificate is to be cut off close under the black line following the confirmation of the discharge, thereby leaving no opportunity for any addition to be made after the certificate is given to the man.

When a soldier is *discharged* on account of *disgraceful conduct*, that will appear in the body of the certificate.

ON THE DUTY OF DISCHARGING DISABLED SOLDIERS.

The preceding general order was issued from the Horse Guards, for the purpose of carrying into operation the "regulations for pensioning soldiers," promulgated in a warrant, bearing date 14th November, 1829. The same order is also calculated to carry into effect the provisions of the warrant of 1833 and subsequent war-

rants. The duty of medical officers, in the discharging of soldiers, is more especially comprehended in the second and seventh articles of the order, as they have a principal reference to the discharging of men for disability, or, as it is expressed in the order, "*unfitness for service.*" As soldiers engaged to serve "until they shall be legally discharged," they have no claim as a matter of right to be relieved from their engagement, after any period of service, and indeed, comparatively, few men are discharged, except "on account of incapacity for further service." "*A soldier is not to be discharged on account of disability, unless the existence thereof is satisfactorily ascertained, and the infirmity is calculated to render the man permanently unfit for military service.*" (*War-Office Memorandum, 30th July, 1830.*) Soldiers should not be brought forward for discharge on account of doubtful, trivial, or temporary disabilities; for although men of this class may not be finally recommended to be discharged by a medical staff-officer, they are apt to presume on the sanction of a regimental medical officer, and to make more of a slight infirmity than it really deserves. "The commanding officer and regimental medical officer having determined that a case is proper to be brought forward for discharge, the latter will draw up an abstract of the history of the disease in clear terms, so as to enable the military authorities to understand the nature and the degree of the disability." (*War-Office Memorandum.*) This abstract is to be delivered to the general officer of the district, who will in all practicable cases inspect the man, assisted by the principal medical staff-officer under his command; and should he deem the case to be a proper one for discharge, a report is to be prepared as prescribed by the general order of the 1st January, 1830, and forwarded to the adjutant-general or the lieutenant-general commanding in Ireland, as the case may be. If the case appear to the commander-in-chief, according to the report made, to be one for discharge and pension, the soldier will be ordered to the invalid depot at Chatham, or to the general hospital in Dublin. (*War-Office Memorandum.*) Whenever a soldier is ordered to the invalid depot, Chatham, or to the general hospital, Dublin, the medical officer who had him in charge is to transmit to the principal medical officer of the respective establishments, a particular account of the man's case, for the purpose of eventually enabling the commissioners of Chelsea hospital to decide upon his claim for pension. In drawing up an account of the disabilities of men sent to Chatham or Dublin, reference should be had to the circular letters from the army medical department, bearing date 22d January, and 30th July, 1830, and the 14th September, 1837, in which the director-general has requested the following points to be more especially noticed, viz. the name, age, length of service of each man, the origin, nature, and history of his disability, together with an account of the time he has been in hospital, and how far the alleged infirmity disqualifies him for service in the army.

An abstract of the information contained in the report of each case is to be inserted in the man's discharge by the military and

medical authorities in Chatham or Dublin. On the day appointed for the commissioners to hold a board at Chelsea or Kilmainham, the principal medical officer, or the staff-surgeon, who has had the soldier in question under his care at the general hospital, will attend with an abstract of his professional observations on each man's case, when the board will decide upon his claim to pension (*vide Pensioning Regulations, 1829, No. 52.*) It does not appear, by the official documents which have been issued on the subject of discharging disabled soldiers, that either regimental or staff medical officers are directed to classify the disabilities which confer a claim for pension; that important duty seems to be executed by the commissioners of Chelsea hospital. In France a different plan is followed, for, by an ordonnance of 1831, the medical officers employed on the duty of inspecting disabled soldiers are instructed to classify the disabilities which arise from wounds and other infirmities occasioned by military service, and which confer a claim for a pension, under six heads or degrees, and according to this classification the amount of pension is awarded.

ON THE EXAMINATION OF ALLEGED INEFFICIENT SOLDIERS.

The duty of proposing and recommending soldiers to be discharged on account of disabilities belongs primarily to regimental medical officers, (*Circular from the medical department, 30th July, 1830,*) who are instructed to furnish the medical staff-officer who may be appointed to examine them, with an account of the cause and degree of each man's disability. Soldiers proposed for discharge in Scotland are examined at the head-quarters of the respective regiments and reserve companies by a surgeon to the forces; but in England, they are usually transferred to the invalid depot, Chatham; and in Ireland, to the general hospital, Dublin, without such previous examination.—*Pensioning Regulations, 1829, article, No. 52.*)

A regimental medical officer should exercise great caution in proposing soldiers for discharge on account of unfitness for the service, especially in regard to doubtful, trivial, or temporary disabilities. By close attention, he may, in general, be able to gain a tolerably correct opinion of a man's case, from his knowledge of the previous character, habits, constitution, manner, and former complaints; and whether the alleged disability be, in a greater or less degree, feigned, as well as whether the disease may be considered incurable. Before a medical officer proposes a man to be discharged, he should be able to reply affirmatively to the following questions:—

1. Does the alleged disability exist?
2. Does it disqualify the man in question for military duty?
3. Is it incurable,—or will it, in all probability, render the man permanently unfit for the service?

By the warrant of 1806, every soldier had a legal right to a pension for life, who was discharged in consequence of being *disabled*

and *unfit* for military duty; and as long as the pensioning of disabled soldiers was regulated by that warrant, and with little reference to length of service, the simulation of disabilities was much practised in the army. A soldier had then two prizes in view if discharged in consequence of unfitness for the service, viz. his discharge, and an annuity for life; but by the warrant of 1829, although he may obtain a discharge by successfully feigning a disabling infirmity, he has no chance of being pensioned for life without long service. There is no better means of preventing fraud than to take away every encouragement to commit it, and, as far as possible, to diminish the hope of practising it successfully. But so long as soldiers presume that they can impose upon officers, military and medical, and that the result will be for their advantage, so long will examples of imposition occasionally occur in the army.

Every medical officer who may have to propose or to recommend soldiers to be discharged on account of inefficiency, must be in a great measure guided by his own professional skill, discretion, and practical acquaintance with the duties of soldiers. He should invariably pay due regard to the claims of soldiers, while he devotes the requisite attention to the public interest. I most cordially agree with Dr. Cheyne in the following passage of his letter to Dr. Renny, (*On the Feigned Diseases of Soldiers*.)—"The wiles of soldiers in hospital will be with more certainty discovered by those who have an accurate knowledge of disease, obtained by clinical observation and pathological writings of authority, than by those possessing natural sagacity in the highest degree, if unassisted by a habit of carefully contemplating and studying disease."

Some diseases or disabilities, such as deafness or stammering, are much more easily feigned than others, and, consequently, the imposture is more difficult to detect. In all diseases, of which the symptoms are obscure, periodic, or intermitting, and uncertain, much care should be taken not to come to a wrong conclusion. "Melancholy instances have come to my knowledge where men have died in making exertion above their strength, after having been looked on and treated as malingersers, and others, where slow decay and uncontrollable disease have carried them off." (*On some forms of Rheumatism prevailing in India, by Mr. Malcolmson, Madras, 1835.*) There are some real and not unimportant diseases, which are not indicated by a change of the pulse, or by any remarkable alteration of the colour or temperature of the body, or by any evident derangement of its functions. There are also other diseases which are capable of being simulated by the use of certain drugs, or by external applications. An intimate knowledge of the anatomy, physiology, and pathology of the human body, and of the effects of the articles of the *materia medica*, is therefore essentially requisite to prevent a medical officer from occasionally arriving at false conclusions in obscure cases.

It is difficult for the simulator of a disease to give a consistent

account of the origin and progress of his alleged infirmity. By a little management on the part of a medical officer, an impostor will commonly be led to enumerate incompatible symptoms, or greatly to exaggerate unimportant lesions; but it ought to be recollected, that patients suffering under real disease are apt sometimes to fall into a similar error. He is constantly prone to overact his part; and, if carefully watched, it will frequently appear that he is inventing symptoms, which is a much more difficult operation than simply and frankly to state his feelings. Two soldiers were transferred from a regiment in Ireland to the general hospital, Dublin, for the purpose of being discharged, in consequence of alleged incurable disabilities. The designation of a disease was, as is usual in like circumstances, affixed to each name; but the countenance and general appearance of the men indicated little, if any, derangement of the healthy functions of the body. The medical officer at the general hospital made them stand up together, and requested one of them to give an account of his complaint, which he did very fully, being occasionally encouraged to enter minutely into a detail of symptoms and feelings. By his account, it appeared that he suffered more or less under disease from the crown of the head to the sole of the foot. Not a word of observation indicative of the incredulity of the medical officer was uttered in regard to the man's statement. The other man was then asked, "What is the matter with you?"—"The same as this man," was his reply. The inference is obvious: he was evidently not prepared with a set of symptoms, and, without perceiving the trap laid for him, he instinctively availed himself of the ingenuity and talent of his fellow-impostor. They were sent back to the corps to which they belonged; but I have no doubt that each of them succeeded in eventually "*working out*" a discharge.

Harsh or arbitrary measures of any kind should never be adopted by a medical officer in doubtful cases of alleged disease; neither should he be stigmatised in severe terms with the character of being a malingerer; for, as Dr. Cheyne observes, such a method, "although it may sometimes intimidate a raw soldier, will only afford a stronger motive to the hardened knave for perseverance; and if the opinion thus rashly pronounced should prove erroneous, the consequences may be very unhappy,—the confidence of the soldier in his surgeon will be destroyed, and the latter will be subjected to the just displeasure of his military superior." Mild, firm, and in other respects judicious treatment, deprive a man of hope, which is perhaps the most effectual means of inducing a malingerer to return to his duty. Medical evidence in regard to the existence and disabling consequences of disease is, in many cases, merely presumptive; and very rarely, indeed, does it amount to absolute certainty. Mistakes have happened—diseases, which were at first supposed to be feigned, have eventually proved genuine—and, consequently, however much appearances may be against an individual, it is prudent, and highly expedient, to proceed regularly,

deliberately, and patiently, in every case. Medical officers are not warranted in employing any means which would be inapplicable to a genuine case of disease. This observation applies not only to coercive or penal measures, but even to irritating applications, nauseating medicines, and spare diet. Whenever there is any doubt, in regard to the existence or permanently disabling degree of an infirmity, the safe plan is to keep the man in hospital, for the purpose of prolonged professional treatment, and longer if not more careful investigation. It may also be observed, that a man who has been in hospital for an alleged disability of a doubtful character, should invariably be afforded an opportunity of *giving in* (in other words, of apparently recovering) without taking him much to task for his conduct; or, in the language of the hospital, he should be *let down softly*. Unless when absolutely necessary, no suspected case should be transferred from a regimental hospital (where the man is known) to a general hospital. The reasons are so obvious as not to require a detailed illustration. Malingers are more frequently instructed in the art of imposture in general hospitals, than detected and rendered useful soldiers; for there every new comer, if his natural disposition harmonises with that kind of instruction, is corrupted by the information he receives in regard to the various modes of imposition.

A disposition to malingering and to feign disease is one of the most *disqualifying disabilities* with which a soldier can be afflicted. An old soldier who attempts to simulate a defect, and persists in his plan of imposition for a little time, is frequently lost to the service, notwithstanding the adoption of every means to bring him to a proper sense of duty. Recruits and young soldiers are more frequently reclaimable. Old soldiers, who prosecute their schemes with art—who possess great fortitude, and an inflexible resolution—will, I believe, commonly succeed in obtaining their discharge, either by making falsehood appear to be more probable than truth, or perhaps more frequently, by exhausting the patience of medical and commanding officers. It is only after some experience that a medical officer is aware of the difficulties he has to encounter in his endeavours to reform persevering malingers. Let him be ever so assiduous, and adopt the most judicious measures for the recovery of simulators, who suffer under some real, although only trifling cause of inability, he will frequently find his measures rendered nugatory by their unwillingness to be restored to the ranks, and the pains they take to retard convalescence. He will also find himself much perplexed how to act, for the purpose of rectifying the mental aberration, or moral obliquity, of some schemers, whose disabilities are merely pretended. Impostors often display a spirit of invention, and an art in concealing fraud, which could not have been anticipated. The mind, by becoming concentrated on one object, appears to acquire new powers; so that persons with naturally weak intellects have evinced a tact and dexterity in the prosecution of a design far beyond what their general conduct would have warranted us in

assuming. In coming to a conclusion with regard to the measures which should be adopted with a malingerer, commanding officers have frequently only the choice of two evils; to recommend his discharge, or to retain him in the service, with scarcely any prospect of his being a useful soldier. When an impostor is discharged, he almost invariably throws off the mask abruptly, and boasts of the success of his artifice, thereby giving a bad example to his comrades, and one which may be influential in exciting them to imitation. A malingerer, if retained in the service, is likewise liable to injure the morals and discipline of a corps. Many a simulator will hold out not only for several months, but for a number of years, probably passing his time chiefly in hospitals; and during all this period the contagion of bad example is in operation, by which influence individuals, who would have continued to be good soldiers, have been seduced from the strict path of duty, and induced to feign disabilities, and to persist in schemes of fraud, with the most inflexible endurance.

When a malingerer has, by mild and judicious measures, been induced to give in, I consider the circumstance of some importance to the service. Owing to the frequent intercourse which exists among soldiers, the event becomes often extensively known; hence, a useful warning is afforded, by which means individuals, who may be disposed to simulate disabilities, are deterred from making an attempt to do so. On the other hand, when a schemer succeeds, hope is excited, and his example may be extensively imitated. In a great many instances, I believe, the inmates of an hospital are aware when their comrades are malingering, although they very rarely, indeed almost never, give the medical officer a hint on the subject. An informer, when discovered, becomes an object of universal detestation; and hence, one cause of the difficulty of accurately ascertaining the various methods of simulating disease. In all cases respecting which a medical officer finds some difficulty in making up his mind, patience and attention are strongly indicated; and when a soldier is presumed to be a persevering malingerer, it is, in general, bad policy to recommend him to be discharged, under the idea, that, as he is not likely to become useful in the ranks, the service would be benefited by getting rid of him; or to promote his views, by assigning, as a reason for discharging him, *some possible or imaginary physical infirmity*, when the real cause for wishing to discharge him is his unwillingness to do his duty. Similar reasons may be urged with regard to the propriety of exercising much care, not to send a malingerer home from a foreign station, such as India, on account of infirm health. The mere circumstance of a man having been so transferred at the recommendation of medical officers, is calculated to excite a presumption that he had suffered under some serious cause of disability, although no well-marked trace of any important disease may be recognised on his arrival in this country; and persons of the stamp alluded to never fail to adduce this fact in their favour most forcibly;

indeed, they commonly seem to consider it alone as an incontestible proof that they ought to be discharged, either with or without a pension. This kind of evidence is sometimes difficult to set aside, although it certainly does not always produce conviction.

Many a soldier is admitted on the sick list on account of some complaint which requires medical treatment, who, during the period of convalescence, becomes in love with the ease and comfort of the hospital establishment, and evinces no disposition to return to his duty. His first intention as a schemer may be merely to evade duty; but, by degrees, his views extend to an endeavour to get his discharge, and, if possible, with a pension, "on account of disability contracted in the service." Whenever a convalescent begins to think himself somewhat comfortable in hospital, he is in a fair way of becoming a malingerer. "The least evil that can happen by soldiers remaining too long in hospital, is, that they will contract a slothful, lazy, idle habit, and turn, according to the military phrase, *malingerers*, that is, men who have lost all spirit to the service, and feign themselves sick when there is a prospect of action, or that they are to undergo any great hardship or fatigue, in order to be sent to the hospital; which life, through habit, becomes agreeable to them."—(*Bland's Military Discipline*, 1727.)

The simulation of infirmities for the purpose of being discharged from the service, is not confined to privates, or to morally vicious and irregularly conducted soldiers. Non-commissioned officers, and men of good character, occasionally feign disabilities, as well as young soldiers and alleged incorrigible offenders. Many well-conducted serjeants are extremely anxious to be discharged when they have completed twenty-one years' service, more especially when they have some prospect of a suitable employment in civil life. Not long ago, a serjeant of the 62d regiment, while it was quartered in Ireland, purchased a pistol, and hired a man to shoot him through the arm, probably hoping by this means to make it believed that he had been fired at by some person disaffected to the military, and that he would not only obtain his discharge, but also a large pension. That well-conducted soldiers, whose names are not to be found in the defaulter's book, sometimes adopt improper means of obtaining their discharge, need not surprise us, when we consider the circumstances which usually impel young lads to enlist, and the interminable nature of their engagement. "A soldier in the British army sees men in other situations, not always his betters, rising to wealth, and affluence, and distinction around him; he feels that he is stationary for life, that his prospects cannot mend," and that every attendant misery of poverty awaits him when his health and strength are exhausted. Need we wonder, therefore, that men so situated should frequently suffer under depression of spirits, and consequently of impaired health, (home sickness,) and that they should sometimes adopt improper means of obtaining their liberty? Hope is as essential a requisite for promoting good conduct as it is for attaining happiness. Tytler, in his

Essay on Military Law, says, "If a soldier complains of the restraints of his vocation, he throws no impeachment on his profession, but arraigns himself of *folly*, who did not perceive that these restraints are essential to its condition." This opinion is, no doubt, theoretically true; but the thralldom imposed by folly is not less galling than the bondage occasioned by misery or congenital servitude.

2dly. Does the disability in question render a man unfit for military duty?—This point frequently requires much consideration, and every case will demand special investigation. The conclusion in regard to each man must be decided by professional knowledge, and practical experience of the duties of soldiers, of their habits, their hopes, their wishes, and modes of thinking. There are many degrees of loss of vision, varicose veins, hernia, rheumatic pains, lameness from old fractures, mutilations, &c., which do not disqualify a soldier for performing his duty, and which will be little heard of by a medical officer, provided a soldier wishes to serve, and has an object to gain by doing so. But if an old soldier, who suffers under any disability, although in no very great degree, wishes to obtain his discharge, he has only to complain, and to persevere by "*lying in*" (becoming a patient in hospital) regularly a few weeks before the periodical inspections, and eventually he will attain his object. The constitution of an infantry soldier may be good, and his health tolerably sound; but if he has served 21 or 22 years, and is above 40 years of age, his strength has, in some measure, passed away, by which means he is not able for the active duties of the service. There are no invalid or garrison battalions in the British army, to which partially inefficient men might be transferred; and consequently it will be necessary to discharge them, as being more or less unfit for military duty.

3dly. Is the disease or disability incurable, and will it permanently unfit a man for military duty?—This is a question which in some cases requires much discretion and consideration. Few diseases can be called absolutely incurable. Those which consist in impaired action or disordered function of some organ of the body, are considered incurable, when the morbid process is unsusceptible of being modified by any treatment or remedy; when human interference appears to be unavailing; and when remedies have been employed and persevered in, until, in all probability, permanent recovery, so as to render a man fit for performing the duty of a soldier, cannot be expected. In some diseases, more especially in such anomalous disabilities as wandering pains, a considerable time should elapse before recovery be deemed hopeless. A great majority of the patients received into military hospitals are admitted during a period of life when the vital actions are energetic, by which means recoveries are rapid; and medical officers are on that account apt to think that a patient whose disease is unusually protracted suffers under an incurable malady. They have not always sufficient confidence in the curative influence of a

youthful constitution and an adequate period of time. Many men recover rapidly after they have been discharged,—much more rapidly than was anticipated while they were soldiers.

I shall conclude these observations by warning young medical officers against employing harsh or violent language, or adopting unprofessional or coercive measures towards soldiers. Intemperate language will not intimidate a veteran malingerer, or induce him to return to his duty; and coercive treatment, which is not required by the nature of a case, is decidedly illegal. In 1822, a staff-surgeon was arraigned before a court-martial for using opprobrious and disgraceful words towards soldiers whom he suspected of being malingerers. He was acquitted of all the charges, five in number, but not without much trouble and anxiety. I allude here to the circumstance, as it may prove a useful warning to young medical officers, and it is for that purpose I have done so. (*Vide Note, No. I.*) We learn, from Dr. Cheyne, that the strait-waistcoat, the log, and the solitary cell, have often been used by medical officers of character; but he adds, that those who thus act very gratuitously expose themselves to censure. "There used," says he, "to be the greatest coarseness and severity in the treatment of men in hospital—nay, military as well as medical officers frequently treated common soldiers as if they belonged to an inferior order of beings. I have heard soldiers called the greatest villains on the face of the earth, only to be kept in subjection by the lash. This was folly in the extreme, and happily it has become obsolete."

Diseases and disabilities which disqualify soldiers for service in the army.

(*Extrait de l'instruction sur les appels en France.*)

"Tout médecin, chirurgien ou autre officier de santé qui, pour favoriser quelqu'un, certifiera faussement des maladies ou infirmités propres à dispenser du service public, sera puni d'un emprisonnement de deux à cinq ans."—(*Loi sur le Recrutement du 21 Mars, 1822.*)

"Any officer who shall, by any false statement, certificate, or document, or omission of the true statement, attempt to obtain for any officer or soldier, or other person whatsoever, any pension, retirement, half-pay, gratuity, sale of commission, exchange, transfer, or *discharge*, shall, on conviction thereof before a general court-martial, be cashiered."—(*Rules and Articles 1830, Article 46.*)

These two extracts from official documents will show the importance of the duty of examining conscripts in the French army, and soldiers in the British, and the care which should be taken in each case, before a certificate of *unfitness* be granted. The disabilities which may unfit soldiers for military duty cannot be accurately defined or specifically enumerated; for there is hardly any infirmity, however trivial in its general character, which may not exist

in so severe a degree as to impair the efficiency of a soldier. The *aptitude* or fitness of a man for military duty is the point which requires to be investigated in the case of a recruit; but, with regard to a soldier proposed to be discharged in consequence of disabilities, it is his *inaptitude* or unfitness for duty which requires to be ascertained and appreciated. When any doubt is entertained respecting the *fitness* of a recruit, it is usual for a medical officer to reject him; and unless the *unfitness* of an alleged disabled soldier be satisfactorily established, a medical officer is directed not to recommend him to be discharged.

DISQUALIFYING DISABILITIES OF SOLDIERS.

I have, in the following arrangement, classed the disabling infirmities of soldiers under ten heads. Respecting some of the diseases on the list, I have added a few observations on their nature and degree, for it is of much importance that a medical officer should duly appreciate the value or degree of a disability before he recommends a soldier to be discharged. A few remarks in regard to the phenomena which distinguish real from feigned infirmities are commonly given under each head; and for the purpose of exhibiting the difficulty which sometimes occurs in detecting simulators, as well as the labour and patience necessary to be exercised to induce a soldier who feigns a disability to return to his duty, I have given a brief account of a number of cases where imposture was satisfactorily discovered. I concur with what Dr. Cheyne states, that "probably there are not (now) two malingerers for ten who were found in the military hospitals thirty years ago." I have also detailed a few cases where a real infirmity was supposed to be feigned. For obvious reasons, I have confined the examples of feigned disabilities chiefly to cases belonging to the army.

The observations in regard to the disabilities are necessarily very brief, for it did not come within my plan to discuss the pathology of diseases, and, except in a very superficial manner, I have no intention to enter upon the extensive and important subject of legal military medicine.

CLASS I.—*Diseases of the Eyes—partial or total loss of Vision.*

1. *Ophthalmia—Inflammation of the eyes.*—Ever since the year 1806, when Mr. Windham's act passed, whereby a soldier had a legal right to a pension for life when he was discharged on account of a disability, a considerable number of men have been discharged in consequence of impaired vision and total blindness. During the year 1818, 477 men were discharged and pensioned on account of partial or total loss of sight. The ratio of men discharged, from this cause, appears to have become considerably lower; for during a period of five years, or from 1823 to 1828 inclusive, the numbers discharged and pensioned were 867, viz.

90 on account of total blindness, 300 in consequence of the loss of one eye each, and 477 from impaired vision of both eyes. For a great number of years, partial or total loss of sight was, in an especial manner, considered to confer a claim to a large pension for life. The bounty of government was followed by a great increase in the number of men disabled by impaired vision; and factitious inflammation of the eyes was carried to a very great extent in the British army, as is well known to both military and medical officers of long standing. The alleged means employed in factitious ophthalmia are, lime, corrosive sublimate, tobacco, ashes, &c. Urine has been employed for the purpose of producing inflammation, but I presume without effect. The eye will endure, with comparative impunity, the application of very stimulating substances in a fluid state, such as spirits, juice of lemons, &c. It was proved before a committee of the house of commons, that, in a barrack where several hundred cases of inflammation of the eyes occurred, a large proportion of them had been produced by gonorrhœal matter, or at any rate the attempt had been made to do so. On such a subject as this, we cannot often obtain demonstrative evidence; we can only in general arrive at a strong presumption that disease has been artificially excited. As soon as a regiment was ordered to the West Indies, or any other unpopular station, disease of the eyes became common among the men, and continued so till the corps had embarked. The number of cases then decreased, and no more was heard of it until the period when a detachment was ordered to embark for the service companies. In the following extract, Dr. Cheyne gives a frightful picture of the practice of exciting inflammation of the eyes, which at one time prevailed in the British army: "I may take the present opportunity of observing, that I never saw a more humiliating picture of depravity or perversion of reason—call it what we may—than I have witnessed in a ward filled with soldiers labouring under ophthalmia; most of the cases, as I learned from the surgeon in attendance, being factitious. Inflammation artificially excited is most painful, and is kept up under every privation which can make life miserable;—locked up in a dark ward, and permitted to have intercourse only with the officers of the hospital, nurses, and orderlies; confined to diet which, from the absence of every stimulating material, is most disrelishing; suffering under painful external applications and nauseating internal medicines; phlebotomised and leeches till their complexions are bloodless, their pulse hemorrhagic, and the frightful train of nervous symptoms which excessive blood-letting produces is established in the system. All these evils, in many cases, have no effect, but to confirm the soldier in his determination to destroy one or both of his eyes, that he may be dismissed from the service with the chance of a small pension."—(*Letter to Dr. Renny by Dr. Cheyne.*)

In the year 1809, *three hundred* of the men of two regiments which were on duty at Chelmsford became affected with ophthalmia; the healthy men of both corps were transferred to another

station, while the sick remained in the hospital, but under strict military control. Information reached the commanding officer that one of the nurses was in the practice of going to a druggist's shop for the purpose of purchasing drugs, by which means his suspicions were excited; and in conjunction with the medical officer, a successful attempt was made to discover whether the men had any articles in their possession which might be employed to excite inflammation of the eyes. The commanding officer entered one of the wards which contained 24 men, about midnight, and ordered them to form rank entire in a state of nudity, and they were in that condition marched into an adjoining empty ward, which had been prepared for their reception. The old ward was secured for the night, and next day the beds were examined, when a number of parcels of corrosive sublimate were found concealed under the clothes. Means were taken to prevent a fresh supply of this drug, and in a very short time 250 of the men had recovered, and were transferred to their respective corps. In the years 1804 and 1805, ophthalmia became excessively prevalent in the 50th regiment, and after a very careful investigation a correspondence was detected between the men under treatment and their parents and friends. The ophthalmics requested that corrosive sublimate, lime and blue-stone, might be forwarded to them, through which they hoped to get their eyes in such a state as would enable them to procure their discharge with a pension; and they mentioned the names of men who had been successful by similar means. Proofs of guilt having been established, the delinquents were tried by a court-martial, convicted, and punished. Instances have occasionally occurred where the evidence that a soldier intentionally excited disease of the eyes, was sufficiently strong to warrant a court-martial in convicting him. The late Mr. C., surgeon to — regiment, brought two men before a court-martial, one for submitting to have an eye destroyed, and the other, for actively abetting him, in fact, for performing the work of destruction. The instrument employed was a common table fork. Mr. C. saw the operation performed through the key-hole of the ward in which the men were accommodated. Conclusive evidence being produced, the men were convicted, and received corporal punishment. Other convictions for a similar offence have taken place, chiefly for introducing irritating substances into the eyes, which, by long continued application, occasion chronic ophthalmia, nebulosity, and ultimately blindness, from opacity of the cornea. I once detected a man who had a small fragment of cloth spread over an eye under the eyelids, for the purpose of exciting inflammation. Blindness of an eye has been successfully simulated in France by applying a pencil of the nitrate of silver to the cornea.

The 15th article of the pensioning regulations, 1829, directs that no soldier is to be discharged on account of blindness or impaired vision, provided the sense of sight is perfect in one eye. This regulation will have an excellent effect in discouraging the practice of mutilating the organs of vision, for many a man might destroy one

eye, who would hesitate to render himself totally blind. During the year 1828, there were 33 men blind of one eye at the same time in the invalid depot, Chatham; 13 of this number belonged to one regiment. Previously to this period it had been customary to discharge a soldier when he became blind of one eye, and to award him a pension of ninepence a day without reference to length of service. The 19th article of the pensioning regulations, 1829, if it be strictly and judiciously observed, is also eminently calculated to prevent the practice of factitiously exciting inflammation of the eyes, and eventually occasioning blindness.

When impaired vision follows inflammation of the eyes, it is in general not difficult for a medical staff-officer to decide whether a man has so far sustained the loss of sight as to render him permanently unfit for military duty; but whether the impaired vision is a consequence of artificially excited inflammation or not, is a question of another kind, and one extremely difficult to solve. Both regimental and medical staff-officers would require to take the utmost pains to satisfy themselves on this point, before recommending a man to be discharged. The sources of deception are often manifold. I have more than once found some difficulty in deciding respecting men proposed for discharge, because, as was presumed, they had immediately before examination introduced a quantity of common salt, or some similar irritating but soluble substance in their eyes. Snuff is sometimes employed, but, as it is not soluble, detection frequently follows. To prevent being duped by these means, it is sometimes expedient to examine the men more than once, and at periods when they have not had time to prepare themselves for inspection.

2. *Amaurosis*.—This disability is defined to be a total or partial loss of vision from a paralytic affection of the organ of vision. The loss of vision may be confined to one eye, or both eyes may be affected. In amaurosis the pupil is commonly dilated, and the iris is little or not at all sensible to the influence of light. Where one eye is completely amaurotic there is generally a want of consent in the expression of the countenance, and frequently the centre of the lucid cornea projects a little. Blindness without any obvious cause is sometimes pretended by soldiers, and there is much reason for supposing that some of them are acquainted with the means of simulating the symptoms of this affection by the agency of drugs. The use of snuff which has been moistened with a decoction of the *atropa belladonna*, has the effect of dilating the pupil of the eye corresponding with the nostril into which the snuff was introduced. Where any doubt is entertained in cases of this alleged disability, they should be examined repeatedly, and at uncertain periods. It may also be useful to propose an operation on the eye. Should the sense of vision not be lost, the sight of an instrument may make a man wince and blink, by which means it will be obvious that he is not blind. Simulators of amaurosis sometimes discipline themselves so as that an eye may not appear, by shutting the eyelids, to be sensi-

ble to light, or to the presence of a sham instrument. Dr. Fallot met with a conscript who had prepared himself in this way, and who, by the aid of *belladonna*, had completely simulated the principal symptoms of amaurosis. Having suspicions that the disability was feigned, he placed one hand over the region of the heart, and with the other appeared as if he intended to pierce the eye with a sharp instrument; the head moved not, but the heart palpitated, which induced Dr. Fallot to give a decided opinion that the disability was feigned, and under the influence of surprise and shame, the man avowed that his conclusion was correct, and he was consequently found fit for the service.

3. *Cataract*.—This disability consists in an opacity of the lens. Cataract in both eyes is a decided disqualification for the army, and consequently soldiers who have this disability are commonly discharged. It may be of importance for medical officers to know that cataract has been factitiously excited for the purpose of obtaining a discharge, 8 or 9 cases having occurred a few years ago at Fort Pitt general military hospital. A considerable period elapsed before the means which had been adopted to produce this variety of blindness were discovered; but eventually it was found that a needle, or some similar instrument, had been introduced through the lucid cornea, by which means the lens was rendered opaque. The late Mr. Melin, surgeon to the 9th or Queen's Royal Lancers, had the merit of discovering this novel mode of mutilation. He operated successfully upon all the 8 or 9 men, as cases of cataract; vision was restored, and they were all sent to join their respective corps.

CLASS II.—*Disease of the Ears—Deafness.*

Deafness may exist without any obvious mark or trace of disease of the ears, or of any symptoms to distinguish a simulated from a real defect of the organ of hearing. Suspicion of the reality of alleged deafness in soldiers is therefore commonly excited rather by moral than physical evidence. Deafness does not come on suddenly, and in general it is only partial. Isfordink says that a really deaf man has a singularly rough voice. The simulator of deafness is apt to overact his part, to assert that he was suddenly affected with the disability, and to pretend that he is totally deaf. During the year 1818 there were 36 men discharged from the army, and placed on the pension list in consequence of alleged deafness, and I have no reason to believe this number unusually high. The perseverance with which deafness has been feigned, the difficulty which frequently exists in ascertaining whether the disability is real or simulated, and the means most likely to detect imposture, will perhaps be most satisfactorily shown by recording two cases of simulated deafness, where the deception was discovered.

A simulator of deafness is rarely if ever discovered, except by finesse or accident, such as addressing him by name while he is

asleep. In the following two cases, finesse was very successfully employed.

A recruit from Cork, who joined the depot of the East India Company at Chatham, alleged that he had almost totally lost the sense of hearing, and the testimony of his comrades from Ireland served to support his statement. Dr. Davies, surgeon to the depot, admitted him into hospital, and put him upon spoon diet. For nine days Dr. Davies passed his bed during his daily visit to the hospital, without seeming to notice him. On the tenth day he felt his pulse, and made signs to him to put out his tongue; he then asked the hospital serjeant what diet he gave the man. *Spoon diet*, replied the serjeant. The doctor affected to be displeased, and in a low voice said, Are you not ashamed of yourself, the poor fellow is almost starved to death. Let him instantly have a beef-steak and a pint of porter. The recruit could contain himself no longer. With a countenance expressive of gladness and gratitude, he addressed Dr. Davies by saying, God Almighty bless your honour; you are the best gentlemen I have seen for many a day.

A marine, while serving on board a ship of war, complained from time to time to the surgeon, that he was gradually losing the sense of hearing, and at the end of several months he asserted that he was completely deaf. It being, however, presumed that the alleged infirmity was feigned, and as he could not be made to perform his duty, he was brought to the gangway and flogged; but previously to his being paraded for punishment, and during its infliction, he was informed that he should be pardoned if he would admit the fraud, and return to his duty. Every means that promised to be successful in surprising him into showing that he possessed the sense of hearing was resorted to, but without success: firing a pistol close to his ear, suddenly rousing him during sleep, and endeavouring to alarm him, elicited nothing satisfactory. The officers at Haslar Hospital, to which he had been sent, resolved to punish him a second time. Dr. Lind, who was then physician to the hospital, begged that punishment might be deferred, with the view of gaining time to try another experiment whether the man was an impostor or not. His request was granted. The doctor chose a favourable opportunity, and coming unperceived behind him one day, he put his hand on the man's shoulder, and said, in an ordinary tone of voice, "I am happy to tell you that you are invalided at last." "Am I by —!" replied the overjoyed marine. The imposture being thus rendered evident, he was forthwith punished, and sent on board ship.

The simulators of deafness sometimes pretend that they are unable to speak, thereby endeavouring to show that they suffer under a very serious disability,—*deaf-dumbness*. The deaf-dumb impostor evades answering the puzzling questions which might be made to him were he to admit that he had the power of speech.

A trooper named M'Keon, who belonged to the 7th Dragoon Guards, then quartered at Piershill barracks, appeared one morning

to be both deaf and dumb; a disability which did not exist the previous evening. Many means were adopted to ascertain that he possessed the sense of hearing, but without success. Firing a pistol close to his ear produced no effect. After keeping him a long time in the regimental hospital, he was sent to the Edinburgh Infirmary, from which he was subsequently discharged as incurable. No noise, however sudden, or artfully employed, succeeded in rousing his attention. Eventually it was believed that the alleged disability was real, and his situation excited the pity and commiseration of the officers of the corps. At the end of about a year he was recommended to be discharged, and left Dundalk, where the regiment was at that time quartered, on his way to Dublin to pass the invaliding board. During the first day's march he got intoxicated, and at the same time recovered the use of his tongue and ears. His escort brought him back to the regiment next day, but before he arrived his deaf-dumbness had returned. He was tried by a court-martial, and sentenced to receive 800 lashes; but as he still held out, it was deemed advisable to send him to the general hospital in Dublin, for the purpose of being examined by the medical officers of that establishment, before the sentence of the court martial should be carried into effect. Here various attempts were made to induce him to give in, and among other means used for that purpose, he was informed that, if he returned to his duty, the sentence of corporal punishment would be remitted; a promise which produced no immediate consequences. Upon admission into hospital, he was for some time accommodated in a ward in company with several other patients, but he was afterwards confined in a solitary cell, with no other sustenance but a small allowance of bread and water. The orderly who attended M'Keon was instructed to give him his scanty fare; but on no account to speak to him. In this manner things went on for nearly three months, when one morning the pretended deaf-mute accosted the orderly by saying, "Good morning to you, James." James was completely astounded for some time; he soon, however, so far regained his self-possession as to secure the door, and to make all haste to inform the steward of the hospital of what had taken place. When M'Keon was interrogated in regard to the recovery of the faculties of hearing and speaking, he stated that he had had a dream, and that when he awoke he found that the long lost functions had returned. He was not punished, he returned to his duty, and conducted himself with great correctness for a considerable time, but eventually he deserted, taking with him his arms, accoutrements, &c. M'Keon must have been desperately disgusted with the service, or possessed an ardent love of liberty to enable him to endure the restraint, the privations, and the deferred hope to which he was so long exposed.

CLASS III.—*Diseases of the organs of respiration and circulation.*

1. *Stammering.*—As an impediment of speech is a disability

which prevents a recruit from being approved for the service, and as stammering rarely appears after adult age, few soldiers are discharged on account of this alleged infirmity.

During the winter of the year 1826-1827, a sentry while on duty at a post in the garrison of Chatham, alleged that he had become unable to speak distinctly, and as the stammering or hesitation of speech was considered by the medical officers an involuntary disability, he was, after being some time in hospital, discharged from the service. Shortly after, another sentry, while on the same post as the former had been, became similarly affected. In this case, the impediment of speech was presumed to be feigned. The man deserted from the hospital, and, after a few months, he was taken and brought back to Chatham. His utterance was still indistinct. Electricity, shower baths, and various other remedial means were employed in vain. Some of the medical officers who watched this case carefully, were of opinion that, although the disability might have been originally simulated, it had become by custom habitual and involuntary. I am ignorant of the result of this man's case, as my applications for information in regard to him were not successful.

2. *Consumption, Asthma.*—Under this head I include the various affections of the lungs which disqualify soldiers for military duty, and on account of which a great number are annually discharged. The diagnosis of diseases of the lungs has become much more certain since percussion and auscultation have been adopted by the medical profession. When the external and functional symptoms of disease, together with the stethoscope indicate a material disorganisation of the substance of the lungs of a soldier, it is in general deemed expedient to recommend him to be discharged. The stethoscope in the hands of an adept is highly useful in detecting the simulators of consumption,—a class of impostors who are found in all general hospitals, and sometimes also in regimental hospitals.

Dr. Cheyne very graphically describes some of the manœuvres of a simulator of phthisis. "He expresses a wish to be let blood or blistered for a pain in his chest; he begs for some medicine to relieve his cough; applies for a furlough; in short, so well does he act his part, that, unless the surgeon is very circumspect, he will discover when too late that he has been made a dupe of." But impostors are not always content with merely pretending disease; a more complicated system of fraud is sometimes attempted. Emaciation is occasioned by abstinence and drinking vinegar—cough and hoarseness are imitated—debility is pretended—and a puriform expectoration is easily obtained by purchase or otherwise from the spitting-pot of a patient really labouring under consumption. Many impostors are sufficient adepts in the art of deranging the circulation, to simulate hectic fever by the quickening the pulse, so that by these means all the leading symptoms of consumption are more or less completely counterfeited. Chronic catarrh is often the ground-

work upon which a case of fictitious consumption is founded. When the patient is in hospital, the expectoration is regularly shown to the medical attendant, and to increase the quantity it is mixed with saliva and mucus from the nose. It is often tinged with blood, which is commonly produced by pricking the gums. In cases of this kind the breathing is generally quick, and there are always complaints of pain in the chest, and of disturbed rest from cough.

“*L'imitation de l'asthme serait risible si elle n'était déplorable. Des jeunes gens, dans l'espoir de représenter le signe essentiel de cette affection, (la difficulté de respirer,) se sont occasionné des palpitations dont les suites ont été quelquefois bien funestes; il est des simulateurs chez qui elles ont déterminé l'hypertrophie du cœur.*”— (Coche, page 191.)

3. *Hæmoptysis, or spitting of blood.*—Many soldiers are proposed to be discharged on account of this alleged symptom of impaired health. Hæmoptysis may be a consequence of inflammation of the mucous membrane of the trachea, which commonly admits of speedy recovery. When hæmoptysis is accompanied by other symptoms of tubercular disorganisation of the lungs, the congeries of symptoms deserve the highest consideration, and the man in question may be recommended to be discharged, as being likely to be permanently inefficient. Where spitting of blood occurs without other symptoms of consumption, such as emaciation, purulent expectoration, hectic fever, &c., the attention should be especially directed to ascertain the circumstances connected with the hemorrhage. Impostors are aware that spitting of blood is occasionally a symptom of consumption, which disqualifies a soldier for the service; and as this symptom is easily feigned, it is more commonly simulated than any other indication of pectoral disease. Various means are therefore frequently resorted to by soldiers who wish to obtain their discharge and a pension. For the purpose of deceiving medical officers in this respect, some secretly provide themselves with bullock's blood, for the purpose of colouring the saliva; others make small incisions in the mouth or arm, and thus procure the colouring matter. To detect an impostor who feigns spitting of blood, all that is commonly required is to carefully examine the contents of the spitting-pot. Blood from the lungs is florid and coagulated in smaller or larger portions, but where this symptom of disease is feigned, the colouring matter is intimately mixed with saliva. The absence of all the other pathognomonic symptoms of organic disease of the lungs should invariably excite a considerable degree of doubt in regard to the alleged source of the expectorated blood.

Dr. Fallot relates an interesting case of a soldier who simulated this affection. The man had voluntarily enlisted, but he soon after regretted that he had done so, and became anxious to regain his liberty. One evening Dr. Fallot was sent for in great haste, and found a large quantity of coagulated blood before the bed of the man,

who, with an affected feeble voice, complained of his deplorable condition. Seeming to believe all he said, the doctor ordered him to be bled, and directed some other remedial means to be followed. Next day Dr. Fallot was informed that the cough and spitting of blood had continued all night. The healthy appearance of the man, the absence of fever, and the clear distinct sound of the chest, excited the doctor's suspicions, and induced him to watch the soldier carefully, and for a considerable time, during which he ascertained two facts: first, that the man ejected large clots of blood without coughing; and secondly, that, before the blood was ejected, he turned his face to the back of the bed, which was situated in an alcove. Eventually a pot containing about a pound and a half of bullock's blood was found under the cover of the bed. This circumstance was considered conclusive evidence that the hemorrhage was feigned.

A soldier, who had for some time simulated a pectoral affection, showed Dr. Fallot his spitting-pot, which contained a mixture of blood and puriform matter. The man had got out of bed during the night, and appropriated part of the contents of the spitting-pot of a man suffering under consumption, to which he had added a portion of blood which he found in a bleeding basin. He had not, however, taken the precaution to break down the coagulum which remained in the basin, and, as the portion he had removed left a vacancy in the clot, he was thereby detected.

4. *Diseases of the heart or large blood-vessels.*—The diagnosis of diseases of the heart is frequently attended with much difficulty. When a soldier complains of uneasiness, or sensations indicative of a morbid condition of the heart or aorta, the utmost care ought to be taken duly to investigate the origin of the symptoms, and to place him in circumstances favourable for his comfort and recovery. This measure is essentially necessary, inasmuch as extensive disorganisation of the aorta may take place without being indicated by any obvious symptom. A long-continued probation is advisable, before recommending a discharge on account of obscure affections, particularly of this class of disabilities. Nothing very specific can be learned from a frequent, a slow, an irregular, or an intermitting pulse, as these may at intervals occur in the same individual, under a variety of circumstances, without much, perhaps without any, disease. Recruits have almost always a frequent pulse while they are examined, and not a few men have been rejected under the presumption that a quick pulse is a satisfactory indication of disease of the heart or large blood-vessels. Much caution is required on the part of a medical officer, before he concludes that a soldier is suffering from organic disease of the heart, and that, in consequence of this affection, he is unfit for the duties of his profession, and not likely ever to recover.

Disease of the heart is sometimes simulated by soldiers when they wish to be discharged. To excite an undue action of the

vascular system, various means are employed, some of which are known to medical officers, but of others I believe they are completely ignorant. The introduction of tobacco or garlic into the anus greatly deranges the circulation, and disease of the heart is thereby simulated. The *veratrum album*, in doses of from ten to twelve grains, has been successfully used for a similar purpose. The ingenuity of medical officers will readily suggest the means of discovering whether any irregularity of the action of the heart be fictitious or not. Total seclusion, so as to render it impossible for a man to procure drugs, and coming upon him unawares for the purpose of ascertaining the state of the circulation, will commonly afford strong presumptive evidence of the soundness or unsoundness of the heart, and whether artificial means have been used to excite palpitation. I believe palpitation is sometimes produced by the immoderate use of tobacco, without any intention of thereby exciting disease, but there is too much reason for suspecting that this narcotic is occasionally employed for the specific purpose of simulating an affection of the heart.

Palpitation of the heart may, it is alleged, be excited by strong compression on the abdomen, by means of a tight bandage, such as the waistband of a pair of trowsers. Professor William Schmitt relates the case of a young engineer officer in the Austrian service, who adopted that means for the purpose of being permitted to retire from the army with a pension.

A temporary derangement of the function of the heart, and consequent palpitation, is not unfrequent among soldiers, more particularly young recruits, before they are dismissed from drill. For some time previously to a general inspection, the men are often kept long under arms; and to this circumstance may sometimes be attributed slight derangement of the circulation, fainting of weakly individuals, &c. Standing under arms has lately been forbidden as a punishment, which is a wise and humane measure. Frequent tedious drills and inspections are supposed to be sometimes the precursors or causes of rupture, aneurism of the heart, varicose veins of the leg, &c., and perhaps not altogether without foundation. The practice of the French army in this respect may be quoted, as a warning for British officers to avoid.

“Every Sunday there is a general inspection of all the corps of infantry, during which the soldiers stand under arms from sunrise to mid-day, and sometimes till one in the afternoon. An inspection is first made by the non-commissioned officers, then by the officers of each company, next by the commanding officer of a battalion, then by the lieutenant-colonel, and after him they are inspected by the colonel of a regiment. The men then proceed to mass, and afterwards return to parade, when the lieutenant-general, after a final inspection, expresses his satisfaction at the fine appearance of the corps, but it is presumed he is ignorant of the extreme fatigue which has been incurred to gain his approbation.”

5. *Varicose veins*.—This morbid affection consists in a perma-

nent dilatation of the veins. The external veins of several parts of the body become occasionally varicose, but this affection rarely disqualifies a soldier for military service, except when the veins of the inferior extremities are affected. When varicose veins of the legs are large and numerous, marching is accompanied by a sense of fulness above the ankle, with more or less œdema of the whole leg, and consequently a soldier is thereby disqualified for service in the infantry or artillery. If the affection exists in a very severe degree, the legs become swelled, tense, hot, and painful, the skin red and inflamed, and the cellular tissue condensed. The slightest abrasion of the skin may give rise to ulceration, and in this condition of the veins ulcers on the legs are frequently incurable. Attempts are sometimes made, by soldiers who wish to be discharged, to excite, or at any rate to aggravate, this affection by tight ligatures; but to what extent these means answer the purpose intended, I am unable to state.

CLASS IV.—*Diseases or impaired Functions of the Organs of Digestion.*

1. *Visceral turgescence (Physconia).*—This term is intended to comprise a number of diseases consisting in an enlarged or protuberant condition of one or more of the organs of digestion. As all the viscera of the abdomen are subject to an indurated enlargement, and as the various organs occasionally become affected simultaneously, the symptoms may be very complicated. Instances frequently occur where the real nature of the swelling cannot be determined, except by a post-mortem examination. The origin of visceral turgescence is commonly attributed to disease contracted while serving in unhealthy climates, and much care and attention is required by medical officers, to satisfy themselves of the existence and extent of the alleged disability—how far it disqualifies a man for military duty—and whether or not it was contracted by service, as well as whether it be incurable. Any material disorganisation of an important viscus may in general be considered incompatible with health and complete efficiency.

“Les cas doivent être jugés suivant l'importance des viscères malades, la profondeur de l'altération qu'ils ont subie, et l'étendue de ses effets sur la constitution générale, la nature de leurs causes, et le degré de leur curabilité.”—(*Fallot, Memorial de l'expert, &c.*, page 167.)

This disability is not unfrequently feigned by soldiers who wish to be discharged. Mr. Bamfield, formerly surgeon of the 35th regiment, had three cases of this kind under his care: the enlargement of the abdomen was effected by means of a deep inspiration, and keeping it distended with very short expirations. The detection he found was simple and easy, as it was only necessary to surprise the patient while asleep, when his abdomen was soft and unprotruded. I have met with three or four cases of alleged

"organic disease of the abdomen," which was imitated by simply elevating the spine. The advantage of examining men brought forward for discharge, in a state of nudity, is very obvious where visceral turgescence is feigned in this manner. During the year 1811, a greatly distended condition of the abdomen became in some measure epidemic among the men of the 84th regiment, then stationed in Dublin. From thirty to forty men belonging to that corps were admitted into the general hospital, complaining of pain and distention of the abdomen, with excessive thirst: some of them drank daily more than a gallon of water. Dr. Harvey, who was physician to the hospital, eventually concluded that the symptoms were factitious, and under that impression he prescribed a solution of Glauber salts, dissolved in weak infusion of tobacco, which he called the *infusum benedictum*. A cupful of this bitter mixture was given in the morning, and repeated every fourth hour until it operated, and with complete success. All the patients who were in hospital recovered speedily, and the disease soon disappeared. Sixteen men had, however, succeeded in obtaining their discharge before this method of treatment was adopted. The means by which the tympanitic symptoms were occasioned remains unknown. It was conjectured that large quantities of chalk and vinegar might have been employed, but this was only a surmise.

A great expansion of the abdomen is sometimes excited or pretended by soldiers in India when they wish to evade duty, or to obtain their discharge. The means adopted is commonly supposed to be drinking fermenting toddy, and rice water, to which a small quantity of soap is added.

2. *Chronic disease of the liver.*—Soldiers who have served in India are pretty well acquainted with the leading symptoms of this affection, and, when they become tired of a military life, some of them feign liver disease, while others exaggerate the uneasiness under which they may in reality be suffering. The diagnosis of a morbid affection of the functions or structure of the liver is frequently very obscure, and hence a medical officer must chiefly depend upon the general indications of health or disease, in his estimation of the ultimate efficiency of a man who has been for some time under medical treatment, on account of this alleged complaint. Unless the uneasy sensation of the right side, which is the common complaint, be corroborated by well marked symptoms of impaired health,—or rather when there is no obvious fulness in the region of the liver, when the pulse and breathing are regular, the secretions and excretions natural, when there is no remarkable emaciation, and when the alleged pain resists topical bleeding and blistering,—we are not warranted in concluding that much real disease exists, and, consequently, should not recommend a man to be discharged as permanently unfit for military duty. I have seen a number of men who had lain for many months in bed, on account of alleged liver disease, but whose healthy countenances and plump frames satisfied me that the functions of the liver were not much

out of order. It is surprising how long a healthy person will resist the debilitating effects of the daily exhibition of a moderate quantity of medicine, low diet, and confinement to bed, without being greatly extenuated, or seeming to suffer by hospital discipline of this kind. Malingerers rarely succeed in feigning a languid sickly eye, or the voice of genuine indisposition, however well they may feign other indications of disease.

In alleged cases of disease, where testimony is doubtful, and where there are no obvious symptoms of impaired health, a medical officer cannot use too much care to ascertain the real state of the health of his patient; and until he has made up his mind in regard to a case, the remedies employed should be very simple. A soldier complained that he had "liver," and alleged that he had a severe pain in his *left* side. Seeming to believe that his disease was of a grave nature, he was confined to bed, and, with the professed purpose of preventing his sleep from being disturbed by the conversation of his comrades, he was accommodated in a ward by himself. He was kept on low diet, and a weak solution of the tartrate of antimony alternately with the *mistura diabolica* regularly exhibited. This mixture consists of Glauber salts, infusion of tobacco, and asafœtida, and it is commonly given in very small quantities, but so frequently as to keep the taste pretty constantly in the mouth. He held out under this careful treatment for a month, and recovered rapidly. Soon after he was discharged from hospital he confessed the imposture, and swore that, if it had not been for his stupidity in locating the pain in his left side, the imposition would not have been suspected. He was mistaken; the imposition was considered pretty obvious from the first, but I am not aware that any other means would have made him sooner return to his duty. Every medical officer of experience will concur with the late Dr. Cheyne in his remarks regarding alleged chronic hepatitis. "We ought," he says, "never to put a malingerer under a course of mercury, as, by the requisite stay in the hospital, he will not only be enabled to mature his plans of villany, but his constitution will thereby be injured if forced to return to his duty. After being salivated, he will soon be again in hospital, asserting that the pain in his side has returned. As soon as his mouth gets well, a new course of mercury will then be instituted, which is precisely what he wishes."

3. *Vomiting*.—When the stomach is much diseased, vomiting is a frequent consequence or symptom of the affection. Organic disease of this viscus is commonly accompanied with pain of the part affected, regurgitation of the ingesta, and general emaciation. When there is no other obvious symptom of disease of the stomach, but a regurgitation of the food swallowed, it may generally be inferred that the alleged disability is not of a very serious nature.

Some persons who have the voluntary power of rejecting the contents of the stomach, avail themselves of that faculty to simulate disease. I have seen several soldiers who were proposed for

discharge on account of this alleged disability, namely, the rejection of food after every meal; but as they continued to increase in weight upon half diet, and had each a healthy countenance, no doubt could be entertained that the vomiting was voluntary. They were all sent to their duty; and I have since learned, in regard to some of them, that they became efficient soldiers, without making any complaint of indigestion or want of nourishment. In 1828, there was a man in the general hospital, Dublin, who had been under observation and treatment for five or six months, in consequence of frequent vomiting. Some doubt was at first entertained respecting the nature of the alleged disability, but eventually it was presumed that the disability was feigned, and the man was sent to his duty. Shortly before he left the hospital, four men in the same ward with him regurgitated their food, so that the disability became partially epidemic. None of these men were discharged from the service at that time.

4. *Bowel complaint.*—Under the head “Dysentery and Hepatic,” it appears that, on an average, more than 200 men are annually discharged from the service. (*Circular Letter, 22d January, 1830, Medical Department.*) Cases of bowel complaint require very careful deliberation before they are recommended to be discharged; more especially the age of the man under consideration, his length of service, the climate in which he has served, the intractable nature of the symptoms, and the duration of the disease. It is presumed that no man is ever discharged while he is suffering under urgent symptoms of bowel complaint, or an advanced stage of any disease. The hospital is the best place for this class of patients, where they ought in general to remain until the disease terminates either in recovery or death.

Bowel complaints are occasionally pretended by recruits when they wish to avoid leaving a district depot to join their corps. The fraud is easily detected by inspecting their linen: if it be clean, the bowels are not much out of order. In climates where dysentery is prevalent, such as India, bowel complaints are often alleged as a pretext for being relieved from duty; the use of a night-chair satisfactorily discovers the fraud when no disease exists. Care must, however, be taken in hospitals, that a patient really suffering under dysentery does not lend his assistance to promote the imposture, for aid of the kind alluded to has been bought and sold. In civil life, I have known bullock’s blood exhibited in a chamber utensil to the physician of a dispensary, for the purpose of obtaining some of the comforts of the establishment.

5. *Hernia.*—According to the 20th article of the Pensioning Regulations of 1829, no infantry soldier is to be discharged for *rupture alone*, except in extreme cases of disability. By the French conscription law, no man is to be exempted from serving in the army on account of rupture, unless the intestine is irreducible, or that it cannot be kept in its place by means of a truss. I believe that in all regiments there are a considerable number of ruptured

men, who perform their duty regularly without complaint, and who are capable of performing all the ordinary duties of the army during a period of peace. Does hernia occur more frequently among the men in cavalry corps than in infantry regiments? What is the relative ratio of ruptured men serving in cavalry corps and infantry regiments? These are interesting questions, which I am unable, for want of materials, to solve; but I hope the subject will be carefully investigated. Under what circumstance should a soldier, who is ruptured, be deemed disqualified for the performance of military duties? He may, perhaps, be considered unfit for the army when he suffers from *single hernia*, if a truss fails in preventing the intestine from protruding through the ring, and in all cases of *double hernia*. "Rien n'est quelquefois plus difficile que de prêter un jugement bien décisif sur le véritable état d'une hernie, c'est-à-dire de prononcer que la réduction est opérée, et qu'elle est bien et solidement contenue. Toutes les fois qu'un homme est porteur d'une hernie, il pourra non-seulement s'il veut tromper, affirmer qu'elle est difficilement contenue, mais il pourra aisément la reproduire à volonté par une fort inspiration ou des mouvements précipités d'inspiration ou d'expiration."—(*Souville, Examen des Infirmités ou Maladies qui peuvent exempter du Service Militaire, et nécessiter la Réforme.*—Paris, 1810.)

Every man who is affected with hernia may be considered unfit for military duty during *active warfare*. War is a state of privation of every kind, and, in general, a ruptured man is unable to surmount the fatigue of a campaign. Indeed, no man who is affected with hernia should be permitted to take the field, however willing he may be to accompany his comrades.

Hernia is not a cause of much inefficiency in the army, nor are there many men discharged on this account. By a return, comprehending a considerable portion of the army, it appears that, among an aggregate strength of 10,000, there were admitted into hospital 10 men on account of hernia, or one in 1000, the range being from 5 to 17 per 10,000. The ratio of admissions among the cavalry is 10 per 10,000, which is exactly the amount of the general mean. Among every 78,796 men, one died of hernia, and, with respect to the number of men discharged, it appears that, of every 10,000 men serving in India, 3 were annually disabled and discharged from the service in consequence of hernia. I have no documents which enable me to state, whether, in any of the fatal cases, or indeed in any instance, the operation for strangulated hernia was performed. The operation for hernia is but very seldom required in the army. Perhaps there is no class of the population among which there are so few surgical operations performed during peace. Many medical officers have passed through a long period of service, and left the army, without ever using any more capital instrument than a lancet and a tooth instrument.—(*Note, No. II.*)

Although hernia be not a cause of much inefficiency in the army, it is occasionally alleged as a reason for being exempted from

particular duties; and medical officers frequently find considerable difficulty in determining whether the plea arises from want of will or from physical infirmity.

Hernia has been simulated by soldiers who were anxious to obtain their discharge.

Pat Gafney, second battalion, rifle brigade, having been "unfortunate"—by which term is implied that he had been convicted of a crime, and punished—complained that he had become ruptured. He was forthwith examined by Dr. Connel, assistant surgeon to the brigade, who found a slight degree of fulness over the left inguinal ring, and eventually he ascertained that the left testicle was not in the scrotum. By means of considerable pressure applied above the ring, the testicle was extruded and restored to the scrotum. Gafney had served several years in the marines, and was discharged, as his "Instructions" stated, in consequence of inguinal hernia, the result of service, with a pension of fivepence a day. It would appear that he succeeded in obtaining his discharge and a pension from the marines, by simulating hernia; but he failed, however, in imposing upon Dr. Connel. He was discharged from the army with every mark of ignominy in September, 1827.

To discharge a bad man with ignominy—in other words, with loss of good name—or, indeed, in any way, may be to promote the object of his wishes, and consequently this *punishment* has little effect in preventing crime.

I have seen several men who had the voluntary power of drawing up a testicle to the ring, and retaining it there for some time. According to Baron Percy, some men can retract a testicle within the abdomen. Some years ago a paper was picked up in the general military hospital, Dublin, which contained a "receipt for making a rupture." The scrotum was to be punctured with a large pin, and then, by means of a piece of tobacco-pipe, it was to be blown up with air. The same operation was to be performed on the other side, if a double rupture was required; poultices were to be applied to reduce the inflammation. The manuscript was supposed to have been dropped by a man belonging to the 18th Hussars, who had been left in hospital when the regiment embarked for England. He joined his corps at Rumsford, in Essex, with his scrotum greatly enlarged: according to his own statement, the swelling came on in consequence of his jumping from a window shortly after he left the hospital; on his landing at Liverpool, it became so large and painful that he could not walk, and was in consequence forwarded in a cart. When the scrotum was pressed, a crepitus was perceptible. The swelling was in all likelihood excited, and probably by the means directed in the "receipt." This man succeeded eventually in obtaining his discharge, by simulating disease of the hip-joint.--(*Dr. Cheyne's Letter to Dr. Renny.*)

CLASS V.—*Diseases and Lesions of the Genito-urinary Organs.*

1. *Diseases of the testicle.*—*a. Hydrocele* (or water in the *tunica vaginalis testis*) sometimes exists in so trifling a degree, as hardly to be considered a disease or disability. When, however, the operation for a radical cure has failed, or when the body of the testicle is considerably enlarged, a man is commonly deemed unfit for the army, and recommended to be discharged.

b. Sarcocoele.—In this disease the testicle is enlarged, indurated, heavier than natural, and sometimes unequal on the surface. Sarcocoele is frequently presumed to be an ill-conditioned affection of the gland, and little under the influence of remedial means. The testicle may, however, become enlarged, without having a tendency to a scirrhus induration. As these two conditions of a testicle may be confounded—and indeed, during the early stage of the affection, there is no definite line to distinguish them—the unfitness of a man for the service on account of this disease must be determined by the extent of the enlargement, the duration of the disease, and the intractable nature of the symptoms.

c. Varicocele and Cirsocele.—A varicose dilatation of the veins of the scrotum, (*varicocele*), or a similar condition of the veins of the spermatic cord, (*cirsocele*), if the enlargement has attained such a size as to impede a soldier from marching, it renders him unfit for the service.

The testicle of one side is sometimes considerably smaller than the other, without any satisfactory appearance of disease, but many recruits have been rejected on this account. A man was approved at the Dublin depot, who was subsequently rejected at the headquarters of the regiment to which he belonged, in consequence of the alleged state of his left testicle, which (according to the report of the surgeon) “appears proceeding to a dissolution.” This is certainly a very hypothetical reason for rejecting a man. Had the surgeon been well acquainted with the duty of inspecting recruits, he would have known that the testes are comparatively small in some individuals, occasionally not larger than horse beans in stout muscular men.

2. *Incontinence of urine.*—An involuntary flow of urine is an indication of functional, if not of organic, disease of the bladder; but as a want of the power of retaining the urine for a considerable time is a rare disability, and as the affection is frequently feigned, great care ought to be bestowed upon the investigation of every case which is proposed to be discharged on this account. Persons who really suffer under incontinence of urine have commonly a weak, lax constitution, and infirm health. The flow seldom intermits above two hours at a time, either by night or day; the body and clothes exhale a strong ammoniacal odour, and the scrotum and inside of the thighs are found to be excoriated. In cases where incontinence is feigned, the action of the abdominal muscles may

be perceived, and the urine comes away in jets. If the bladder be capable of retaining a considerable quantity of urine, it may be inferred that the alleged incontinence is feigned; hence a simulator may sometimes be detected by coming upon him unawares, and desiring him to make water instantly, or by using the catheter. The alleged disability of incontinence of urine occasionally disappears, by making a man sleep on straw instead of in a comfortable bed, which he had wet regularly every night. The application of moxa to the scrotum has been found useful, inasmuch as the alleged disability was very soon said to be cured. But perhaps the most effectual means of making a schemer announce a recovery, is to oblige him to wear a urinal, and do his duty. This disability, like many others, is apt to become epidemic among the men of a regiment. In one instance which came under my notice, five men of one corps complained that they suffered from incontinence of urine, and were in consequence of their allegation brought forward by a credulous commanding officer to be discharged.

Dr. Cheyne, in his Letter to Dr. Renny, states a curious fact, which shows the importance of attending to the subject of feigned disease among soldiers. During the year 1803, the medical charge of a regiment of Irish militia devolved upon a private practitioner, unacquainted with the diseases or the tricks of soldiers. In a short time a number of the men were admitted into hospital, in consequence of alleged incontinence of urine. This imposition extended to such a degree among the men, that numbers of them had their white breeches completely destroyed by urine. The imposition was instantly discovered by Deputy-Inspector Comyns, and the progress of the epidemic arrested, by ordering all the men who had spoiled their clothes to be marched to a lake, morning and evening, for the purpose of cold bathing.

3. *Calculus vesicæ*.—Stone in the bladder is a rare disease in the army, and I believe it is generally considered an adequate cause for discharging a man. Lithotomy is very seldom performed. Dr. Hennen, in his chapter on the Examination of Recruits, (*Principles of Military Surgery*.) states, that “diseases of the urinary passages, and stone in the bladder, are a sufficient cause for rejection.” I presume the attempt to ascertain, by means of a sound, whether a recruit suffered from stone, never was made; I should certainly consider it a highly inexpedient measure.

CLASS VI.—*Diseases and Lesions of the Skin and Cellular Membrane.*

1. *Ulcers*.—It appears, by the Circular Letter from the Medical Board, bearing date 22d January, 1830, that rather more than 100 men are on an average annually discharged on account of “ulcers and varices.” How far this may be a higher or a lower ratio of discharges on account of ulcers than at present, I have no means of ascertaining. Disabilities such as ulcers, which are easily pro-

duced by artificial means, require to be carefully investigated. The practice of exciting ulcers in the army during the last war is said to have prevailed to a considerable extent; the means commonly employed were corrosives or irritants, such as nitric acid, acetate of copper, quicklime, lime and soap, bruised garlic and vinegar. In India, the juice of the euphorbium is principally used. Mechanical means are also sometimes adopted, particularly abrasion; this object is attained by rubbing the skin over the shin-bone with a small quantity of sand, so as to excite inflammation, the sand being allowed to remain on the irritated surface. Ulcers of a very intractable nature are rapidly excited upon old cicatrices by this means. The integuments which surround factitious ulcers are in general more healthy and less callous than when the ulceration is spontaneous. To prevent suspected impostors from applying irritating substances to ulcers on the legs, it is frequently necessary to seal the bandages, which measure is so far effectual as to prevent the dressings from being removed unknown to the medical officer, but it does not altogether prevent the injurious application of mechanical means. Wooden boxes, when they are constructed so as to prevent the introduction of a rod at the top, are more effectual. The following cases will show the difficulty which sometimes occurs in discovering the cause of an ulcer.

Mr. W. had a man under his care on account of an ulcer on his leg, which was suspected to be factitious. Sealed bandages, and eventually a tin case for the leg, were tried, but still the ulcer continued to spread, and it was presumed some means were adopted to prevent the sore from healing. There was a man in hospital at the same time, whose leg Mr. W. had amputated, and who, seemingly influenced by gratitude, told Mr. W. privately, that the man with the ulcer on his leg had a "receipt" for exciting several diseases, in his knapsack, which was forthwith examined and the document found. It contained instructions for injuring an eye, simulating hernia, and exciting an ulcer. Factitious blindness was to be effected by "the prog of a needle in sight of the eye," and after a pension had been procured, soft soap was to be applied to the eye, by which means it was stated that vision would be restored. A rupture was to be simulated by inflating the cellular membrane, or by tying a ligature round the dartos. To excite or imitate an ulcer, yellow arsenic was to be employed. Although this man was not allowed to have access to his ulcer, he found means for some time to introduce a small portion of yellow arsenic into the sponge with which it was washed, and by this means the sore continued to spread. His scheme failed chiefly in consequence of the information received from the man in question.

Impostors are very rarely, indeed almost never, detected by means of information obtained from their comrades, although exceptions occasionally occur, as in the following case.

Private P. Devlin was admitted into the hospital of the — regiment, when it was stationed in St. Helena, in consequence of an extensive ulcer on the outside of one of his thighs, a little above the knee, which mended rapidly under the use of common dressings. Before the ulcer had, however, completely healed, the newly formed skin was found one morning, to the extent of a half-penny, in a sloughing state. Again the ulcer began to improve, and was nearly skinned over, when the sloughing process reappeared. Suspicion was excited, and the hospital serjeant and orderlies were directed carefully to watch the man, with a view of detecting him. At length the artifice was discovered. A soldier was in hospital, in consequence of punishment, to whose back the man who had the ulcer applied a nostrum, and told him he might remain in hospital as long as he pleased, provided he would inviolably keep the secret. The application produced excessive pain, with inflammation, and extensive sloughing of the back, and eventually the man became alarmed, and told the whole story. The impostor who made the application was tried by a court-martial, and received corporal punishment. It was found that the irritant employed to excite the sloughing was a slice of the — apple, a plant that abounds in St. Helena, but the scientific name of which I have not learned.

Unless in cases where ulceration is accompanied by varices, and where the constitution is unsound, it is very rarely necessary to discharge a man on account of this disability.

2. *Œdema—swelled leg.*—Diseases of the lower extremities contribute in a remarkable degree to disqualify soldiers for military duty, and although *œdema* or *anasarca* of a leg is a rare disease, the simulation of this disability occurs occasionally.

A private belonging to the — regiment arrived at the invalid depot, Chatham, from India, during the summer of 1829. He was sent home in consequence of alleged elephantiasis of the left leg and foot, which, according to the man's own statement, had supervened while he was suffering under an obstinate intermittent fever. He was admitted into Fort Pitt general hospital, and the following is an outline of his case at the time of admission. The left leg and foot were greatly swollen: the swelling was remarkably firm; the integuments were dry, rough, and dark-coloured: the knee-joint had partly lost its mobility. The man's general health was good, and the enlargement of the limb was reported to have existed for about eighteen months. Shortly after admission into hospital, it was discovered that he had a bandage bound tightly round the left thigh, which he stated he had "worn by the advice of his doctor, for the purpose of preventing the disease from extending to his belly." From this period, care was taken that he should not have it in his power to apply another ligature, and in the course of eight or ten days the size of his limb was greatly reduced; the skin had in some degree assumed its usual colour, and hardly any symptom

remained of the disability for which he had been admitted into hospital, except a slight stiffness of the knee-joint, probably arising from long-continued inaction.

Dimensions of the limb in inches :

	Thigh.	Cf. of leg.	Ankle.	Instep.
On admission into hospital, } 25th October, 1829,	22½	17½	15	14
Six days after the removal } of the ligature,	20	15	14	9

Mr. Jones, assistant inspector of hospitals, had a sergeant under his care on account of swelling and inflammation of the right leg, and the means usually adopted in like cases were employed without success. Mr. Jones, at one time, thought there was an abscess in the leg, and had a lancet in his hand for the purpose of opening it, but, thinking the feeling of fluctuation not sufficiently obvious, he desisted. From the anomalous character of the symptoms, Mr. Jones suspected that some means were employed to excite and prolong the affection, and, with the view of discovering whether his suspicions had a good foundation, he visited the hospital one evening when he was not expected, and, promptly proceeding to the serjeant's bed, turned off the bed-clothes, and discovered the trace of a ligature round the thigh, for, notwithstanding his expedition, the cord had been removed and concealed. The swelling had almost completely disappeared by the following morning. It is worthy of observation, that the serjeant did not show the slightest reluctance to the insertion of the abscess lancet when Mr. Jones had it in his hand for that purpose.

Œdema and swelling of an arm have been excited by similar means. Dr. Fallot gives an account of a soldier who was twice admitted into hospital in consequence of swelling of the left fore-arm and hand. During the first period he was in hospital, an incision was made on the back of the hand, for the purpose of giving exit to the contents of what was supposed to be an abscess, but nothing escaped except some dark-coloured blood. The second time he was admitted, it was discovered that the swelling was occasioned by a ligature round the arm.

Isfordink once met with a case of anomalous disease of the extremities, which had been artificially excited by means of a ligature. The soldier complained of rheumatic pains, and after employing a variety of remedial means he was directed to use the warm bath. When he was undressed for the bath, the impress of a tight ligature was observed on each arm and leg; he seemed to have applied a leather thong alternately to the different extremities.

CLASS VII.—*Diseases and impaired Function of the Organs of Locomotion.*

1. *Rheumatic pains.*—Under the head of rheumatism a great number of soldiers are annually discharged. Chronic rheumatism is an adequate cause for discharging a soldier, when it occurs in an individual who has been long in the service with impaired general health, enlargement of the joints, and extenuated extremities. Rheumatism may, no doubt, attack young men, and disable them for a longer or shorter period, but it rarely disqualifies an individual permanently for military duty.

Rheumatism is frequently counterfeited by soldiers, more especially those who have served the period which entitles them to a pension for life, provided they are discharged as disqualified for military duty. These men commonly think that to gain their object, it is only necessary to affirm that they have pain in some of the joints, to put on the aspect of suffering, and affect decrepitude or loss of power in the limbs. The back, loins, and hips are the parts usually selected, the knee, ankle, and superior extremities less frequently. In general, there is no adequate cause assigned for the complaint, and no relief from remedial treatment is acknowledged, and while real rheumatic affections are commonly aggravated by changes of weather, the impostor complains equally at all times. When he is asked how he is to-day, his usual answer is, "Just the same, sir." Patients of this kind seem to think that the constant use of a crutch or stick, and a ready submission to such remedies as blisters, issues, &c. affords irrefragable evidence of the reality and the alleged degree of their disability. When the disability is real, the patient is commonly found in bed, or moving about very leisurely; whereas, in simulated rheumatism, if we surprise cases, they will frequently be found apparently at their ease, and enjoying the amusements of their comrades. Perhaps there is no class of disabilities which requires more care and more caution on the part of medical officers than cases of alleged pain, rheumatism, lumbago, &c., in men of comparatively short service. The most experienced eye, the soundest judgment, and the most delicate tact may be deceived; for many a soldier has been discharged, and even pensioned, in consequence of alleged chronic rheumatism, whose health was good, and who satisfactorily demonstrated that he had the complete use of his limbs almost immediately after he regained his liberty. When the health is good, and the seat of the alleged pain unaffected by swelling or increased temperature, a medical officer will probably, in nineteen out of twenty cases, be safe in concluding that no material, or at any rate no permanent disease exists. To admit the allegation of wandering pains unsupported by physical changes as an adequate cause for discharging young men, is to open a door for simulation, which it would be impossible to shut.

However frequently the existence of pain may be alleged with-

out foundation, no man should be pronounced or even presumed to be a malingerer until careful examination, hospital discipline, and adequate observation, have afforded a medical officer the requisite opportunity of arriving at a sound conclusion. The following brief history of a case will show the propriety of this precaution.

When Dr. G—— was surgeon to the —— regiment, he admitted a private into hospital, in consequence of a large ulcer of the leg, which was eventually presumed to be self-made. When the soldier was discharged from hospital, Dr. G—— told him that it was perfectly evident he had himself made the ulcer, and recommended him to abstain from such practices, as care would be taken that he should not continue them with impunity. In a few weeks this man returned to hospital, complaining of pain in the articulation of the right thigh. There was no obvious swelling or discoloration, and as he had the character of being a malingerer, strong and apparently well grounded suspicions were entertained that the alleged disability was merely pretended. The doctor did not decide precipitately, but prudently resolved to allow some time to elapse before he made up his mind on the case. Violent inflammation eventually came on, which terminated in permanent loss of motion of the joint. This man was a profligate character, and had lain in a state of intoxication on his right side in a ditch, for nearly the whole night, previously to his being admitted into hospital.

This case is very instructive. It strongly inculcates the propriety of proceeding with great caution under all circumstances, and of letting the evidence of neither good nor bad previous conduct suspend a careful investigation of symptoms in each case. Finesse will sometimes succeed in detecting imposture, when harsh measures would completely fail.

The late Dr. Davies, surgeon to the East India Company's depot, Chatham, had a young soldier under his care, who alleged that, in consequence of a severe pain of the back, he was unable to move or to be moved from his bed. His alleged pain had existed for about a month, and still no indication appeared that he intended to return to his duty. For the convenience of being watched, &c. he was accommodated in a ward by himself. Dr. Davies, who considered him an impostor, saw no prospect of his *giving in*—a circumstance which induced him to adopt a very simple measure for his detection. He went to the window of the ward in the dusk of the evening, and after gently tapping upon the glass, he in a low tone called the man by name, he was at the window in an instant, and the doctor had the pleasure of congratulating him upon the recovery of his locomotive faculty. This man went forthwith to his duty.

Dr. Fallois succeeded in restoring a malingerer to his duty by a new plan of treatment. A deserter who, after being for some time pursued by the *gens d'armes*, was eventually caught, and brought

to Namur, alleged that he had lost the power of moving one of his lower limbs, which was as plump and as warm as the other. Cupping, blisters, and moxas produced no good effect. After being a long time in hospital, Dr. Fallot adopted the plan of treatment recommended for gout by Cadet de Vaux, namely, causing his patient to swallow a large quantity of warm water. The man took the first dose with apparent resignation, but his courage failed him before it required to be repeated. Without giving any explanation, or making any confession, he stated in a few days that he was quite well, and able to proceed to his duty.

Mr. Bourchier, surgeon to the 36th regiment, succeeded in restoring a man to the ranks, who had been long under his care for alleged lumbago, by introducing a little *tartar emetic* into his food, which produced the usual effects—sickness and vomiting. The man became alarmed, and forthwith sent for a priest. He soon returned to his duty.

In no case should means be adopted to induce a suspected malingerer to give in, which a medical officer would regret having employed, were the disability to prove real. If a suspected patient possesses sufficient fortitude to support a rigorous trial, the medical officer who directed it will be regarded with indignation, while the patient is considered a martyr by his comrades. There is good reason to conclude, that many a simulator has persisted in his plan of endeavouring to obtain his discharge, and has undergone great physical pain, even corporal punishment, without flinching. Dr. Cheyne relates the case of a man "who pretended that he laboured under rheumatism, and, after persevering for four months, bent nearly double, was at last tried by a court-martial, convicted of malingering, and sentenced to receive 300 lashes. One hundred and fifty were inflicted without flinching, he obstinately declaring his utter inability to stand erect." He gave in, however, on being ordered out to receive the remainder of his punishment, and became a good soldier. Had second punishment been declared illegal, when this man was tried, it might have been supposed that he suffered under a real disability. The custom of inflicting second punishment prevailed more or less till within a few years; but it has been gradually falling into desuetude since Mr. Manners Sutton stated in the house of commons, in February, 1813, his opinion of its impropriety and injustice.

2. *Lameness—old fractures.*—Soldiers are frequently proposed for discharge in consequence of lameness, alleged to be the result of a bruise or an injury, of which, perhaps, there is no other evidence but their own testimony. Some men will persist for a number of years, complaining of pain, and loss of power of an inferior extremity, and assert that they are unable to perform their duty, while there is no obvious cause of lameness. In doubtful cases, a medical officer may ask himself the following questions,—Is it probable that the circumstance to which the lameness is ascribed could

occasion genuine disease? Is the alleged disability a consequence of the ascribed cause? By attentively investigating these points, he will probably arrive at as definitive a conclusion as the nature of the subject will warrant. Simulators of lameness, like those who feign other disabilities, are liable to give very exaggerated accounts of their feelings; for example, they will assert that the uneasiness occasioned by the application of a blister is excruciating, and that it has excited a variety of tormenting sensations far beyond its usual effects.

A fracture of a lower extremity is frequently assigned as a cause of lameness,—indeed, many soldiers seem to think that they ought to be discharged when they happen to get a leg fractured; and it would appear, by a circular letter from the medical department, dated 22^d January, 1830, that a number of men are annually discharged on this account. In civil life, persons usually recover completely from the disabling effects of a fractured limb; and there seems no reason why soldiers should not be equally fortunate; apparently they have a much better chance of recovery than the labouring classes of the community, inasmuch as, from the moment of the accident, they are attended by a medical officer, and receive not only the most appropriate treatment, but every necessary accommodation which their situation requires.

When a soldier who has had a leg fractured wishes to obtain his discharge and a pension, he commonly refuses to admit that he has recovered the use of his limb; he affects lameness, and complains of pain at the part where the fracture took place, and upon these grounds endeavours to establish his inability for duty, and consequently his claim to be discharged. He frequently, however, fails in his scheme by overacting. But it is not only the disabling effects of an actual fracture which are sometimes feigned; impostors occasionally assert that a limb has been fractured, when no evidence of it can be adduced but that of their own testimony. While I was employed in examining the inefficient men of the troops stationed in the Northern and North British districts, I met with three cases of this kind, where a thigh-bone was said to have been fractured. Each of the men stated that the accident took place while he was absent from the regiment, and while none of his comrades were with him. He walked lame, and the alleged fractured limb seemed shorter than the other. There was no trace of callus, or displacement of the ends of the bone, and the limb was not extenuated. I soon discovered by what means the extremity appeared to be diminished in length; for when the men were placed on their back, I found the muscles of the alleged infirm limb powerfully contracted, while those of the other thigh were relaxed and soft. All the three men were evidently great adepts in this means of imposition, and, although they belonged to different regiments, the plan they followed was very similar.

The disabling effects of disease of the hip-joint are sometimes counterfeited by the same means, and for a similar purpose.

The simulation of lameness is not confined to European soldiers. Seapoys and native dragoons belonging to the honourable the East India Company's service are not exempt from this military delinquency, as will appear by the following extract from a general order issued by the Marquis of Hastings, Calcutta, 29th March, 1818.

"The commander-in-chief takes this opportunity of cautioning the men of the native cavalry against a practice which is understood to be by no means uncommon among them, viz. that of men who receive simple fractures, or other hurts by falls from their horses, or other accidents, using means to distort their limbs, and otherwise to retard and render imperfect the cure of such parts, for the purpose of being placed on the invalid establishment; any man found guilty of the practice in future is to be reported to headquarters, it being the commander-in-chief's determination, not to allow any *malingerer*, or person guilty of using means to render himself unfit for duty, to remain in the service or burden the invalid establishment."

Isfordink succeeded twice in detecting a case of simulated lameness, by giving his patient a drastic purgative, likely to operate during night, and stationing a trustworthy orderly to watch his passage to the water-closet. The first time he proceeded to the closet, he limped all the way, but subsequently, being in greater hurry, and thinking himself not perceived, he moved with a free and quick step.

The passion of fear is sometimes usefully excited in cases of counterfeited lameness, by hinting the propriety and expediency of adopting some disagreeable remediable means at a fixed period, should no recovery take place before that time. When the actual cantery has been talked of, a patient has sometimes regained his efficiency before the period it was proposed to be applied.

3. *Deformity of the spine.*—Of all disabilities which disqualify men for military service, personal deformity would appear to be the most unlikely to be feigned, as the imposture is so easily detected. Malformation has, however, been frequently simulated by recruits, and in some instances with success.

E. Brady, a recruit for the 58th regiment, was approved by Mr. M'Leod, lately surgeon to the 42d regiment, and acting district surgeon in Dublin, in August, 1819. He was forwarded to the army depot, Isle of Wight, where he feigned malformation so effectually, that a board of medical officers, which was assembled on the 4th September, to report on his case, found that he was unfit for the service, on account "of deformity of the spine and chest—strong inclination of the body to the right side, defective motion of the right arm and leg—pain on pressure upon the spinous processes of several of the dorsal vertebræ." In compliance with the finding of the board he was discharged; he returned to Dublin, where he was minutely examined on the 22d September, by Dr. Peile, deputy-inspector of hospitals, the late Dr. Thomas Brown, and the late

Mr. Todd, professor of anatomy, who found his spine and chest well formed, no inclination of the body to the right side, or defect in the power of motion of the right arm and leg; and that he did not complain of pain on pressure upon the spinous processes of the dorsal vertebræ. But, previously to the latter examination, the object for which deformity had been simulated, was obtained. In January, 1822, Brady enlisted for the 89th regiment, and was approved at Newry, by staff-surgeon R. J. Brown. The above case is by no means a solitary instance of success in this variety of imposition. T. Darby, a recruit for the 59th regiment, was approved by Dr. Thomas Brown during the autumn of 1821, and transferred to the depot of the corps in the Isle of Wight. The nature of the farce he acted there may be inferred from the sub-joined copy of a report made on his case, by a board of medical officers: "The board have minutely examined recruit, Timothy Darby, 59th regiment, and find a curvature of the upper part of the spine, with deformity of the chest and shoulders, the left shoulder nearly two inches higher than the right, and the body slightly bent forward, with the head inclining to the left side. He has been in hospital upwards of two months, under observation and treatment; large caustic issues have been made on each side of the spine, and the cough and pain he complained of on admission are removed; the board are of opinion, that the deformity is incurable, and recommend his removal from the service." This report is dated 10th December, and Darby was discharged on the 13th of the same month, "in consequence (as his discharge stated) of a deformity in the spine and chest." Dr. Brown having been furnished with a copy of the above report very naturally inferred that there must be some fraud in the business, as it was morally impossible that he would have approved of so deformed an object as appeared to be described by the board. Darby was intercepted on his return home through Dublin; and on the 21st January, 1822, he was inspected by three eminent surgeons, Messrs. Colles, Todd, and Cusack, an extract from whose report I shall subjoin: "We have this day minutely inspected Timothy Darby, and we are of opinion, that he does not labour under any disease or deformity of the spine or chest; on the contrary, he appears to be remarkably well formed." On the 2d of November, 1825, Darby enlisted for the 87th regiment, but apparently presuming that he would be rejected, on account of the cicatrices of two large issues on his back, he refused to accept of a smaller sum than five shillings as enlistment money from the recruiting serjeant. He was brought to me for inspection, and I found him fit for the service, being perfectly aware at the time that Darby had been found unfit by a medical board. He was soon after transferred to the depot of the 87th regiment, and finally approved.

4. *Contractions.*—The continued and rigid contraction of a joint does not frequently occur among soldiers without some obvious external cause. This variety of disability used, however, to be very

often simulated, and perhaps it is still pretended occasionally. The parts most frequently alleged to be affected are the neck, constituting an imitation of *wry-neck*; the vertebral column simulating *crooked-back*, the *shoulder-joint*, the *elbow-joint*, the *knee-joint* and the *fingers*.

Contraction of a joint is usually attributed to chronic rheumatism, or to an injury. In consequence of inaction, and sometimes by means of bandages put on by stealth, the alleged infirm limb becomes occasionally a little extenuated. Sometimes the suspicions of a medical officer are not excited till an impostor presumes that his success is nearly secure, in other words, that he has "done enough," and when a schemer happens to be transferred to the care of a new medical attendant, his prospect of success becomes still more certain. It is not always easy to arrive at a definite conclusion in regard to an alleged disability of this kind, for medical officers well know that a considerable degree of disease may exist in a joint without any well-marked external character. The investigation of each case should be conducted with care and patience, and in this, as in most other alleged disabilities, a medical officer should not profess to discover imposture at once even when the imposition is pretty obvious.

Wry-neck.—A man belonging to ——— regiment was about to be discharged from the service in consequence of this disability, when, on account of intoxication, he was confined to the guard-room. Here he quarreled with his comrades, and, during the scuffle, forgot his assumed infirmity, by which means the imposture was discovered.

Crooked-back.—The perseverance with which this disability has been simulated, and the irksomeness of the posture assumed by individuals, would greatly exceed belief, did the facts not depend upon the most undoubted authority.

A man named Fitzgerald, belonging to the second battalion, royal regiment, while serving in India, alleged that, in consequence of an injury on his loins, he was unable to stand upright. For a period of eighteen months he walked with his body bent forward in such a manner that his fingers nearly touched the ground. Neither medical nor moral means had any influence in restoring him to the ranks. He held out until a communication was received from the Horse Guards, authorising commanding officers to re-enlist men whose period of service had expired, and that, when approved, they were to receive a bounty of sixteen guineas. This was the case with Fitzgerald; and two days after the arrival of the communication had been announced, he presented himself for inspection as straight as a well drilled soldier before the medical officer under whose care he had long been. Moral turpitude, not physical disability, prevented his being re-enlisted into the royal regiment; but he eventually enlisted in the 25th regiment of dragoons, which was at that time in India.

Private J. W. ——— regiment was sent home from India to be invalided, and on the 10th of June 1828, was admitted into Fort Pitt

general hospital. He stooped so much that the upper half of his body formed nearly a right angle with his inferior extremities, and he usually moved from place to place by the help of a stick about two feet long which he grasped by the middle. This disability was eventually presumed to be feigned, and he was consequently placed on his back on the floor, under the superintendence of a medical officer, when he held his legs in nearly a vertical direction, and complained most piteously upon any attempt being made to put his inferior extremities upon the same line with his body. This position was reversed, and for some time he supported himself on his head, hands, and feet. He soon became tired of this state of prostration, and at last, when he could endure it no longer, he stretched his legs fully out, and lay flat upon his chest and stomach. He then warmly expressed his gratitude to the medical officer for having so effectually cured him of a disability under which he had so long suffered, and observed, that, if the surgeon of the corps to which he belonged had done as much for him in India, what a happy man he should have been !! He was discharged to duty on the 7th August, 1828.

Crooked back is occasionally feigned in this country as well as in India. I am aware of one case which was *cured* not long ago by means of a warm-bath; the patient was placed in a cask, and water gradually added until he found it expedient to stand upright to prevent being drowned; he was not aware of the ultimate object of the bath, and consequently he was in some measure taken by surprise.

The shoulder-joint.—A soldier belonging to —— regiment, while it was serving in the Bombay presidency, was brought before an “invaliding board,” in consequence of alleged immobility of the right arm, which projected from the shoulder, forming a right angle with the side. Nothing satisfactory could be ascertained in regard to the origin of the disability. The evidence of the medical officer under whose care he had been, together with that of his comrades, tended to prove that the arm had been unintermittingly extended in the manner described for a period of about sixteen months, and that, although various means had been employed to flex the shoulder-joint, they all had been ineffectual. The invaliding board recommended him to be discharged, as being unfit for the service; and this recommendation was subsequently approved by the medical board at Bombay. Just on the eve of embarkation, the man in question was walking with a large bottle of arrack under his left arm, when a person approached him unperceived and seized it. Fearing that the prize might be lost, he instinctively bent *the right shoulder-joint*, and firmly grasped the bottle with the right hand. This circumstance was accidentally observed by an officer who knew him: the man was forthwith tried by a court-martial, and sentenced to receive 1000 lashes.

It is probable that the immobility of the shoulder-joint was simulated in imitation of the Indian Fakirs, who exhibit strange

displays of self-penance and mortification. I received my information in regard to this case from the president of the "invaliding board" which recommended the man to be discharged.

The elbow-joint.—When Dr. G. was on duty at York hospital as staff-surgeon, a serjeant belonging to the German legion was admitted a patient, in consequence of an alleged contraction of the elbow-joint of the right arm. This man bore a remarkably good character, as may be inferred from the circumstance of his having been for a number of years orderly-serjeant to a general officer. Documents accompanied him to the hospital, testifying the fact of his having, while on duty, met with an accident, to which the lameness of his arm was attributed, and also bearing evidence of his excellent moral and military character. Dr. G. did not suffer himself to be put off his guard by testimony; but, having carefully examined the arm, came to the conclusion, that, in all probability, the disability was feigned. The means of detection were ingenious and successful. He placed a small cushion between the arm and side of the serjeant, so as to prevent him from resting the elbow on the hip. He then held his own arm in a position similar to that of the serjeant's, and desired an assistant to append, by degrees, equal weights to his hand, and to that of the patient. Dr. G.'s arm became overburdened, and, being unable longer to support the weights, he straightened his elbow-joint, and placed them on the floor. The serjeant continued, however, to keep the joint in a flexed state, but at length the arm began to quiver; a circumstance which the doctor quickly noticed, and coming unperceived behind him, completed the extension by the aid of his hand.

The knee-joint.—Cases of simulated contraction of this joint are not rare. One occurred in the Royal regiment in India. The medical officer who had charge of the regiment was satisfied that the disability was feigned; for although he could easily straighten the leg, it was instantly retracted when the force applied was withdrawn, but the impudent impostor would not *give in*. He was transferred to the care and discipline of the commanding-officer, who directed him to be paraded daily at the orderly room, where he was extended on a cot or platform under his own superintendence, and the contracted limb straightened and retained in this condition for about two hours. Day after day the same process was repeated for a long time, without any advantage, and, after a period of about eighteen months, the patience of the commanding-officer became exhausted, and the man was discharged.

I had a case in many respects similar under my care; a Mussulman, a native of Bengal, enlisted in the troop of Ceylon cavalry, but after a few weeks, he alleged that his right knee-joint had become contracted, and that he was lame. I succeeded easily in straightening the limb without effecting any permanent advantage; he continued to persist in simulating lameness with so much

perseverance that, although it was quite obvious he was an impostor, he obtained his discharge.

The fingers of a hand.—A man of the 52d regiment alleged that the fingers of his right hand had suddenly, and without any obvious cause, become contracted, by which means his fist was permanently closed. He was long in hospital, but the disability remained. General Ross, who then commanded the corps, directed him to be confined in a solitary cell, in which was an elevated shelf; his left hand was secured to his body, and a loaf of bread and a pitcher of water were placed upon the shelf, so that he could not partake of them without employing the contracted hand. At the end of the first twenty-four hours the bread and water were untouched, but, by the termination of another diurnal period, the bread had disappeared, and the pitcher was empty. The soldier returned to his duty.

It is in general much more difficult to deal with an exaggerated disability than with a completely feigned infirmity. A medical officer belonging to the depot of a regiment, lately approved of a recruit for the corps, and probably, from omitting to follow the prescribed routine for the examination of recruits, a slight contraction of a finger escaped notice. Nothing was said of this blemish until the recruit was some time at drill, and had become tired of being a soldier, when he asserted from day to day that he was unable to handle the musket. Every attempt to induce him to do his duty failed, and the medical officer, rather than have his oversight reported to the authorities, deposited £20 for the purpose of purchasing the man's discharge, by which means he left the service.

The investigation of a case of alleged contraction of a joint should be conducted with much care and patience, and no fact connected with the history of the disability should escape due attention. Mildness, firmness, attention, and perseverance, will, I believe, in general succeed in satisfactorily discovering whether it is real or feigned. Various means have been employed in suspicious cases of contraction, and sometimes a measure which has been successful in one case, has failed in unveiling truth in another. A tourniquet applied to the thigh in a case of contracted knee-joint has an excellent effect in destroying the voluntary action of the muscles, and in relaxing simulated rigidity. Some men cannot endure repeated shocks of electricity, and consequently report favourably of its influence in restoring the motion of a stiff joint; other individuals will bear the application of this agent in almost any degree without flinching.

It is frequently useful to depart from the usual mode of examining a case of alleged disease when its existence is doubtful. I recollect being asked to look at an old soldier who had been long in a civil hospital on account of alleged contraction of the *left* knee, and after approaching the side of the bed, and examining the

knee, I desired him to lie upon his face, by which means the right leg assumed the place of the left. I then placed my hand upon the *right* knee, which became gradually flexed, while the contraction of the left knee disappeared. This man's attention was so completely engaged with the right knee when it was under examination, that he forgot that it was his left knee which he had alleged was contracted.

5. *Mutilation*.—I am not aware that any regulation has been issued in this country, specifying the smallest degree of the mutilation of a hand or a foot, which would warrant a soldier being discharged as disqualified for military service; but conscripts are, in the eye of the law, soldiers, and the following rule which obtains in the French and other continental armies may, so far at least as efficiency is concerned, apply also to soldiers in the British army.

France.—The total loss of a thumb, or a great toe, or the index-finger of the right hand, or two fingers of one hand, or two toes of one foot.

Prussia.—Loss of a thumb, or the index-finger of the right hand. Loss of a great toe.

Netherlands.—Loss of a thumb, or of a great toe, or of the index-finger of the right hand, of two fingers of one hand, or two toes of one foot.

Belgium.—Loss of a thumb, or of the first phalanx of an index-finger, or of more than one finger or toe.

The loss of a thumb, or the index-finger of the right hand, or a great toe, unfits a soldier for duty, and warrants his being discharged; but the loss of any other finger or toe does not, I presume, completely disqualify him for the army.

Mutilation has been long practised by conscripts as a means of exemption from serving in the army, and by soldiers for the purpose of being discharged from the service. Constantine made a law, directing that soldiers who mutilated themselves should be branded, and that they should not be discharged; but be employed at whatever labour they were capable of performing. Valentinianus and Valens confirmed this law, and ordered that the mutilators should be still more severely punished. The practice of mutilating the hand, by cutting off some of the fingers, became frequent in the time of Theodosius, both among soldiers and persons in civil life who were liable to be called to serve in the army. This emperor confirmed the laws formerly enacted in regard to *polltroons* (*pollice truncus*), persons who had been guilty of hand-maiming; and, in consequence of the difficulty which some of the provinces had to raise the full quota of efficient men, he directed that two mutilated conscripts should be allowed to reckon as one man of a prescribed levy. Thumb-maiming must have been very common at one time, when it required such severe enactments against it, and gave origin to the term *polltroon*,—a coward, a dastard, or mean-spirited fellow.

Conscripts for the French army are, by a circular letter of 1819,

to be finally approved, although they are mutilated, if it shall appear that the mutilation was voluntary. The councils of revision examine minutely into the circumstances of each case, and when it appears that mutilation has been effected intentionally, the following observation is appended to the departmental list: "The council is satisfied that ——— has mutilated, or caused himself to be mutilated, for the purpose of evading a legal obligation." These cases are directed to be reported to the minister at war, who gives directions in regard to their future destination.

These facts show the importance which the voluntary mutilation of conscripts and soldiers obtained both under the Roman government, and also at present in France. Until lately, the British soldier, having not only the prospect of liberty, but also of an annual pension, had a greater inducement to commit this crime than the conscripts or soldiers of either of these countries, and consequently voluntary maiming was at one time practised to a considerable extent. During a period of four years, immediately previous to 1829, twenty-one soldiers were pensioned for life in Ireland, in consequence of being disabled by the explosion of their own muskets. The disabilities thus occasioned, invariably consisted of mutilations or injuries of the right or left hand. That most, if not all of these cases of maiming were voluntarily inflicted, hardly admits of a doubt. It cannot have escaped the notice of officers that, when a soldier meets with an accident, it is almost always in the fingers, and many more mutilations take place while men are on furlough living with their friends, whom they do not wish to leave, than at any other time.

I have no means of knowing the number of men who may be annually discharged in consequence of injuries accidentally received or voluntarily inflicted, without which branch of information I am unable fully to show the importance of the subject under consideration.

Suicide, which is the highest degree of mutilation, is, I believe, more frequent among soldiers than among men of the same age and rank in civil life. The ratio of cases of self-murder among the cavalry branch of the service has been found to amount for a series of years to one suicide out of 20 deaths, or nearly one annually per 1000 of the strength. It is obvious that this statement does not comprehend the number of men who attempted suicide, but merely the cases where the result was fatal.

The practice of maiming has been so frequent in some regiments as to appear epidemic. The author belonged to a regiment in which nine men maimed themselves in the course of six weeks, and in every instance the injury was presumed to have been inflicted voluntarily. The explosion of their own muskets was the plan they invariably adopted to effect their purpose; and the injury was always in a foot or a hand. They all, as may be inferred, attributed the explosion of the musket to accident, and not to design; but one man who maimed himself in a necessary, found much difficulty

to account for his taking a loaded musket into a place of that kind. Very lately when ——— regiment was at Cork, and about to embark for the West Indies, four of the men made their appearance with the first joint of the thumb of the right hand mutilated. Voluntary mutilation sometimes takes place under very extraordinary circumstances, even during a conflict with an enemy.

During the insurrection of the Kandians in 1818, a private, and a tailor by trade, belonging to ——— regiment, and who had been only a short time in the service, was on sentry a little in advance of a post occupied by British troops, and while on this duty he was occasionally fired at by the enemy from the surrounding jungle. This man was found severely wounded, the calf of the left leg being greatly torn, the whole charge of a musket having passed through it. He attributed the wound to a shot from the enemy; but the black charcoal on the leg, the nature of the injury, and the recent explosion of his own musket, told a different tale. He was, along with other men of the regiment, discharged, and received a pension of sixpence a-day. When I was on duty in Edinburgh as staff-surgeon, (1823,) a pensioner applied to me to report on his case, in consequence of an alleged aggravation of the disability for which he had been discharged, with a view of moving the lords commissioners of Chelsea hospital to increase his pension. He complained of a pectoral affection; but I learned from his "instructions," that he had been discharged on account of a gunshot wound in the leg, the cicatrix of which he uncovered with great reluctance, and by this means I recognised my old patient the tailor. He disappeared without repeating his solicitation for me to report upon his alleged pectoral complaint.

In the course of about three years, or from 1819 to 1821, inclusive, a great number of soldiers belonging to the Bombay European regiment and artillery, mutilated themselves principally by cutting off a thumb. Sometimes the wrist-joint of the right arm was destroyed by a gunshot wound. At first, these men were sentenced by a court-martial to undergo severe corporal punishment, which they received previously to being discharged; but this measure did not arrest the progress of what may be considered an epidemic. Subsequently solitary confinement for twelve months was substituted for flogging, and apparently with good effect, and examples of mutilation became much less frequent than they had been formerly; the long protracted period which elapsed before the men were sent home was supposed to have had a greater influence in discouraging mutilation than corporal punishment.

When soldiers are tried by a general court-martial for maiming themselves, the result is sometimes published in general orders in the following manner:

G. O. 28th February, 1816.—At a general court-martial, private J. Lennon, of his majesty's Royal Scots, was arraigned upon the undermentioned charges, viz.

1st. Highly unsoldier-like conduct, in wilfully disabling himself by firing a musket ball through his left hand on the night of the 23d, or morning of the 24th instant.

2d. For making away with one round of ball cartridge issued for field service,—camp at Akowla, 24th September, 1815.

Finding—guilty—*sentence*, to forfeit all benefit arising from his former services, and to receive 1000 lashes.—Confirmed.

(Signed)

J. HISLOP, *Lieut.-General*.

The 26th and 27th articles of the pensioning regulations of 1829 direct, that, whenever a soldier is maimed, the circumstances of the case are to be investigated by a court-martial, and when it shall appear to the court that the injury in question was the effect of design, the soldier shall not be discharged. In such cases, the evidence of a medical officer in regard to the means by which a wound was inflicted will very generally be required, and his testimony ought invariably to be given with much caution; for, notwithstanding the greatest skill and attention, he will sometimes find it not an easy matter to satisfy himself respecting the cause of the injury. A careful examination of the wound, aided by collateral circumstances, will, however, in many cases, lead to a satisfactory conclusion. Very few individuals who mutilate themselves consider beforehand in what manner they are to answer the questions, *how*, *when*, and *where* the accident happened, and to explain all the accessory circumstances. A private in ——— regiment, to which the author belonged, was one morning dividing the meat for the different messes of a company, when he cut off the thumb of the left hand. The mutilation was stated to be the result of accident, but when the amputated portion of the thumb was examined, a deep incision was found in it, obviously showing that the amputation must have been voluntary, and that it had not been accomplished by the first stroke of the cleaver.

A court-martial, when occupied in the investigation of a case of maiming, would require to devote great attention even to minute incidents, for voluntary mutilation occurs sometimes under very remarkable circumstances. There was an instance of voluntary mutilation in ——— regiment not long ago. A soldier attempted to mutilate a thumb, but his courage failed him, and the operation was effectually concluded by his wife. A soldier who was at the time quartered in the Dublin depot barracks alleged, that, in consequence of falling forwards upon a fractured glass bottle lying at the bottom of the barrack stair, he had a thumb nearly amputated; in fact, a small portion of skin on the palmar side of the hand was all that remained. He could not explain why the thumb should have been wounded towards the back of the hand by his falling forwards,—he received 300 lashes. A dragoon asserted that his horse bit off the left thumb when he was feeding him, but the traces of blood on the man's sword satisfactorily demonstrated that a more artificial instrument had been employed than a horse's teeth. Dr.

Fallot gives an account of a soldier, who, intending to destroy his eyes, threw a quantity of sulphuric acid on his face, but, as the eyelids were instinctively closed when he moved his hand, the eyes were not injured. This man made several very unsuccessful attempts to explain by what means the acid was applied to his face.

In countries where the armies are recruited by conscription, the mutilation of young men who may be enrolled for military service is not unfrequent; but, as far as I know, the following circumstance, which marks the popular dislike to the army, is unique in this country.

“A dissolute son of a widow, at Longashford, some time since enlisted as a soldier, to the great grief of his parent, who, with much difficulty, succeeded in obtaining his release. He has since frequently threatened to take the same step, with the view of obtaining from his mother any object he desired. On Monday he came home intoxicated, and his mother, believing that he intended to carry his threat into execution, had recourse to the following extraordinary expedient for its prevention. With the assistance of her daughter, while her son was asleep, she bandaged his wrist to prevent hemorrhage, and the daughter having placed the fore-finger of his right hand on a block, the mother actually chopped it off with a hatchet a little beyond the first joint.”—*United Service Gazette*, 12th Nov. 1837.

Perhaps the most remarkable investigation which ever occurred in regard to the mutilation of soldiers happened at Douane, near Dresden, 19th June, 1813. After the battles of Lutzen and Bautzen, it was represented to Napoleon that a great number of the wounded had merely lost fingers, or had their hands injured by musket-balls, and suspicions were entertained that the wounds had been voluntarily inflicted. A board of medical officers was directed by the emperor to assemble for the purpose of examining 2632 soldiers, each of whom had been wounded in a hand. Barron Larrey was appointed president of the board. The examination of each man was made with great care; 1st. In regard to the disabling effects of the wounds; 2dly. In regard to their immediate causes; 3dly. Respecting the circumstances which preceded and attended the infliction of the injuries.

The board, after mature deliberation, came to the conclusion, that it was impossible to distinguish between wounds occasioned by the fire of an enemy and injuries voluntarily inflicted, and consequently they reported that there was no satisfactory evidence of any of the soldiers under examination having mutilated themselves.

During the year 1833, 176 soldiers in the French army were convicted of the crime of voluntarily mutilating themselves, being relatively as 1 to 39 of all the other convictions, and actually as 1 in 2262 of the strength of the army.

Soldiers commonly maim themselves to obtain their discharge,

and sometimes even to become convicts, as was the case in New South Wales a few years ago. The men were ordered to be kept in the regiment to which they belonged, and to perform the duties of scavengers. "The commanding officer lately complained that he had six or seven of these maimed men, who were a dead weight and a disgrace; but the example is so important, that the commander-in-chief has directed the commanding officer to keep them as long as they live, as a warning to others to avoid the same fate."—(*Evidence of Sir Henry Hardinge before the Commissioners on Military Punishments.*)

When regiments are kept for a long time in a station which the soldiers do not like, they sometimes mutilate themselves. During the last century, maiming became so prevalent among the troops stationed in Minorca, as to lead to an investigation by parliament into the circumstances to which it was attributable. Major-General Anstruther, who was then lieutenant-governor, in his examination before the lords, being desired to acquaint the house with some examples of the despair in the soldiers, answered, "There have been a good many instances of soldiers upon that island shooting off their hands, and some of them shooting off their feet, and some of them shooting themselves through the head, of those who have been longest there, by which your lordships will observe they will incapacitate themselves from earning their bread at home rather than continue there." The 9th regiment served from 1719 to 1746, a period of twenty-seven years, at Minorca.

6. *Wounds.*—In the warrant of 1829, disabilities arising from wounds received in action, and which disqualify soldiers for military duty, have been arranged under four classes or degrees, each class conferring a particular rate of pension; but in the warrant of 1833 they are classed under three heads. I am not aware, however, that medical officers are called upon to give an opinion in regard to the class to which a man's disability entitles him to belong, their province being confined to a decision upon the disabling effect, and the cause of an infirmity. Every man's statement in regard to his disabilities and consequent claims upon the service demands a candid unbiassed investigation; but the opinion given upon the disabling effects of an injury must be founded on a knowledge of the anatomy and functions of the organs implicated.

A medical officer will require to exercise much discretion in regard to the alleged cause of wounds, as also in regard to the disabling effects of injuries. Dr. Hennen informs us that the cicatrices of common ulcers have been shown as gunshot wounds, and he states that he once saw the mark of a square blister pointed out as the effect of contusion from a ball. I was once requested to visit an officer for the purpose of dressing a gunshot wound of the left arm, which he alleged had been received during a conflict with the enemy. He commanded a small detachment a few miles in advance of the post where I was stationed, and left his party in order that, as he stated, I might examine and dress his wound. Upon

inspecting the site of the alleged injury, no wound could be discovered except an abrasion of the cuticle, about the size of a large pea, which appeared to have been done with a penknife. Care had been taken to destroy the sleeve of the jacket, so that it was impossible to obtain any information respecting the cause of the alleged wound by examining the clothes. I recommended the officer to return forthwith to the station he commanded, and he followed my advice.

Soldiers sometimes calculate largely upon the credulity of medical officers, as will appear by the following instance.

W. Dempsey was approved by Dr. John Brown, at the Dublin depot, for the 83d regiment, in the month of February 1813, and transferred in the usual way to Dunbury barracks, the quarters of the depot of the regiment. He was there "surgically rejected," in consequence, as stated, of having a "*plate inserted*" in his skull. According to Dempsey's own account of himself, he had served in the Phoenix frigate, and was shipwrecked in her, when he met with an accident by which his skull was fractured; a circumstance that rendered the insertion of a plate necessary. In consequence of this fictitious disability he was discharged, and immediately after a letter was addressed to the commander of the forces in Ireland by the adjutant-general, signifying his royal highness' "command, that the expenses incurred by the enlistment of William Dempsey must be paid by Dr. Brown, who does not appear to have used due attention in the examination of this man;" observing at the same time, that Surgeon Brown's experience might have taught him, that in general no dependence is to be placed on the assertion of those who offer themselves as recruits in the *Dublin district*; and that, in order to guard against the like imposition being again practised, and to avert the consequence resulting from it, he will no doubt see the necessity of trusting only to his own judgment, and of not depending upon what any recruit may himself advance. The same man appeared at the depot, under the name of C. Dempsey, as a recruit for the 12th regiment, on the 18th May 1813; he was recognised by Dr. Brown, who, after examining him carefully, was of opinion that his skull had never been fractured. He was next examined by the army medical board, whose certificate, attested by the signatures of Drs. Harvey and Renny, stated, that "Dempsey is fit for service, as every part of the skull appears at present to be perfectly firm and sound." He was transferred to the army depot in the Isle of Wight.

CLASS VIII.—*Diseases and Lesions of the Lymphatic System, and of the Constitution generally.*

1. *Scrofula*.—Men who are labouring under scrofulous affections are occasionally brought forward by regimental medical officers for the purpose of being discharged. The more common symptoms of this disease are great enlargement of the lymphatic

glands, especially of the neck, which is sometimes accompanied by a tuberculous disorganisation with, or without, an ulceration of the parts affected, sinous ulcers, swelled joints, &c. As the general health of persons who suffer under the external symptoms of scrofula is seldom good, they rarely become efficient soldiers. Well-marked scrofula, when the symptoms disable a man for duty, is an adequate cause for discharging him from the service, even although the disease is not of long standing.

2. *Cachexy*.—Under this head a considerable number of men are discharged from the service. The origin of the alleged inefficiency is usually attributed to organic disease, sometimes indicated by emaciation, and other symptoms of marasmus. The existence of visceral disease may be ascertained, in so far as pathological facts can be appreciated, by means of percussion, auscultation, pressure, the aspect of the person under examination, and by the history and duration of the disease. The term *cachexy* comprehends a great variety of disabilities, including those occasioned by disease contracted in tropical climates, together with the disabilities which result from syphilis, or the remedial means adopted for its cure, and that numerous class of physical and moral infirmities which accompany an abuse of ardent spirits. The diseases of tropical climates frequently occasion extensive organic derangement, which injures the functions of the viscera, and often permanently impair the health and efficiency of soldiers who are its victims, and many a soldier who would enjoy good health and be efficient in every respect, destroys his constitution by habits of intemperance, and disqualifies himself for the army. A moral disease of so intractable a nature as drunkenness, and one so intimately connected with physical disability, frequently incapacitates a man for military duties, and therefore is too often an adequate cause of discharge from the army. This observation must, however, be limited to extreme cases, and particularly to men who are frequently in hospital on account of the consequences of habits of intemperance, and who are found, after long trial, to be incorrigible drunkards.

By the abolition of an indiscriminate issue of spirit-rations to soldiers on board ship and in foreign stations, one important excitement to habitual intemperance among them has been removed. So long as a quantity of spirits (amounting in India to the twentieth of a gallon) formed part of the regular diet, or daily ration of a soldier, which he was obliged to swallow or throw away, what rational hope could be entertained that the exertions of commanding officers, however well directed, would have much influence in preventing habits of inebriety among the men under his command—more especially in countries where spirits were cheap, and easily procured by soldiers? The daily use of spirits is not necessary for the efficiency or health of troops in any climate, and the abuse of spirituous liquors is a fertile source of inefficiency, disabilities, disease, and crimes, both moral and military. To swallow nearly half a pint of spirits daily was, until the abolition of spirit-rations,

a part of the *duty* of a soldier; and that this duty might be effectually executed, it was the usage of the service in many stations to have it performed under the immediate superintendence of a commissioned officer, who certified to his commanding officer that he had actually seen each man drink his *drams*. Perhaps a more successful plan of converting temperate men into drunkards could not have been invented. It would be difficult to speak too highly of the discrimination of Sir Henry Hardinge, in perceiving and appreciating the evils of the practice, and of his firmness and judgment in remedying the abuse.

For temporary purposes, such as to evade a duty, and to obtain sick leave from a foreign station, cachexia or general bad health is sometimes simulated by swallowing nauseating medicines, such as a solution of tartar emetic, &c. A medical officer informed me that he succeeded in feigning sickness so as to obtain leave of absence from the West Indies, by indulging freely in wine, and depriving himself of sleep for two or three nights immediately before the day he was to be examined by a medical board; his disordered attire, unshaven chin, sunken eye, depressed lower jaw, pale and contracted countenance, tight clothing, aided by a pair of excessively large boots, which he borrowed from a friend, so changed his usual appearance, that he was scarcely recognisable by his acquaintance. The board decided at once that he should have leave to proceed to England.

3. *Dropsies*.—The number of men discharged from the service under this head is considerable, being, according to the circular letter of 22d January 1830, rather more than 50 annually. As the diseases of which dropsy is frequently only a symptom are rarely long protracted, it becomes the duty of a medical officer to deliberate whether a man thus affected should not be accommodated in hospital until the issue of his case be determined.

4. *Worn out*.—On the 19th August, 1823, a warrant was issued from the war office, which authorised the admission of soldiers on the pension list, who had been discharged and had claims to the out-pension arising from *service alone*, without personally appearing before the commissioners of Chelsea Hospital, and as it does not appear to have been necessary to assign a specific disability for a man's unfitness for further service in his discharge, the indefinite term "worn out" was very generally adopted. When the term in question was applied to men who had served above 14 or 21 years in the infantry, or above 17 and 24 in the cavalry, the periods when pensions might be granted, its meaning was pretty well understood; but when it was employed in the case of men who were discharged after very short service, and in consequence of being disabled by disease, it conveyed no specific information. The warrant of 1823, (which was cancelled by the warrant of the 14th November 1829,) excited a very general belief in the army that a soldier had a right to claim to be discharged, and to receive a pension after serving a certain number of years, even although he had

enlisted for unlimited service, or, in other words, engaged to serve until he was discharged. By the warrant of 1829, the disease or cause of incapacity of every man who is proposed to be discharged on account of unfitness for service is directed to be specifically stated by a medical officer, for the purpose of being transmitted to the general commanding in chief, without whose authority no man is to be discharged. When a man wishes to leave the army, he endeavours to establish a claim for his discharge from the service, by alleging that he suffers under some disabling infirmity; and if a soldier has served 21 years in the infantry, or 24 years in the cavalry, medical officers are commonly very much disposed to give ample credit to his statement. The ratio of men who are serving in the infantry of the line above 21 years service is very low, being about from two to three per cent. This circumstance may depend upon two causes, first, the men may be disabled or "worn out" by that period of service, or, secondly, because, by the pensioning regulations, every man enlisted before the 14th of February 1833, who is discharged on account of the public service, in other words, in consequence of *unfitness for service*, after having served the respective periods of 21 and 24 years, is entitled to a pension for life. When an old soldier wishes to leave the service, he is not in general long in attaining his object. The Romans appear to have been very careful that none but really inefficient soldiers should be discharged as disabled for military service. Bruce, in his *Institutes of Military Law*, states, "That dismissal on account of age, infirmity, &c. was not lightly, nor of course granted by the Roman generals. For before it could be competent, there behooved to proceed a solemn declaration of physicians that the person was utterly unfit for further service. And if thereafter it was discovered that the dismissal was obreptitiously procured, the impetrant was ordained to be heavily fined."

CLASS IX.—*Diseases and Lesions of the Nervous System.*

1. *Palsy, partial or general.*—Palsy is usually indicated by a diminution or abolition of the muscular power, with a partial or total loss of sensation in the part affected. When a soldier has been under treatment on account of this disease in an extremity for a few months without success, little hope can be entertained that he will ever become fit for military duty, and, consequently, he may be recommended to be discharged. The first and principal object is to ascertain whether the disease exists, for when no doubt is entertained of the existence of palsy, the man may be considered unfit for the army.

Palsy is easily and frequently simulated, and, in many instances, considerable difficulty exists in determining whether an alleged disability of this kind is real or feigned. *Hemiplegia* and *paraplegia* are both occasionally simulated; but loss of the power of an arm is that variety of palsy which is most frequently feigned. In feigned

palsy, as in the simulation of almost all other disabilities, impostors are apt to overact their parts, and to enumerate incompatible symptoms.

I recollect examining a man who belonged to the — regiment of light dragoons, who was proposed to be discharged in consequence of *hemiplegia* of the right side. He stated, that immediately after a fall from his horse, he had lost the power of the right arm and leg. His health was obviously good, his limbs muscular and firm; the right arm hung like a pendulum by his side, but when I flexed the elbow joint, he forgot to let the fore-arm fall to its original position; indeed, he thought it necessary to resist for a time a slight attempt to straighten it. The appearance of the man rendered the existence of the alleged disease doubtful, and the incompatible symptom of contracting the arm satisfied me that it was simulated. The man in question committed a mistake which is very frequently made by the simulators of palsy; they are not commonly aware that paralytic limbs are very pliant, and occasionally offer some resistance when any attempt is made to bend them. A healthy arm trembles when a heavy weight is appended to it—a circumstance which does not take place when it is paralytic.

Paraplegia is sometimes simulated, and the most uncomfortable condition endured with martyr-like perseverance.

A man belonging to the Cavan militia alleged that he had lost the power of his inferior extremities, was recommended to be discharged on account of palsy, by Dr. Harvey, physician to the General Hospital, Dublin. Having received his discharge and the balance of his pay, he hired a car and was driven in it to the Phoenix Park, where the Cavan militia was at exercise. Upon approaching the corps he threw away a pair of crutches which he had long used, and bounded like a deer for some time in front of the line, and after slapping his breech, scampered off as fast as he could. The object of some impostors appears to be incomplete, until they have effectually demonstrated to their comrades that their alleged disabilities were simulated.

A man belonging to the 10th regiment, while it was serving in the Mediterranean, asserted that he had lost the power of his inferior extremities, and underwent hospital discipline for two years, at the end of which period the existence of any real disability was still doubted. As a final trial, the medical officer directed him to be confined in a room, containing a shelf amply stored with provisions, which he could easily reach by standing on his legs, but not otherwise. The food remained untouched at the end of forty-eight hours, and, as it was not deemed advisable to prolong the experiment, he was included in the list of invalids, and carried on board a transport bound for England. Before the ship sailed, an alarm was given about midnight that she was on fire; every one on board hurried into a boat alongside, and after reaching the quay

the passengers were mustered, when it was found that the alleged paralytic cripple had not only succeeded in saving himself, but he had brought his trunk also on shore with him. He was sent back to the ranks.

I am indebted to a very talented and experienced medical officer, Mr. Gulliver, assistant-surgeon, Royal Horse Guards, for the following case of simulated paraplegia.

Private James Bell, 37th regiment, while the corps was stationed in Jamaica, alleged that he had received an injury on the loins, which was followed by total loss of power of the lower extremities. He was sent home, and admitted into Fort Pitt hospital, where it was soon presumed that the disability was feigned. Bell was a robust, healthy man; he moved from place to place by means of crutches, at the same time dragging his legs on the ground, and when they were touched, he bellowed and roared with all the force he was able. When the crutches were taken from him, he remained with a kind of dogged stupidity in one place, deploring his condition, and shedding abundance of tears. Mr. Gulliver, who had the charge of Bell, had occasion to send for his patient to the ward he was in, when the alleged paralytic cripple was brought to him between two orderlies, round whose necks he supported himself, with his thighs drawn up to the abdomen, and his heels nearly touching his buttocks. This circumstance was quite satisfactory in proving that he had not lost the motive power of the muscles of the inferior extremities; but he would not *give in*, and he was forwarded, in the usual way, to Chelsea to be discharged. Bell had been in the service for about nine years, a space of time which he had spent chiefly in different hospitals.

When a malingerer possesses adequate fortitude to endure the uneasiness occasioned by the remedial means directed by a medical officer, together with the irksomeness of hospital discipline for a considerable time, he will in general succeed in obtaining the common object of simulators—a discharge from the service. In many instances it becomes a trial of patience between the surgeon, the commanding officer of a regiment, and the simulator; so that detection, or what may be called conviction, frequently fails in making an impostor return to his duty. The success of some impostors is so surprising as almost to exceed belief; for example, the following case, which rests on the most undoubted testimony.

Private Reilly, belonging to — regiment, having been detached from the corps while it was employed in the Deccan (1819), complained that he had lost the power of his left side, which was alleged to have been occasioned by wet and cold, to which he had been exposed during the monsoon winds. He was accommodated with a dooly, a species of palanquin, and for eight months he was carried along with the troops in the field, there being no good opportunity all that time of sending him to the rear. At the con-

clusion of the war he joined the head-quarters of the corps to which he belonged, and came under the care of the medical officers belonging to it, who knew Reilly. After a careful examination by the surgeon and assistant-surgeon, they concluded that his alleged disability was simulated. He was then informed of the opinion entertained of his case, and also that he would be allowed till twelve o'clock on the following day to deliberate whether he would then return to his duty or be brought before a court-martial. He did not seem to decide until very near to the hour named, when he left the hospital and proceeded to the barracks. He continued at his duty till the drafting of the men in 1822, when the corps returned to Europe, and he was transferred to another regiment. Reilly must have had a much higher opinion of the liberality and kindness of the medical officer who accommodated him with a dooly for so long a period than of his professional skill and discrimination.

Partial palsy, such as the loss of the power of an arm, is much more frequently feigned than either *hemiplegia* or *paraplegia*.

A private belonging to the 44th regiment alleged that he had fallen asleep in the open air, and that when he awoke he had lost the power of the right arm. Mr. Jones, assistant inspector of hospitals, who was then surgeon to the corps, was satisfied that the disability was feigned, and reported the circumstance to the commanding officer. The man was tried by a court-martial, and sentenced to receive 300 lashes, but the sentence was not carried into effect. Shortly after the trial, he was transferred to the general hospital, Dublin, and placed under the care of the late Dr. Cheyne, who states in his letter to Dr. Renny, with reference to this case, "That, after due consideration, I concurred in the opinion of the surgeon, that this man was an impostor, and prevented him from being discharged. I tried various remedies, and among the rest, sharp shocks of electricity, which he bore with great resolution. At last, finding that he made no impression upon me, and that my report would be an unfavourable one, he gave in. We came to this compromise; he agreed to return to his duty, and I undertook to use my influence in preserving him from punishment." This man rejoined the regiment, and made several other unsuccessful attempts to feign disabilities, probably with the view of avoiding embarkation for India. Determined, however, to effectually disqualify himself for the service, he placed his right hand before the wheel of a baggage wagon, by which means some of the bones were fractured. He was again foiled; he accompanied his regiment to India, and the functions of the hand became so far restored as to enable him to perform the usual duties of a soldier.

The courage and coolness with which some impostors resolve to brave pain is very remarkable. A private belonging to — regiment complained that he had lost the power of his right arm, but, from the absence of any physical evidence of disease, the

medical officer considered him a malingerer, and tried various means to induce him to return to his duty, but without success. With the view of intimidating him, a proposal was made to amputate the arm, and, in prosecution of this object, an unusual degree of solemnity was observed on the occasion. All the surgical instruments which could be collected were exhibited; but, nothing daunted, he allowed himself to be conducted to the chair preparatory to the operation. The tourniquet was put on, and the amputating knife placed under his arm ready to make an incision. He sat unmoved; the surgeon was puzzled, and made the best excuse he could for postponing the operation. Being, however, still impressed with the opinion that the arm was not disabled, he resolved to attempt another means of conviction. He recommended change of air for some of his patients, and among others the case of alleged palsy. To reach the place where the surgeon professed he intended to convey the sick, it was necessary to cross a river in a boat. The party embarked, accompanied by the surgeon, who, by a preconcerted signal, directed the boatman to throw the man in question (who he knew was a good swimmer) into the river. After a little time he seemed to be much exhausted from the exertions necessary to keep himself afloat by means of his left arm only. The surgeon became alarmed, and had resolved to take his patient on board, when he uttered an oath, and struck out vigorously with both arms. The evidence was conclusive.

Experience teaches us that moral means are, in general, the most effectual in moving simulators of disabilities to return to their duty. When a schemer has been deprived of hope, and has a safe retreat left open to him, he is prepared to report favourably of the influence of remedial measures. During the temporary absence of the surgeon of — regiment, a number of men were admitted into hospital on account of alleged disabilities, mostly of a character calculated to disqualify them for the service. In a few days the surgeon made up his mind in regard to the case of each of the men. He then called them together, and observed, that he was well aware of their motives for being admitted into hospital, and concluded by stating to all and each of them as follows:—"The state of your health does not require the use of medicines, and none shall be expended upon you. Rest assured, that so long as I belong to this regiment, not one of you shall be discharged, unless I think he is really disabled." They knew he would keep his word; and, in the course of a short period, they one by one all reported themselves fit for duty.

Palsy is occasionally pretended by out-pensioners, who wish to obtain a higher pension than that which they receive. Applications for an increased pension will not be attended to, without a report by a medical officer respecting the alleged disability; and consequently the pensioners usually apply to a staff surgeon for that purpose. An applicant of this kind presented himself to me while I was employed in Dublin, who stated that he had palsy of the right

leg. I desired him to stand upon his left, and to push forward his right leg; a measure he asserted was beyond his power. He was next desired to stand upon his right leg, and to push forward his left, and in an instant his leg was projected to its full extent. This circumstance satisfied me that he was feigning a disability. He completely forgot that the force employed in the experiment was chiefly exerted by the quiescent extremity.

In cases of feigned disabilities of a chronic character, as palsy, contractions, &c., medical measures should rarely or never be employed. By treating a simulator of this class of disabilities actively, we are apt to impress him with the opinion that he has succeeded in masking his plan—in fact, that a medical officer believes his infirmities are real and not feigned. Influenced by this opinion, he presumes that nothing but patience and fortitude are required to bring his imposture to a favourable issue. In proportion as he thinks he has borne much, he presumes he has the less to endure.

2. *Epilepsy*.—Under the head of “epilepsy and palsy,” about 70 or 80 men are discharged annually from the army. (Circular, 22d January, 1830). The consideration of this disability is obviously therefore of some importance. Epilepsy appears under very different degrees of severity; in some cases a paroxysm consists of little more than an uneasy feeling in the head, which may not last above two or three seconds or minutes; the common length of a paroxysm is, however, about from ten to fifteen minutes. The frequent or even an occasional paroxysm of epilepsy is commonly considered an adequate cause for recommending a man to be discharged. It is an important point, therefore, to verify a liability to the disease, more especially as attempts are occasionally made to simulate it.

The leading indication of a well defined or well marked paroxysm of epilepsy is loss of sense, which is commonly accompanied with involuntary contraction of the muscles of the whole body. The symptoms come on suddenly, and the person affected falls to the ground, the face becomes swelled, and the countenance livid, general convulsions supervene, the eyes and muscles of the face are greatly distorted, and the head is commonly bent backwards. During a paroxysm an epileptic grinds his teeth, and foam gathers round his mouth, the thumbs are grasped in the hands, and frequently the contents of the bladder and rectum are discharged. The pulse is generally not very quick, and the skin is cooler than might be expected from the muscular agitation.

Epilepsy is not unfrequently simulated, and much care and caution is required to distinguish a paroxysm of the disease from a mere imitation of it. In regard to suspected epileptics, and indeed with respect to every doubtful case of disability, the obvious duty of a medical officer is to free himself to the utmost of his power from every bias, whether it be in favour of or against the statements of an individual. He should simply endeavour to discover the truth, without being afraid to find a man guilty, or without enter-

taining a wish that the person under examination may be detected as an impostor.

In a feigned paroxysm of epilepsy, the muscular contortions of different parts of the body do not commonly occur simultaneously. Thus the superior extremities may be in motion, while the inferior are at rest. When the hands are forced open, they are quickly clenched again; whereas, in the real disease, they commonly remain extended, and as inflexible as a piece of wood. If an impostor be narrowly watched, he will be found to open his eyes occasionally, for the purpose of observing what effect his acting produces upon spectators. An impostor can easily counterfeit a number of phenomena which may, by inexperienced persons, be considered indicative of epilepsy—such as violent muscular motions; rolling of the eyes; sighing; suppressed cries; grinding of the teeth; foam at the mouth; discharge from the bladder, &c. &c.—but he is not able to distort the muscles of the face like a person suffering under epilepsy, to render the iris insensible to light, or to evince a total abolition of sense.

The impostor commonly selects a place where he is likely to play off his tricks to the greatest advantage, and with the least inconvenience to himself. He is also not inattentive as to the time when a fit may be enacted with due effect, which is in general about the period when a medical officer is likely to be in the way to see him.

Malingers are commonly much more successful in counterfeiting the accession and violent symptoms of a paroxysm than the stage of recovery. They seem often to have carefully studied the phenomena of an early period of a paroxysm, while the symptoms which accompany a decline of the fit seems to have escaped attention. The symptoms of epilepsy disappear gradually, and are followed by sleep; but when the phenomena are counterfeited, they commonly terminate abruptly, and the sleeping stage is omitted.

An insensibility to external agents is, however, the most decided proof that can be obtained in regard to the existence of epilepsy, for, during a paroxysm, sensation is totally suspended; hence, if any evidence of sense be excited by stimulants, it may generally be inferred that the symptoms are counterfeited. For the purpose of probation, a variety of stimuli have been applied to different senses, of which a few may be mentioned:

Smelling.—Snuff blown up the nostrils—hartshorn applied to the nose—tickling the nose with a straw.

Tasting.—Common salt, in the quantity of a table-spoonful, has obtained great celebrity as a means of cutting short a fit of epilepsy, and there can be no doubt that it has gained this character in consequence of its having been exhibited to a person who was counterfeiting epilepsy. Salt possesses peculiar advantages for the purpose intended: it is safe, easily obtained, and tolerably effectual. When a spoonful of salt is introduced into the mouth, and insinuated

between the lips and teeth of an impostor, he soon shows that he possesses the sense of taste, and endeavours to spit it out.

Hearing and feeling.—A proposal to apply the actual cautery (a hot iron) to the skin, is frequently followed by a rapid recovery, when a paroxysm is counterfeited. A still more effectual means may be resorted to, when necessary, by proposing to pour boiling water from a kettle on a leg, but instead of hot to employ cold water.

During an alleged paroxysm of epilepsy, where the symptoms were supposed to be counterfeited, Mr. R. exhibited seven or eight drops of croton-oil, through an opening left by the loss of two teeth, and in a few minutes the man started on his feet and ran to the water-closet. Dr. Cheyne informs us that he successfully employed the method of introducing into the eye a portion of spirits.

Medical officers cannot be too careful to avoid becoming the dupes of simulators. There is, I believe, much reason for assuming that many a soldier has been discharged and pensioned in consequence of feigning convulsions, which medical officers denominated *epilepsy*.

I was once instructed by the deputy adjutant-general of the forces in Ireland to inspect a pensioner who had been discharged on account of alleged epilepsy, and to grant him a certificate in regard to his infirmity. The man stated that he had a paroxysm of the disease every day about twelve o'clock. I observed to him, that, unless I was present during a fit, I could not certify that he suffered under epilepsy; and as it was then only eleven o'clock, and being obliged to leave the depot, I should not have it in my power to see the fit come on that day. In a few minutes he began to tremble, and his whole body became more or less agitated; at length he sunk to the ground, and the contortions and contractions of the limbs became very violent. I soon perceived that the paroxysm of epilepsy which he was zealously enacting was voluntary, and after allowing him to exhaust himself, I told him to get upon his feet, as I was quite satisfied in regard to the nature of his alleged disability. The contractions and agitation of the limbs soon subsided, and he rose from the floor in a few minutes, apparently well satisfied with his imitation of a paroxysm of epilepsy. In 1828, this man had drawn a pension for fifteen years.

Dr. Fallot relates an account of a Swiss soldier who feigned St. Vitus's dance. The symptoms were a little exaggerated, but in general they were exceedingly well imitated. The man appeared to suffer much by the complaint, and anxiously begged for medicines to relieve him. He was about to be discharged, but Dr. Fallot's suspicions being excited, the man was then requested to give a minute account of his feelings, which, aided by the promptings of the doctor, were obviously very absurd. The fraud was by this means discovered. Although this man was quite an adept in imitating the symptoms of the disease, he could not give any thing

like a satisfactory history of the progress of the affection. Dr. Fallot afterwards discovered that the impostor had been tutored in the art of imitating St. Vitus's dance by a relation who was a medical practitioner. The man deserted from the hospital when he found that his imposture was discovered.

There can be little doubt that soldiers occasionally qualify themselves for carrying on a scheme of imposition by the perusal of medical books. Patients in general hospitals commonly evince an excessive anxiety to study case books, and avail themselves of every opportunity that offers to acquire information by that means.

3. *Mental alienation—weakness of intellect.*—Soldiers who have been liable to one or more attacks of insanity are, I believe, in general considered unfit for the army, and recommended by the medical authorities to be discharged. During the existence of a state of mental derangement soldiers have, for a number of years, been accommodated in a military asylum or hospital, at Fort Clarence, Rochester, which is specially appropriated to such patients. The character or symptoms of insanity are in general so well marked, as to be easily recognised by attentive and experienced medical officers, especially by those who have had an opportunity of observing the phenomena of mental alienation. Insanity has been frequently feigned by soldiers who wished to obtain their discharge, and no doubt some have gained their object. But it is also true, and the fact is a melancholy one, that real insanity has been mistaken for feigned, and the patients treated and punished as impostors. Facts of this kind ought to lead medical officers to study with great care the indications of insanity, a branch of information which can only be thoroughly obtained in receptacles for the insane, and, whenever there is a shadow of doubt, to proceed with the utmost caution. Much knowledge of importance in regard to insanity may, however, be obtained from books, more especially from those works which treat specifically upon mental diseases, and to these the reader is referred. I shall content myself with submitting a few interesting cases, for the purpose of showing the importance of the study of mental diseases in the army, and the difficulty which sometimes exists in discriminating between real and fictitious disease, or of recognising mental alienation. It is not so much because fictitious madness has been treated as real, but because real madness has been treated as fictitious, that I urge the necessity of medical officers devoting some attention to the study of this class of diseases.

Private Charles Louis, — regiment, complained, during the month of December, 1826, of pain in the loins, which was stated to be the result of a sprain received in the preceding July, but which he had not previously mentioned. He went on furlough soon after and did not return until the 24th February 1827, when he continued to state that he was unable for duty. He was then admitted into hospital; his appetite was good, the other functions of the body

were apparently healthy, and no symptom of disease could be detected. He was in general remarkably taciturn. He was discharged from hospital, but would do no duty. He was tried by a regimental court-martial for disobedience of orders, and sentenced to undergo corporal punishment, and on the 15th March he received 175 lashes without making the slightest complaint. He continued to refuse doing duty, and was a second time tried by a court-martial, and sentenced to be confined for one month in a solitary cell, but when released from confinement he still refused to do duty. He was transferred to the general hospital, in Dublin, on the 30th of May, where he remained under the care of Dr. Cheyne until the 12th July, when he rejoined the regiment to which he belonged. During the time he was in Dublin, the greatest care was taken to investigate his case by Dr. Cheyne and other medical officers, but no satisfactory evidence of disease, either physical or mental, was observed. Shortly after Louis joined the regiment, symptoms of alienation of mind appeared, which were for some time supposed to be feigned, but, after close observation for a period of several months, the surgeon was satisfied that his mind was unsound. In July, 1827, he was again admitted into the general hospital, Dublin, in consequence of decided mental alienation, and during the year 1828 was transferred to the military asylum at Fort Clarence, where he expired on the 26th August, 1838.

It would be a difficult task to decide upon the time when Louis's mind became unsound. He had an ardent desire to obtain his discharge, but all his measures for this purpose failed. Was he insane when he refused to do his duty in February, 1827, or should we consider the mental disorder a consequence of frustrated hope since that period? It is, I believe, admitted by competent medical authorities, that insanity may be a consequence of the despondency and anxiety which arise from ungratified desire.

Other instances might be quoted where mental alienation was mistaken for feigned disease. From the report of a coroner's inquest held on the body of Joseph Godfrey, it appears that he belonged to the 83d regiment, and served with that corps at the Cape of Good Hope eleven years. During this period he evinced symptoms of derangement on five different occasions, was five times tried by a court-martial for pretending insanity with a view to his discharge, and was, on each occasion, sentenced to receive corporal punishment, which was uniformly inflicted. Maniacal paroxysms continued to recur after he was discharged, and during one of the accessions, he committed suicide by drinking a quantity of sulphuric acid.—(*Times newspaper*, 22d February, 1826.)

The following is a case of a different character. E. Pigott enlisted at Limerick, for the honourable East India Company's military service, in March 1828. He was transferred to Cork, where self-made ulcers appeared on his legs; and when this scheme failed in procuring his discharge, he seemed to become an idiot. Towards

the end of September he arrived at Chatham, when he had what was considered the aspect of "*a genuine idiot.*" He was placed under strict observation for four or five weeks, during which period he was never heard to utter a word distinctly; his looks were wild, his manners almost savage; he appeared to have lost all regard to decency, and to have become completely helpless, for he required to be washed and dressed like a child. He refused to take food when offered to him, but if it was set beside him he devoured it clandestinely, and occasionally he would neglect it for a whole day. He was at first treated with great kindness, but, after some time, he became in some measure ferocious, which was evinced by attempting to bite the orderlies, and by using missiles, so as that it was deemed necessary to confine him in a strait waistcoat. On the 3d November, he was examined by a board of medical officers, who stated, that, in their opinion, Pigott was "*a most determined malingerer, and affects insanity.*" Having maturely considered the infamous moral character of this recruit, his perseverance in simulating various diseases, his utter worthlessness to the service, and, moreover, the great improbability of his re-enlistment," the board recommended him to be discharged from the East India Company's service. So far as I know, no reason was assigned by the board for concluding that Pigott's re-enlistment was improbable.

The decision of the board led to the usual steps being taken to obtain an official order from the Horse Guards for his being discharged, but by the time the discharge reached Chatham (7th November) Pigott appeared to be totally incapable of comprehending what a discharge meant. The order for his being discharged was repeatedly read to him with great care and attention, and it was explained to him that he was at liberty to leave the hospital for the purpose of returning to Ireland, but all these endeavours to make him comprehend how matters stood produced no evidence that he understood or paid any attention to what was said to him.

On the 20th November, the late Dr. Davies, who was surgeon to the East India Company's depot, and had the care of Pigott, addressed a letter to the commandant, recommending him to apply for permission to send Pigott to the military lunatic asylum at Fort Clarence. In this letter, Dr. Davies states that, "Notwithstanding the strong documents which have been received respecting this man from Ireland, and the opinion of the medical board as expressed in their report, dated November 3d, having very attentively observed the case for a long period, I am far from being convinced that he is '*a decided malingerer.*' On the contrary, I am inclined to believe that there has been throughout, and there certainly is now, a reality in the affliction."

Several weeks elapsed without any appearance of improvement, and as he was a very troublesome patient, and sometimes outrageous, he was commonly confined either in a strait waistcoat or by straps to the bedstead. On the 12th January, 1829, he was transferred to Fort Clarence. When he arrived at the asylum, he would

neither stand nor speak; he lay with his legs doubled up, and his knees nearly approaching the chest, and when questions were put to him, he sometimes emitted a hollow groan. He was rapidly and forcibly conveyed, by a long subterranean passage, to the extremity of the establishment, where he was exposed to a shower bath, well washed, and subsequently dressed in the hospital uniform. Owing to the gloomy condition and singular appearance of the asylum, and the unceremonious manner with which he was moved from one place to another, Pigott no doubt became greatly alarmed. He was placed in the whirling chair, which ultimately determined him to *give in*, for on coming out of it, he stated that his disability was feigned, and subsequently detailed to Dr. Davies a course of the most persevering and determined fraud that had ever been practised. He acknowledged that, roughly as he had been handled in the depot hospital, he never thought of flinching from his purpose until he was transferred to Fort Clarence. To transfer a feigned maniac to a lunatic asylum is a most effectual means of detecting imposture. On the 4th March, about one year from the time he enlisted, he was marched from Fort Clarence to the depot of the East India Company, perfectly sound in mind and body, and it was now determined that he should not be discharged. The same night he joined the depot, he deserted, and was secured next day, after a stout resistance, by a constable at Gravesend, who brought him back to Chatham. Finally he embarked for Madras on the 7th March, along with a detachment of recruits.

It has been asserted, with what truth I do not know, that the long continued imitation of some maladies, such as insanity, has excited real disease. "Il est aussi dangereux d'imiter la folie que de contrefaire l'épilepsie, toutes deux pouvant se développer réellement."—(*Coche de l'opération Médicale du recrutement, &c.*, page 306.)

Weakness of intellect.—In almost every regiment or corps there are a few men who are alleged to be defective in memory, perception, and judgment, who never acquire, or seem never to acquire, a perfect knowledge of their duty, and who usually pay but little attention to the state of their dress and accoutrements. Men of this class are commonly harmless and unobtrusive; sometimes, however, they are morose and irritable. There is perhaps no species of disability which requires to be appreciated with more care and circumspection than that of intellectual deficiency. Mental incapacity or inaptitude for acquiring the manual and platoon exercise, is easily feigned, and very difficult of detection.

A few years ago, a smart-looking young man, of a respectable class of society, joined the —— regiment of dragoons as a recruit. He was excessively backward in acquiring a knowledge of the first principles of the duties of a dragoon. The greatest care was ineffectually bestowed upon him. On some occasions he appeared to show a certain degree of skill, in a particular branch of his exercise, while, at other times, he seemed to have forgotten every

thing he had been taught. The drill corporal, whose patience became exhausted, privately offered him a sovereign, if he would desert, his character as a good drill being likely to be impugned, in consequence of his want of success with the recruit. This offer, as might have been foreseen, neither induced him to disappear, nor to make more progress. At the end of about nine or ten months, he got drunk, and was in consequence confined in the guard room for a few days. During his incarceration, a complete revolution took place in his plans, for on his returning to drill, he not only evinced an aptitude to learn, but he showed that he had in a perfect manner acquired the art of performing every thing which the drill corporal had attempted to teach him. He afterwards confessed, that the incompetency of mind, with which he was long supposed to be affected, was simulated for the purpose of procuring his discharge. Confinement, the collapse that followed the paroxysm of intoxication, but chiefly despair of obtaining his liberty, determined him to *give in*. It is worthy of remark, that, in this instance, the simulation of weakness of intellect was not even suspected.

It is very natural that regimental officers should wish to get inefficient soldiers discharged, whether the unfitness arises from physical, moral, or intellectual causes; but the general interests of the service require, that no doubtful case of disability should be recommended to be discharged, more especially on account of alleged weakness of intellect. The degree of mental incapacity is very difficult to appreciate,—for many individuals will evince no remarkable want of intellectual endowment in conversation, who cannot be taught a particular trade or profession. Some may obtain tolerable proficiency in one trade, while they show great want of aptitude in learning another. A man may be a good shoemaker, though no degree of labour will enable him to acquire the dexterity requisite for performing the usual military evolutions in a correct manner, or to become a cleanly and efficient soldier. When a man shows no decided want of general intellect, how is a medical officer to distinguish a defect of intellectual capacity from a want of will? The evidence of an adjutant or a drill-serjeant, that they have not been able to make the individual in question comprehend his duty, cannot invariably be admitted as conclusive proof of his incapacity. A few years since, a man enlisted in the ——— regiment, who, although he had been at drill for an unusually long period, did not seem to know any thing of his duty. Every exertion was made by the adjutant and drill-serjeant to make him perform the manual and platoon exercise, but without success. This pretended idiot was eventually discovered to be a deserter, and a very clever fellow. I am disposed to think, that, unless in well marked cases, where the mind is weak on all subjects, and where that weakness is expressed in the countenance, or readily discoverable during conversation, no man ought to be

recommended for discharge on account of mental defects, because, if the disability is not obvious, he may enlist and be approved for the service.

Examples sometimes occur where it is difficult to determine whether disgraceful conduct depends on moral depravity, or mental incapacity. Occasionally, the disabling cause appears to be a compound of roguery and imbecility, as was perhaps the case in the following instance.

R. G. West enlisted into the honourable East India Company's service, at Liverpool, in 1823, and, soon after enlistment, embarked for Bombay. The following year he was discharged and sent home, "on account of want of intellect." He subsequently enlisted in a regiment of the line, from which he was discharged in December, 1827, for the same cause. In February, 1828, under the name of George Ryan, he again joined the depot at Chatham, as a recruit for the East India Company's service. The intellectual and moral character of this man have been very differently estimated; some officers represented his mind to be "unsound," others reported that he was not "unsound of mind," but an artful, intriguing man; one alleged that he was a "gross impostor," and another described him to be, "without exception, the greatest blackguard, in point of general conduct and behaviour, in the kingdom." An application was made by the commandant of the company's depot for an authority to discharge him, but there being no security against his re-enlisting, he was retained in the service.

West was sent to his duty; but before two or three weeks had elapsed, he sold his regimental clothing. He was in consequence tried by a court-martial, and sentenced to be confined in the Maidstone jail, and employed at hard labour. Shortly after this period of confinement had expired, he embarked to join the corps to which he belonged—the Madras European regiment.

It may be questionable whether a number of the men in the army, whose conduct is excessively irregular, and who are sometimes individually characterised as being "more rogue than fool," are not suffering more or less under mental alienation, or intellectual imbecility; for instance,

In the year 1827, J. Leonard enlisted at Dublin for the 87th regiment, and being brought before me, as district staff-surgeon, for examination, was approved. He had shown some unwillingness to comply with the routine of the inspection room, in consequence of which, I had noted on his attestation, as a warning to the surgeon, that Leonard was likely to prove a very reluctant soldier. He joined the regiment in England, and was forthwith examined by the medical officer of the corps, and finally approved. Shortly after he was sent to drill, when he stated, in the Irish language, that he did not comprehend the words of command, and that he neither understood nor could speak English. This statement was obviously untrue, because he had, both in Ireland and in England, spoken

English as well as his comrades. He was confined for several days in a solitary cell, where he received no other diet but bread and water. He still, however, pretended that he did not understand the English language, and he was transferred to the hospital for the purpose of being under the observation of the surgeon, as the adjutant could make nothing of him. On the fourth day after admission into hospital, he admitted that he understood the English language, and spoke it as he had formerly done. He subsequently went to drill, and conducted himself like other soldiers. In 1831, when on board a transport bound to Mauritius, he pilfered some articles of dress belonging to a comrade, and was in consequence tried by a court-martial, convicted, and sentenced to receive corporal punishment. He received 150 lashes. He evinced at intervals great violence of temper, and occasionally refused to perform the duty assigned to him. In 1832, he was a second time sentenced to receive corporal punishment; and when brought to the halberts or triangles, he refused to be tied up, and resisted the drummers with all the strength he possessed. The punishment was eventually inflicted. His temper continued to be violent; and during the year 1833, suspicions were entertained that his mind was unsound. In 1834, he absented himself without leave from the regiment; but returned within a few days in a state of great wretchedness. At this period he obviously laboured under mental alienation; and in consequence of this disability, was sent to England, and became an inmate of Fort Clarence, where he remained until he was transferred to a lunatic asylum in Galway, in December, 1838.

The plea of insanity is sometimes adduced by soldiers, for the purpose of mitigating or of escaping punishment; and medical officers require to be prepared to give their evidence in regard to the existence of the disability, as in the following instance:

Private Ralstone, 69th regiment, was arraigned before a court-martial on the 9th November, 1818, upon three charges. It is sufficient for my purpose to copy the last:

“3d. For discharging his musket, loaded with a ball, at a Seapoy sentry, who was endeavouring to stop him (from deserting,) by order of Lieutenant Hall, and for attempting to reload it.”—Finding guilty—sentence, *solitary confinement for the space of five calendar months*. This sentence was confirmed, but not approved.

When the foregoing sentence was promulgated to the army by Lieutenant-General Hislop, he deemed it expedient to make the following observations:

“The great disproportion between the crime and the punishment appears to have arisen from the *plea of insanity*; but this plea has not been substantiated by evidence. The prisoner states, that he received a wound on the head. No evidence is called to speak to the effects which that had produced on his constitution. The

wound does not seem to have been examined by a surgeon in presence of the court, nor indeed shown to the court at all; and one question only is asked regarding it, namely, Is it generally understood in the regiment that the prisoner was wounded in the head?—*Answer, Yes.*”

To throw some light upon the proceedings of the court, Sir Thomas Hislop directed a medical committee to report upon the state of private Ralstone, namely—

“To state whether he had been visited by insanity? Whether he laboured under this heavy calamity at or about the period when he fired at Cuspali (the Seapoy sentry.) And, finally, whether any disease incapacitates him from continuing in his majesty’s service?”

“The committee were unanimously of opinion,—

“1st. That the prisoner is at present in a state of perfect health.

“2d. That his mental organs (faculties?) appear unimpaired.

“3d. That, so far as the committee can ascertain, he has never been visited by insanity.

“4th. That, at or about the period when he fired at Cuspali Seapoy, it seems probable he was under the influence of liquor.

“5th and lastly. That the prisoner is not affected with any disease, mental or bodily, to incapacitate him for his majesty’s service.

“The plea of insanity set up by the prisoner, like every other ground of palliation or defence, should have been established by competent evidence, before it ought to have been admitted to influence the opinion of the court.”

The observations of Lieutenant-General Hislop upon Ralstone’s court-martial are so just and so appropriate, that I have given them in detail. They convey a good lesson to both military and medical officers, in regard to a very important branch of their duty.

CLASS X.—*Moral Disabilities.*

Some individuals are so addicted to vice of different kinds,—ill-tempered, quarrelsome, or dishonest,—that they are, in many respects, disqualified for living in society, more especially in a barrack-room, where soldiers are crowded into a small space, and where no precaution can prevent a thief from having it in his power to pilfer. Inveterate intemperance, with all its concomitant evils, also disqualifies many men for military duty. Habitual inebriety may be considered an incurable moral disability—a vice which neither flattery nor flogging will remedy. It is remarked by a French author, (and the fact is obviously true,) that a dissolute soldier invariably neglects his duty; he is frequently insensible to remonstrance or to punishment; and his example has a powerful effect upon conscripts, or young soldiers, in exciting them to indiscipline and to habits of dissipation. One or two *mauvais sujets* (evil-disposed men) may be the cause of a spirit of insubordination in a company, which, like a gangrene, spreads rapidly through a

whole corps, unless early and efficient means be taken to arrest it. Moral infirmities are not confined to the most illiterate; for young men of the better order of society, who have had much of their own will, and whose moral education is but imperfect, are extremely apt to run headlong into error, and eventually into crime, and thereby to incur the penalties of military law. Being accustomed to submit to no guide but their own self-will, they transgress the rules of discipline, sometimes from carelessness, sometimes from caprice, and occasionally from vexation, disappointment, and hopelessness or despondency. They are impatient of restraint; and having no self-respect, seem to disregard the good opinion of others. The indefinite nature of the soldier's engagement affords no safety-valve by which his regrets may evaporate, and seeing no termination to the thralldom of his situation, he is too often ready for the commission of any act, except that of submitting calmly to his fate, and habitually exercising that concentration of military virtues—obedience.

Commanding officers of regiments are commonly very anxious to "get rid" of troublesome men, whom they deem irreclaimable; consequently there is no class of disabilities which requires to be more carefully considered than moral infirmities, as many a crime has been perpetrated by soldiers for the avowed purpose of being brought before a court-martial and ultimately discharged. The infamous character of the ceremony which attends his dismissal gives a vicious soldier no concern; he has in many instances gained his object, and he may never again see any individual who was present when he was "*discharged from the army with every mark of ignominy and disgrace.*" To discharge men who commit great irregularities, may, therefore, be a means of encouraging vice, rather than a wise measure for repressing indiscipline. "A soldier," says the Duke of Wellington, "cannot be allowed, as a servant or labourer might be, to quit the service in which he is engaged as soon as it becomes irksome to him, nor can he be sent away because he is *disobedient, irregular, unwilling to learn*, or that he *insults*, and *strikes* those whom he is bound to respect and obey. He must be constrained to serve the state according to his engagements, and must be taught, and must be forced to learn how to serve in his station of soldier." With respect to recruits, the duke states, that "it cannot be denied, that, in 99 instances out of 100, some idle or irregular, or even vicious motive, is the cause of the enlistment of the volunteer."

The evil consequence which may result from the measure of discharging soldiers on account of moral disabilities is strongly pointed out by Sir Henry Hardinge, in the following extract from his evidence before the commission on military punishments. "*If you give the commanding officer the power of getting rid of bad men because they are bad, you will offer a premium for misconduct, and would make a great number of men bad for the purpose of gaining their discharges.*"

NOTES AND ILLUSTRATIONS.

NOTE I. Page 81.

ADJUTANT-GENERAL'S OFFICE,
DUBLIN, 13th April, 1822.

GENERAL ORDERS.

No. 1.—At a general court-martial held in the royal barracks, Dublin, on the 30th day of March, 1822, and continued by adjournment, *staff-surgeon, J. Stringer*, was arraigned upon the under-mentioned charges, viz.

1st.—“For conduct highly unbecoming an officer, and particularly culpable in his medical capacity as a staff-surgeon, by treating in a harsh, unfeeling, and unwarrantable manner, several privates of the 12th regiment of Lancers, when patients, under his care at the Royal Infirmary, in the months of May and June last.”

2d.—“For having in the month of May last, at the Royal Infirmary, in a most improper manner, unbecoming his station in the army as a staff-surgeon, used opprobrious and disgraceful words reflecting on the character of the 12th lancers, to the following effect, ‘that he had formed his opinion of the 12th lancers, they were all schemers and malingerers.’”

3d.—“For harsh, cruel, and unjust conduct, highly improper and incompatible with his duty as a surgeon, towards *Joseph Ashman*, a private in the 12th lancers, when a patient under his care for ophthalmia, at the Royal Infirmary in the month of May last.”

4th.—“For conduct highly unbecoming, and particularly reprehensible in a medical practitioner, by using violent, intemperate, and unjust language towards *William Clyde*, a private in the 12th lancers, when a patient under his care at the Royal Infirmary in the month of July last.”

5th.—“For cruel and oppressive conduct most unbecoming his medical station in the army, by placing two privates of the 12th lancers, in strait waistcoats, when patients under his care for ophthalmia, in the Royal Infirmary, in the month of August last.”

Upon which charges the court came to the following decision :

“The court being cleared and closed in, and the prisoner being withdrawn ; the court having maturely considered the evidence adduced on the part of the prosecution, as well as what was offered by the prisoner in his defence, is of opinion that the prisoner *Staff-*

Surgeon Stringer, is not guilty of the first charge, and does acquit him of that charge.

"The court is of opinion that the prisoner is not guilty of the second charge, and does acquit him of that charge.

"The court is of opinion that the prisoner is not guilty of the third charge, and does acquit him of that charge.

"The court is of opinion that the prisoner is not guilty of the fourth charge, and does acquit him of that charge.

"The court is of opinion that the prisoner is not guilty of the fifth charge, and does therefore acquit him of that charge also."

It is the commander of the forces' order, that the foregoing charges preferred against *Staff-Surgeon Joseph Stringer*, together with the finding of the court, shall be read at the head of every regiment in Ireland, and entered in the general order book.

No. 2.—The king's infirmary in the Phœnix Park is to be visited daily by the field officer and the captain of the day, who will report respectively to the officer commanding the garrison, any irregularity which may fall under their observation, and any complaint which may be made to them by the patients.

No. 3.—The use of the strait waistcoat, or of any other *coercive* mode of treatment, is not to be resorted to, except in cases of insanity, in any military hospital on this establishment, without the sanction of the surgeon general or physician general, if in Dublin, or of the senior medical officer in the respective districts. In either case an immediate report is to be made to the director general of hospitals.

No. 4.—The general court-martial of which *Major-General Wulff* is president, is dissolved.

By order of the commander of the forces,

AYLMER, *Adjutant-General*.

NOTE II, page 97.

Statistics of Hernia.

Statement showing the number of recruits and conscripts examined in different stations, together with the number and ratio of men rejected in consequence of *Hernia*.

Station or country.	Period of observation in years,	Total numbers examined.	Total numbers rejected.	Rejected in consequence of <i>Hernia</i> .	Millesimal ratio of rejections in consequence of <i>Hernia</i> .
Dublin District,	25	59,111	14,013	1,184	19
North British District,	6	9,258	2,375	69	7.1
German Legion,	15	40,462		365	9
France, (mean of three years),	3	126,669	46,669	3,948	31.2
Department of the Seine.	11	26,083	11,148	834	31.9

The much greater prevalence of hernia among the recruits examined in Dublin than in North Britain, is worthy of observation, as also the high ratio of conscripts rejected in consequence of this disability. The similarity of the statistical results on this subject among the conscripts of all France for three years, and among the conscripts of the department of the Seine, for a period of eleven years, is very remarkable.

Statement showing the number of admissions into hospital in consequence of Hernia, together with the mortality occasioned by that disease among the troops employed in the following stations.

Station.	Class of Troops.	Periods of observation.	Number of years.	Mean strength.	Aggregate strength.	Aggregate admission into hosp. under the head Hernia.	Aggregate deaths from Hernia.	Ratio of admissions into hospital per 10,000 of the strength.
Windward and Leeward Islands,	Infantry,	1817 to 1836	20	4333	86,661	77	1	8
Ditto	Blacks,	1817 to 1836	20	2496	40,934	79	1	16
Jamaica,	Infantry, Whites,	1817 to 1836	20	2728	51,567	35	1	6
Ditto	Do. Blacks,	1817 to 1836	20	286	5,729	3		5
Bengal, } Madras, } Bombay, }	Infantry and Cavalry,	1819 to 1834	16	7497	119,957	127	3	10
United Kingdom,	Cavalry,	1826 to 1834	9	7135	64,244	81		15
Gibraltar,	Cavalry,	1826 to 1834	9	3466	31,198	36	3	17
Malta,	Infantry,	1830 to 1836	7	6166	43,163	57		10
Ionian Islands,	Do.	1817 to 1836	20	3013	60,269	56		9
Canadas,	Do.	1917 to 1836	20	2041	40,826	35		8
Nova Scotia and New Brunswick,	Do.	1817 to 1836	20	3514	70,293	55		8
Mauritius,	Do.	1817 to 1836	20	3214	64,281	49		7
Cape of Good Hope,	Do.	1818 to 1836	20	2222	46,442	27		6
	Do.	1822 to 1833	19	1696	30,515	37		12
	Do.	1822 to 1833	12	1823	21,882	12		6
	Total,				787,961	766	10	

Mean ratio of admissions into hospital about

10

This statement is interesting in many respects. Among an aggregate strength of 787,961 men, 766 were admitted into hospital under the head "hernia," being about 1 in 1000 of the strength. Ten cases terminated fatally, being 1 in 78,796 of the aggregate strength, and 1 in 76 of the cases admitted into hospital on account of this disease.

The ratio of admissions among the cavalry of the united kingdom is 1 per 1000, being exactly the mean ratio of admissions among the troops (infantry and cavalry) employed in the different stations.

The obvious conclusion that may be drawn from these facts is, that hernia adds very little to the inefficiency or the mortality of the army.

PART III.

ON THE PENSIONING OF SOLDIERS.

I.—*Military Pensions—Chelsea Hospital—Out-Pensioners.*

The earliest notice which I have discovered of the awarding of military pensions is in the reign of Edward IV. who made a grant to John Selatter of four marks, for the loss of his hand at the battle of Wakefield; and another to Rauf Veshynden, of an annuity of ten pounds, by letters-patent under the great seal, till rewarded with an office, "for the good and agreeable service which he did unto us," says the patent, "in carrying and holdyng of our standard of the Black Bull at the batayl of Sherborne."

By the statute of the 43d of Queen Elizabeth, justices of the peace had power to charge every parish towards a weekly relief of maimed soldiers and mariners, so that no parish paid weekly above tenpence, nor under twopence; nor any county, which consisted of above fifty parishes, to pay above sixpence, one parish with another; which sums, so taxed, were to be assessed in every parish by the parishioners, or, in default, by the churchwardens and constables, or, in their default, by the next justice or justices of the peace. The tax thus collected was to be paid over to the treasurer of the county. A maimed soldier or mariner, who had been pressed, was to repair to the treasurer of the county where he had been pressed; if he were not pressed, then to the treasurer of the county where he was born, or where he last dwelt for the space of three years, at his election; but, if he was not able to travel, then to the treasurer of the county where he landed. He was to be furnished with a certificate under the hand and seal of the chief commander, or

of the captain under whom he had served, containing the particulars of his hurts and services. Upon a proper certificate, the treasurer might allow a man the means of subsistence until the next quarter-session, when the justices were empowered to grant him a pension, not exceeding L.10 to a soldier; to an officer, under a lieutenant, L.15; to a lieutenant, L.20.

A soldier or mariner who was found begging, or who counterfeited a certificate, was to suffer punishment as a common rogue, and to forfeit any pension he might have.

During the reign of Charles I. (1643,) parliament passed an act empowering a tax to be levied upon the parishes in England, for the purpose of raising a fund for the relief of maimed soldiers, and the widows and fatherless children of slain persons. All persons claiming relief from this fund were to bring a certificate, under the hand of an officer belonging to the regiment "wherein the said soldiers or slain persons did formerly serve, of the truth of their being maimed or slain in the said service."

By a statute of 12th King Charles II., all officers and soldiers who served under the command of the captain-general of the king's forces in 1660, and who had not since deserted or refused to take the oaths of supremacy and allegiance, might exercise any handicraft or trade in manner following: viz. such as had been apprentices might exercise such trades as they were bound to, though they served not out their time, with like immunities as if they had, and all other such trades as they were apt and able for in the towns and places within the several counties where they were born; and, if implicated or indicted for the same, they might plead the general issue, and should have double costs, if a verdict passed against the prosecutor, or if he was non-suited or the suit discontinued. The privilege of exemption from penalties for exercising trades in corporate towns has been continued to discharged soldiers, their wives and children, by subsequent acts of parliament, to the 56th George III. cap. 67.

CHELSEA HOSPITAL.

Louis XIV. founded the Hotel Royal des Invalides in Paris in 1670. On the 16th February, 1682, twelve years after, the first stone of the Royal hospital at Chelsea was laid by Charles II., who was attended by a great concourse of nobility and gentry. How far the latter monarch intended to rival the magnificence of Louis XIV. in providing for his disabled soldiers, it is difficult to conjecture. Several large subscriptions were received from wealthy individuals for the purpose of contributing to the erection of Chelsea hospital. The construction of the edifice was carried on during the successive reigns of Charles II., James II., William and Mary, and finally completed in 1690. The whole expense incurred in its erection is said to have amounted to L.150,000. The hospital, together with the out-buildings, gardens, courts, and appurtenances, occupies a space of about thirty-six acres. In all probability the

hospital was, immediately after its completion, converted to the purpose for which it was intended—namely, the accommodation of “decayed cavaliers.” Simon Box, the first person who was buried in the ground appropriated to the interment of pensioners, died on the 23d of April, 1693. Charles II. also founded Kilmainham hospital, for the reception of disabled soldiers in Ireland.

The affairs of Chelsea hospital are managed by commissioners, appointed by patent under the great seal; they are commonly *ex officio*, namely:

The Lord President of the Council,
 First Lord of the Treasury,
 Paymaster-General of the Forces,
 Secretary at War,
 Comptroller of Army Accounts,
 The Governor and the Lieutenant-Governor of the Hospital.

The commissioners hold boards for the admission of pensioners, and the internal regulation of the hospital.

By a warrant bearing date 1684, five per cent. or one-twentieth shilling (poundage) was deducted from the pay of every officer and soldier in the army; and under the head of “hospital money,” one day’s gross pay annually. The amount of these deductions was chiefly devoted to the support of Chelsea hospital. In May, 1771, his majesty was pleased to direct that the private men of the infantry should be exempted from poundage in those dear times, as also from the deduction made for the regimental paymaster and surgeon, amounting to 16s. 6d. a year; and since this period, I believe, neither “poundage” nor “hospital money” has been deducted from the soldiers’ pay. These deductions were made from the pay of commissioned officers, until the year 1783, when they ceased.

There are commonly about from 450 to 520 in-pensioners, who are divided into the following classes:

	Weekly pay.
29 captains who receive each	3s. 6d.
34 serjeants	2 0
38 light horsemen	0 10
36 corporals	0 8
17 drummers	
privates	

Captains, serjeants, and corporals, are appointed from the most deserving men. The “light horse” are generally selected for distinguished conduct in the army, or good behaviour while in the hospital: they have, for the most part, been serjeants in regiments of cavalry. The pensioners are clothed in a uniform of scarlet, faced with blue.

In the year 1695, the Earl of Ranelagh vested the sum of L.3250 in the hands of trustees, and directed the interest to be

laid out in purchasing great-coats for the pensioners once in three years. By another benefaction, the sum of L.60, 10s. is distributed among the pensioners annually on the 29th of May.—(See Note I.)

OUT-PENSIONERS.

The hospital at Chelsea was perhaps at first capable of accommodating all the disabled soldiers who were considered fit objects for the bounty of government, so that for some time no out-pension list existed. From the restoration of Charles II. (1660,) to a comparatively late date, a portion of the British forces consisted of "invalids." The men of these corps or companies were soldiers partially disabled by wounds, or veterans who, from old age and length of service, were rendered incapable of the duties of an active campaign, but who were still judged fit for garrison duty. In the year 1731, a motion was made in the house of commons, "That a sum not exceeding L.25,348, 2s. should be granted to his majesty, upon account for out-pensioners of Chelsea hospital for the year 1732." During the debate which took place on the motion, it was stated that the several bodies of invalids amounted to 4000. A member observed, that the pensioners were "admitted as old and infirm, but being in, they seem immortal, their numbers never decrease; surely many of these immortal old men might have served as good soldiers even in a marching regiment, especially in peace, when there's no occasion for any great fatigue." Another member, who had been a commissioner at the Chelsea board, asserted that, while he was so employed, every care had been taken to admit no invalids on the list of pensioners, but such as were disabled in the service, or who had served their country for at least twenty years. "We have," said he, "made them strip to the skin, the better to judge of their inability; and after such strict inquiry, we could not in humanity refuse to admit them."

Previously to 1754, the pensioners did not receive their pension until a year's allowance had become due; but a bill was passed in that year, authorising the pensions of discharged soldiers to be paid in advance at half-yearly periods: and to this bill a clause was added, enacting that all contracts should be void by which a pension might be mortgaged. The out-pensioners continued to be paid half-yearly until 1815, when an act of parliament was passed to enable the commissioners of Chelsea hospital to pay the pensions quarterly, which mode of payment continues. Poundage is deducted from the amount of pensions, in consequence of the issue being made in advance.

Invalid soldiers seem to have been originally admitted into the Royal hospital, or upon the out-pension list, in different modes. One was by a letter addressed to the commissioners of Chelsea hospital, by the secretary at war, signifying his majesty's directions that certain soldiers should be admitted as pensioners, provided they were qualified. Sometimes the communication signified

the positive commands of his majesty. In 1761 or 1762, a warrant was issued, directing that no person should be made a pensioner unless he came from a regiment, and appeared in person before the commissioners. It seems also that he forfeited his claim to a pension if he did not make his appearance within six months from the time he was discharged, or gave a good reason for omitting to do so.

During the session of 1806, certain acts of parliament were passed, in pursuance of which a new warrant was issued, containing a code of "Orders and regulations for the better ordering of our army, and for improving the condition of non-commissioned officers and soldiers, and for fixing the pensions, allowances, and relief, to which non-commissioned officers and soldiers are to become entitled on their discharge, by reason of the expiration of certain periods of service, or as invalid, disabled or wounded." The warrant is dated 7th of October, 1806.

Abstract of the Orders and Regulations contained in this and several subsequent warrants which were issued for the guidance of the Commissioners of Chelsea Hospital.

I.—Rates of pensions of men who shall be discharged after having completed certain periods of service; namely, 14 years in the infantry, and 17 years in the cavalry: serjeant-major, quartermaster serjeant, serjeant, corporal, and private, 5d. per day. Rates of pensions after having served 21 years in the infantry, or 24 years in the cavalry: serjeant-major and quartermaster serjeant, having served three years as such, 2s.; serjeant, from 1s. to 1s. 10d. per day. Half-penny a day to be added to the 1s. for every year of service as a corporal, and 1d. for every year of service as a serjeant; but the pension is in no case to exceed 1s. 10d.: corporals, from 1s. to 1s. 6d. Half-penny a day to be added to the 1s. for every year of service as a corporal, but the pension is in no case to exceed 1s. 6d.: private, 1s. per day.

To non-commissioned officers or privates who serve after twenty-one and twenty-four years respectively, one half-penny a day to be added to the pension, for every year of service after the expiration of these periods, without limit as to the amount.

II.—Rates of pensions of non-commissioned officers, and soldiers discharged as *disabled* or *unfit* for service: 6d. per day, if unfit for service, but able to earn a livelihood; 9d. per day if disabled, but able materially to assist themselves; 1s. per day if disabled, but able to contribute something towards their livelihood; 1s. 3d. to 1s. 6d. per day, if incapable of contributing to earn a livelihood.

III. The third class of pensions were obtained by men in consequence of a combination of claims, namely, length of service and disabilities. The amount of the pension in this class is regulated by the degree of a man's disability and his length of service: thus, a soldier who, in respect of his disability merely, would be placed

on either of the two lower rates, shall, if discharged after serving fourteen years in the infantry, or seventeen in the cavalry, be entitled to the pension of one shilling.

Soldiers discharged after seven years' service in the infantry or ten in the cavalry, were to be allowed to reckon one year for every two of absence subsequently to such discharge, and to be entitled to a pension of 5d. on the expiration of fourteen or seventeen years respectively, but registered men were liable to serve in case of an emergency. In like manner, when men were discharged after fourteen or seventeen years' service, who had not received a pension, on account of disability, they were to be allowed to reckon one year for every two of absence subsequently to such discharge, so as to be entitled to the full pension of 1s. a day at the expiration of twenty-one or twenty-four years respectively.

Soldiers were allowed to reckon three years for every two of service in the West or East Indies, for the purpose of claiming increase of pay and pension in case of discharge.

Such is an abstract of that part of Mr. Windham's act which relates to the granting of pensions. By this bill the power of the crown to grant or take away pensions was abrogated, and it gave to the soldier a claim of right to a pension, upon the condition of serving for certain periods of time, or if he were discharged as *disabled* and *unfit* for service, without reference to length of service.

By a warrant of the 30th June, 1812, the commissioners of Chelsea Hospital were empowered to extend the rates of pension, under certain circumstances, in the following proportions:

To every serjeant who shall have lost more than one limb, or who shall have received such other bodily injury as to render him totally incapable of earning a livelihood, or to subject him to the necessity of requiring personal assistance, a rate of pension not exceeding, per day, 3s. 6d.; to every corporal, 3s.; to every private, 2s. 6d.

On the 16th February, 1818, a warrant was issued, by which the following rules were established:

1. That the rates of pension to be granted to soldiers enlisting subsequently to the 14th March, 1818, be in no case higher than the rate of full pay enjoyed by them at their discharge, excluding the additional pay, if any, for length of service.

This rule was essentially necessary to prevent malingering, as it could hardly be expected that a soldier would serve cheerfully and faithfully, when a pecuniary prize, amounting to a sum above his pay, was to be gained by successfully feigning a disability, and thereby procuring his discharge.

2. That in reckoning the service of soldiers claiming pensions, no distinction be made between service in the East or West Indies, and service in any other part of his majesty's dominions.

Under the provisions of Mr. Windham's act, a soldier who had served in the East or West Indies might be entitled to a service

pension of 5d. a-day for life at twenty-eight, and 1s. a-day at thirty-two years of age.

3. That soldiers enlisting subsequently to the 14th of March 1818, shall not be allowed to reckon absent time (one year for two) as in Mr. Windham's act.

I am not aware of any good reason which can be assigned for pensioning men on account of "absent time." Registered men might be called out, no doubt, in cases of emergency; but it would have been much easier to raise young recruits, and to make them adepts in the military exercise, than to induce reluctant, and consequently malingering pensioners, to perform their duty efficiently.

4. That, with respect to *soldiers at present serving*, the commissioners of Chelsea Hospital shall have the discretion of granting, as a final pension, more than 5d. and less than 1s. to those who shall have served more than fourteen years and less than twenty-one years in the infantry, or more than seventeen and less than twenty four in the cavalry, according to the number of years such soldiers shall have served.

5. That the commissioners shall not grant pensions, in respect of disability, unless such disability be stated in the discharge of the soldier to have been *contracted on service*. Commanding officers to recommend the discharged soldier, when they think him deserving of recommendation.

This rule was evidently framed for the purpose of excluding from the bounty of government all those individuals who had become disabled, except by the exigencies of the service.

According to the warrants of the 22d March, 1822, and 4th November, 1826, no soldier, who enlisted after the 24th April, 1822, shall be entitled to a pension for service alone, until he shall have completed twenty-one years in the infantry, or twenty-four in the cavalry.

In the appreciation of a man's claim on account of disabilities, the board is assisted by the assistant surgeon of Chelsea Hospital and the principal medical officer attached to the invalid depot, Chatham, or a staff-surgeon belonging to that establishment. The discharge of a man, who receives a pension, is retained at Chelsea Hospital, being the record upon which the bounty of government is granted. In the working of this system, the commissioners used to exercise considerable discretion in regard to the amount of pensions given in particular cases, the following pensions being commonly awarded on account of specific disabilities, without reference to the service of the parties; and, except in particular instances, little attention was paid to rank.

	Per Diem.
Total blindness, - - - - -	1s. 9d.
A serjeant when blind, - - - - -	2 0
Loss of one eye, - - - - -	0 9

Amputation of an arm,	{	below the elbow-joint,	-	-	-	0	9
		above,	-	-	-	1	0
		at the shoulder-joint,	-	-	-	1	6
Amputation of a leg,	{	below the knee,	-	-	-	0	9
		above,	-	-	-	1	0
		single,	-	-	-	0	6
Hernia, -	{	double,	-	-	-	0	9

When a soldier was entitled to one shilling per diem, or above that amount, on account of service alone, and was discharged for any ordinary disability, he was commonly awarded to the amount of the service rate only, inasmuch as the board considered that such rate was an adequate remuneration. He generally obtained a pension according to the claim which was most favourable to him, whether it were on account of length of service, or the degree of his disability.

The commissioners carried the 4th article of the warrant of the 16th February, 1818, into effect, according to the following scale:—

Cavalry.		Infantry.			Rate per Diem.
17 years' service, and under 18		14 and under 15			0s. 5d.
18 ditto	20	15 ditto	17		0 7
20 ditto	24	17 ditto	21		0 9

According to the regulations of 1806, a soldier had a legal right to a pension for life, when he had served a prescribed period, or was discharged in consequence of being *disabled* and *unfit* for service; provided that he was not specifically deprived of that right by the sentence of a court-martial, or that the disability for which he was discharged was not occasioned by "vice or misconduct." The "vice or misconduct" contemplated in the act is defined to be conduct which occasions a *physical disability*, such as voluntary maiming, &c.

In framing these regulations it does not appear to have been contemplated that a soldier might become disqualified for the service by disgraceful conduct. According to the opinion of counsel, *moral depravity* does not, under this act, cancel a soldier's claim to a pension for length of service. Hence, when a man has served the prescribed period which entitles him to a pension, he may procure his discharge by feigning disabilities, or, by the commission of crimes, which may render it expedient to discharge him from a corps.

The commissioners of Chelsea hospital were, therefore, in a great measure, prevented from exercising a discretionary power in regard to the *character* and *conduct* of a man when they awarded him a pension. When a soldier who had been "discharged as disabled or unfit for service," was brought before the board, the chief business of the commissioners was to apportion a pension according to the alleged *disability* or degree of *unfitness* for labour.

The following statement will show the numbers on the Pension List from 1741 to the year 1831.

Years.	Pensioners.	Amount of pensions.	Mean rate of pensions.	
			s.	D.
1741	3,865			
1745	5,133	—	—	—
1750	9,087	—	—	—
1755	8,422	—	—	—
1760	6,612	—	—	—
1765	15,229	—	—	—
1770	15,928	—	—	—
1775	15,770	—	—	—
1780	10,961	—	—	—
1785	20,273	—	—	—
1790	20,091	—	—	—
1792	20,150	158,102	0	5½
1795	16,995	133,375	0	5½
1800	16,695	132,298	0	5½
1805	22,290	187,281	0	5
1810	23,050	417,035	1	0
1815	36,757	665,646	1	0
1820	55,911	972,704	0	11½
1825	81,877	1,350,113	0	10½ ¹
1826	82,734	1,372,330	0	10
1827	85,515	1,420,464	0	10
1828	85,835	1,437,756	0	10¾
1829	85,756	1,436,663	0	10¾
1830	85,724	—	—	—
1831	84,534	—	—	—

This statement shows that the pension list gradually increased during a long period of profound peace,—a circumstance which indicates that the regulations required alteration. A large proportion of the pensioners in 1829 were neither old men, nor suffering under serious disabilities, as may be inferred from the annual ratio of mortality, which was only between three and a half and four per cent. There were, in 1828, 19,000 men on the Chelsea list, whose mean age was about thirty-one years, and who received six-pence a day in consequence of alleged disabilities. During the year 1828, ninety men were placed on the out-pension list who had not served two years, or reached twenty-two years of age. A system under which soldiers could, for very short service, be pen-

¹ The Kilmainham pensioners were this year (1825) joined to the Chelsea pensioners.

sioned for life, easily accounts for the constantly increasing numbers of pensioners. A facility of quitting the service on false grounds, whether a man receives a pension or not, is calculated to encourage imposition, and to injure the discipline of the army.

To show the practical operation of Mr. Windham's act, I have subjoined a return of the number of men admitted on the pension list during the year 1828, distinguishing the average age and length of service, and the proportion per cent. of the men discharged after each period of service.

Number.	Average age about	Period of service.	Proportion per cent. of the number discharged.
90	21 years.	From 1 to 2 years.	4.1
122	24	3 — 5	5.5
192	29	5 — 10	8.7
326	33	10 — 13	14.8
176	34	14 — 15	8.
785	37	15 — 20	35.8
188	41	21 — 22	8.5
118	41	22 — 23	5.4
65	43	23 — 24	3.
76	44	24 — 25	3.8
17	43	25 — 26	8
6	47	26 — 27	3
7	48	27 — 28	3
12	47	28 — 29	5
6	52	29 — 30	3
4	51	30 and upwards	1
2190			100

The out-pension list amounted, in 1823, to 81,189, and in 1827 it was 85,515; showing a great annual increment of permanent pensions. The number of men discharged on account of disabilities, from 1823 to 1827, both years inclusive, amounted to 18,378, or annually, 3,675—a number equal to about 3.7 per cent. of the army. Of the 18,378 alleged disabled men who were discharged, 17,486 were pensioned for life under the subjoined three classes of claims.

It would be interesting to ascertain what has been the ratio of mortality among the 1714 men, (see next table,) who were pensioned on account of alleged disabilities at the mean age of twenty-four years.

Sir Henry Hardinge instituted an investigation into the pension list in 1828, and, owing to his exertions, the increment during that year exceeded the decrement by only 319. In 1829, the list amounted to 85,756, which was a reduction of seventy-eight below the list of the year 1828, and the amount of charge was less by L.1093.

	Number.	Mean rate of pension.		Mean length of service.		Mean age.	
		s.	d.	Yrs.	Mths.	Yrs.	Mths.
Alleged disabilities, without reference to length of service,	1,714	0	7	4	4	24	0
Alleged disabilities, and service combined,	5,475	0	8½	13	10	33	3
Alleged "worn out," pensioned for length of service,	10,297	1	0½	22	2	40	2
	17,486						

Subjoined is a detailed statement of the numbers at present on the pension list, extracted from the army estimates, 18th Feb. 1839.

Out-Pensioners of Chelsea Hospital.

Numbers in 1838-9.	Regulars.	Black Pensioners.	St. Helena Regiment.	Ordnance.	Yeomanry.	Totals.	Rate.	For one day.		
								L.	s.	d.
2			2			2	at 2½d. a day.	0	0	5
1		3	1			4		0	1	0
35	19				14	33	4½	0	13	0½
4,728	2,114	1,097		1,363		4,574	5	95	5	10
27				24	41	24	5½	0	11	0
15,024	13,653	98		946		14,738	6	368	9	0
25				25		25	6½	0	3	6½
2,167	2,003	18		85		2,106	7	61	8	6
15				14		14	7½	0	8	9
471		450		34		494	8	16	2	8
20				19		19	8½	0	13	5½
13,182	11,732	5	23	1,012	6	12,778	9	479	3	6
29				28		28	9½	1	2	2
1,546	1,489	18		61		1,568	10	65	6	8
21				20		20	10½	0	17	6
30	12			28		40	11	1	16	8
42	14			26		40	11½	1	18	4
2				2		2	11¾	0	1	11½
18,157	15,093	17	50	2,430	1	17,591	1s.	879	11	0
22,369	19,424	3	1	3,388		22,816	*	1551	7	8
1,439	1,214	2	6	243		1,465	Between	162	6	0
79,332	66,767	1,711	83	9,748	62	78,371	2s. & 3s. 6d. do. for 1 day.	3687	18	8½

Which for 366 days is L. 1,349,783 19s. 7½d.

* At various rates between 1s. and 2s. a day, in consideration of being totally disabled by blindness, or otherwise, or of having been more than 21 years in the infantry, or 24 in the cavalry.

II.—*Pensioning Warrant, 1829.**General Heads of Arrangement of the Regulations for Pensioning Soldiers.*

REVISED WARRANT, canceling all existing warrants, regulations, &c.

Articles.

- 1 to 14. Division of pensions into four classes.
 1st. Length of service.
 2d. Wounds received in action.
 3d. Disabilities, *after* 14 years' service.
 4th. Disabilities, *under* 14 years' service.
- 15 to 21. Special cases of disability, how to be dealt with.
- 22 to 33. Forfeiture of pension for misconduct, specified in each article.
- 34 and 35. Commutation of pension for a sum of money or grant of land.
- 36 to 45. Rules in reckoning service, showing what description of service will be admitted or excluded.
- 46 to 56. Conditions under which discharges may be obtained.
- 57 to 62. Deductions to which the pensioner is liable.

GEORGE R.

WHEREAS we have judged it expedient to revise, amend, and consolidate the rules, orders, and regulations, which, in furtherance of various acts of parliament, have from time to time been established for the better ordering of our army, and for improving the condition of soldiers, by granting them pensions, allowances, and relief, on their discharge after certain periods of service, as wounded, disabled, or invalidated, in our service :

7th Oct'r. 1806. Our will and pleasure therefore is, that the several warrants bearing the respective dates specified in the margin hereof, and that all rules, orders, and regulations consequent thereupon, shall (subject to the reservation herein contained) be void; and that in lieu thereof, the rules, orders, and regulations annexed to this our warrant, shall henceforth be in force.

30th June 1812.
 28th Feb. 1814.
 25th Mar. 1816.
 19th Dec. 1816.
 16th Feb. 1818.
 26th Mar. 1822.
 28th July 1823.
 19th Aug. 1823.
 4th Nov'r. 1826.

It is our further will and pleasure to reserve and continue to all non-commissioned officers and soldiers enlisted before the first day of December, 1829, every benefit to which they may respectively be entitled under the warrants and regulations hereby made void.

And we do hereby direct and order, that the commissioners of our Royal hospital at Chelsea, as well as all other persons whom it may in any wise concern, shall strictly observe and obey this our warrant, and the regulations annexed to it.

Given at our court at Windsor, this fourteenth day of November, 1829, in the tenth year of our reign.

By his majesty's command,

HENRY HARDINGE.

Regulations.

1. All non-commissioned officers and soldiers enlisted previously to the first day of December, 1829, shall, as regards their right to claim pensions for service and wounds, remain entitled to every benefit or provision which they can at present claim under any warrants or regulations which were in force at the time of their enlistment; but the following rules and regulations only shall be in force, and applicable to all non-commissioned officers and soldiers enlisted after the thirtieth day of November, 1829.

2. Claims for pensions shall be divided into the four following classes:

First class.—Length of service.

Second class.—Wounds received in action.

Third class.—Disabilities contracted in the service, *after* fourteen years' service.

Fourth class.—Disabilities contracted in the service, *under* fourteen years' service.

FIRST CLASS.—*Length of Service.*

3. A soldier enlisted for unlimited service has no claim, as a *matter of right*, to his discharge, either with or without a pension, after any period of service, however long.

4. No soldier, when discharged, shall be allowed a pension for length of service alone, unless he shall have served twenty-four complete years in the cavalry, or twenty-one years in the infantry; but, when discharged after those periods of service, he may be allowed a pension, not exceeding the under-mentioned rates, viz:

		Private.	
		After Years of Service.	Rates per Diem.
If discharged on account of the public service.	Cavalry	24	1s. 0d.
		28	1 2
	Infantry	21	1 0
		25	1 2
If discharged at his own request.	Cavalry	24	0 10
	Infantry	21	0 10

Soldiers are bound to serve until they are legally discharged; but this contract is not mutual, inasmuch as a soldier may be "discharged on account of the public service," whenever it is deemed expedient by government to do so, and without his consent being required for that purpose. Soldiers are said to be "discharged on account of the public service," when they receive their discharge in consequence of "*unfitness for service.*" Men belonging to the infantry, who enlisted previously to 1833, and who have served

21 years, and have been discharged as disqualified for military duty, become entitled to an annuity of 1s. a day for life; but if a man be discharged at his own request, after a service of the same period, he receives only 10d. a day. The practical effect of this regulation will be to promote the simulation of disabilities, inasmuch as an alleged infirm man will receive 2d. a day more than a man, with the same service, who does not allege that he is unfit for military duty. If a discharge from the army and a pension can be more easily obtained by a soldier, on account of alleged disabilities, than after the same length of service without any specific infirmity, disabilities will come upon him all at once, when he has completed the period of 21 or 22 years in the army; and if a man who has served that time, including the usual share of foreign service, alleges that his strength is inadequate for military duties, worn out in fact, or that he suffers from rheumatism, what medical man will have the hardihood to gainsay him? But it may be asked, ought alleged disabilities to enhance the claim of a soldier to a pension, after 21 years' service? Impaired health is rarely an evidence of merit in a soldier—it is frequently a result of culpable conduct, intemperance, moral delinquency; and consequently, when a man is discharged on account of alleged disabilities, he may be indebted for the extra 2d. a day to moral or physical infirmities, rather than to good conduct or a meritorious character. Health and efficiency in an old soldier may be considered as tolerably conclusive evidence that he has lived temperately, performed his duty regularly, and conducted himself creditably.

The practice of other powers in regard to the remuneration of soldiers, after certain periods of service, deserves consideration. When the Duke *de Choiseul* became minister at war, in 1761, he fixed a soldier's engagement in the French army at eight years. Those who re-enlisted at the expiration of that period were entitled, at the end of sixteen years, to half-pay and clothing, and if they served a third period of eight years, they retired with full pay and clothing, without reference to disabilities.

In the East India Company's service, serjeants of the European force, who have served twenty-one years, whereof the last eight have been in that capacity, are entitled to receive, during life, a pension of 1s. 9d. a-day, and those who have lost a limb 2s. a-day.

Serjeants who have served fourteen years in the company's army, and who have been discharged on account of debilitated constitutions, are entitled to 1s. a day for life.

All corporals and privates discharged at their own request, after twenty-one years' service, are to receive 1s. a-day; and corporals and privates after fourteen years' service, discharged as unfit on account of broken constitutions, are entitled to receive ninepence a-day.

In the army of the United States of America, each recruit who enlists for a period of five years is allowed a premium of 124

dollars, 50 to be paid at enlistment, 50 after joining a regiment, and 24 when he is discharged; and each non-commissioned officer and private becomes entitled to receive in possession 320 acres of land when he is honourably discharged. By a law passed in 1816, the legal representatives of soldiers who were killed or died in the service, were allowed to claim the bounty of land by virtue of their right. (*Dr. Seybert, Statistical Annals, page 591.*)

The commissioners, in their report on the subject of military punishments, suggest, that “no consideration of expense, within reasonable bounds, should be allowed to stand in the way of attending to the comforts of the soldier while in the service, and of a sufficient pension for the good and deserving men, after the service has been performed,”—a recommendation with which I most cordially agree. Rash and imprudent contracts may be entered into by parties, but they will not be cheerfully fulfilled, nor will compulsion efficiently enforce them, unless the terms of the agreement are found upon trial to be mutually advantageous. A recruit commonly enlists when he is a minor, and ignorant of all the consequences of his engagement; but by exposing himself to death and mutilation, or the diseases and mortality of tropical climates, he acquires a strong claim to an adequate means of subsistence, when, from long service, he becomes unfit for the duties of his profession.

5. If a soldier shall be discharged on *reduction* or *disbandment* of his corps after a service of fourteen years, but under twenty-four years in the cavalry, or twenty-one years in the infantry, he may, at the discretion of the commissioners, be allowed the gratuity specified in article 46 of these regulations; and shall be eligible to re-enter the service, according to the rule laid down in article 41.

6. Serjeant-major, quarter-master-serjeants, troop serjeants-major, colour-serjeants, serjeants and corporals, shall have their pensions computed at the same rate as privates, with the following addition for every *year* of service as non-commissioned officers, viz.

Serjeants-major	2½d.	} Total pension for service not to exceed	} { 2s. 4d. 2s. 2d. 1s. 10d. 1s. 4d.
Quarter-master serjeants	2d.		
Serjeants	1d.		
Corporals	0½d.		

Provided always that the non-commissioned officer shall have served twenty-four years in the cavalry, or twenty-one years in the infantry, and shall have been discharged as a non-commissioned officer, having served, without interruption, as such for the *three years* immediately preceding his discharge. And no non-commissioned officer shall receive the aforesaid superior rates, if discharged whilst holding an inferior rank.

The period during which any soldier may have been employed as an acting *lance-serjeant* or *corporal*, shall not be allowed to reckon as non-commissioned officers' service.

A soldier exchanging from cavalry to infantry, or from any regular service, shall reckon his service according to the regulations applicable to the corps in which he may be serving when discharged.

[When a non-commissioned officer is discharged at his own request, a diminution of twopence a day shall be made in all ranks, from the rate of the pension to which he would otherwise, according to the scale in this article, be entitled for actual service.]—*Art. 6, by order of the king, signified to the secretary at war, July 30, 1830.—H. H.*

SECOND CLASS.—*Wounds received in action.*

7. The daily rates of pensions for *wounds* or *injuries* received in *action* are to be governed by the rules contained in the following schedule: viz.

RANK.	First Degree.		Second Degree.		Third Degree.		Fourth Degree.	
	Men losing two limbs, or butheyes, from wounds, or being so severely wounded as to be totally incapable of earning a livelihood, and to require the assistance and care of some other person.		Men rendered incapable of earning a livelihood, but not requiring the care of another person.		Men able to contribute in a small degree towards a livelihood.		Men able to contribute materially towards a livelihood, although unfit for the ordinary duties of the service.	
	From <i>s. d.</i>	To <i>s. d.</i>	From <i>s. d.</i>	To <i>s. d.</i>	From <i>s. d.</i>	To <i>s. d.</i>	From <i>s. d.</i>	To <i>s. d.</i>
Serjeant	2 6	3 6	2 0	3 0	1 6	2 0	1 0	1 6
Corporal	2 0	3 0	1 6	2 0	1 0	1 6	0 9	1 0
Private	1 6	2 0	1 0	1 6	0 9	1 0	0 6	0 9

8. In cases of *severe wounds* or *injuries* received in *action*, the pension shall be fixed, according to the rates in the foregoing schedule, by the commissioners of Chelsea hospital, who will grant the lowest or the highest, or any intermediate rate, according to the *degree* of the injury received, the *length* of the soldier's previous service, his character, or any peculiar circumstances attending his conduct at the time the wound was received.

THIRD CLASS.—*Disabilities or injuries contracted on service, after fourteen years' service.*

9. Any non-commissioned officer or soldier discharged *after* fourteen years' service, but *under* twenty-four years in the cavalry, or *under* twenty-one in the infantry, for a *permanent* disability contracted by and in the service, may be awarded a *permanent* pension at the following rates, viz.

A serjeant, from 9d. to 1s. 3d.

A corporal, from 7d. to 1s. 0d.

A private, from 6d. to 0s. 9d.

Provided that the serjeant or corporal shall have served at least five years in the rank he holds when discharged, and that the disability was not occasioned by any want of proper care on his own part. But unless the injury for which the soldier may have been discharged be considered by the commissioners to be *permanent*, he shall be awarded a *conditional* pension only, at their discretion.

I presume the period of "*five years*" mentioned in this article, must be uninterrupted.

The term "*conditional pension*" implies that the soldier shall be liable to occasional examinations, and that the bounty of government is not intended to be allowed for a longer period than the actual existence of the disability for which he was considered disqualified for the service and discharged.

In the French army, all persons who have been pensioned on account of disabilities under twenty years' service, are held liable to be examined annually by medical officers until they reach fifty years of age, for the purpose of ascertaining whether they continue disabled. Those who recover have the option of joining the army or not, but the pension ceases if they remain at home. It would appear that a considerable portion of the Chelsea pensioners do not labour under disabling infirmities. Of about 26,000 pensioners that were in Ireland in 1828, 6000 were, upon examination, found fit for service in the field or in a garrison; and when the pensioners who receive less than one shilling per day in Great Britain were examined early in 1831, from one third to one half of the whole number were found fit for military duty. In one station of 1300 pensioners which were inspected, 600 were returned fit for duty. The most surprising recoveries had taken place. Men who had been discharged as blind were restored to sight, the deaf heard, and the lame ceased to halt.

10. The precise amount of pension for permanent disabilities *after* fourteen years' service shall be regulated at the discretion of the commissioners of Chelsea hospital, according to the *time* the soldier may have served; the *climate* in which he may have been serving; the *degree* of the disability as affecting his means of earning a livelihood, and his *good conduct* whilst serving; but no pension shall be granted on account of disability, if it has been occasioned by vice, intemperance, or misconduct.

FOURTH CLASS.—I. *Disabilities under fourteen years' service.*

11. Any non-commissioned officer or soldier discharged *under* fourteen years' service, in consequence of disability contracted in and by the service, and not from a want of proper care on his part,

may, at the discretion of the commissioners, be awarded a *temporary pension*, according to the following scale :

Under 14 years, and above 10 years' service ; a *temporary pension* of 6d. a day for a period extending from two to three years. Under 10 years, and above 7 years' service ; 6d. a day from one to two years. Under 7 years' service ; 6d. a day from one to eighteen months.

In *special* cases, where a *gratuity* in money, proportioned to the length of the soldier's service, may be considered more advantageous to his interests than a *temporary pension*, a sum varying from £1 to £18 may be given him, as a commutation, under the authority of the secretary at war, if the soldier be discharged without being examined by the commissioners, or under their authority, if examined by them.

12. In extreme cases of disability or injury, *under* fourteen years' service, resulting from military duty, or the effects of climate, the *temporary pension* of 6d. a day may, under extraordinary circumstances of severe suffering from service, be augmented to 9d. and *renewed* for a specific period, at the discretion of the commissioners ; but these cases shall be deemed *special*, and registered as such, with the grounds on which they have been decided.

13. In all *special* cases when pensions on account of disabilities or accidents are granted, and likewise when pensions are refused, or claims are deemed to be forfeited, the decision of the commissioners, with the grounds thereof, shall be communicated to the secretary at war, in order that the result may be notified to the regiment from which the soldier was discharged.

14. The decision of the commissioners in fixing the rate of pension granted for service, wounds, or disabilities, shall be *final*, and the amount of the pension shall not be augmented on account of alleged increase of disability, after the soldier shall have left the service, unless any *special* circumstances shall occur and be brought forward within two years after the original grant of pension, to justify a reconsideration thereof.

II. *Special cases of disability or injury.*

15. No soldier shall be discharged for the loss of *one eye* only, whether it be the *right* or *left*.

16. If a soldier shall have lost one eye by a wound, and shall receive other wounds or injuries in action, which render his discharge necessary, the loss of an eye may be taken into consideration by the commissioners, in fixing the pension at such a rate as his *service* and *disability* combined may, in their judgment, entitle him to receive.

17. In cases in which an eye shall have been lost by the effects of service, and not by wounds, the loss may be considered by the commissioners, at their discretion, in apportioning the rate of pension. If *under* fourteen years' service, the loss of an eye may be

taken into consideration, and a *temporary* pension, or a gratuity, be granted, according to the scale laid down in the 11th and 12th articles of these regulations.

18. In case a soldier shall become totally blind from unavoidable causes, clearly attributable to *service alone*, and not occasioned by vice, intemperance, or other misconduct, he may be allowed a pension varying according to the following scale, viz.

Serjeant, having served as a non-commissioned officer ten years, and not less than five years as a serjeant, from 1s. 3d. to 2s.; corporal, having served as such for seven years, from 1s. to 1s. 3d.; private from 9d. to 1s.

If the soldier shall have served more than fourteen years, and is discharged with a *good character*, and with a constitution impaired by the effects of colonial service, an increase not exceeding 3d. a-day may be added to the aforesaid rates; but the precise rate shall be determined at the discretion of the commissioners, according to the principles laid down in article 10 of these regulations.

19. Whenever a case of total or partial blindness shall be involved in so much doubt, as to have been reported by a court-martial or by a medical officer to be a "*suspicious case*," the commissioners shall deal with it as to them may seem most just; but in every case in which it is proved that a soldier has tampered with his eyes, or that his loss of sight has been caused by vice, intemperance, or other misconduct, and that his character is bad, instead of being discharged on a pension, he shall be detained in an *eye infirmary*, or shall be sent home to his parish, or dismissed without a pension.

20. Except in extreme cases of disability, no infantry soldier shall be discharged for *rupture alone*; should a ruptured soldier be discharged before he has served fourteen years, his case shall be considered according to the 11th and 12th articles of these regulations.

See page 97. The number of cases of rupture which *require to be discharged* from the army during peace appears to be very small.

21. Any cavalry soldier who shall be discharged *under* fourteen years' service for a rupture which would not disable him for infantry service, may, at the discretion of the commissioners, either be transferred to a veteran or garrison battalion or company, or be allowed a temporary pension or gratuity, according to article 11.

III. *Forfeiture of pension.*

22. Any pensioner refusing to serve, or not appearing when called upon by the commissioners, or other lawful authority, shall forfeit his pension, unless a satisfactory explanation be subsequently given; but no pensioner who has actually served twenty-four years in the cavalry, or twenty-one years in the infantry, shall be

liable to be called upon to serve. And any pensioner who neglects to draw his pension for *four successive quarters* shall be struck off the pension list, and shall not be replaced, unless he shall satisfactorily account for such omission; and the commissioners shall, at their discretion, grant or withhold the arrears, or any portion thereof.

23. Every soldier convicted by a court-martial of being a deserter, may, in addition to any other punishment awarded by the court, be sentenced to forfeit all claim to pension. Such sentence shall, in all cases, be recorded on the discharge sent to the commissioners of Chelsea hospital, but if, after such sentence has been passed, he shall have performed good and faithful, or gallant service, he may be eligible for a pension, provided that he be recommended by his commanding officer, through the commander-in-chief, in conformity with the rules laid down in the mutiny act and articles of war.

Mutiny act, clause 9. This clause will, no doubt, have a suitable effect in impressing upon a soldier the serious nature of the crime of desertion, and at the same time hold out the strongest inducement to reformation, by convincing him that subsequent merit as a soldier may, at any time, on the recommendation of his commanding officer, relieve him from the penalty attached to his former crime.

24. If a soldier shall have been convicted by the civil power of a misdemeanour, or by a court-martial, of any *vicious* or *disgraceful conduct*, such as to render him unworthy of belonging to the army, and consequently to be unfit for the military service, he shall, on being discharged in consequence thereof, have the sentence, or cause of his dismissal from the service, recorded in his discharge, and shall forfeit all claim to pension.

In order that the practical application of the words "disgraceful conduct," and offences of a "disgraceful character," may be liable to the least possible misconception, and that soldiers guilty of unmilitary conduct, of neglect of duty, and of other offences distinctly specified in the articles of war, may not be tried under, and be subject to the penalties of this charge, I have to state that "disgraceful conduct" implies confirmed vice, and all unnatural propensities, indecent assaults, repeated thefts and dishonesty, ferocity in having maimed other soldiers or persons, self-mutilation, tampering with the eyes, and all cases of confirmed malingering where the conduct is proved to be so irreclaimably vicious, as to render the offender unworthy to remain in the army.—*War Office Circular*, No. 643.

25. Any soldier convicted before a competent court-martial of *feigning* or *producing disease or infirmity*, or of materially injuring his health by habitual *drunkenness*, or of being detained in hospital by any disease contracted by his own vice or intemper-

ance, thereby rendering himself unfit for service, or of *absenting* himself from an hospital whilst under medical treatment, or of being guilty of a gross violation of the rules of the hospital, or of intentionally protracting his cure, or of wilfully aggravating his disease, shall be liable to be brought to trial by the regimental commanding officer, or on charges preferred by the surgeon of the hospital, and to have the whole time of such detention in hospital deducted from his service, or of forfeiting all claim to pension, provided such forfeiture form part of the sentence of the court-martial by which he was convicted.

The purport of this article is thus stated in the articles of war :

“ Any soldier who shall be convicted of malingering, feigning, or producing disease or infirmity—absence from hospital—protracting cure, &c. shall be tried for disgraceful conduct, and be liable to the punishments attached to that offence.”—(*Articles of War, 1830, art. 40.*)

To suppress malingering among soldiers is an important part of the duty of a medical officer, but in the performance of this duty he must be guided by just principles. He should never adopt harsh, arbitrary, or unauthorised proceedings. He is not of his own authority warranted in employing restraint or coercion. When, after due caution in deliberation, and patience in investigation, a medical officer is convinced that a soldier is feigning a disability, and when he has patiently and perseveringly, but without success, endeavoured to persuade him to perform his duty, he should report the case to the commanding officer, with his reasons for believing the man to be an impostor. The case is then, in some respects, out of the hands of the medical officer; all further measures must be directed by the commanding officer, with whom the responsibility rests.

When an alleged malingerer perseveres in a course of imposition, he is, as directed by the article in question, occasionally tried by a court-martial. Dr. Cheyne suggests, that, as a preliminary measure, a malingerer should be examined by a board of at least three medical officers of mature experience, and that, according to their report, the final measures should be directed. In such cases would it not be advisable to have one or more experienced medical officers on a court-martial? All commissioned officers of the army on full pay are eligible to sit on courts-martial, surgeons, and assistant-surgeons being competent as members of such courts, although the custom and convenience of the service forbids recourse being had to them except in extreme cases.—(*Simmons on Courts-Martial, page 36.*)

The crime of “ malingering, feigning, or producing disease or infirmity,” was, I believe, not included in the articles of war until 1830. In the military codes of other nations it has been long comprehended. The Romans were at great pains not to “ give occasion to cowards or sluggards to counterfeit sickness, therefore

such as were found to have done so, were, of old, ordained to be punished as traitors. Nay, whosoever mutilated their own or their children's bodies, so as thereby designedly to render them unfit for carrying arms, were adjudged to perpetual exile."—(*Bruce, Institutions of Military Law.*) By the Dutch articles of war, as early as 1717, counterfeiting sickness was punished by discharging a soldier with disgrace, and depriving him of the privileges he would have been entitled to had he conducted himself correctly.

26. Any soldier *maimed* by the *firing off of his musket*, or by other means, and who thereby becomes unfit for service, whether the injury occurred *on or off duty*—whether *accidentally* or *intentionally*, shall, in all cases, be tried by a district court-martial, as soon after the event as possible; and if it shall be proved before such court that the injury was the unavoidable result of military service, and was in no way attributable to *design, negligence, drunkenness, or misconduct* on his part, the court may recommend the soldier for a pension, stating the proofs adduced, and the grounds of their recommendation, or of their rejection of the claim, as the case may be. The finding of the court, and the confirmation of the commanding officer, must invariably be annexed to the discharge, and adverted to therein; but the final decision upon the claim to pension shall in all cases which are brought before the Chelsea board rest with the commissioners.—*Rules and Articles 1830, articles 41, 42, 77.*

27. Any soldier who shall be *disabled* or *mutilated* by an *accident*, which did not happen in the immediate execution of some act of military duty, or which, if it did so happen on duty, was owing to his own *negligence*, shall not be entitled to a pension, although he be discharged for such disability.

His claim in such case can only be considered with reference to the *service* he may have performed, or to the *wounds* he may have received in action, or to the *goodness of his character*. The finding of the district court-martial, stating the whole of the circumstances of the case, must be annexed to the discharge. The commissioners will exercise their discretion in granting or withholding a pension, but in no case shall a *permanent* pension be granted for such accidental injury, unless the soldier has served *above fourteen years*. If the soldier shall be ordered to be discharged at the regiment, his majesty's pleasure, and the amount of any gratuity, will be signified by the secretary at war.

If it shall appear to the court that the injury or mutilation was not the effect of *accident*, but of *design*, the soldier shall not be discharged, but shall be employed in such regimental or garrison duty or work, as the commander-in-chief may direct.—*Rules and Articles 1830, articles 41, 42, 77.*

28. If a pensioner be guilty of gross violence or outrage towards the persons employed in paying the pensioners, he shall be punished by the loss either of a part or of the whole of his pension, at the

discretion of the commissioners, in addition to any other punishment which the law may inflict for such offence.

29. If a pensioner be discovered to have received *credit* for a longer period than he actually served, by a *false entry, alteration, or erasure*, in any regimental book or document, or by a *misrepresentation* of his claims, or to have obtained *through any other means* a higher rate of pension than he was entitled to at the time of his discharge, when he was sworn to the truth of his statement of services, such pensioner, in the event of the commissioners deciding that he was cognizant of the fraud, or guilty of the concealment of the truth, shall forfeit his pension; and if a pensioner shall commit any *felonious act*, or practice any *gross fraud*, which shall be proved to the satisfaction of the commissioners, they shall either strike him off the pension list, or reduce the rate of his pension at their discretion. In all cases of over issue, the pensioner shall have his pension lowered to the true rate, and shall by a stoppage from his pension refund either the whole amount overissued, or such part thereof, as the commissioners may think proper to direct; but if the overissue originated in any error of computation over which the soldier could have no control, the pensioner shall not be called upon to refund any part thereof.

If a non-commissioned officer or soldier be privy to the making of any false entry, or producing any fraudulent document, either as regards his own services or those of any other person, he shall, on conviction thereof, before a competent court-martial, be rendered incapable of receiving a pension, according to the provisions of the mutiny act and articles of war.

30. If any pensioner shall apply to any *parish for relief* for himself or family, or shall suffer his family to become chargeable to the parish, his pension, by the acts of parliament of 59 Geo. III. cap. 12, and 6 Geo. IV. cap. 27, will be payable to the parish officers, according to the provisions of the said acts.

31. Any pensioner or other person, who shall *knowingly personate* or *falsely assume* the name or character of a soldier, who is, or may become entitled to a pension, or shall falsely pretend to be the *heir, administrator, or assignee*, of a pensioner or soldier, for the purpose of fraudulently obtaining money or effects, or shall knowingly and wilfully assist in forging or counterfeiting the name or handwriting of any such pensioner or soldier as aforesaid, or in forging any document relating thereto, is liable, on being legally convicted thereof, to be *transported as a felon*, according to the act 7th Geo. IV. cap. 16, clause, 38, (1826.)

32. Any pensioner imprisoned in a jail by order of a magistrate, as a vagrant, or as having committed any misdemeanour, or crime, if he *assumes a false name*, whether he be convicted or not of the offence for which he was apprehended, shall, on proof of such *concealment of the true name* under which he was pensioned, have his pension suspended, reduced, or altogether taken away, at the discretion of the commissioners.

And if any pensioner gives a false statement as to his place of residence, or, for a fraudulent purpose, draws his pension at a place different from that where he usually resides, he shall be liable to have his pension taken away, reduced, or suspended, at the discretion of the commissioners.

33. Non-commissioned officers and soldiers, who have forfeited their claims to pension in consequence of misconduct, shall have their names, and the circumstances under which their pensions were forfeited, published in the orderly book of the regiment to which they belonged, and a memorandum of the fact shall be sent to their *parishes* by the commanding officer.

[After the word *parishes*, erase the words, "by the commanding officer," and insert "by the secretary at war, as provided in the mutiny act and articles of war."]—*Art. 33. By order of the king, signified to the secretary at war, July 30, 1830.—H. H.*

By the 83d article, (Rules and Articles, 1830,) soldiers who have performed good, faithful, or gallant service in his majesty's army, are, in addition to every benefit which the regulations of the service may entitle them to on discharge, to have their meritorious conduct notified to their respective parishes; and soldiers discharged for disgraceful conduct are equally liable to have their misconduct notified to their parishes by the secretary at war. His majesty's intention by this proceeding, (as well as by the power of restoring service forfeited for desertion,) is to give to every commanding officer the most powerful means of stimulating the soldiers under his command to good conduct, by the certainty that character and conduct will at all times be duly considered, and particularly at the termination of a soldier's service.

IV. *Commutation of pensions.*

34. Pensioners *not being natives* of the united kingdom, may have their pensions *commuted* for a sum of money, on his majesty's pleasure being signified to the commissioners of Chelsea hospital by the secretary at war; the money to be paid out of funds appropriated for the use of the said hospital.

35. If a pensioner, being *a native* of the united kingdom, should be desirous of settling abroad in any of his majesty's colonies, his pension may be commuted in the manner laid down in the preceding article. But if any pensioner shall have received a commuted allowance for his pension from the commissioners, and shall at any subsequent time fraudulently attempt to revive a claim to the pension so commuted, he will be liable to be proceeded against under the act of parliament referred to in article 31.

V. *Rules in reckoning service.*

36. No soldier shall be allowed to reckon his service under eighteen years of age.

If a soldier at the time of enlistment shall misrepresent or conceal his real age, and his real age be afterwards discovered, he shall in no case benefit by such discovery; if, for instance, he swore that he was under eighteen years, although he was actually older, the age specified on his attestation shall be the standard for calculating his service, and consequently his service under eighteen years of age, according to such attestation, will not be allowed to reckon.

37. The distinction between service in the East and West Indies, and service in any other part of his majesty's dominions, having ceased since the year 1818, as regards the reckoning of service for pension, the same rule will apply as regards the claim to *additional pay*, which, in the case of men enlisted after the 30th November, 1829, will only commence after fourteen years' service actually completed.

38. Any soldier may be *transferred* from one battalion to another of the same regiment; or he may be permitted to volunteer into another regiment on the disbandment of his corps, or on its being ordered home from a foreign station; but he shall *not be liable to be drafted* from one regiment to another without his consent, unless by sentence of a court-martial. Pensioners who have not served twenty-one years, will be held liable to be called upon to serve in a veteran or garrison battalion, or in the militia, or in a regiment of the line within the limits of the united kingdom.

39. Non-commissioned officers and soldiers shall not be allowed to reckon as service the period of *imprisonment*, whilst under the legal sentence of a civil or military court, nor the period of confinement previous to trial, unless acquitted of the offence alleged against them, according to the provisions of the mutiny act and articles of war.

40. If any person discharged from the army for disability, or for any other cause, shall subsequently re-enter the army, and shall, when questioned by the magistrate at the time of his being attested, conceal the fact, or misrepresent the cause of his former discharge, he shall not be allowed to reckon his past service, nor to receive any pension, if again discharged for disability.

This article is intended to obviate a very serious evil, namely, the concealment of infirmities at enlistment. When a medical officer is informed that a recruit, he may be called upon to examine, has been discharged on account of a disease or disability, he is put upon his guard, and is very cautious in approving him. Should a recruit not conceal or misrepresent the cause of his discharge, he will, on final approval, be allowed to reckon his former service as a claim for pension, even although he shall have received a temporary pension, agreeably to article 11.

41. If any soldier discharged on *reduction* or *disbandment* of his corps, shall not have the opportunity of immediate re-enlistment into any other corps, he shall, on *re-enlisting within three years*, be allowed to reckon his former service, provided that he shall not

have passed the age at which *disbanded* soldiers may be allowed to re-enter the service—and that he shall in every respect be eligible for the service. The man so re-enlisting must, at the time of being attested, declare his former period of service in the army, ordnance, or marines, and the cause of his discharge from his last corps; but if he should fail to make such declaration of his previous service, so that it may be recorded in his attestation, he shall not be permitted to reckon it at any subsequent period.

42. Pensioners who shall, under a proclamation of his majesty or other lawful authority, be called upon to serve in a veteran company or battalion, or in the militia, or to be attached to a regiment of the line within the united kingdom, shall, in addition to their previous services, reckon such service, provided the period thereof shall not be less than *one year*.

43. Any pensioner who *voluntarily enlists* into a *veteran* company or battalion, or the *militia*, or who is appointed to be a *district*, *barrack*, *garrison-serjeant*, or a *military clerk*, or *hospital-steward*, or who is employed in any other military capacity, shall, when discharged, revert to his former pension, unless it be pronounced by competent authority to have been forfeited. If he shall have served *ten years* or more in any of the situations above mentioned, and shall have been discharged therefrom with a good character, or even if he shall have served less than ten years, and shall have been discharged under circumstances entitling him to special consideration, as a deserving soldier, his majesty's pleasure will be signified by the secretary at war, that such increase of pension may be granted, as the commissioners shall think fit; not, however, exceeding in any case the rates specified in articles 4 and 6.

44. The services of all soldiers at present in the army shall be accurately revised and balanced up to the 31st December, 1828, by the military boards established, and now sitting for the investigation of those services. The period of service which each man may be allowed to reckon to that date, shall be recorded and certified in words at length, by the particular board before which the examination takes place, and such record shall be admitted by any other military board which may be hereafter assembled for deciding upon the soldier's claims, as the only correct statement of his service, to the termination of the year 1828, from and after which time the balance of every soldier's services shall be struck periodically, and under such instructions as his majesty may be pleased to give through the secretary at war.

45. No soldier shall hereafter reckon as military service the time he may have previously served in his majesty's navy.

VI. *Conditions under which discharges may be obtained.*

46. His majesty having been pleased to direct that soldiers may be allowed to *purchase* or *obtain their discharges*, under certain conditions and limitations, the terms are to be regulated by the following scale, viz.

Period.	For men serving in the	
	Cavalry.	Infantry.
Under 7 years' actual service } .	L. 30	L. 20
After 7 years' ditto .	25	18
— 10 — .	21	15
— 12 — .	15	10
— 14 — .	12	5
— 15 — .	6	Free discharge at home, and in addition three months' pay abroad.
— 16 — .	Free discharge.	Free discharge, and in addition three months' pay at home, and six months' pay abroad.
— 17 — .	Free discharge, and three months' pay.	Free discharge, and in addition six months' pay at home, and one year's pay abroad.
— 18 — .	Free discharge, and six months' pay.	Free discharge, and in addition one year's pay at home, and one and a half year's pay abroad.
and to 21 — .		

[The gratuities shall be calculated at the respective rates of full pay of cavalry, of foot guards, or of infantry, excluding additional pay.]—*Art. 46. By order of the king, signified to the secretary at war, July 30, 1830.—H. H.*

Where grants of land in addition to free discharges can be made in the colonies, the precise terms of the grant, and the most advantageous mode of paying the gratuity of full pay, shall be clearly explained to the soldier before he receives his discharge, and shall be registered in the regimental records. When the soldier has been settled three months, and is actually residing on his grant, and is industriously employed in clearing it, the governor, under authority from the secretary at war, may, in addition to the gratuity, authorise the issue of a quarter's pension at 6d. a day; and may from time to time renew such issue for a period not exceeding in the whole one year.

This is a highly important article, not only as regards soldiers individually, but also in respect to the discipline of the army. The beneficial effect of rendering an exit from the service less difficult than formerly, must be very considerable; but perhaps it may eventually be deemed an expedient measure to shorten the time when a soldier may obtain a free discharge, and to give him a claim of right to leave the service after the expiration of the prescribed period. Any regulation which makes the yoke of perpetual servitude sit easier will tend to render obedience more cheerful, and by that means improve the discipline and efficiency of the army. In 1749, a bill was brought into parliament for limiting

the time and conditions upon which soldiers might be discharged the service, but it passed in the negative. It appears to have been intended by this bill that a soldier who had served *ten years* might purchase his discharge by paying *three pounds*. The debate which took place when the bill was before the house is very interesting. One member observed, that, "as long as soldiers are listed for life, the service will always be despicable in the eyes of the people, and none but the most abandoned or the most thoughtless will enter into it." Another said, "it is despair that renders our common soldiers generally so idle and dissolute; offer them but a view to freedom—give them a prospect, though a distant one, of their becoming a part of the people—and you will see a remarkable, a happy change in the behaviour of the army."

During the last war, before a dragoon could obtain a discharge from the army, his friends required to furnish *three* approved substitutes.

47. Soldiers who have *actually* served twenty-one years in the infantry, or twenty-four in the cavalry, and who being fit for service, are *discharged at their own request*, may be allowed a pension of 10d. a day, as shown in Article 4.

48. But in all cases of soldiers allowed to *purchase discharges* or to *obtain free discharges*, or pensions on discharge at their *own request*, (if they have served the requisite period,) the number of men to be annually discharged, and the selection of the individuals, shall be governed by such instructions as the commander-in-chief may give from time to time, or the master-general of the ordnance for that department, for extending or limiting the numbers, or wholly suspending the permission, according to circumstances.

Provided that in all the aforesaid cases a period of *not less than thirty days* shall elapse between the soldier's application, and the commanding officer's consent to recommend the discharge; this interval being allowed for the express purpose of giving the soldier sufficient time for due deliberation. At the same time it shall be clearly explained to him what prospect of permanent pension he will forfeit, in consequence of accepting a free discharge at his own request.

But nothing in this regulation is to be construed, as giving any *right* to a soldier to claim his discharge by purchase or otherwise, it being intended as an *indulgence* to be conferred upon the deserving soldier, in proportion to his good conduct, and the length of his service.

It seems highly desirable that the principle on which soldiers are allowed free discharges should be still further extended, so as to admit of their being discharged if they wish it after a service of eight, nine, or ten years. Experience has convinced the powers on the continent, that the system of binding a man during the whole course of his life to military subjection is contrary to every principle of economy and efficiency. An indefinite period of service, that is to

say, service as long as health and strength remains, presents something appalling to a reflecting mind. Recruits commonly enlist without thought or consideration, or from sheer necessity, but regret and dejection frequently follow, and, as there is no definite period at which their engagement is to terminate, the influence of hope, which is necessary for the efficient execution of any duty, becomes annihilated, and a state of mind succeeds, by no means favourable either to sound health or military subordination. The natives of France appear to have great reluctance to unlimited service in the army. M. Dupin (*Force Militaire de la Grand Bretagne*) says, with reference to the recruits who enlisted in this country in the year 1814, "*Que penser ensuite des classes inferieures d'un peuple dont les neuf dixiemes des enroles engagent pour jamais leur liberte.*" Enlistment for life, I believe, never was adopted in France; the period of engagement has varied considerably, and been successively three, four, six, eight, and by the ordonnance of March 1832, it is seven years. A soldier may re-enlist or extend his services for a period of from two to five years, when they become entitled to a higher rate of pay. But soldiers who wish to remain in the army commonly re-engage as substitutes for seven years, and by this means obtain a premium of from L.60 to L.80, being on an average about L.10 a year in addition to their pay. In 1810, an act was passed, under which recruits for the European force of the Honourable the East India Company, amounting to about 14,000 men, might enlist either for life, or a limited service of twelve years, and with respect to the native force, amounting to about 190,000 men, they may obtain their discharge during a period of peace at their own request, after having served three years, but during war they have no claim to be discharged, after having served any period. In the United States of America the period of enlistment for the regular army is five years.

A recruit who enlists for a definite period, or whose engagement permits him to claim his discharge, after a term of years, reserves the right of resuming, at a given time, the place he occupied among his fellow citizens, and thereby retains some prospect of his liberty. The condition and duties of a soldier require the stimulus of hope—a hope of having it in his power to retire from the service with credit and respectability, at a time of life when he is able to resume the employment of his early years. Hitherto parents have shown much reluctance to permit their sons to enlist; but I have no doubt that the unwillingness would be partly obviated, were the facilities for quitting the service increased. By this means it is hoped the army would become somewhat more popular, that a military feeling would be excited, discipline improved, obedience rendered more cheerful, and that hankering to quit the service, which is a most disabling infirmity, probably decreased. We cannot, however, expect that a superior class of men will enter the army, namely, men with some degree of intellectual culture, and a fair character for correct conduct, until the condition of a soldier be greatly im-

proved; for this purpose his situation would require to be rendered, in time of service, in present emolument, in future provision, and in respectability, so desirable as to place him on a level in popular opinion with men of other employments.

49. If any soldier *purchase* his discharge, or receive a *free discharge* at his own request, he shall have *no claim* to pension; and should he subsequently re-enlist, he shall not be permitted to reckon his former service.

50. With the view of *rewarding meritorious soldiers* when discharged, and of encouraging good conduct in others whilst serving, his majesty has been pleased to direct that a gratuity in addition to the pension may in certain cases be given to one serjeant or corporal, and one private, annually, in every regiment of an establishment of 700 rank and file and upwards.

The men to be recommended must have completed twenty-one years of actual service in the infantry, or twenty-four in the cavalry; have never been convicted by court-martial, and must have borne an irreproachable character, or have particularly distinguished themselves in the service.

The serjeants must have served ten years, and the corporals seven years, in their respective ranks as non-commissioned officers, and must have been discharged as such.

The gratuity to the serjeant shall be L.15; corporal, L.7; private, L.5.

The names and services of the individuals receiving the gratuity shall be published in regimental orders, and sent to the parishes to which they belong, *after* the commander-in-chief shall have confirmed the regimental commanding officer's recommendation, and *after* the commissioners of Chelsea hospital shall have notified to the secretary at war that the gratuities have been paid.

In corps of a lower establishment than 700 rank and file, one individual may be recommended every year for the above mentioned gratuity, to be selected by alternate years; that is to say, one year a serjeant or corporal, the next year a private.

[Discharged soldiers receiving a gratuity for *meritorious conduct*, shall be entitled to wear a silver medal, having on one side of it the words, "for long service and good conduct," and on the other side, in relief, the king's arms, with the name and rank of the soldier, and the year inscribed on the medal. The medal will be transmitted by the adjutant-general to the officer commanding the regiment, who will deliver it to the soldier on the parade, with the parchment certificate of discharge, on which the grant will be recorded, as well as in the regimental orders, and in the register of soldier's services.

If circumstances should prevent the discharged soldier from receiving the medal at the regiment, it will be delivered to him through the adjutant general, at the board of the Chelsea commis-

sioners.]—*Art. 50. By order of the king, signified to the secretary at war, July 30, 1830.—H. H.*

51. In order to secure the interests of the soldier, at the close of his military service, a regimental board shall henceforward be assembled under the orders of the commander-in-chief, for the purpose of verifying the following particulars, before any soldier be recommended to be discharged.

“ In order to secure to the deserving soldier, when discharged, a provision proportioned to the length and nature of his service, and to enable our commissioners of Chelsea hospital to carry into full effect our rules and regulations for the pensioning of soldiers,— We do hereby order, that no soldier shall be discharged, whether for unfitness, or for any other cause, unless his services, conduct, character, and the cause of the discharge, be ascertained before a regimental board, to be held for the purpose of verifying and recording all these necessary particulars in the discharge, on which document the decision of our commissioners of Chelsea hospital on the soldier's claim will be made.—The board shall be composed, in all cases, of *three* officers:—the major, or second in command, shall be the president, and two captains shall be members;—and all military persons who may be summoned by the president thereof are directed to attend, and give information to the board on the subject of their inquiry: such board is not competent to award any punishment or forfeiture of service, their duty being restricted to the faithful and impartial record of the soldier's services and conduct at the close of his military career; and they will be governed in this their duty by a reference to our rules, orders, and regulations for the pensioning of soldiers, which regulations shall be produced before the board whenever it is assembled:—When the board is assembled by order of the commanding officer, or other superior authority, the members thereof shall severally make the following declaration in the presence of the soldier whose case is under inquiry:—

I, A. B. do declare, upon my honour, that I will duly and impartially inquire into the matters to be brought before this board, according to the rules and regulations of his majesty's service, and if any doubt shall arise, according to my conscience, the best of my understanding, and the custom of the service in like cases.”
Rules and Articles, 1830, page 34.

1st. *His services.*—The regimental records shall be produced, from which the board will make a report, stating the period of the soldier's service, the countries in which he has served, the wounds he has received, the battles, sieges, or campaigns, in which he was present, and any instances of remarkable bravery he may have displayed.

2d. *His character.*—The regimental records shall be referred to, and parole evidence be required from those officers of the corps, particularly the medical officers, and others who have had the best

opportunities of witnessing the soldier's conduct in all situations. If he shall have forfeited his service by the sentence of a court-martial, and shall not have had such service restored, the fact and cause of such forfeiture are to be stated; and as the rate of pension to be awarded will be influenced by *character*, the board will, after the most careful investigation, report whether the soldier's conduct has been generally good, bad, or indifferent, in the terms best calculated to express their opinion, more especially directing their attention to the latter years of his service.

3d. *His disability*.—The board is to specify the nature, degree, and cause of the disability, in their report, and to affix to it the report from the medical officer, stating the origin and progress of such disability, the manner in which it was contracted, the conduct of the man whilst in hospital, and the degree of his unfitness for military service, in order that no soldier may be discharged as disabled, unless the disability shall be ascertained to be such, as in all probability to disqualify him permanently for military service.

4th. *His accounts and claims*.—The board will ascertain and report upon all just demands of pay, clothing, &c. and before the soldier leaves the regiment, the settlement of his accounts is to be certified in his discharge, and signed by him.

But no soldier shall be examined before a regimental board, with a view to his discharge for disability, unless he shall have been previously inspected by the general, or other superior officer in command, by whose orders the regimental board will be convened.

The board shall be composed of three officers: A field officer, or the second in command, shall be the president, and two captains shall be members. When the report of the board shall have been confirmed by the officer commanding the regiment, the president shall fill up the discharge, according to the substance of the regimental board's proceedings. The discharge shall then be signed by the president, and countersigned by the commanding officer, and be transmitted, together with a certified copy of the court's proceedings, to the adjutant-general, through the general or other officer commanding on the station.

52. In any case of disability, requiring the soldier personally to appear before the commissioners of Chelsea hospital to obtain a decision upon his claim for pension, the soldier in the first instance will be ordered to the invalid depot at Chatham, or to the general hospital in Dublin, in order that the remarks of the military and medical authorities at those stations may be inserted in the discharge; and on the day appointed for the commissioners to hold a board at Chelsea, or Kilmainham, the principal medical officer, or the staff-surgeon who has had the soldier, whose case is before the board, under treatment at the general hospital, will attend, with an abstract of his professional observations on each man's case, when the board will decide upon the claim to pension.

If the regimental investigation shall have been held abroad, the general, or superior officer on the station, will, according to his

judgment, order the soldier to a convalescent station abroad, or to the invalid depot at Chatham.

Upon the report of the military and medical authorities at the invalid depot at Chatham, or at the general hospital in Dublin, the commander-in-chief will give the necessary orders for the personal appearance of the soldier at Chelsea, or Kilmainham, or for his joining the depot companies of his regiment, or for his final discharge, according to the circumstances of the case; but no soldier who may have been sent from the invalid depot Chatham, or from the general hospital Dublin, to his regiment, on a medical report of his fitness for duty, shall be returned to the said depot or hospital, until after the expiration of one year, unless specially directed to be so returned by the commander-in-chief.

[And whenever a decision shall have been given by order of the commander-in-chief, to retain a soldier in the service, proposed to be discharged, the case of such soldier shall not be again brought forward for discharge, until after the expiration of one year, dating from the last decision.]—*Art. 52. By order of the king, signified to the secretary at war, July 30, 1830.—H. H.*

53. If the case of the soldier be clearly such as not to entitle him to any pension, and that there is no necessity for his personal appearance before the commissioners of Chelsea hospital, the proceedings of the regimental board, and the discharge stating the grounds of the rejection of his service, shall nevertheless be sent to Chelsea: if the commissioners shall concur that the soldier has no claim, they will communicate their decision to the secretary at war, according to Article 13 of these regulations; but if the commissioners shall entertain a different opinion, they will make further inquiry.

No discharge, to which a claim for pension may attach, shall be finally confirmed by the adjutant general's department, until the case shall have been decided upon by the commissioners of Chelsea hospital.

[Recruits under three years' service, who, upon trial, have been proved to be never likely to be made good and efficient soldiers, may be reported once a year after the summer half-yearly inspection, for the purpose of being discharged, under such instructions as the commander-in-chief and the secretary at war may issue.]—*Art. 53. By order of the king, signified to the secretary at war, July 30, 1830.—H. H.*

I fear much that the permission granted in the last paragraph of this article is liable to be greatly abused. A great majority of young soldiers, more or less dislike the army during the period of drill; and, until they become domesticated in a corps, "a recruit," says the Duke of Wellington, "must be constrained to serve the state according to his engagement, and must be taught and must be forced to learn how to serve in his station of soldier, how to keep his equipment in order, and, above all, to attain habits of obedience

and good order, and of respect and attention to his official superiors." Now, before a soldier can be thus far trained, his irregular habits and propensities must be checked, his inclinations thwarted, and his habits altered. Under this discipline some recruits or young soldiers desert, others suffer in health, and not a few simulate disabilities. In the French army, where the period of service is short and well defined, which is not the case in the British army, loss of health seems to be very prevalent among young conscripts. "Cette maladie (home sickness) etait surtout assez fréquente dans l'armée Française parmi les jeunes gens que la conscription arrachait du sein de leurs familles et de leurs plus chères affections. * * * La discipline du corps, l'obéissance à laquelle les soldats sont astreints, les punitions, le changement de nourriture et de climat, contrastent singulièrement avec la liberté dont ils jouissaient auparavant."—(*Vade Mecum par le Chevalier Sarlandière.*)

These circumstances will, in some measure, account for the great number of young soldiers who are brought forward under the sanction of this article for discharge, and who are lost to the service. Regimental officers are commonly not unwilling to promote the dismissal of unpromising recruits, whether their alleged inefficiency arises from physical or moral causes; but the discharge of one man may excite many to simulate unfitness for the service. I am therefore disposed to question the policy of rendering the discharge of men under three years' service more easy than that of soldiers who have served a longer period; this being a time when soldiers are much disposed to feign disabilities for the purpose of leaving the service.

54. Lists of the soldiers allowed to purchase discharges, or obtain free discharges, shall be periodically sent to the secretary at war, with the discharges themselves and other requisite documents, in order that an accurate register may be kept of this class of discharged men at Chelsea.

55. Soldiers who obtain permission to be discharged at their own request for length of service and good conduct, as laid down in Article 46, and soldiers discharged in the colonies or garrisons abroad, as being disabled, if they have in both cases completed twenty-one years' service in the infantry, or twenty-four years in the cavalry, and are desirous of settling in such colonies, may be admitted on the out-pension list, without appearing personally before the commissioners of Chelsea hospital, provided that the recommendation from the officer commanding on the station, with the reports and discharges, shall be transmitted through the commander-in-chief to the secretary at war, who will signify his majesty's pleasure to the commissioners for the pensioning of any soldier, without his appearing personally before them, at such rate of pension as they may determine; and until such decision shall be received abroad, the soldier will continue to draw his full pay, without allowances; but in all these instances the soldier's case

shall be investigated, and his claim to pension regulated according to the 51st and 52d articles of these regulations.

56. Any soldier *discharged while serving abroad*, shall, if the superior authorities on the spot think fit, and the good conduct of the soldier justifies the indulgence, have the option of receiving assistance by a grant of land, to become a settler in the colony in which he may be serving, as regulated in Article 46, or of being sent to Great Britain or Ireland, free of expense; in the latter case he shall receive the regulated marching money, from the place of his being landed, to the parish or place in which he was originally attested, or to such other place as he may choose, provided no additional expense be incurred.

VII.—*Deductions to which the pensioner is liable.*

57. The only deduction to which pensioners shall be liable from their pension, is one shilling in the pound, as heretofore directed by the act of the 28th of George II. and no agent or clerk paying the pensioners shall demand or take from them any fee or reward, without subjecting himself to the penalty of forfeiting his office, together with the sum of L.100, in conformity with the act of the 7th Geo. IV. cap. 16.

[By an act relating to army pensions, of the 16th July, 1830, the secretary at war, with regard to pay and pensions, and the commissioners of Chelsea hospital, with regard to prize money and pensions, paid by order of the commissioners, are respectively empowered to issue any balance due to a deceased officer, soldier, or pensioner, when the amount does not exceed L.50, to the next of kin or legal representative of the deceased, without the production of letters of administration.]—*Art. 57, Bis.*

58. No person employed to pay the pensioners shall be allowed to charge more than three pence for the affidavit required to be transmitted quarterly to the secretary to the board of Chelsea hospital.

59. Should a pensioner lose his instructions, and make an application for a fresh copy, he may be supplied therewith, on making affidavit of the circumstances under which the original was lost, and provided it shall be shown that the same had not been pledged, or improperly disposed of; but if the pensioner be proved to have taken a false oath, he shall be struck off the pension list. When new instructions are given, he shall be liable to pay for them a sum not exceeding two shillings and sixpence, nor less than one shilling.

60. The commissioners shall, as heretofore, at their discretion, dismiss any in-pensioner from the hospital if guilty of misconduct; and upon such dismissal they shall have the power of reducing the amount of the pension to which such pensioner was entitled on his admission, or of taking it away altogether.

61. Whenever a grant of land is made to a discharged soldier,

either in commutation of the pension, or in aid of his becoming a settler, he shall be exempt from the payment of any fees for such grant; the terms upon which grants to soldiers and pensioners are to be made shall be governed by such instructions as his majesty may be pleased to give, through the secretary of state for the colonial department.

62. Should any doubts arise, as to the true intent and meaning of any part of the foregoing regulations, his majesty's pleasure will be signified through the secretary at war.

By his majesty's command,

HENRY HARDINGE.

[The foregoing amendments and alterations of the 6th, 33d, 46th, 50th, 52d, 53d, and 57th articles were issued from the war office, in a circular under date the 30th July, 1830, and directed by the secretary at war to be affixed to the articles to which each respectively belongs in the pensioner regulations. On the first reprint of the warrant, these alterations are to be inserted in their proper places in the regulations, but the date of the alteration in the margin is to be retained.]

III.—*Warrant regulating the grant of pension, allowance and relief to soldiers on their discharge from the Army. Dated 7th February, 1833.*

WILLIAM R.

WHEREAS we have judged it expedient to revise the warrant of our late royal brother, dated the 14th day of November, 1829, for granting pensions, allowances, and relief to soldiers on their discharge from our army as wounded, disabled, or invalided, and disbanded or reduced; our will and pleasure therefore is, that this our warrant shall be established and obeyed as our sole authority under which pensions, allowances, and relief, may be granted to discharged soldiers who shall be enlisted into our service after the first day of March, 1833, but that all non-commissioned officers and soldiers enlisted previously to that day shall, as regards their claim to pension on discharge, remain entitled to every benefit or provision which they can at present claim under any warrants or regulations which were in force at the time of their original enlistment.

A soldier enlisted for unlimited service cannot demand his discharge as a *matter of right*, either with or without a pension; but discharge may be granted—

1. On account of incapacity for further service.
2. In consequence of reduction of the military establishment.
3. As an indulgence upon certain conditions.

The commissioners of Chelsea hospital are charged with the application of those rules which are to govern the ordinary grants of pension, the amount of which shall in no case exceed the rates

fixed by this warrant, and when once granted the amount cannot be *increased* by the commissioners. But the commissioners shall not, without the concurrence of the secretary at war, act upon any discharge which shall not have been completed according to the form prescribed by the secretary at war; nor upon such discharge unless it be brought before them within six months after the date on which the soldier shall have quitted the service.

Such special deviations from those general rules as are hereinafter expressed, or as may appear advisable to his majesty, will be made by the secretary at war, with whom alone it rests to interpret the true intent and meaning of any passage in the warrant or regulations on which a doubt may arise.

The pecuniary benefits attaching under this warrant to cases of disability, are expressly and strictly to be limited to disability caused in and by the service, and pensions are not to be bestowed upon those who have not acquired strong claims to them; or who, by want of proper care, or by vice, intemperance, or other misconduct, have rendered themselves incapable of further service.

In exercising any discretion within the range of the allowances prescribed by this warrant, the points to be kept steadily in view are, the gallant conduct and good character of the soldier; the length of his good and faithful services: the extent of that disability which can fairly be ascribed to the effect of service only; and the degree to which it interferes with his power of earning a livelihood.

I. *Permanent pensions.*

Wounds in action.—Permanent pensions may be granted to men discharged in consequence of being rendered incapable of further service by wounds or injuries received in action, according to the following scale:—

RANK.	FIRST DEGREE.		SECOND DEGREE.	THIRD DEGREE.	
	From <i>s. d.</i>	To <i>s. d.</i>	<i>s. d.</i>	From <i>s. d.</i>	To <i>s. d.</i>
	Men able to contribute towards earning a livelihood, although rendered by wounds unfit for the ordinary duties of a soldier.		Men rendered incapable by wounds, of earning a livelihood, but not requiring the aid of another person.	Men losing two limbs or both eyes, from wounds, or being so severely wounded as to be totally incapable of earning a livelihood, and to require the assistance and care of some other person.	
Private,	0 6	0 9	1 0	1 6	2 0
Corporal,	0 9	1 0	1 4	1 10	2 4
Serjeant,	1 0	1 6	1 10	2 6	3 0

In cases of extreme suffering from wounds received in action by non-commissioned officers or soldiers of long service, or of gallant conduct in the field, a sum not exceeding *sixpence* a day, may be

granted at the recommendation of the commander-in-chief, by the commissioners, with the consent of the secretary at war, as his majesty's royal bounty, in addition to the pension which may have been awarded by the commissioners of Chelsea hospital.

Blindness.—Permanent pensions may be granted to men who shall become totally blind from unavoidable causes other than wounds, but clearly attributable to the military service alone, according to the following scale:—Private, from 9d. to 1s. ; Corporal, having served seven years as such, 1s. to 1s. 3d. ; Serjeant, having served as a non-commissioned officer ten years, and not less than five years as a serjeant, 1s. 3d. to 1s. 10d.

If the soldier shall have served more than fourteen years in the infantry, or more than seventeen years in the cavalry, and be discharged with a constitution impaired by the effects of colonial service, besides being afflicted with total blindness, an increase to the above rates, not exceeding for a private *threepence* a day, and for a non-commissioned officer, *fourpence* a day, may be added by the commissioners with the consent of the secretary at war.

No soldier shall be discharged for the loss of an eye only, whether it be the right or the left ; but if a soldier shall have lost one eye by a wound in action, or by the effects of service, and shall receive other wounds or injuries in action, or be otherwise so disabled as to render his discharge necessary, the loss of an eye may be taken into consideration in fixing the pension at such a rate as his combined wounds or disabilities may entitle him to receive.

Men unfit for the ordinary duties of a soldier, after twenty-one years' service in the infantry, or twenty-four years in the cavalry.—Permanent pensions, according to the following scale, may be granted to men, who having completed twenty-one years' actual service in the infantry, or twenty-four years in the cavalry, may be discharged in consequence of being rendered unfit for the ordinary duties of a soldier, by disabilities contracted in and by the service.

MARSHALL ON THE ENLISTING, ETC. OF SOLDIERS.

		From	To	
		s. d.	s. d.	
Private		0 6	1 0	The increase from the minimum shall be in each case, 1d. a day for every year of actual service completed beyond 21 years in the infantry, or 24 years in the cavalry; but in no case shall the maximum be exceeded.
Corporal	Who shall have served continuously as corporal five years immediately preceding his discharge.	0 8	1 2	
Serjeant, Colour Serjeant, Troop Serjeant Major.	Who shall have served continuously as a non-commissioned officer five years, of which the three years immediately preceding his discharge shall have been as serjeant.	0 10	1 4	
Ditto	Who shall have served continuously as serjeant five years immediately preceding his discharge.	1 0	1 6	
Quartermaster Serjeant, Serjeant Major.	Who shall have served continuously as such three years immediately preceding his discharge.	An addition to the pension to which he would have been entitled as a serjeant of 3d. a day for a quartermaster serjeant, and of 6d. a day for a serjeant major.		

By this warrant, a soldier's ordinary pension after twenty-one years' service is *sixpence* a day in lieu of one shilling, or tenpence if a man retired at his own request, by the warrant of 1829. Soldiers who have served twenty-five years in the infantry are entitled by the warrant of 1829 to receive each a pension of 1s. 2d., but by the warrant of 1833, they will receive only 8d. Men who have served twenty-one years in the infantry, or twenty-four years in the cavalry, are well entitled to a pension, upon which they may be able to exist; but a soldier who has been long accustomed to the pay and comforts of the army, is not able to live upon 6d. a day—he must become a pauper. Recruits seldom think of pensions when they enter the army, but after ten or twelve years' service, this subject engages much of their attention; and those who have enlisted since 1833, will be apt to draw comparisons, and to find that they have been less liberally dealt with than men who enlisted before that period. This circumstance may lead to ill humour, discontent, and ultimately to malingering for the purpose of being discharged. In the event of the breaking out of a war, and a large augmentation of the army being necessary, a higher rate of pension will require to be granted not only to the men who then enlist, but to all the men in the service who have enlisted since 1833. If I recollect rightly, the men who had enlisted for unlimited service previous to Mr. Windham's act were included in the new

rates of pension given to men for limited service, and even the old pensioners had their rates raised.

Men unfit to earn a livelihood after twenty-one years' service in the infantry or twenty-four years in the cavalry.—If a man be discharged, not only as unfit for the ordinary duties of a soldier, after the above periods of service, but on account of permanent disabilities or injuries contracted in and by the service, so as to be permanently incapable of earning a sufficient livelihood, an increase to the above rates not exceeding for a private, 3d. a day; corporal, 4d.; serjeant 6d. may be made by the commissioners with the consent of the secretary-at-war; but the pension of a private shall in no case exceed *one shilling* a day, of a corporal *one shilling and fourpence*, of a serjeant *one shilling and tenpence*, of a quarter master serjeant *two shillings and a penny*, and of a serjeant major *two shillings and fourpence* a day.

Men unfit to earn a livelihood, under twenty-one years' service in the infantry, or twenty-four years in the cavalry.—Permanent pensions may also be granted to men discharged on account of disabilities or injuries contracted in and by the service, which shall be so permanently prejudicial to their bodily exertions as to render them incapable of earning a sufficient livelihood; according to the following scale:

After fourteen and under twenty-one years' service in the infantry, or after seventeen, and under twenty-four years' service in the cavalry:—Private from 6d. to 8d.; corporal, having served seven years as corporal, from 7d. to 9d.; serjeant, having served five years as serjeant, from 9d. to 1s.

These cases are, however, to be deemed special, and the pension is not to be granted by the commissioners without the consent of the secretary at war.

The temporary pensions which may have been awarded by the commissioners of Chelsea hospital, under a subsequent clause of this warrant, to men discharged as unfit for the ordinary duties of a soldier on account of disabilities contracted in and by the service previously to the completion of fourteen years' service in the infantry, or of seventeen years in the cavalry, may, under extraordinary circumstances of extreme suffering, or of permanent incapacity to earn a sufficient livelihood, be made permanent on the recommendation of the commissioners of Chelsea hospital, by the secretary at war.

Permanent pension on reduction.—Permanent pensions may be allowed to men discharged without disability, in consequence of the reduction or disbandment of their regiments after a service of twenty-one years in the infantry, or of twenty-four years in the cavalry; but the rates shall in every case be within those granted by this warrant, to men discharged as unfit for the ordinary duties of a soldier, and shall be proportioned to the length of the man's service, and his merits as a soldier.

Permanent pension as an indulgence.—Soldiers of good cha-

acter, who have served twenty-five years in the infantry, or twenty-eight in the cavalry, may, although not unfit for the service, obtain, at their own request, their discharge and a permanent pension, not in any case to exceed for a private *sixpence* a day, for a corporal *eightpence* a day, and for a serjeant *tenpence* a day.

As to the indulgence of granting a permanent pension to soldiers of good character who have served twenty-five years in the infantry, or twenty-eight in the cavalry, I have only to observe, that very few soldiers have hitherto served these periods in the respective branches of the service. Long before twenty-five or twenty-eight years' service, they are in general completely unfit for duty, and discharged as worn out.

In the following classes of troops and stations, the centesimal ratio of men above forty years of age, from 1st January, 1830, till 31st March, 1837, was as understated :

Stations.	Aggregate strength.	Aggregate No. above 40 years of age.	Ratio per cent. above 40 years of age.
Household Cavalry,	8,345	570	6.8
Dragoon Gds. & Dragoons,	43,163	2,920	6.7
Foot Guards,	33,410	2,035	6.0
Mediterranean stations including Gibraltar,	53,196	1,639	3.0
Bermuda,	3,445	79	2.2
Jamaica,	16,653	352	2.1
Canadas,	16,561	346	2.0
Windward and Leeward command,	30,413	609	2.0
Nova Scotia and New Brunswick,	12,599	241	1.9

Temporary pensions or gratuities in lieu thereof.

Men unfit for the ordinary duties of a soldier, under twenty-one years' service in the infantry, or twenty-four years in the cavalry.

—Men discharged previously to the completion of twenty-one years' service in the infantry, or of twenty-four years' service in the cavalry, on account of their being unfit for the ordinary duties of a soldier, in consequence of a disability contracted in and by the service, may be allowed temporary pensions according to the following scale, viz.—Under seven years' service, *sixpence* a day from one to eighteen months; above seven but under ten years' service, *sixpence* a day from one to two years; above ten but under fourteen years' service in the infantry, or under seventeen years in the cavalry, *sixpence* a day from two to three years; above fourteen but under twenty-one years' service in the infantry, and above seventeen but under twenty-four years in the cavalry, *sixpence* a day from three to five years.

A non-commissioned officer, who shall have served continuously

at least three years in the rank he held when discharged, may be allowed an addition not exceeding for a corporal *twopence* a day, and for a serjeant *fourpence* a day, to the temporary pension which would have been granted to him if he had been discharged as private.

In severe cases of disability or injury resulting entirely from military duty, or from the effects of climate, under twenty-one years' service in the infantry, or under twenty-four years service in the cavalry, the temporary pension may be renewed by the secretary at war for such further period as the special circumstances of the case may in his judgment warrant.

In special cases where it may be considered more advantageous to the soldier's interest, that a gratuity in money, proportioned to the length of his services, and the duration of the temporary pension awarded, should be given instead of the temporary pension, a sum varying from L.1 to L.30 may be allowed by the commissioners, if the soldier appear personally before them, or by the secretary at war, if the soldier be discharged without being examined personally by the commissioners; but in every instance the gratuity shall only be paid to the soldier after his arrival at the place of his intended future residence.

Temporary pension on reduction.—Temporary pensions, or the gratuities in lieu thereof, according to the foregoing scales, may be also granted at the discretion of the commissioners to men discharged, without disability, for the convenience of the public service, in consequence of the reduction or disbandment of their regiments, after a service of fourteen but under twenty-one years in the infantry, or after seventeen but under twenty-four years' service in the cavalry.

III. *Discharges by indulgence.*

Soldiers of good character may be allowed to purchase discharges, or to obtain free discharge at their own request, if they have served the requisite period; but the number of men to be annually discharged, and the selection of individuals, shall be governed by such instructions as the commander-in-chief, with the concurrence of the secretary at war, may from time to time give for extending or limiting the numbers, or for wholly suspending the permission.

In all cases of free discharge, a period of not less than thirty days, for the purpose of giving the soldier a sufficient time for deliberation, shall elapse between the soldier's application and the commanding officer's consent to recommend the discharge; and the prospect of permanent pension which the soldier will forfeit by accepting a free discharge at his own request, shall be clearly explained to him.

Soldiers may be permitted to purchase or to obtain discharge, at their own request, upon the following terms:—

	Cavalry.	Infantry.
Under 7 years upon payment of	L.30	20
Above 7,	25	18
10,	21	15
12,	15	10
14,	12	5
15,	6	Free.
16,	Free.	Free.

When it is the intention of a soldier who has been permitted to obtain a free discharge, at his own request, to settle in any of his majesty's colonies, he may, if in good health, be allowed, in furtherance of that object, by the secretary at war, a gratuity proportioned to the length of his services, according to the following scale; but this gratuity shall be paid to him only in the colony in which he proposes to settle, and in such manner and at such times, but within eighteen months after his arrival, as shall be deemed best for his interests by the general officer in command of the station, or by the governor of the colony; but the permission to settle in the colonies will of course be governed by the instructions of the secretary of state for the colonies.

Cavalry.	Infantry.	To a private.	To a Corporal.	To a Serjeant.
After 21 years.	After 18 years.	L.10	L.15	L.20
22	19	12	18	24
23	20	14	20	28
24	21	16	24	32
25	22	18	27	36
26	23	20	30	40
27	24	24	36	48

provided that, in the case of the corporal and serjeant, he shall have served continuously five years immediately preceding his discharge in the rank he held when discharged.

Where grants of land in the colonies can be made in addition to free discharges, the precise terms of the grant, and the most advantageous mode of paying the gratuity, shall be clearly explained to the soldier before he receives his discharge, and shall be registered in the regimental records. When a soldier who has received a free discharge, with or without a gratuity, has been settled three months, and is actually residing on his grant, and is industriously employed in clearing it, the governor, under authority from the secretary at war, may authorise the issue of a quarter's pension at sixpence a day, and may from time to time renew such issue for a period not exceeding in the whole one year.

IV. *Rewards for Meritorious Conduct.*

With the view of rewarding meritorious soldiers when discharged, and of encouraging good conduct in others whilst serving, his majesty has been pleased to direct that a gratuity, in addition to the

pension, may in certain cases be given to one serjeant or corporal, and one private, annually, in every regiment of an establishment of 700 rank and file and upwards; and in regiments of a lower establishment than 700 rank and file, one individual may be recommended every year for the above mentioned gratuity, to be selected by alternate years; that is to say, one year a serjeant or corporal, the next year a private.

The men to be recommended must have completed twenty-one years of actual service in the infantry, or twenty-four in the cavalry; have never been convicted by court-martial, and must have borne an irreproachable character, or have particularly distinguished themselves in the service. The serjeants must have served ten years, and the corporals seven years, in their respective ranks as non-commissioned officers, and must have been discharged as such. The gratuity to the serjeant shall be L.15; corporal, L.7; private, L.5. These gratuities will be paid under the directions of the secretary at war, to whom the commander-in-chief will notify the individuals selected, previously to their discharge; the names and services of the individuals receiving the gratuity shall be published in regimental orders, and the secretary at war will notify them to the parishes to which the men belong.

Discharged soldiers receiving the gratuity for meritorious conduct shall be entitled to wear a silver medal, having on one side of it the words "For Long Service and Good Conduct," and on the other side, in relief, the king's arms, with the name and rank of the soldier, and the year of his discharge, inscribed on the medal. The medal will be transmitted by the adjutant-general to the officer commanding the regiment, who will deliver it to the soldier on parade, with the parchment certificate of discharge, on which the grant will be recorded, as well as in the regimental orders, and in the register of soldiers' services.

[This rule is obviously impracticable in a great number of instances.]

If circumstances should prevent the discharged soldier from receiving the medal at the regiment, it will be delivered to him through the adjutant-general at the board of the commissioners of Chelsea hospital.

V. *General Provisions.*

Medical examination of soldiers claiming pensions for disability.—In no case shall a soldier be pensioned for disability until his case shall have been reported upon by some other medical authority than the medical officers of the regiment to which he belongs; and the principal medical officer or staff-surgeon, who has had under treatment at the general hospital the soldier who is required to appear personally before the commissioners of Chelsea hospital, or before the governors of Kilmainham hospital, will attend on the day appointed by the commissioners to hold a board

at Chelsea or Kilmainham, with an abstract of his professional observations on the man's case, when the board will decide upon the soldier's claim to pension.

Personal appearance before Chelsea board dispensed with in certain cases.—Soldiers who obtain permission to be discharged to pension at their own request, for length of service and good conduct, and soldiers discharged as being disabled, if they have completed twenty-one years' service in the infantry, or twenty-four years' service in the cavalry, may be admitted on the out-pension list without appearing personally before the commissioners of Chelsea hospital, provided that the reports of the regimental boards and the discharges shall be transmitted through the commander-in-chief to the secretary at war, who will signify to the commissioners his majesty's pleasure for the pensioning of such soldiers without their appearing personally before the board, at such rate of pension as the commissioners may determine; but no soldier shall be pensioned by the commissioners without personal appearance, except under such dispensing authority conveyed to them by the secretary at war.

Proceedings of commissioners to be reported to the secretary at war.—Immediately after each board at Chelsea hospital, a return shall be forwarded by the commissioners to the secretary at war, showing in detail the pensions which have been granted, and the claims which have been refused at the board. The secretary at war, on receiving the return, shall make such communications on the subject to the commanding officers of the regiments from which the men shall have been discharged, and to the parishes to which the men belong, as may in his judgment seem proper.

Rules for reckoning service towards pension.—The date of attestation shall be the commencement of a soldier's service, which shall reckon towards pension from the age of eighteen only. The age specified in the attestation shall be taken to be the real age, and he shall in no case benefit by the subsequent discovery of any misrepresentation. His service shall be reckoned according to the rules applicable to the corps in which he may be serving when discharged.

But he shall not reckon as military service any previous service in his majesty's navy, nor any period during which he shall not be entitled to pay, according to the provisions of the mutiny act.

Service of non-commissioned officers.—No non-commissioned officer shall, on his discharge, have any claim to the allowance or pension awarded to a corporal or serjeant, except for continuous service immediately preceding his discharge in the rank he held when discharged: but if a serjeant shall be discharged without having served continuously as serjeant the full period prescribed by this warrant to entitle him to the pension of that rank, he may be allowed to reckon as corporal's service the whole of his continuous service as a non-commissioned officer, to entitle him to the rate of pension allowed to the rank of corporal; and antecedent service as

a non-commissioned officer in a rank from which he may have been reduced, may be specially admitted to reckon as part of his continuous service, provided it be established to the satisfaction of the secretary at war, that such reduction in rank was on account of the public service, and did not result from any irregularity or misconduct on the part of the soldier himself.

The period during which any soldier may have been employed as an acting lance serjeant or corporal, shall not be allowed to reckon as non-commissioned officer's service.

Discharged men re-enlisting.—A soldier discharged on the disbandment or reduction of his corps, shall, on being permitted to re-enlist within three years, reckon his former service, provided that at the time of being attested he shall declare his former period of service, and the cause of his discharge from his last corps, so that they may be recorded in his attestation.

A soldier who has purchased his discharge, or has received a free discharge at his own request, shall not, if he re-enlist, reckon his former service.

A soldier discharged from the army for disability, or for any other cause, who shall on re-enlisting conceal the fact or misrepresent the cause of his former discharge, shall not be allowed to reckon his past service, or to receive any pension if again discharged for disability.

A pensioner who shall, under a proclamation of his majesty, or other lawful authority, be called upon to serve in a veteran battalion or company, or to be attached to a regiment of the line within the United Kingdom, shall, on his discharge, reckon such service towards increase of pension, provided the period be not less than one year.

A pensioner who voluntarily enlists into a veteran company or battalion, or who is appointed to be a district, or barrack, or garrison serjeant, or a military clerk, or hospital steward, or who is employed in any other military capacity, shall not be entitled to reckon such service towards increase of pension; but if such pensioner shall have served ten years or more in a veteran company or battalion, or as district serjeant, and shall be discharged therefrom with a good character, or even if he shall have served less than ten years, and shall be discharged under circumstances entitling him to special consideration as a deserving soldier, an increase of pension may be granted to him, not exceeding in any case the rates allowed by this warrant to men discharged as unfit for the ordinary duties of a soldier, upon his majesty's pleasure to that effect being signified to the commissioners of Chelsea hospital by the secretary at war.

Forfeiture of pension.—A soldier forfeits all claim to pension who has been convicted by a court-martial of the crime of desertion; of having wilfully maimed himself; or of having tampered with his eyes, or caused a total or partial loss of sight by his vice, intemperance, or other misconduct;—of having made or of being

privity to the making of any false entry, or of producing any fraudulent document, either as regards his own services, or those of any other person;—and upon conviction by a court-martial, or by a civil tribunal, of any vicious or disgraceful conduct.

If in either of the above cases the soldier shall, subsequently to such conviction by court-martial, have performed good, faithful, or gallant service, he may, on the same being duly certified by the commander-in-chief, be restored to the benefit of the whole or of any part of his service, upon his majesty's pleasure to that effect being signified by the secretary at war.

Non-commissioned officers and soldiers who have forfeited their claims to pension in consequence of misconduct, shall have their names and the circumstances under which their pensions were forfeited, published in the orderly book of the regiment to which they belonged, and a memorandum of the circumstances may, at the discretion of the secretary at war, be sent to the parishes to which they belong when the men are discharged.

A pensioner shall be subject to forfeiture of pension under the following circumstances:—For wilfully obtaining credit for more than his actual service, by means of false entries, alterations, or erasure in regimental books or documents, or by any misrepresentation of his real claims;—for the commission of any felonious act or gross fraud, proved to the satisfaction of the commissioners;—for not appearing when called upon, according to the regulations and conditions of the service, by the commissioners of Chelsea hospital, or other lawful authority, to serve in a veteran or garrison battalion or company, or in a regiment of the line within the limits of the United Kingdom, or for refusing so to serve when required;—for neglecting to obey the call of the magistrates, or other sufficient authority, to assist in preserving the public peace;—for gross violence or outrage towards any person paying the pensioners;—for assuming a false name when committed or imprisoned by the magistrates on any charge of vagrancy, or of any misdemeanour or crime;—upon conviction by a civil tribunal for felony or for any vicious or disgraceful conduct. But the commissioners at Chelsea hospital, with the consent of the secretary at war, may, in certain cases appearing to them to admit of such an act of grace, restore the pensioner, who has so forfeited his pension, to the whole, or to a portion of his original rate of pension.

Any pensioner who neglects to draw his pension for four successive quarters shall be struck off the pension list, and shall not be replaced unless he shall satisfactorily account for such omission, and the commissioners shall, at their discretion, grant or withhold the arrears, or any portion thereof.

If a pensioner shall apply to any parish for relief for himself or family, or shall suffer his family to become chargeable to the parish, his pension will become payable to the parish officers, according to the provisions of the acts of parliament, 59 Geo. III. c. 12, and 6 Geo. IV. c. 27.

A pensioner on his admission to Chelsea or Kilmainham hospitals as an in-pensioner, forfeits, in conformity with the act 7 Geo. IV. c. 16, all claim to the out-pension; but the commissioners of Chelsea and the governors of Kilmainham hospitals may, upon reasonable cause assigned to them, permit any in-pensioner to retire from the said hospitals, and may also dismiss any in-pensioner who has been guilty of misconduct; reserving to themselves the power of restoring or of reducing the amount of the pension to which such pensioner was entitled on his admission.

Deductions to which the pensioner is liable.—Every pension granted under the authority of this warrant shall be subject to a deduction of sixpence in the pound.

No person employed to pay the pensioners shall be allowed to charge more than threepence for the affidavit required to be transmitted quarterly to the secretary to the board at Chelsea hospital; and no agent or clerk paying the pensioners shall demand or take from them any fee or reward, without subjecting himself to the penalty of forfeiting his office, together with the sum of L.100, in conformity with the act 7 Geo. IV. c. 16.

Should a pensioner lose his instructions, and make an application for a fresh copy, he may be supplied therewith on making an affidavit of the circumstances under which the original was lost, and provided it shall be shown that the same had not been pledged or improperly disposed of; but if the pensioner be proved to have taken a false oath, he shall be struck off the pension list. When new instructions are given, he shall be liable to pay for them a sum not exceeding two shillings and sixpence, nor less than one shilling.

Given at our court at St. James's, this seventh day of February, 1833, in the third year of our reign.

By his majesty's command,

JOHN HOBHOUSE.

IV. *Warrant, 18th August, 1836.*

WILLIAM R.—WHEREAS it has been represented to us that it would materially tend to the encouragement of good conduct in the army, if a reward, to be attained only by the well-conducted soldier, were substituted for the additional pay now granted to soldiers who have completed certain periods of service: Our will and pleasure is, that all soldiers who shall enlist into our service on or after the 1st day of September, 1836, shall have no claim to additional pay after any period of service, but that a reward of additional pay for good conduct shall be granted to such soldiers under the following rules:—

1. Soldiers who shall have completed seven years' service shall be entitled to claim 1d. a day, and to wear a ring of lace round the right arm, provided their names shall not have been entered in the

regimental defaulters' book for at least two years immediately preceding such claim.

2. Soldiers who shall have completed fourteen years' service shall be entitled to claim a further reward of 1d. a day, and to wear two rings of lace round the right arm, provided they shall have been uninterruptedly in the enjoyment of the 1d. a day for at least two years immediately preceding such further claim.

3. Soldiers who shall have completed twenty-one years' service shall be entitled to claim a further reward of 1d. a day, and to wear three rings of lace round the right arm, provided they shall have been uninterruptedly in the enjoyment of the 2d. a day for two years immediately preceding their claim to the third penny.

4. Soldiers who by their good conduct shall have obtained the distinction of one or more rings, shall be entitled to have the full rate of that good conduct pay, of which they shall have been in uninterrupted possession for five years immediately preceding their discharge, added to the rate of pension, whether temporary or permanent, to which they may have a right under the provisions of our warrant of the 7th February, 1833.

5. Soldiers who have been in the possession of some one or other of the rates of good conduct pay for five years uninterruptedly, but who have only been in possession of either of the higher rates for some period not less than two years immediately preceding their discharge, shall be entitled, if discharged with two rings, to an addition of 1½d., and if discharged with three rings, to an addition of 2½d., as an augmentation of the pension to which their services will entitle them.

6. Soldiers who shall have been in the uninterrupted possession of good conduct pay for at least three years immediately preceding their discharge for disability, or by reduction, and who shall not have acquired claims to pension, or who shall be entitled only to temporary or conditional pensions, shall have their names registered at Chelsea hospital; and upon their attaining sixty years of age shall receive, as a reward for their former good conduct, a pension of 4d. a day, if discharged with one ring, and of 6d. a day if discharged after having been twelve months in possession of two rings; and this reward for former good conduct shall also be extended to soldiers who may be permitted to obtain free discharge at their own request, as an indulgence, after certain periods of service, as described in the 10th article of this warrant.

7. All soldiers now in our service who enlisted since the 1st March, 1833, shall have the option of relinquishing all right to the additional pay of 2d. a day, to which they are now entitled after the completion of fourteen years' infantry, or of seventeen years' cavalry service, and shall then be entitled, by their good conduct, to claim the 1d. a day, after seven years' service, and shall be, in all respects, entitled to all the advantages both of good conduct pay while serving, of pension on discharge, and of deferred pension, which are hereby granted to soldiers henceforward enlisting.

8. All soldiers now serving, who enlisted on or before the 1st March, 1833, shall, by relinquishing their right to additional pay for length of service, be entitled to claim all the advantages of good conduct pay while serving, which are here granted; but as the warrants which were in force at the time of their original enlistment, give them a right to higher rates of pension on discharge, than those which are to be granted to men enlisted after the 1st March, 1833, they will not be entitled to have their good conduct pay added to their pensions on discharge.

9. In special cases, however, of men enlisted on or before the 1st March, 1833, who, by their good conduct, have obtained the distinction of one or more rings, and who, after short service, may be discharged for disabilities or by reduction either without pension, or with temporary or conditional, or permanent pensions, (not exceeding those granted for similar disabilities and services under our warrant of the 7th February, 1833,) the good conduct pay may, by the consent of our secretary at war, be added to their pensions; and such men, if not placed upon permanent pensions, may be registered at Chelsea for the deferred pension, under the same rules as the men enlisted after the 1st March, 1833.

10. Soldiers who shall have obtained the distinction of one or more rings, and who may be permitted to purchase or obtain free discharge at their own request, shall be allowed free discharges upon the following terms, instead of those prescribed by the warrant of our late royal brother of the 14th November, 1829, and by our warrant of the 7th February, 1833; but the conditions, limitations, and regulations for granting discharges by indulgence, laid down in the said warrants, shall, in the cases of all other soldiers, remain in full force —

	Cavalry.	Infantry.
Under 5 years' service,	L.30	L.20
After 5 years' service, and with 2 years' } absence from the defaulter's book, }	25	18
After 7 years with one ring,	20	15
After 10 do. do.	15	10
After 12 do. do.	10	5
After 14 do. do.	5	Free.
After 16 do. do. free, with the right of registry for deferred pension of 4d. a day.		

After 16 years, with 2 rings, having possessed the second at least 12 months, free, with the right of registry for deferred pension of 6d. a day.

11. Soldiers enlisted since the 1st March, 1833, who are in the enjoyment of two or of three rings, and of the good conduct pay, may obtain permanent pension as an indulgence, at the rate fixed in the warrant of 7th February, 1833, two years earlier than other men who have not earned this distinction, and may further receive

the same amount of good conduct pay which would have been added to their ordinary pension under the rules laid down in this warrant, if they had been discharged as unfit for further service or by reduction.

12. As it is our will and pleasure that this reward shall be strictly an honourable distinction, to be conferred only upon the well-conducted soldier, the commanding officers of regiments are strictly enjoined to enter in the regimental defaulter's book the name of every soldier, who, in consequence of any misconduct whatever, shall have been confined in the guard-house, or subjected to any punishment; and the commission of every offence, which shall impose upon the commanding officer the necessity of recording the soldier's name in the regimental defaulter's book, shall render the man ineligible for this reward for two years from that date; and if he be already in possession of this distinction, shall deprive him of his ring and good conduct pay for one year; and a second recorded offence within twelve months shall render two years of uninterrupted good conduct necessary to obtain a restoration of such reward.

13. The soldier having two or three rings shall in like manner for the first and second recorded offences forfeit one ring, and the good conduct pay allowed with it for one year for each offence; and if a third offence be recorded against him in the regimental defaulter's book within twelve months, he shall forfeit all claim in consequence of his previous good conduct, and shall only be entitled to obtain a restoration of his honourable distinctions, by subsequently serving with uninterrupted good conduct for two years to obtain one ring, for four years to obtain two rings, and for six years, to obtain three rings. -

14. Any soldier who, by having been recorded in the regimental defaulter's book, shall have been adjudged to have been guilty of an offence by which he is to forfeit the whole or part of his reward for previous good conduct, shall, if he denies the commission of such offence, have the right of appeal to a court-martial.

15. A soldier may, for a first offence of a serious nature, be adjudged, by the sentence of a court-martial, to forfeit all or any part of the advantages he had derived from his previous good conduct, either absolutely, or for a longer or shorter period, according to the circumstances which shall have appeared in evidence.

16. The distinction and the rewards granted by this warrant will be extended to corporals and drummers, both as regards pay and pension, but serjeants and other non-commissioned officers will not be allowed, while serving, any addition to their established pay, but on their discharge, they may, for peculiarly good conduct, on the special recommendation of our general commanding-in-chief, and by the consent of our secretary at war, communicated to the commissioners of Chelsea hospital, be allowed additions of 1d., 2d., or 3d. a day to their pensions; provided that the aggregate pension shall in no case exceed for a serjeant 1s. 10d., for a quarter-master serjeant 2s. 1d. and for a serjeant-major, 2s. 4d. a day.

Given at our court at Windsor, this 18th day of August, 1836, in the seventh year of our reign. By his majesty's command,
HOWICK.

V.—*Instructions consequent upon his majesty's warrant of the 18th August, 1836.*

1. The rules established by the warrant in regard to soldiers who shall enlist on or after the 1st September, 1836, will apply to men who shall re-enlist after that date.

2. The service requisite to entitle corporals, drummers, trumpeters, fifers, buglers, and private men to the distinction and rewards granted by this warrant, may include former service in all ranks after the age of eighteen.

3. Men discharged on reduction or for disability, and re-enlisting within three years after the date of their discharge, may reckon their former service, provided they shall declare such former service at the time of re-enlistment; but men purchasing their discharges, or receiving free discharges, shall not reckon former service.

4. The forfeiture of service now attaching to individuals in respect of additional pay, in consequence of the sentence of a court-martial, or of conviction for desertion, will equally attach to them in respect to good conduct pay.

5. All soldiers now serving who enlisted on or before the 1st March, 1833, and who have completed twenty-one years' service, may, on relinquishing their right to additional pay, receive 3d. per diem good conduct pay, provided their names shall not have been entered in the regimental defaulters' book for at least *six* years immediately preceding the exchange.

6. Soldiers of less than twenty-one years' service, already in the receipt of additional pay at 2d. a day for length of service, may, on relinquishing their right to additional pay, continue to receive the same amount, as good conduct pay, provided their names shall not have been entered in the regimental defaulter's book for at least *four* years immediately preceding the exchange.

7. Soldiers who are already in the receipt of additional pay of 1d. a day for length of service may, on relinquishing their right to additional pay, continue to receive the same amount, as good conduct pay, provided their names shall not have been entered in the regimental defaulter's book for at least *two* years immediately preceding the exchange.

8. Soldiers not yet in the receipt of additional pay for length of service may, by relinquishing their right to the same, receive good conduct pay, on completing the respective periods of seven, fourteen, and twenty-one years, provided their names shall not have been entered in the regimental defaulter's book—in the first case, for at least *two* years; in the second case for at least *four* years; and in the third case, for at least *six* years immediately preceding.

9. Soldiers who were present at the battle of Waterloo shall be

allowed to reckon two years in addition to their actual service, and those who were enlisted before the 1st December, 1829, shall be allowed to reckon three years for two of actual service after the age of eighteen in the East and West Indies (in other than West India regiments.)

10. Soldiers enlisted before the 1st September, 1836, shall be entitled to the distinction of rings under the provisions of the warrant, whether they accept or not the option of relinquishing additional pay for good conduct pay; and they shall be entitled to the same addition to their pensions for the number of rings they may severally possess at the period of their discharge, as is allowed, under the provisions of the warrant, to men in receipt of good conduct pay.

Howick.

War-Office, 13th Sept. 1836.

VI.—*Good conduct warrant, dated 9th May, 1839.*

VICTORIA R.—WHEREAS it has been represented to us, that it would materially tend to the encouragement of good conduct in the army if a reward, to be attained only by the well-conducted soldier, were substituted for the additional pay granted to soldiers who have completed certain periods of service; our will and pleasure is, that all corporals, trumpeters, drummers, fifers, buglers, and private soldiers, enlisted or re-enlisted into our service on or after the 1st day of September, 1836, shall have no claim to additional pay after any period of service, but that a reward of additional pay for good conduct shall be granted to such soldiers under the following rules:—

1. Soldiers who shall have completed seven years' service shall be entitled to claim 1d. a day, and to wear a distinguishing mark, provided their names shall not have been entered in the regimental defaulter's book for at least two years immediately preceding such claim.

2. Soldiers who shall have completed 14 years' service shall be entitled to claim a further reward of 1d. a day, and to wear two distinguishing marks, provided they shall have been uninterruptedly in the enjoyment of 1d. a day, for at least two years immediately preceding such further claim.

3. Soldiers who shall have completed 21 years' service shall be entitled to claim a further reward of 1d. a day, and to wear three distinguishing marks, provided they shall have been uninterruptedly in the enjoyment of the 2d. a day for two years immediately preceding their claim to the third penny.

4. Soldiers who shall have completed 28 years' service shall be entitled to claim a further reward of 1d. a day, and to wear four distinguishing marks, provided they shall have been uninterruptedly in the enjoyment of the 3d. a day, for two years immediately preceding their claim to the fourth penny.

5. Soldiers, who by their good conduct shall have obtained one

or more distinguishing marks, shall be entitled to have the full rate of that good conduct pay of which they shall have been in uninterrupted possession for five years immediately preceding their discharge, added to the rate of pension, whether temporary or permanent, to which they may have a right under the provisions of a warrant of our late royal uncle, dated the 7th February, 1833.

6. Soldiers who have been in the possession of some one or other of the rates of good conduct pay for five years uninterruptedly, but who have only been in possession of either of the higher rates for some period not less than two years immediately preceding their discharge, shall be entitled, if discharged with two distinguishing marks, to an addition of $\frac{1}{2}$ d.; if discharged with three distinguishing marks, to an addition of $2\frac{1}{2}$ d.; and if discharged with four distinguishing marks, to an addition of $3\frac{1}{2}$ d., as an augmentation of the pension to which their services will entitle them.

7. Soldiers who shall have been in the uninterrupted possession of good conduct pay for at least three years immediately preceding their discharge for disability, or by reduction, and who shall not have acquired claims to pension, or who shall be entitled only to temporary or conditional pensions, shall have their names registered at Chelsea hospital; and upon their attaining sixty years of age shall receive, as a reward for their former good conduct, a pension of 4d. a day if discharged with one distinguishing mark, and of 6d. a day if discharged after having been twelve months in possession of two distinguishing marks; and this reward for former good conduct shall also be extended to soldiers who may be permitted to obtain free discharges at their own request, as an indulgence, after certain periods of service, as described in the 11th article of this warrant.

8. The service requisite to entitle men to the distinction and rewards granted by this warrant, may include former service in all ranks after the age of eighteen.

9. Men discharged on reduction or for disability, and re-enlisting within three years after the date of their discharge, may reckon their former service, provided they shall declare such former service at the time of re-enlistment; but men purchasing their discharges, or receiving free discharges, shall not reckon former service.

10. The forfeiture of service now attaching to individuals in respect of additional pay, in consequence of the sentence of a court-martial, or of conviction for desertion, will equally attach to them in respect of good conduct pay.

11. Soldiers of good conduct, who may be permitted to purchase or to obtain free discharges at their own request, shall be allowed free discharges upon the following terms, instead of those prescribed by the royal warrant of the 14th November, 1829, and by his late majesty's warrant of the 7th February, 1833; but the conditions, limitations, and regulations, for granting discharges by indulgence, laid down in the said warrants, shall, in the cases of all other soldiers, remain in full force.

	Cavalry.	Infantry.
Under 5 years' actual service,	L.30	L.20
After 5 years' actual service, and with 2 years' absence from the defaulter's book,	} 25	} 18
After 7 years' actual service, with one distinguishing mark,		
After 10 years' actual service, with one distinguishing mark,	} 20	} 15
After 12 do. do.		
After 14 do. do.	} 15	} 10
After 16 do. do.		
	10	5
	5	Free
After 16 do. do. do. free, with the right of registry for deferred pension of 4d. a-day.		
After 16 years' actual service, with two distinguishing marks, having possessed the second at least 12 months, free, with the right of registry for deferred pension of 6d. a-day.		

12. Soldiers enlisting since the 1st March, 1833, who are in the enjoyment of two or more distinguishing marks, and of the good conduct pay, may obtain permanent pension as an indulgence, at the rate fixed in the warrant of 7th February, 1833, two years earlier than other men who have not earned this distinction, and may further receive the same amount of good-conduct pay, which would have been added to their ordinary pension, under the rules laid down in this warrant, if they had been discharged as unfit for further service, or by reduction.

13. As it is our will and pleasure that this reward shall be strictly an honourable distinction, to be conferred only upon the well conducted soldier, the commanding officers of regiments are strictly enjoined to enter in the regimental defaulter's book the name of every soldier who, in consequence of misconduct, shall have been subjected to any punishment beyond *six days' drill, or seven days' confinement to barracks*, and the commission of every offence, which shall impose upon the commanding officer the necessity of recording the soldier's name in the regimental defaulter's book, shall render the man ineligible for this reward for two years from that date, and, if he be already in possession of this distinction, shall deprive him of his distinguishing mark and good-conduct pay for one year; and a second recorded offence within twelve months shall render two years of uninterrupted good conduct necessary to obtain a restoration of such reward.

14. The soldier having two or more distinguishing marks shall, in like manner for the first, second, and third recorded offences, forfeit one distinguishing mark, and the good-conduct pay allowed with it, for one year for each offence; and if a fourth offence be recorded against him in the regimental defaulter's book, within twelve months, he shall forfeit all claim in consequence of his previous good conduct, and shall only be entitled to obtain a restoration of his honourable distinctions by subsequently serving, with unin-

interrupted good conduct, for two years, to obtain one distinguishing mark, for four years to obtain two distinguishing marks, for six years to obtain three distinguishing marks, and for eight years to obtain four distinguishing marks.

15. Any soldier who, by having been recorded in the regimental defaulter's book, shall have been adjudged to have been guilty of an offence by which he is to forfeit the whole or a part of his reward for his previous good conduct, shall, if he denies the commission of such offence, have the right of appeal to a court-martial.

16. A soldier may, for a first offence of a serious nature, be adjudged, by the sentence of a court-martial, to forfeit all or any part of the advantages he had derived from his previous good conduct, either absolutely or for *any period not less than eighteen months*, according to the circumstances which shall have appeared in evidence.

17. The distinction and the rewards granted by this warrant do not extend to serjeants and other non-commissioned officers above the rank of corporal, and they will not be allowed, while serving, any addition to their established pay; but if permitted to purchase their discharges, or to obtain free discharges at their own request, they will be admitted to the benefits of article 11 of this warrant; and if discharge to pension, they may, for peculiarly good conduct, on the special recommendation of our general commanding-in-chief, and by the consent of our secretary at war, communicated to the commissioners of Chelsea hospital, be allowed additions of 1d. 2d. 3d. or 4d. a-day to their pensions; provided that the aggregate pension shall in no case exceed, for a serjeant, 1s. 10d., for a quarter-master-serjeant, 2s. 1d., and for a serjeant-major, 2s. 4d. a-day.

18. All soldiers now in our service, who enlisted since the 1st March, 1833, but before 1st September, 1836, shall have the option of relinquishing all right to the additional pay of 2d. a day, to which they are now entitled after the completion of fourteen years' infantry, or of seventeen years' cavalry service, and shall then be entitled, by their good conduct, to claim the 1d. a-day after seven years' service, and shall be, in all respects, entitled to all the advantages both of good-conduct pay while serving, of pension on discharge, and of deferred pension, which are herein before granted to soldiers enlisted on or after 1st September, 1836.

19. All soldiers now serving, who enlisted on or before the 1st March, 1833, shall, by relinquishing their right to additional pay for length of service, be entitled to claim all the advantages of good-conduct pay while serving, which are hereby granted; but as the warrants which were in force at the time of their original enlistment give them a right to higher rates of pension on discharge than those which are to be granted to men enlisted after the 1st March, 1833, they will not be entitled to have their good-conduct pay added to their pensions on discharge.

20. In special cases, however, of men enlisted on or before the

1st March, 1833, who, by their good conduct, have obtained one or more distinguishing marks, and who, after short service, may be discharged for disabilities, or by reduction, either without pension or with temporary, or conditional, or permanent pensions, (not exceeding those granted for similar disabilities and services under the warrant of the 7th February, 1833,) the good-conduct pay may, by the consent of our secretary at war, be added to their pensions; and such men, if not placed upon permanent pensions, may be registered at Chelsea for the deferred pensions, under the same rules as the men enlisted after the 1st March, 1833.

21. All soldiers now serving, who enlisted on or before the 1st of September, 1836, and who have completed twenty-eight years' service, may, on relinquishing their right to additional pay, receive 4d. a-day good-conduct pay, provided their names shall not have been entered into the regimental defaulter's book, for at least *eight* years immediately preceding the exchange.

22. Soldiers who have completed twenty-one years' service may, on relinquishing their right to additional pay, receive 3d. per diem good-conduct pay, provided their names shall not have been entered in the regimental defaulter's book for at least *six* years immediately preceding the exchange.

23. Soldiers of less than twenty-one years' service, already in the receipt of additional pay, at 2d. a day, for length of service, may, on relinquishing their right to additional pay, continue to receive the same amount as good-conduct pay, provided their names shall not have been entered in the regimental defaulter's book for at least *four* years immediately preceding the exchange.

24. Soldiers who are already in the receipt of additional pay of 1d. a-day for length of service, may, on relinquishing their right to additional pay, continue to receive the same amount as good-conduct pay, provided their names shall not have been entered in the regimental defaulter's book for at least *two* years immediately preceding the exchange.

25. Soldiers not yet in the receipt of additional pay for length of service, may, by relinquishing their right to the same, receive good-conduct pay, on completing the respective periods of seven, fourteen, twenty-one, and twenty-eight years, provided their names shall not have been entered in the regimental defaulter's book—in the first case, for at least *two* years; in the second case, for at least *four* years; in the third case, for at least *six* years; and, in the fourth case, for at least *eight* years, immediately preceding.

26. *In establishing their claims to the good-conduct pay*, soldiers who were present at the battle of Waterloo, shall be allowed to reckon two years in addition to their actual service, and those who were enlisted before the first December, 1839, shall be allowed to reckon three years for two of actual service, after the age of eighteen, in the East and West Indies, (in other than West India regiments,) *but in claiming their discharge under the eleventh article actual service only will be reckoned.*

27. Soldiers enlisted before the first September, 1836, shall be entitled to distinguishing marks, whether they accept or not the option of relinquishing additional pay for good-conduct pay, and they shall be entitled to the same addition to their pension for the number of distinguishing marks they may severally possess at the period of their discharge, as is allowed to men in receipt of good-conduct pay.

Given at our court at Buckingham Palace, this ninth day of May, 1839, in the second year of our reign.—By her majesty's command,

HOWICK.

The words in italics in the 13th, 16th, and 26th articles are not in the good-conduct warrant of May, 1837.

The administration of this warrant, especially its penal enactments, depends much upon the discretion of the commanding officer of a corps, who is the primary arbiter and judge in regard to the delinquencies of the men under his command. It may be anticipated that it will be very differently administered by different individuals. Some commanding officers may rarely deem it expedient to subject men "to any punishment beyond simple admonition," while others will think that they are under "the necessity of recording a soldier's name in the regimental defaulter's book" for very trivial faults. Where offences are not classed, and the requisite punishments more or less defined, there is no absolute security against very different notions being entertained of the conduct of soldiers, and widely different punishments inflicted for similar breaches of discipline.

The defaulter's book is intended to contain the names of such men as are guilty of offences and irregularities, on account of which they are reported to the commanding officer, and for which it *may not* be deemed necessary to order a court-martial. The insertion of a name in the defaulter's book may, in its consequences, be a very heavy penalty, being taken as evidence of the fact which it professes to record. The proof, therefore, of the guilt of a soldier does not rest on oath; it is simply an entry made according to the decision, and by the direction, of a commanding officer. (*Articles of War, 1830, art. 51.*) In this case, therefore, a considerable deviation is made from the usual rules of evidence.

I hail with much pleasure any attempt to improve the condition, and to promote the good conduct of soldiers, and I sincerely wish the good-conduct warrant may be ultimately beneficial in repressing irregularities. Much still requires to be done in furtherance of the leading object of the warrant. Should the army become more popular, by bettering the situation, and stimulating the hopes of soldiers, perhaps a somewhat superior class of recruits may volunteer for the service. Young men who have, under the direction of their parents, received some elementary instruction, are likely to be better conducted than soldiers whose parents have given them no

early tuition; for it may in general be inferred, that those persons who are best instructed in reading and writing are best instructed in morals. The ultimate object of education, is to make men better and more useful members of society. I am also in hopes that increased attention may be paid to the tuition of soldiers in the regimental schools. An important step has already been made on this subject by Lord Howick, as in the army estimates for 1839-1840, a charge for the first time appears, of £2000 to be expended in the purchase of books, for the purpose of forming libraries in barracks at home and abroad. In civil life there is a great lack of instruction, probably arising in part from a want of leisure to attend school, and a want of means to pay for education; but these obstructions to the attainment of information do not exist to an equal degree in the army. Education, more especially a moral and religious education, is eminently calculated to make men respectable; it inculcates sound principles, and, by instructing them in regard to their position in society, contributes greatly to render them obedient to the laws. Notwithstanding the indiscriminate admission of recruits into the army, in as far as instruction and moral character are concerned, every regiment contains many excellent and deserving individuals—men who would have distinguished themselves if they had received a moderate degree of education in the youthful period of life, and had been placed in situations where their talents might have been properly exercised and cultivated. The manual labour class of society are endowed with similar capabilities of education with the class above them, with the like faculties for the acquisition of knowledge and moral elevation. The late zealous and experienced Dr. Jackson said, "The soldier has no liberty to exercise his mind; and as no man can be great, or even good, without exercise of mind, it is worthy of the consideration of the wise to determine how much intellectual liberty may be permitted to the soldier, without danger to the sovereign authority."

Whether some system of rewards to the good and well-behaved soldier may not improve the moral character of the army, so as to render corporal punishment unnecessary, or still less so than at present, is a difficult problem to solve, and one which does not belong to my subject. His majesty's commissioners for inquiring into the system of military punishments in the army, state that, during their investigation, they found ample evidence of the earnest desire, and the most strenuous efforts upon the part of the officers of all ranks, so to conduct the discipline of the army, as to render corporal punishment as rare as possible; and the following statistical facts bear evidence of the gradual reduction of that description of punishment of late years.

For a period of thirty-two years, or from 1797 to 1828, inclusive, the mean monthly ratio of punished men in hospital among the troops in Ireland, was $\frac{1}{8}$ man per 1000. Now, if, as we may presume, the mean period during which each punished man remained

in hospital, was about seven or eight days, we may suppose, that four men per 1000 were punished monthly, or 48 per annum; consequently, on an average, one man in 20 was punished annually. The following table exhibits a great diminution of the number of punishments among the troops employed in some foreign commands.

Stations.	Period of Observation.	No. of Years.	Annual ratio of corporal punishments per 1000			Mean proportion of men punished.	Punished in 1836.
			First year of the period.	Mean.	Last year of period (1836).		
Windward and Leeward Com. }	1817 to 1836	20	72	38	6	1 in 26	1 in 166
Jamaica -	1817 to 1836	20	193	34	8	1 in 15	1 in 125
Gibraltar -	1818 to 1836	19	14	16	7	1 in 62	1 in 143
Malta -	1817 to 1836	20	65	40	18	1 in 25	1 in 55
Ionian Islands	1817 to 1836	20	56	37	8	1 in 27	1 in 125
Bermudas -	1817 to 1836	20	64	59	5	1 in 17	1 in 200
Canada -	1817 to 1836	20	80	32	3	1 in 31	1 in 333
Nova Scotia & N. Brunswick }	1817 to 1836	20	65	31	12	1 in 32	1 in 83

This table shows that a very remarkable reduction of the ratio of corporal punishments has taken place in all the stations, but in none to such an extent as in Jamaica,—the number punished in 1817, being 1 in 5 of the strength, and in 1836, only 1 in 125.

Statement showing the establishment of the British army, and the number of corporal punishments which were inflicted for a period of ten years, or from 1825 to 1834.

Years.	Strength.	Number of corporal punishments inflicted.	Annual ratio of punishments per 1000.	Proportion of men punished.
1825	98,948	1737	17	1 in 59
1826	111,058	2242	20	1 in 50
1827	111,107	2291	20	1 in 50
1828	110,918	2143	19	1 in 52
1829	103,749	1748	17	1 in 59
1830	103,374	1754	17	1 in 59
1831	103,413	1489	14	1 in 71
1832	103,572	1283	12	1 in 83
1833	103,527	1007	9	1 in 111
1834	103,063	963	9	1 in 111

From this statement it appears that the number of corporal punishments was reduced on an average from about 20 per 1000, to 10 or one-half during the above period of ten years.

NOTES AND ILLUSTRATIONS.

NOTE I. see page 147.

Diet table of the pensioners in Chelsea hospital.

Breakfast at 8 A. M. A pint of cocoa containing three-quarters of an ounce of ground cocoa; three quarters of an ounce of moist sugar; one-third of a gill of milk; sixteen ounces of bread.

Dinner at 12 noon.—A pint of broth; thirteen ounces of meat from which the broth has been made, with one pound of potatoes. There is a certain quantity of oatmeal put into the broth, amounting to about one pound and a quarter per man monthly.

Each man has also one pound of cheese, and two ounces of butter weekly, and one and a half pint of porter daily. Salt and mustard are provided *ad libitum*.

Once in three weeks each man has roast instead of boiled meat.

Hotel des Invalides and Chelsea Hospital.

“The Hotel des Invalides is altogether a fine structure, and well calculated for the purpose of an asylum for a portion of the disabled and wounded men of an army; but I must confess, in going through this building, as well as in some visits I have paid to Chelsea, I had not that sort of satisfactory feeling which many persons have expressed on the same occasion. To me there appeared a sort of monotony, of inertness, and melancholy, that pervaded both the places and their inhabitants, difficult to describe by words. The same constant, dull routine of mere animal existence, unchequered with any accident that can raise the mind from the torpor of a life of consummate idleness; it gives a dull and stupified air to the inmates, which I suspect is never thrown off, except under the stimulus of wine or beer;—a man has nothing to do in the world, but recollect the number of his mess, and look after his eating and drinking utensils. I went several times into the library of *les invalides*,

in search of rare military books, and never saw above two or three of the pensioners there at a time. It would appear that even reading to those who were capable was too great an exertion; and the *summum bonum* of life seemed to consist in basking on a bench in the sun, and turning over the gravel with the point of a stick.

"I have often thought, that, had I been placed in similar circumstances, and had merited pension, how much more I should have preferred having my shilling a day to do what I liked with, and go where I pleased, to be locked up in a palace, and regularly fed and put to bed, like an animal in a menagerie, in place of repeating a twenty times told tale to the same circle of acquaintance, or listening to theirs, to wander about in search of relations, or long lost friends settled in trade or business, and to their attentive ears give the history of a chequered life, and fight battles o'er again.

"I have no intention to depreciate the establishments of the Invalids or Chelsea, as national charities, but merely to say that they are somewhat overrated.

"Neither of them is capable, in time of war, of receiving one fourth or one fifth of those who have claims on them; and I would therefore suggest that these buildings should be devoted to those who have no friends or relations alive."—*Cogitations of a Vagabond, by authority of the king's commission, &c.*—1838.

Vaidy, a French surgeon, who has published an excellent article in the *Dictionnaire des Sciences Medicales*, on the means of preserving the health of soldiers, recommends that the invalids who have a right to be admitted to the *Hotel des Invalides* should be awarded a pension equal to four fifths or three fourths of the average expense of the establishment. Thus, if the mean annual expense be 600 francs, (£24,) they might receive 500 or 400 francs, (£20, or £16,) by which means, he asserts, that the expense of remunerating worn-out soldiers would be greatly reduced without diminishing the comforts of veteran pensioners.

NOTE II.

Recruiting of the Army and medical examination of Recruits.

By the ancient form of levying soldiers in England, every person having any office, fee, or annuity, of the king's grant, was personally to attend upon him when he went to the field in time of war, and individuals who neglected to do so, forfeited their office, fee, or annuity. The mutual inconveniences attendant on the nature of military services due from those who held feudal tenures of the crown, disposed both parties to consent to frequent commutation of money for service. By this means a revenue was acquired, which was expended in the hire of native born subjects to serve in the army. The king covenanted with influential persons to serve him

with a certain number of followers for a specific sum of money during each enterprise. When Henry V. was about to invade France, he engaged by indenture the attendance of one surgeon, a certain John or Thomas Morstede, having in his company fifteen assistants, three of which were to act as archers. Notwithstanding this precaution, there was only one surgeon at the battle of Agincourt, (25th October, 1415,) namely, Morstede himself, for the fifteen assistants he had *pressed* under a royal warrant had not joined the army,—indeed they had not landed. Surgeons were at that time, and for two hundred years after, liable to *impressment*, and in early ages they seem to have been under the necessity of making some of their own instruments; for in 1416, the king commanded Morstede and Bredewerdyn, his own surgeon, to take (press) as many surgeons and other artisans as were needful to make the instruments required. Until towards the end of the 17th century the supply of medical recruits for the army appears to have been very inadequate for the wants of the service. The barber-surgeons' company was commanded in 1626, to provide sixteen of the best surgeons for his majesty's army; and in 1630 the surgeons' company was empowered by charter to take (press) as many barbers and surgeons in any part of England as were required for his majesty's fleet.—(*Medical Almanack*, 1839.)

In the year 1641, a bill was passed, which, after reciting that, by the laws of the realm, none of his majesty's subjects ought to be impressed, or compelled to go out of their own country to serve as soldiers, except in urgent necessity, or in case of their being bound by tenure of lands to do so, enacted, that, for service in Ireland, it should be lawful from the 1st of December, 1641, to the 1st November, 1642, for the justices, &c. to raise as many men by *impress* for soldiers, gunners, and *chirurgions* as might be appointed by his majesty, and both houses of parliament. When the army was about to be disbanded in 1649, an assurance was given by parliament, that "no person who had been engaged in the late war should be liable to be *pressed* for the service beyond sea." The old soldiers do not, however, appear to have been exempted from compulsory military service at home.

There was an act of parliament passed in the third year of the reign of Queen Anne, (1704,) and annually renewed for a long time, appointing all justices of the peace, &c. to raise (press) such able bodied men as have no lawful calling or visible means of livelihood, to serve as soldiers. The acts against mutiny and desertion having been read to the *pressed* men, they received 20s. of earnest, and were thenceforth considered soldiers. The practical mode of carrying this act into operation, may be inferred from some passages in Farquhar's play of the Recruiting Officer, which was acted in 1705.

Act. II. Scene III.

Enter Kite with two recruits drunk.

Kite.—You are a king—you are an emperor, and I am a prince.

Thomas.—No, serjeant, I'll be no emperor.

Kite.—No!

Thomas.—I'll be a justice of peace.

Kite.—A justice of peace man!

Thomas.—Ay Wauns, Will, I—for since this *pressing* act they are greater than any emperor under the sun.

Act V. Scene IV.

A court of Justice—Balance, Scale and Scruple upon the bench, Constable, Kite, Mob.

Balance.—What are you friend?

Mob.—A collier—I work in the coal-pits.

Scruple.—Look'e gentlemen, this fellow has a trade, and the act of parliament here expresses that we are to impress no man that has any visible means of livelihood.

Kite.—May it please your worship, this man has no visible means of a livelihood, for he works under ground.

Balance.—Right.—Bring in the rest.

Constable.—There are no more, an't please your honour.

Balance.—There were five two hours ago.

Sylvia.—'Tis true sir; but this rogue of a constable let the rest escape for a bribe of *eleven* shillings a man, because he said the act allowed him but *ten*, so the odd shilling was clear gain.

Mr. Bruce, in his work on the *Institutions of Military Law*, published in 1717, recommends that an army should not be “altogether *pressed*, nor altogether *volunteers*.” “A middle way,” he says, “is likest to succeed, viz. neither too *forcible* on the one hand, nor too *frank* on the other; for a method thus wisely tempered betwixt *fair* and *foul* means can scarce ever make a government run the hazard of discontent, far less of mutinies and disorders. In this island we do indeed compel, yet not all promiscuously, but only idle vagabonds, and such as have no employment, or are guilty of smaller crimes. But as to voluntary listing, captains and other officers do commonly receive warrants to beat up drums in every city, and thereby all are invited to list themselves under pay, which whosoever doth, he is, after receiving earnest, solemnly attested by a magistrate, and is thenceforth looked upon as a soldier.” Mr. Bruce being an *advocate*, was no doubt profoundly learned in the law;

but he seems to have entertained very queer notions in regard to the rights of individuals.

Enlisting money, which is, I believe, peculiar to this country, appears to be equivalent to an earnest or early penny—a pledge that the parties intend to fulfil the agreement.

During the last century, various acts of parliament were passed, authorising the justices of peace to *press* men for the army. In 1778, an act was passed for the more easy and better recruiting of his majesty's land forces, which renewed the power of the justices and commissioners of the land tax to do so. No class of individuals were specifically exempted from being pressed, except persons who had a right to vote for a member of parliament, labourers during harvest, and "*known Papists*." The inhabitants of the different parishes were to receive ten shillings for giving information of any able-bodied man who was in consequence thereby apprehended. By former acts the reward offered was £1. This recruiting act was put in operation by a letter from the war office, bearing date June, 1778.

In 1778, an inspector general of recruiting was appointed, who seems to have had the charge of the recruiting of the regiments on foreign service, his head quarters being at Chatham; and I presume a surgeon was attached to his staff to examine the recruits. The regiments at home were instructed to enlist men to fill up the vacancies which occurred in corps.

Dr. Hamilton (*Duties of a Regimental Surgeon considered*, 1782,) is, so far as I know, the first medical author who alludes to the duty of examining recruits. It does not, however, appear that recruits were generally examined by a medical officer before 1790. Mr. Reide, surgeon to the 1st battalion of the 1st, or royal regiment of foot, in his work, (*A View of the Diseases of the Army, &c.* 1793,) complains in his journal, (*West Indies, January, 1790*,) of the unsuitness of recruits who had been sent to the regiment to which he then belonged. "I wrote," says he, "to the late Mr. Adair, surgeon-general, informing him, that, of seventy-four men which arrived in December last, fifteen or sixteen were totally incapable of doing duty, on account of lameness, ruptures, contracted joints, consumption, epilepsies, ulcers on the legs, and other maladies. When I examined these men on their arrival, I inquired whether any surgeon had seen them; they answered in the negative. To the present surgeon-general (John Hunter, Esq.) I likewise complained of the circumstance, and since that a stop has been put to the evil."

Until about the year 1799, every person who enlisted was obliged to swear that he was a Protestant, consequently, a Roman Catholic could not become a soldier without perjuring himself. Dr. Bell, formerly surgeon to the 5th regiment, makes a strong appeal on the subject of religious disabilities: "Shall an infamous vagabond," says he, "unacquainted with every principle of religion, who has been tried at the Old Bailey, and convicted of various acts of depreda-

tion on society, be exempted from the punishment of his crimes, provided he agreed to serve his majesty as a soldier? and shall a Roman Catholic, however virtuous, however respectable, a subject of Great Britain, be prevented from entering into the service of his country, because he believes in the doctrine of *transubstantiation*, in proportion to the reverence every sensible Episcopalian entertains for that very *wise, pious, and charitable*, though rather *enigmatical* compound, the *Athanasian Creed*?—(*Inquiry into the Causes which produce Diseases in the West Indies*, by Dr. Bell, Lond. 1791, page 178.)

By a warrant which was issued from the war office, bearing date 27th October, 1790, the commanding officers of regiments serving abroad, who took upon themselves the approbation of recruits for their own corps, were directed to "*require and receive sufficient chirurgical testimony respecting the same.*" And by the regulations for conducting the recruiting service, issued in 1796, a hospital mate was placed under the orders of each field officer of a recruiting district, to examine the recruits when brought for inspection. In 1799, an order was issued directing that the chirurgical testimony of the fitness of a recruit should be certified on the back of each attestation. I do not know when a form of attestation, which contained a certificate of fitness for the signature of a medical officer was introduced, nor have I been able to ascertain at what date a medical examination became usual, or in some measure indispensable. In 1805, the commanding officer of a regiment was tried by a court-martial for approving of a recruit who had been rejected by the surgeon of the corps, but he was acquitted. The approval of a recruit by a medical officer relieves a commanding officer of great responsibility; and on that account he should, and no doubt will, be very cautious in enlisting a man who has not been found fit for the service by competent medical authority. For a long time past, I believe no recruit has been admitted into the army without undergoing a medical examination; but an approval by a medical officer of the corps to which a man belongs, although usual, does not appear to be indispensable.

A new class of medical officers was appointed in 1802, namely, *district surgeons*, who were employed in Great Britain and Ireland in the recruiting districts to examine recruits. They were usually selected from old regimental or staff-surgeons or apothecaries, but sometimes vacancies were filled up from the rank of assistant surgeons. Their pay was ten shillings a day without allowances. Twenty-six district surgeons were employed in 1808. In consequence of the recommendation of a board of officers assembled in 1809, to take into consideration the state of the medical department, an order was issued from the Horse Guards, February, 1810, directing that the employment of staff-surgeons should supersede that of district surgeons in the duties of recruiting districts; but this regulation was not to take effect, except as vacancies occurred. A staff-surgeon was not appointed to the Dublin district until 1816.

Dr. Hennen, who published the second edition of his work on Military Surgery in 1820, states that the regulations for the instruction of medical officers connected with the recruiting department, contained little or nothing to guide them in dubious cases, and that consequently much was left to their own discretion; hence, he adds, very striking differences of opinion take place between the examining officers as to the fitness of recruits for service, and as the expenses incurred for recruits who are ultimately found fit for the army, fall upon the first medical examiner, he often finds that he is a considerable pecuniary sufferer, by his *carelessness*, his *ignorance*, or his *good nature*.

In 1824, a new code of regulations to medical officers, in regard to the inspection of recruits, was promulgated by the medical department, and on the 30th July, 1830, the existing instructions were issued.

THE END.

Dunlison's American Medical Library.

BOYLESTON

PRIZE DISSERTATIONS,

FOR THE YEARS 1838 AND 1839.

ON SCROFULA, RHEUMATISM, AND ERYSIPELATOUS
INFLAMMATION.

BY EDWARD WARREN, M. D.
FELLOW OF THE MASSACHUSETTS MEDICAL SOCIETY.

PHILADELPHIA:
PUBLISHED BY ADAM WALDIE, 46 CARPENTER STREET.
1840.

A vote of the Boyleston Prize Committee passed in 1826, requires the publication of the following resolution.

“That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which the premiums may be adjudged.”

DISSERTATION

UPON THE QUESTION

“WHAT IS SCROFULA, AND WHAT IS ITS BEST MODE OF
TREATMENT.”

“Kunst macht Gunst.”

This disease is one of sufficient antiquity. It was described by Celsus, and was known before his time among the Greeks, from whom it derived its name, as they supposed it to be communicated from swine, among whom it prevailed.

Its prevalence in England, may be judged of from the fact, that in the time of Charles II. ninety-two thousand one hundred and seven persons were *cured* of it, according to Dr. Carr, by the royal touch. It was well known that for many years, this was the grand specific for the disease. Writers now treat the account of these cures with ridicule; and yet, if we reflect upon the subject, we may feel disposed to be somewhat less incredulous. Most of the patients were undoubtedly of the lowest class, and extremely ignorant. They came from a great distance, from the most remote parts of the country, to be cured. To see a real living king, was with them far more wonderful than to see a spirit: for in those days spirits were common; but there was only one king in the land. If then we place ourselves in their position,—if we consider the excitement and delight, with which they looked forward to their journey to the capital,—if we consider what implicit faith they placed in the power of the royal touch; can we wonder that so many were cured? Have we in the Pharmacopeia, any remedies that possess powers, either as alteratives or tonics, equal to such a state of excitement? It is not mere imagination, or if it is, it is imagination working in a manner we can easily understand and explain. The spirits are raised, the languid circulation is quickened, the appetite is improved, and the food is well digested. The enthusiastic loyalty with which Charles II. was welcomed on his return, by his devoted partisans,

undoubtedly increased in a remarkable degree the sanatory powers of his touch.

If we give any credit to the account of these cures, as I think we must, we shall be more ready to accede to that view of the disease which ascribes its origin in many cases to disorder of the digestive organs, such derangements being more than any other under control of the mind. But in order to explain and substantiate these views, we must proceed in a more methodical manner, and may in the first place, consider the causes of scrofula.

Scrofula is of hereditary origin. This may be understood in two senses. The most obvious is, that scrofulous parents transmit the disease to their offspring; i. e. that scrofulous parents have scrofulous children. But it is true also in another sense. Whatever is a cause of permanent bad health in the parent, either father or mother, may produce the scrofulous diathesis in a child. Bad habits of living, giving rise to disorders of the digestive organs; the abuse of mercury; the venereal disease; habits of intemperance, may all be causes of scrofula in the offspring.

In such cases, the children are feeble from birth, the textures of the various organs are soft and flabby, the organs themselves small and of feeble powers, with a tendency to sudden morbid enlargement.

But scrofula is not always hereditary or congenital; it sometimes originates in an individual previously healthy. It becomes an object of enquiry, therefore, what is the cause of the disorder, when it arises thus?

If any proof were wanting of what is generally acknowledged; to wit, the hereditary nature of the affection, we might adduce cases in which tubercles have been found in the lungs of a fœtus, taken from the uterus of a tuberculous parent, who died during labour.

There is no particular temperament upon which scrofula is attendant. The characters which have been generally assigned to scrofulous subjects however, are—light coloured, very fine hair, skin thin and delicate, under which the vessels are seen meandering, and often giving an appearance of great delicacy of complexion and beauty;—eye-lashes long, pupils dilated, fingers long and thin, but broad and flat at the extremities; tumidity, or thickness of the upper lip, and some thickening of the point of the nose, are marks of scrofula. The countenance is often swollen, the complexion sallow, and the cheek full, tumid, and flaccid. These appearances however, are the consequences, and not the precursors of scrofula. Black hair and eyes, and dark complexions, are met with nearly as often in the subjects of scrofula, as the opposite characteristics. An appearance of languor and debility is the most common attendant of the diathesis.

It is particularly a disease of childhood. Dr. Good, characterises it as “appearing in infancy or youth; subsiding on mature age.”

Its first and most common symptom is indigestion. The child

of an unhealthy or infirm parent; or one that has been brought up by hand, and improperly attended to, or suffered to remain in an impure atmosphere, early shows symptoms of the disease, and some will generally be observed before the tenth year. Dentition is often the exciting cause, or the occasion on which it manifests itself. This is painful and difficult. The appetite becomes excessive, sometimes failing for a time, but in general craving and not easily satisfied. The flesh becomes soft and flabby, the child loses his vivacity, has a languid heavy appearance, is indisposed to play, and soon becomes tired. Most frequently he evinces signs of early intelligence, but in other cases he is dull and stupid. He is fretful, and does not sleep quietly; in his sleep, he shows signs of distress which might be mistaken for cerebral affection. The bowels are generally confined, and the motions light-coloured and unhealthy. The constipation often alternates with diarrhœa, attended with light slimy stools. The functions of the skin are badly performed. The tongue is red and covered with spots of a still deeper colour.

In a more advanced period, the throat, fauces and tonsils become affected. Cutaneous diseases of various kinds appear. The eye is the seat of slow inflammations, hordeola, &c. The patient is sometimes subject to hemorrhage, such as epistaxis, dysentery, &c. In short, there are all the symptoms and consequences of imperfect digestion and assimilation; the function of nutrition is badly performed; the coats of the blood-vessels are lax and void of tone, suffering their contents to escape from the minute vessels; absorption is badly performed, languid, and indolent, permitting the formation of tumours and other morbid growths. In early youth, this state of the system manifests itself in tumours on the neck, and in various parts of the body. These tumours are of an indolent nature, remain long stationary, but at length come to suppuration, and form open ulcers or fistulæ, which are difficult to heal. At a later period, tubercles are formed in the lungs.

The lymphatic glandular system is generally considered as the particular seat of scrofula: although every tissue of the body is liable to become affected. The glands in the neck and mesentery, the spongy parts of the bones, and the lungs, are especially liable to become affected.

We have alluded to two theories, with regard to the origin and nature of scrofula. One places it in disorder of the digestive functions, particularly of those of the liver. The other places it in congenital debility. There is a third theory, which considers scrofula as a state of ill health produced by a deficient supply of red blood, and a consequent preponderance of white fluids and tissues. The different forms of the disease are, according to this view, only local exhibitions of irritation, modified by the predisposition; but which irritation, in healthy subjects, would at most produce simple inflammation. The manner in which it is transmitted from parent to offspring, is accounted for on this principle, by the deficiency of the red tissues being transmitted. It may occasionally

pass over one generation, and appear in the next, (upon the same theory,) because the intervening generation has not been exposed to the causes, such as privation of light, fresh air, wholesome food, &c. which call the scrofulous diathesis into action.

The first of these opinions is supported by high authority—that of Sir Astley Cooper. According to him, the character and origin of scrofula is debility; the disease in its progress becomes inflammatory, but it is connected with original weakness. Scrofulous diseases undergo all the different processes of inflammation, the adhesive, the suppurative, and the ulcerative, and sometimes, though more rarely, the gangrenous. All these processes are irregularly performed. The adhesive matter secreted in scrofulous affections, instead of being firm, consists of a curd-like substance, easily broken and very soft, and this is owing to the blood-vessels not entering it. The suppuration contains curd-like matter, and is not truly purulent. Ulceration is slow in its progress; granulations are unequal and slow in forming. These processes are the effect of inflammation, but they are imperfectly performed, owing to debility. Scrofulous differs from chronic inflammation from its being congenital. Chronic inflammation occurs after growth has stopped; scrofulous during growth. The blood is less firm; the crassamentum loosely formed and coagulates weakly, the quantity of serum abundant, and the solids are feebly formed. There is extreme attenuation of the muscles, owing to their fibres being delicately formed; the cellular tissue thin; the heart weak, and not having the appearance of a healthy organ. The arteries have loose coats and easily give way, so that an injection will not reach the extreme vessels. The membranes of the stomach and intestinal canal are thin and pellucid; the absorbent glands enlarged, the secretory glands flaccid but not diseased, and the nervous system sometimes exhibits marks of irritation. According to Sir Astley, the liver and the kidneys are not affected.

Sir A. Cooper, both in his description and in his treatment of the disease, goes farther than most men, in considering it the result of debility; farther, may we say, than consistency warrants? He considers that the particular affections are the result of inflammation; and most other writers think, that on that account it requires antiphlogistic treatment, as long as inflammatory symptoms are present. He however, recommends a highly nourishing, and even stimulant diet in every case. It is probable, nevertheless, that in practice, he would make exceptions to this plan of treatment, which the brevity with which his ideas are communicated to us prevents: were it otherwise, we should not venture to dispute his precepts. What we derive from him, are the lessons of sound judgment and experience, not of theory.

The views of this distinguished surgeon we understand then to be, that the subjects of scrofula are born with the organs feebly formed; loose in their texture, generally of small size, and incapable of the vigorous performance of their functions. This accoun

of the disease does not disagree with the probability of the feebleness being the result of the causes in the parent, which have been mentioned above. Nor does it interfere with the assertion, that it can be obviated, or matured in childhood, by attention to the improvement of the digestive functions, or by means which produce derangement in those functions. If these are well performed, the slight and feeble organs will be strengthened and rendered robust, and will become possessed of vigorous powers; but if the digestion continues languid, it is in vain to attempt to improve the condition of the other functions. Pure air, proper diet, sufficient clothing, exercise in the open air, cold bathing, &c., will increase the tone of the stomach, rouse the digestive powers into activity, through the medium of the skin, and thus remove the debility. Disorder of the digestive functions acts upon those of the skin, and disturbances in the latter cannot long exist without a deranged condition of the former.

According to Mr. Carmichael, disorder of the chylopoietic viscera invariably precedes and accompanies scrofula; and there are grounds for supposing the existence of such a state, in a very great majority of cases, to be the immediate cause of the disease. Mr. Lloyd gives several cases in proof of the effects of bad diet in causing the complaint. Abernethy also attributes it to digestive disorder, and adduces cases of children with scrofulous abscesses cured merely by attention to the digestive organs.

Dr. S. J. Todd, (in his article on Strumous Dyspepsia, in the *Cyclop. Pract. Med.*) considers scrofula as originating in disorder of the organs of digestion. The phenomena of the disease, he thinks, sufficiently indicate a congestion of the hepatic system. And that the supposition of a plethora in the vena portarum, both in its roots and branches, would sufficiently account for all the symptoms. Hence the condition of the mucous surfaces of the intestines, which are full of blood. The duodenum is especially liable to inflammation. This disposition to abdominal congestion is transmitted from father to son, especially by the dyspeptic and hypochondriac. The views of Dr. Todd are confirmed and supported by Sir James Clark. The latter was the first who called the attention of physicians to the particular state of the digestive organs, in what he calls the *Tubercular Cachexy*. He defines it as,¹ "a morbid condition of the general system, hereditary in some, and in others induced by a series of functional derangements, ultimately affecting the whole animal economy." The digestive organs, he says, are very generally more or less deranged, though the degree and nature of the derangement differ in different cases. It will be understood, however, that while both these writers maintain the invariable, or almost invariable, coincidence of dyspepsia with the strumous diathesis, the theory with regard to the connection of the liver with this condition of the system, is advanced with some

¹ On the Influence of Climate.

degree of hesitation. A plethoric state of the abdominal vessels is allowed to exist by most writers.

Dr. W. Philip remarks, that the sympathy of the lungs with the liver is stronger than with any other organ; hence, he believes, that what are called bilious complaints lay the foundation of half the cases of consumption; affections of the stomach only producing disease in the lungs, by giving rise to derangements in the liver. Now, if it be true, that disordered digestion, originating in, or kept up by hepatic disease, exists in most cases of scrofula, or tuberculous cachexy, we can readily understand why the lungs are the favourite seat of tubercles.

In tubercular phthisis it is well known that the liver is frequently affected. In the post mortem examinations of M. Louis, fatty degeneration of the liver was found in one third of the cases. The liver in these cases is found enlarged, and of less consistence than natural. But great functional derangement of the liver may exist without any organic lesion.

We have thus considered pretty much at length, two of the theories with regard to the origin and nature of scrofula. The third theory, which places it in the preponderance of the white tissues and fluids over the red, we will postpone until after we have considered the causes which may generate the diathesis, in individuals in whom it is not congenital or hereditary. As "what is scrofula?" forms one of the two divisions of our inquiry, a digression and subsequent return to this part of our subject, we hope will meet with indulgence.

IMPROPER DIET.—We shall then, in the first place, consider the effect of unsuitable food as a cause of the disease. This alone may not be sufficient to produce scrofula; but combined with other causes it will prove a fertile source of mischief, the final result of which will be the diathesis in question. Fortunate it is for children, that the stomach assumes the office of its own guardian, and readily rejects whatever is liable to offend it. Otherwise how few children would live beyond the period of infancy! The stomach and digestive organs must have a great power, even at the earliest age, of adapting itself to the food which is offered to it. Still, the child must have nutritive food of some kind in sufficient quantity, or the want of it will weaken the stomach and the other organs of digestion, and, through them, the whole system. Moreover, though the stomach will reject improper food, yet the frequent necessity of so doing is attended with permanent injury, and the sensibility of this organ will be either morbidly increased or it will be deadened. Where the food is not so repugnant to the digestive organs as to excite vomiting, a more gradual injury will be occasioned, and the food, imperfectly digested, will be passed on to other organs, and noxious ingredients will be mixed with the blood, and the other fluids of the economy. Chylification is interfered with, and the assimilative functions must suffer. In the robust, healthy child, of

healthy parents, the vigorous performance of the digestive functions will go on for a considerable time, especially if it enjoy pure air, light and moderate exercise ; but eventually, it will lose flesh, and become pale, emaciated and unhealthy. In the case of infants where the mother has no milk or not sufficient for its nourishment, the child more frequently suffers from being injudiciously fed than from want of food. When it suffers from insufficient nourishment, it is most commonly in the case where the mother has sufficient milk, but of poor quality. The effect of the deficiency when this cause occurs, is obvious. The stomach loses its tone, the chylopoietic and the lymphatic vessels their vigour, the body is imperfectly nourished, and languor, emaciation, and *debility* of all the organs and tissues ensues. The effect of too much or too little food is very similar. The stomach and other organs concerned in the first acts of digestion, are deranged and weakened in either case, and do not supply the various parts of the body with nourishment. Hence occurs that state of debility, which is considered as the essence of scrofula : and hence also that want of richness of the blood which gives the preponderance of the white tissues over the rest. We have said that a want of nutritive matter in the milk is a cause of disease in the child ; too rich milk is equally so.

In the child of healthy parents, which is exempt from other causes of scrofula, improper or insufficient food will be more likely to occasion other diseases than this ; but, in proportion as the health of the parents is bad, or the child feeble from birth, and to the degree in which this cause is combined with those hereafter to be mentioned, will be the tendency to produce scrofula. Where there is a predisposition to this condition, a bad diet will readily develope it.

IMPURE AIR.—This is the next in importance to that which has just been considered. Dr. Alison attributes more importance to this, than to improper food. It is undoubtedly difficult to ascertain exactly how much each of these causes, and those afterwards to be mentioned, has to do with the production of the diathesis in question, for they seldom exist separately. In the poor Irish families who live among us, can any thing be worse than the diet of the children ? They seldom suffer from deficient food it is true, but it is of the most improper quality. As to their cleanliness, it is much the same with that of the swine, with whom they are sometimes reared ; yet exercise in the open air they have abundantly, and indigestion is comparatively rare. It is our impression that scrofula is rare among this class ; diseases among children certainly are so. They make much fewer calls upon the attendance of a physician, even when that attendance is gratuitous, than parents in the higher and middle classes.

In order that respiration may be properly performed, pure air is essential. Whatever interferes with respiration, prevents the formation of blood suited to the purposes of nourishment. Perhaps there is another way in which an unhealthy or impure air acts upon

the system,—through the cutaneous organs. Pure air as well as cleanliness is necessary to support the tone of the vessels of the skin. In a crowded city, the air is rendered impure by the various substances that become mixed with it, and which cannot be breathed without injury to the lungs. When it is considered that the action of this agent is constant and incessant, although its effects are imperceptible and inappreciable, we cannot hesitate to ascribe to it great importance. Children confined in badly lighted and ill-ventilated apartments, are uniformly unhealthy. Like plants which are kept in the dark, they become blanched and sickly. It is perhaps impossible to understand the effect of light upon the atmosphere, or upon the animated creation, yet we know that it is essential. The respirable quality of the air, it is well known, depends upon the presence of oxygen. This is given out by vegetables, while they are acted upon by the sun, and it is also furnished by the decomposition of water. Hence the air of the country is so much more pure than that of cities, where thousands of lungs are constantly consuming oxygen, and emitting carbonic acid gas. The effect of privation of light is evinced in those whose pursuits confine them to dark apartments, or to labour below ground. The blanched and sickly appearance of such persons, is analogous to that of plants which have been kept in a cellar. The best preventive and cure that has yet been found for scrofula, the only one that has met with the sanction of general experience, is a residence in the country, or in the neighbourhood of the sea shore, where the air is of course free from all sources of impurity. Pure air is the best tonic which has yet been found. M. Baudelocque maintains that impure air is the sole cause of scrofula. In this he goes farther than we are willing to follow him: impure air is undoubtedly a source of much mischief, but there are other causes which operate as powerfully in the production of the diathesis in question. Children who are brought up by hand, in a city, seldom do well; in the country their chance of living and thriving is much greater, because the purity of the air renders the digestive powers more vigorous.

EXERCISE.—The necessity of exercise for children, as well as fresh air, is sufficiently understood by the higher and middle classes among us; and a little wagon for the daily use of the child is provided almost as early as the cradle. It is to be feared that among the lower classes, it is not so much attended to. The want of time renders it necessary for them to dispose of their children in the best manner they can, but perhaps in general the same end is answered, as they are carried about from place to place with their mothers. The individuals who suffer most from want of exercise, are females of an older age, and in a superior station in society. Girls at school who are seated at their studies for five or six hours in succession, and whose habits incline them to little active exercise at other times; and even those who have not the advantages of school education, suffer much from the sedentary nature of their avocations. These

are in some degrees necessary evils. The propriety and delicacy which are so highly esteemed in the sex, seclude them from the active sports to which boys are accustomed. In attempting to remedy the disadvantages of their situation, there is danger of occasioning the loss of those graces, and that softness and delicacy which are the peculiar excellences of the female character. As far as it can be done, however, active exercise should be made a part of female education. From their sedentary habits in childhood and youth, arise dyspepsia, scrofula, spinal curvature, and consumption. Hence the much greater frequency of phthisis and scrofula in females. It is unnecessary to enlarge upon the effect of want of exercise. Constipation, indigestion, hepatic congestion, imperfect assimilation, are the well known consequences of this want, and these produce that *debility* in which scrofula consists.

OVER FATIGUE, on the other hand, is a source of scrofula. If a child be over-worked, the system is debilitated, and the functions of digestion and assimilation are weakened, in as great a degree as when exercise is withheld.

IMPERFECT CLOTHING is a cause of the developement of scrofula; for if the minute vessels of the skin are exposed to excessive cold, they cannot perform their proper functions; and hence the blood becomes stagnant in the larger vessels, and produces congestion in the internal organs.

INTEMPERANCE is a prolific source of this diathesis. It is remarked by English writers, that the better diet which the lower classes now enjoy than formerly, is counteracted by the increased use of ardent spirits. It is well known that intemperance is the frequent cause of cachexy, and hence of consumption.

MENTAL AFFECTIONS.—Intense study, by exhausting the nervous powers, deprives the various organs of that proportion of the nervous influence, which is requisite for the proper performance of their functions. Depressing passions or emotions, disappointments, loss of friends, loss of property, and slighted affection, are causes first of that languid state of body and mind, in which the countenance becomes blanched and sodden, the appetite lost, the digestion impaired, and all the functions of the body badly performed. That these causes chiefly affect the female sex, is natural—first, because their habits are more sedentary and secluded; and secondly, because they are not called into the bustle and turmoil of the world, but allowed to meditate upon sorrowful subjects, until grief becomes the permanent habit of the mind. Washington Irving has well and touchingly described the gradation by which death is produced in such cases, in alluding to the instances of females running to waste and self neglect, and disappearing gradually from the earth, through the progressive stages of mental affection, melancholy, languor, debility, cold, and consumption.

USE OF HARD WATER.—Cullen, Heberden, Dr. Lambe, and Sir James Clark, are the principal writers who have noticed the use of hard water as a cause of scrofula. Dr. Lambe¹ has gone very fully into this subject. Heberden mentions the case of a patient who became scrofulous, after using hard water for a few years; and continued so as long as he used it, but upon leaving it off, all the scrofulous symptoms left him. The instance quoted in a note to Heberden's remarks on this subject, has been often alluded to. The original is to be found in the memoirs of the Royal Society of Medicine at Paris.

"The inhabitants of Rheims had been so long afflicted with strumous diseases, that they maintained a hospital for the sole purpose of curing such patients. They then made use of no other water than what they had from their wells. After a machine was constructed, which brought the water from a neighbouring river, and distributed it into all quarters of the town, it was observed that scrofulous disorders became less frequent, and in the space of thirty years, the number of these patients was reduced to one half of what it had usually been: it continued to decrease so fast, as to give occasion for thinking that the greater part of the revenues of the hospital might be applied to other purposes."

The effects of the water we drink, as well as the air we breathe, are insensible and inappreciable. Hence it is difficult to convince the sceptical, that impure air and water, or at least water that does not appear impure to the sight and taste, can be in any degree injurious to health. The question, however, is one worthy of more serious attention than it has as yet met with,—how far this is a cause of disease? It is a cause, if it be one, incessantly in operation, and producing its effects gradually and insidiously. The facts mentioned by Heberden and Lambe, prove that water may contain ingredients, which excite or develop a scrofulous habit. The analyses of chemists show that much matter is to be found in it, injurious to health. If in any degree noxious, the constancy with which this cause operates, makes it of very serious importance. Experience has proved that in our city, many persons who have long suffered from dyspepsia have been cured, simply by making use of rain water, instead of that of the wells. Now if the use of hard water is productive of dyspepsia in adults, its action in developing a scrofulous habit in children must be very much greater.

THE ABUSE OF MERCURY leads to the formation of the cachexia in question; and in a similar manner, secondary syphilis when eradicated from the system, will often leave it in a cachectic state, which may truly be considered scrofulous. In a still greater degree will either of these causes operate in producing a scrofulous constitution in the offspring.

Any one of the causes above considered may be insufficient in

¹ Inquiry into the Origin, etc. of Const. Diseases.

itself to produce scrofula in the healthy child of healthy parents; but in proportion to their combination will the diathesis more or less certainly be induced. Bad diet, impure air, deficient exercise, are each sufficient to develop the disease in those who are predisposed to it from birth.

The predisposition to scrofula in children¹ exists in various degrees. The slightest degree exists when the health of the parent is merely deteriorated, and the child at birth appears healthy. In others, mere functional derangements exist, which, unless they are checked in time, generate scrofula. In the third degree, the child when born exhibits all the marks of the scrofulous diathesis. In the fourth, the scrofulous cachexy is already formed, and the child may die tuberculous. In the fifth, tubercles exist in the lungs at birth.

Although, therefore, a scrofulous diathesis may be originated in the manner which has been described, we do not maintain, that in the majority of cases it is generated in the child, without predisposition. On the contrary, we believe, that in the greater number of cases, this diathesis is attributable to predisposition, derived not always from a scrofulous constitution in either parent, but from a state of ill health of any kind. In some families, the elder children have been healthy, and the younger scrofulous, owing to loss of health in the father or mother, between the birth of the former and latter. Disordered digestion, gout, cutaneous diseases, the abuse of mercury, debility, advanced age, weakness of the genital organs; whatever in short may interfere with the processes of generation, conception, gestation, or the nourishment of the fœtus, may produce a predisposition in the infant. Scrofula is particularly the disease of infancy, and the period of growth; after maturity its development is comparatively rare.

It has been remarked by some writers, that where the disease exists in one parent, the child often escapes, and the question has arisen, whether a child may be supposed to partake most of the disposition of his father or mother. Some have attributed the greatest share to one parent, and some to the other; while a third class suppose that a child may be reasonably thought to share most of the parent, whom he most resembles in person.

If now we take a retrospective view of the causes that produce the scrofulous diathesis, we shall find that they are the same with those that produce indigestion, only that they act with more power upon a child who has the hereditary disposition generated in the manner we have described. In such an one, the disease is sooner developed and manifested; but it is not less certain that the same causes operating for a sufficient length of time, will produce the cachexia in question. Indigestion may in many cases be regarded as the first stage of the disease.

If we examine scrofulous patients, we shall almost invariably find

¹ Sir James Clark.

the powers of digestion impaired. A scrofulous person who had a healthy appetite and digested and assimilated his food perfectly well, would be an anomaly; nay more, he would be a contradiction, for where these functions were well performed, the patient could not be scrofulous. But it may be said, scrofula is the cause of dyspepsia, not the effect of it. The *debility* of the system presents perfect digestion, and the digestive organs become involved through the means of other organs, the heart, lungs, etc. However this may be, the imperfect performance of the digestive function must keep up and aggravate the cachexia. As long as no organic lesion has taken place,—as long as there is only debility of the organs, if we can but give vigour to the digestive powers, we may give strength to the whole system.

We may now return to the consideration of the theories of the disease, and particularly to the third which we proposed to discuss; namely, the preponderance of the white fluids over the red. Sir James Clark, in his work on climate, states his belief that a small heart is the frequent predisposing cause of consumption, and in his more recent work, he notices the serous condition of the blood, and its deficiency of fibrine, which has been pointed out by Andral. This condition of the blood has given rise to the views which are briefly stated by Dr. Maunsell, who attributes scrofula to the preponderance of the lymphatic over the arterial system. The strength of the individual, his vital powers, and capacity of resisting disease, he remarks, are in the reverse proportion to this preponderance of the white tissues. It is well known that individuals of sanguine constitution and full of red blood, are the most robust, and that those of a pale, white countenance, are uniformly feeble and unhealthy. Whatever favours the developement of this preponderance of the lymphatic system, is, therefore, a cause of scrofula. Confinement in a damp situation, with a diminution of light and fresh air, is believed by those who hold this opinion to be a principal cause of scrofula.

Neither of these three theories is irreconcilable with the other. Debility from birth is not in all cases a sufficient cause of scrofula. The preponderance of the white tissues is to be attributed to the want of fibrine, and colouring matter in the blood, which may be considered as arising from imperfect digestion: for let the action of the heart and lungs be healthy, still if the stomach and its dependent organs do not perform their functions properly, the blood will not be perfectly formed, and will be deficient in its proper qualities.

That scrofulous children are apt to be of small size, or, if of natural size, with organs small, thin, loose in texture, with feeble capacities for the discharge of their functions, is naturally to be inferred from what has been said of the causes of congenital predisposition—to wit: whatever causes may interfere with the development and growth of the fœtus. The main difference between the two first mentioned theories is, therefore, that those who hold the

former, place more weight in hereditary predisposition, while the latter allow more to the action of subsequent causes, in the early education and regimen of the child. Those who attribute most importance to the disorder of the digestive organs, do not deny the debility of the organs in many cases at birth. On the other hand, those who place particular stress upon this congenital condition, are willing to allow that it may be corrected, by proper management in infancy. Sir Astley Cooper, considers care and attention in infancy, as important and effectual, as do those who think most of the dyspeptic symptoms.

It is stated by some writers, that scrofula will sometimes lay dormant during one generation, and break out in another. This idea probably originated in the belief that scrofula consisted in an acrid humour. There can be no doubt that an individual may pass through life without evincing any signs of a scrofulous habit, unless it were a delicacy of constitution, and a want of vigour—he may even have tubercles latent in the lungs, without their ever manifesting their existence; merely because he has not been exposed to the exciting causes of the disease; and the offspring of this parent may be scrofulous. But if the descendant of scrofulous parents be vigorous—or if the strumous disposition be counteracted before tubercles are formed, or any organic change takes place—and if he subsequently shows no disposition to scrofula, we cannot readily understand how he can communicate it to his offspring.

Children born of a mother suffering from scrofulous disease at the time of her confinement, have in some cases shown no tendency to the affection: even when the mother has died of it within a short time after their birth.

The essential characteristic of scrofula is the tendency to form tumours, which suppurate and become filled with a matter, which is first pale and watery, but soon becomes thick and yellowish, of a cheesy or curd-like consistence, similar to the strumous or tuberculous matter found in the lungs, and which Dr. Carswell describes, as a pale yellow, or yellowish gray, opaque, unorganised substance; the form, consistence and composition of which vary with the nature of the part in which it is formed, and the period at which it is examined.

These tumours appear in childhood most frequently in the neck in the lymphatic glands, or in the mesentery. At a later period, the breast, the testicles, or the prostate gland, may be affected. The spongy portions of the bones, are next in frequency the seat of scrofula. In childhood, discharges from the ear, from the vagina, and an affection of the eye, are common.

LYMPHATIC GLANDS.—The swelling of these glands may be first detected, when they are no larger than a pea. They are hard, moveable, give no pain when touched, and often continue for a great length of time without any increase. When it does begin, its progress is slow, and it often remains one or two years, hard and

not painful, before the skin inflames. It occupies a gland in the neighbourhood of the lower jaw, and frequently there are many glands affected, forming a chain from ear to ear. Sometimes the swelling subsides by absorption or resolution, but, in general, it has a tendency to soften and produce a whey-like fluid. Sometimes the parotid, sometimes the thyroid gland is thus affected. Encysted tumours are formed containing a whey-like or curdy fluid which is sometimes absorbed; and the glands resume their natural size. Suppuration advances slowly, and when the abscess has burst, a sore is formed with indurated edges, which emits a thin fluid, containing curdy flakes, and occasionally small masses of tuberculous matter. An ulcer is thus formed, which it is difficult to heal, and often continues for a great length of time; or heals in one part and breaks out in another. The cicatrices are wrinkled and irregular, often crossed by projecting bands of skin, and producing much deformity. In its early stage, the gland is hard and firm—it enlarges apparently by a thickening of its cellular structure; and soon becomes penetrated by a great number of vessels, and is redder than natural. The whole structure becomes altered and destroyed, and scrofulous matter is deposited in its place.

At other times, the gland is softened, less uniform in texture, and appears composed of two kinds of matter, one resembling curd, and the other softer, less opaque, and of a light yellow colour. A small quantity of pus is found about the centre. Sometimes there are small abscesses containing scrofulous matter, in the body of the enlarged gland. The matter makes its way to the surface and the gland becomes a large abscess. The covering of the gland next inflames, the inflammation spreads to the surrounding parts, and the whole gland becomes destroyed by suppuration. The suppuration sometimes takes place around the new formed matter of the gland, which may be seen through the aperture, by which the contents of the abscess have been discharged. Heberden says that these glands have sometimes continued diseased for twenty years, without coming to suppuration.

The swelling of the glands in the neck often comes on without any known exciting cause, and unattended with other scrofulous symptoms, but it is often preceded by, or attended with, irritation upon the head, or inflammation of the mucous membrane of the nostrils. The irritation extends thence to the upper lip, and by its continuance produces that thickening which is one of the marks of the disease.

SCROFULOUS MESENTERIC GLANDS.—(Tabes mesenterica). From the period of dentition, until about the tenth or twelfth year, children are liable to an enlargement of the glands of the mesentery, which is generally if not always scrofulous. Next to the glands of the neck, these are said to be most frequently the seat of scrofulous disease. The most marked characteristic of this affection is prominence of the abdomen, attended with emaciation of

the limbs. This sign, however, is not always found, the glands being frequently diseased when there is no decided prominence of the abdomen. Enlarged and even suppurating glands have been met with, where the children have continued in good health and condition until a short time before death. The glands in this situation exhibit the various appearances in the different stages of the disease, that are observed in other parts—from the increase of vascularity, to the formation of pus and of tuberculous matter. Sometimes they are only a little enlarged, reddened, and softer than natural, but otherwise of normal appearance. In other cases, a soft, white, curdy matter, sometimes mixed with pus, is found in them.

Emaciation is the most marked character of the disease: but while the tumours remain indolent, this does not become remarkable. When the glands soften and begin to suppurate, irritation of the abdominal viscera is excited, and a disturbance of the digestive functions induced. The morbid state of the glands probably interferes with the formation of chyle.

The only sure diagnostic of the disease, however, is the perception of the enlarged glands by manual examination, through the walls of the abdomen. This can only be done in an advanced stage.

At an early period it is only to be suspected from circumstances. Any symptoms of intestinal disorder, in scrofulous children, should call attention to these glands. If the patient recovers slowly, is subject to relapses, has a craving appetite and at the same time continues to emaciate, we may suspect an enlargement of the mesenteric glands; especially if these symptoms are attended with fulness and hardness of the belly. The appetite is voracious but capricious, the stools white and chalky, and worms are common.

In the last stage of the disorder, inflammation of the peritoneum and effusion into the abdomen may take place, but inflammation and ulceration of the mucous membrane are more frequent. Pus is frequently found in the stools, and there is constant diarrhœa. The child dies highly emaciated. Tubercles are frequently found in the lungs.

OPHTHALMIA.—Scrofulous children are very liable to inflammation of the tunica conjunctiva. The edges of the eyelids are at first slightly red and thickened; and the secretion of the Meibomian glands increased, so as to glue the lids together during sleep. On everting the lids, we find the conjunctiva covering them somewhat redder than natural, while upon the globe a few red vessels are perceived. As the inflammation increases, the membrane becomes more vascular; the eye watering and very intolerant of light. The latter symptom is remarkable; the patient cannot be prevailed upon to raise her eyes to the light, but walks with her head bent down; and acquires a stooping position, that will indicate the existence of the complaint, even when the face is not seen.

In children, (according to Mackenzie) ninety cases out of one

hundred of ophthalmia, are scrofulous. It is very often the first manifestation of a scrofulous constitution. It is most frequent from the age of weaning to about eight years.

The redness of the conjunctiva is at first slight, and often confined to the lids only; sometimes the vessels running from the conjunctiva to the cornea appear slightly injected; in others, enlarged vessels are perceived: so that in the incipient state the disease is distinguished more by intolerance of light, than by any direct signs of inflammation. There is a strong disposition to the formation of pustules, which appear upon many points of the lids, and in the Meibomian glands run to ulceration and produce great irritation. They also appear in the conjunctiva and cornea, and a pencil of red vessels is developed in each cornea; these pustules open, and an ulcer is formed which is sometimes deep, and penetrates into the substance of, or through the cornea. A general dulness or permanent opacity is also produced, which may end in total blindness. The pustules or ulcers may be absorbed, and then, if upon the cornea, they leave a little cloudiness, but this is absorbed in time. Sometimes, after this is removed, a transparent dimple is left in the cornea, which is long in filling up. In some cases, we see the "albugo begin to spread over the cornea in an irregular manner, pretty considerable red vessels running into it, and additional lymph being supplied to it, so as to form a vascular speck, a very tedious and troublesome symptom."¹ The pustules however often break, and as ulcers become very distressing and formidable. They are very painful, especially upon motion of the lids. The excessive intolerance of light is the most striking feature in the complaint, and sometimes exists almost alone. Sometimes, however, very severe pain is felt during the night, so that the child wakes from sleep in great distress. A spasmodic contraction of the lids, and epiphora, are other common symptoms.

Dr. Maunsell notices an appearance which he thinks has not been described by other writers. This is a removal of a patch of the conjunctiva, which covers the cornea, without producing any opacity. It appears as if a piece had been removed with a sharp chisel. This may continue unaltered for a length of time.

The iris is sometimes the subject of scrofulous inflammation: the choroid and retina still more rarely.

DISCHARGES FROM THE EAR.—The external ear is very frequently affected in children. The lining membrane becomes inflamed and ulcerated, or affected with pustules, which suppurate and produce a chronic discharge of unhealthy and fetid pus. This is always dangerous, as it may cause ulceration of the tympanum, discharge of the auditory bones, and incurable deafness. Sometimes it involves the petrous portion of the temporal bone, penetrates the

¹ Mackenzie.

cavity of the skull, and occasions sudden convulsions, and certain death.

SCROFULOUS DISCHARGES FROM THE VAGINA are of not infrequent occurrence in children, and are liable to be mistaken for gonorrhœa. They consist of purulent, or muco-purulent matter, and are only to be distinguished by an attention to the general appearance and constitution of the child, in whom we shall generally find other marks of the scrofulous diathesis.

Such are the principal parts which are attacked during infancy. Cutaneous affections of the head are very common, and assume every variety. Porrigo seems to be, at least among us, one of the most common forms. We very frequently see scrofulous children, with a constant discharge from the ears—inflamed eyelids, and the head covered with porrigo.

BREASTS.—In females of a more advanced age, both before and after menstruation has occurred, the breast is sometimes affected. Mr. Lloyd speaks of it as rather common. Sir Astley Cooper, whose experience of course is infinitely greater, considers it rare. The natural conclusion is, that the tumours considered scrofulous by Mr. Lloyd and others, are not so considered by him. Dr. Warren has given several cases.¹ He describes it as occurring in young females of slender shape, and weak constitutions, forming a tumour of a flattened rather than rounded shape, smooth on the surface, but irregular on the edges. It is free from tenderness and pain, until suppuration commences. It is of slow growth, and if the patient has good health, and is able to take exercise, it disappears after a time. The skin is not discoloured until after it has begun to suppurate. In some cases it comes on suddenly, inflames, suppurates, and forms a protracted abscess. This often terminates in a fistulous passage, extending deeply into the gland. The production of scrofulous matter must be considered as the test of the nature of the tumour. The gland when first perceived to be affected is a small, hard, moveable lump. It goes through much the same course that has been already described, whilst speaking of the glands of the neck.

TESTICLE.—The testicle is subject to scrofulous enlargement, between the ages of seventeen and twenty-two particularly, in two different ways: either from intestinal absorption in the parenchyma, or from a simple expansion in the natural structure of the gland. It is common for small abscesses containing a curdy matter, to form in the substance of the gland, and continue. The substance of the gland between the different abscesses preserves its density. The matter is contained in cysts. In the second form, the gland becomes entirely absorbed, and its place is supplied with caseous

¹ On Tumours.

matter. Sometimes the tumour is made up of several masses, each mass being covered with a cyst. The coats of the testicle continue unaltered. The pain is not severe, until the coats are attacked. Absorption sometimes takes place, the matter is removed, and the gland resumes its natural size. In other cases, suppuration and absorption go on until the whole gland is removed. Sometimes both testicles disappear. Sometimes a superficial abscess forms, and after a time the testicle resumes its natural size. Sometimes fistulæ are formed. When the matter has come away the abscess heals.

PROSTATE.—This is also subject to scrofulous enlargement and disease. Dr. Baillie found it, in some cases, converted into a fleshy tumour, with abscesses in the centre. In young men it sometimes becomes enormously enlarged. It is attended with irritation of the urethra and bladder, stricture of the urethra, &c.

BONES.—Scrofula, as has been already mentioned, attacks the spongy portions of the bones, such as the heads of the long bones, the bones of the carpi, tarsi, and the bodies of the vertebræ. The vascularity of the affected bone is at first increased; while the earthy matter becomes less. At first, a transparent fluid, and afterwards a cheesy matter, is deposited in the cancelli. The disease often commences in the centre, and the exterior remains hard. Vessels carrying red blood are sometimes seen extending into the cartilage. The cartilage ulcerates in spots, the ulceration beginning on the surface, in contact with the bones, and proceeding slowly. A portion of the diseased bone sometimes exfoliates. As the disease advances, serum and afterwards coagulable lymph, is effused into the cellular membrane about the joint, and produces a puffy elastic swelling, which subsequently becomes œdematous. Then the ligament inflames and ulcerates, the synovial membrane is destroyed in the same manner, and the matter finds its way to the exterior, producing numerous and circuitous sinuses in the neighbouring soft parts. In some cases exfoliation of nearly the whole cartilage takes place, instead of ulceration. Sometimes the disease goes on in the shaft of a cylindrical bone; so that the tibia or the fibula is found converted in its middle into a thin shell of earthy matter, enclosing an unusually large medullary canal. In the last stage of the disease, the bones not only lose the vascularity they have acquired, but that which is natural to them. This is probably the cause of the exfoliations, which sometimes occur, especially in the small bones. In the bones of the fingers and toes, half of the bone sometimes dies away and exfoliates, owing to the diminished supply of blood.

This disease of the bones sometimes occurs in mature life, persons up to the age of forty being occasionally its subjects.

The first symptom perceived is a weakness in the part. Then a dull heavy pain comes on unattended by swelling, and not increased

by motion ; except when the part affected is the knee, hip, or ankle joint. In that case, long standing, or walking for a length of time, increases the pain. Swelling next occurs, producing a fulness about the parts. The soft parts next swell. The swelling is so hard that the head of the bone seems to be enlarged. It has a peculiar rounded appearance, and the skin covering it is tense, smooth, and transparent, the veins being frequently visible beneath. There is now more pain, but still not any of much consequence. It amounts rather to a sensation of uneasiness, than to actual pain. In childhood, the swelling is at first firmer and more circumscribed, than in the adult. The swelling is often the first thing perceived by the nurse. When attention is attracted to it, if the disease is seated in the lower limbs, the child will be observed to limp occasionally, and sometimes complain of pain. The swelling increases, it is puffy and elastic, and greater when the limb has been much exercised. As ulceration goes on in the cartilages, the pain is somewhat but not materially increased. The pain is not severe until an abscess has formed, and the parts over it have become distended and inflamed. The skin then assumes a purple colour. The abscess is slow in its progress, and when opened, or when it bursts, is found to contain a thin pus, with portions of curdy matter floating in it. As the discharge grows less in quantity, it is thicker in consistence, until it assumes the same appearance as the matter found in scrofulous glands. Sometimes the matter forms sinuses, opening at a distance from the joint, and continuing open. From these apertures small pieces of bone are frequently discharged. In most cases, several abscesses form in succession.

The disease may go on for months without creating any constitutional disturbance. In other cases, hectic fever arises, and unless amputation is performed, the patient sinks under it. In others, a curative action arises, and the bones become ankylosed. Unless the disease is arrested early, the cure is always slow and difficult. In the small bones of the hands and feet, it is always more difficult, in consequence of the number which compose the joints.

This affection is distinguished from ulceration of the cartilage, by absence from pain. The patient does not suffer much, excepting when the abscess is just presenting beneath the skin, and its bursting affords immediate relief. At other times there is not much pain, unless from the irritation produced, when a small piece of bone exfoliates, and becomes loose, giving pain by its pressure upon the soft parts. The marks of scrofula in other parts of the system generally assist in the diagnosis ; as does the general appearance of the patient.

In the superficial joints, as the knee and ankle, the character of the swelling assists in the diagnosis. In children, previously to the formation of abscess, it is limited to the immediate vicinity of the affected parts, and has a definite margin. The child commonly keeps the knee somewhat bent, and the condyles of the femur are

seen globular and projecting, and apparently, though not actually, enlarged. This appearance is very characteristic.

In the commencement of the disease, Sir A. Cooper considers that the synovial membrane is first attacked.¹ Sir B. Brodie holds, that the cartilages are attacked before the synovial membrane.

HIP JOINT.—Scrofulous disease of this joint is so important, and at the same time its diagnosis is so difficult, that it demands particular consideration. It commences in the long structures; occurs most frequently in children, and is rare after the age of twenty-five. Those children who are most frequently the subjects of it have fair complexions, light hair, blue eyes, and large pupils, and are delicate and precocious. Examined at an early period of the disease, the end of the bone is found altered and softened, so that it can be cut with a knife. The ligaments and cartilages are then quite sound. The cancellous structure of the bone is unnaturally vascular, and a quantity of serous fluid is found in the cancelli. But in more advanced stages the bones become so soft, that they can be crushed together by pinching them with the fingers. They are now less vascular than natural, and a yellow cheesy matter fills the cancelli. This vascularity of the bone goes on diminishing; and in some parts the vessels become so much obliterated that the bone exfoliates. The surface of the bone communicates the disease to the cartilage with which it is in contact. The cartilage loses its firm adhesion, and remains so loosely attached that it may be peeled off with the fingers; and a red vascular surface is observed underneath, which is left a little rough. Ulceration of the cartilage next occurs. It begins on the surface towards the bone, and as it is eaten away, the space formed is filled with coagulated lymph, which becomes organised. Ulceration penetrates a small opening, through which a probe may be passed; it then extends in every direction, and ultimately the cartilage becomes every where destroyed. As the disease progresses, suppuration is established in the joint, but ulceration often goes on to a great extent without the formation of abscess.

SYMPTOMS.—The most remarkable symptom is the small quantity of pain that is felt for a long time. This appears to be seated not in the hip, but in the knee joint. The disease often exists in both hips, while no symptoms are discovered, except in one, until after death. The pain never becomes great, until an abscess forms, which sometimes takes place on the inside of the thigh; sometimes backwards, behind the little trochanter, sometimes under the nates; and sometimes through the acetabulum into the pelvis, or into the vagina, rectum, or bladder. The limb is at first apparently lengthened, from the parietes being depressed on the diseased side; but it

¹ Lloyd on Scrofula, Sir B. Brodie's Clinical Lecture.—Med. Gazette. A. Cooper.

afterwards becomes shortened, in consequence of the destruction of the cervix. The toes turn outwards, while the thigh may remain in a line with the trunk.

The first thing that attracts attention is generally a slight degree of lameness. The motion of the joint is impeded; extension is performed with difficulty, and the heel of the diseased side scarcely rests on the ground. There is great difficulty in flexion. When the child attempts to stoop, he bends only the sound knee. If desired to raise his foot to a chair, the effort is so painful that he cannot accomplish it. The rotation of the joint, especially rotation inwards, is impeded. In examining a patient, he should be placed on his back, and the sides of the pelvis compared. That on the diseased side will be found lowest. Bending the knee towards the abdomen gives pain. Great pain is produced by rotation. The patient must then be turned upon his face, and the nates examined. They will generally be found an inch lower on the diseased, than on the sound side. If a line is drawn from the spinous process of the ilium, from one side to the other, there will be a difference of an inch or more.

Dislocation of the limb, upwards or outwards, occasionally takes place. The cavity of the acetabulum is filled up with lymph or pus, or both together. The capsular ligament of the joint in consequence is dilated; the patient having undergone a great deal of suffering from the tense state of the capsule previously. The round ligament is next destroyed by the ulceration, that has already consumed the cartilage. The head of the femur is pushed out of the joint, until it passes beyond the acetabulum, and lodges itself on the dorsum of the ilium. Sometimes, when the head of the femur is dislocated, it will be nearly entire; in other cases, it is partly absorbed. The dislocation taking place in the direction in which the cartilages are destroyed, and being upwards and outwards, the limb is much shortened, and the toes turned inwards. The position in which the child lies, with his knees turned inwards, so as to cross the sound limb, favours the escape of the os femoris, and also the remains of the neck when the head has been destroyed. Sometimes the dislocation takes place in a different direction. Brodie mentions one case of dislocation forward, in which the head of the femur rested upon the pubes. Dislocation is attended with very great danger, and with great increase of the sufferings of the patient. The head or ulcerated neck of the femur, constantly pressing upon the soft parts, produces great irritation.

On dissection, a quantity of adhesive matter is poured out about the joints; the ligaments are much thickened, the synovial surface is inflamed, and often slightly ulcerated; cartilages of the joint ulcerated, and the bone itself sometimes absorbed, not only the head but the acetabulum. Abscesses are frequent; taking different directions, generally down the thigh, between the trochanters and the outer surface. Sometimes they are found in the direction of

the femoral artery, and by their pressure occasion the absorption of a considerable portion of the vessel.

The exciting cause of this disease is generally too much exertion; too long a walk for instance.

SPINE.—Mr. Lloyd describes two forms of scrofulous disease of the spine. The *angular*, and the *lateral* curvature. The former is the principal and the worst, since it arises from the destruction of one or more vertebræ. The body of the vertebræ is destroyed by the same sort of action, that has already been described as taking place in the cancellous structure of the other bones; scrofulous matter being first deposited, and the earthy portion absorbed, leaving, however, the back part of the bone untouched. Hence, incurvation takes place forward, and there is a projection behind. It sometimes begins in the intervertebral substance, sometimes in the bone itself; but, according to Sir B. Brodie, most frequently in the intervertebral cartilage, and at the place where this cartilage is connected with the bone. It is first manifested by the child's complaining of a fixed pain in the spine, which extends down on each side in the direction of the nerves arising from the spinal marrow. There are weakness and pain in the back, pain on the sides, more on one side than the other, and the nerves arising from the spinal marrow, are inflamed in consequence of pressure upon it. The membranes of this chord, sometimes become affected with chronic inflammation, which may extend to the chord itself. The curvature produces a projection of one, two, or three of the spinous processes beyond the others, and the chord becomes incurvated with the spine, and often so much compressed as to prevent the proper performance of its functions. The lower extremities usually become affected, sensibility is diminished, and the muscles lose a portion of their voluntary power. The child is apt to fall down, in consequence of a loss of power in the muscles. The case differs from paralysis, because the powers are not entirely lost, but impaired, and there are spasmodic contractions of the limbs. The patient sits with his limbs drawn under him, and his heels drawn up towards the nates, and there are besides spasmodic twitchings of the limbs. If the lumbar and dorsal vertebræ are affected, there will be difficulty in discharging the urine, and the fæces will at length pass involuntarily. When the disease is in the cervical vertebræ, the head is the only part that retains its power—with the exception of the vital organs: volition is lost in all parts below the seat of the disease.

Mr. Lloyd affirms that there is one local symptom, that invariably precedes spinal curvature, to wit,—the wasting of the muscles of the back. This is evinced in children by their keeping their head bent forward more than natural; by their holding one shoulder raised above the other, and by their disposition to lean or recline when sitting down. In the lateral curvature, there is generally no destruction of parts, but only an alteration of structure.

The connections between the different bones become loosened and relaxed; and when attention is first called to the complaint, the spine is found curved in the form of an S. The elevation of one shoulder above the other is the first indication of the complaint.

The cure of spinal disease of a scrofulous nature, is accomplished by anchylosis forming from the deposition of new bone, or by the union of the upper and lower surfaces of the bone with each other.

On dissection, the vertebræ are sometimes found partially or wholly destroyed. Occasionally, four or five, or more vertebræ are absorbed. This absorption is the effect of pressure upon the spinal canal. The canal becomes larger, opposite the part at which the vertebræ first give way. When it is cured, the canal is largest opposite the place where the vertebræ have been absorbed.

Disease of the spine very frequently gives rise to psoas, and lumbar abscesses, which frequently occasion a very considerable loss of substance.

PSOAS AND LUMBAR ABSCESS.—This often proceeds as above mentioned from disease of the spine. It commences in the ligaments, between these and the surface of the intervening substance. It is often merely an abscess from the above mentioned disease, arising in inflammation of the spine, and the intervertebral substance. The matter spreads until it reaches the origin of the psoas muscle, which ulcerates and forms a bag surrounded by a complete ring. Its symptoms are pain in the loins of several months' standing, and difficulty in extending the thigh. If the patient brings his legs together, he feels pain and tightness in the groins, and increased pain in attempting to bend the limb, in consequence of stretching the psoas muscle. It is liable to be confounded with femoral hernia, from which it is to be distinguished principally by the pain in the loins, and great constitutional disturbance. If the abscess forms upon the side of the vertebræ, instead of the fore part of the limb, it is termed *lumbar abscess*.

RACHITIS.—This is commonly preceded by disease of the mesenteric glands. The abdomen is increased in size, while the rest of the body becomes emaciated, the cheeks wan or sallow, and somewhat tumefied. While the emaciation of the body is going on, the head becomes enlarged, so that it may be mistaken for hydrocephalus. This is owing to the softened state of the bones, which are incapable of supporting the action of the arteries of the brain, which push them outwards. The head and forehead are high and expanded, the chin prominent. The sides of the face are brought together, and the whole of the features altered. The spine becomes curved under the weight it has to support, and nature, in endeavouring to restore the perpendicular, makes a second curve. The scapula is projected. The form of the spine and of the ribs is altered. The spine is now curved in two directions. The ribs

are more curved upon one side than the other. The anterior part of the chest is extremely projected. The sternum is sunk between the cartilages of the ribs, and sometimes projects so as to form a ridge. The bones of the limbs also become curved. Absorption at length takes place, and nothing but cartilage is left. The humerus looks as if it had been broken by a fall. The joints are loose and spongy, and keep pace with the head in swelling. There is deficiency of phosphate of lime, throughout all the osseous system, in consequence, as Sir A. Cooper considers it, of a want of power in the circulating system.

SCROFULOUS DISEASE OF THE LUNGS.—Scrofula, as is well known, shows itself in the lungs by the production of tubercles. Writers describe three forms of these bodies, which are probably merely different stages of the same. In proceeding from below upwards, they are found in the following order. First, gray semi-transparent granulations. Secondly; granulations more opaque, and yellowish towards the centre, and, thirdly; granulations of a yellowish white, in their whole extent, that is to say, completely tuberculous. The gray granulations are supposed, by some, to be the primary form of tubercles.

The seat of election of tuberculous matter has been proved by Carswell, to be the free surface of the mucous membrane—not the cellular membrane, as was formerly supposed. It can be detected in the blood, in the cells of the spleen, the structure of which organ is particularly favourable for its manifestation. He considers it therefore as a morbid constituent of the blood, which is separated from it by secretion. “The mucous secretion of the lining membrane of the air cells accumulates where it is formed; but it is not pure mucus; it contains a quantity of tuberculous matter, mixed up with it, which after a certain time is separated, and generally appears in the form of a dull, yellow, opaque point, occupying the centre of the gray, semi-transparent, and sometimes inspissated mucus.” This is seen in tubercular peritonitis. When we examine the peritoneum in this disease, the three following stages are well marked. “First, on one portion is a quantity of recently effused, coagulable lymph. Secondly, on another we find the same plastic, semi-transparent substance, partly organised, and including within it, or surrounding, a globular mass of tuberculous matter. Lastly, on another part the coagulating lymph is found converted into a vascular or pale cellular tissue, covered by an accidental serous membrane, beneath which, and external to the peritoneal or original secreting surface, the tuberculous matter is secreted, having the form of a round granular eminence, and resembling in colour and consistence, pale, firm cheese.”

The tuberculous matter originates then in a process similar to that of secretion. It is a “pale, yellow, or yellowish gray, unorganised substance, the form, consistence, and composition of which vary with the nature of the part in which and the period at which

it is examined." It is composed of albumen four parts; gelatine two parts; fibrine eight parts, water (or loss) six parts.¹ One hundred parts of crude pulmonary tubercle were found by Thénard to contain animal matter 88.15; muriate of soda, phosphate of lime, carbonate of lime, 11.85; and some traces of oxide of iron.

Either from the nature of the constituents of tuberculous matter, or the mode in which they are combined, they are insusceptible of organisation.

The softening of the tuberculous matter takes place from the circumference, and is merely a consequence of the changes excited in the living tissues around the tubercle. The parts in contact pour out serosity, and take on an ulcerative action, by which the tuberculous matter is softened and expectorated, leaving in its place a cavity, which, by the successive softening and expectoration of contiguous tubercular masses, becomes gradually increased in size.

According to M. Rochoux, the gray semi-transparent granulations, of the size of a millet seed, are not the primary but the secondary stage of pulmonary tubercles. On examining the lung in the immediate vicinity of a dense and opaque tubercle, at a superficial glance the lung appears perfectly sound, but when it is observed more closely, it will be found to contain tubercles in what is really their incipient state. According to M. Rochoux, an incipient tubercle is a small gelatinous body, not more than the tenth of a line in diameter, of a pearly lustre, and presenting all the intermediate shades of colour between pearly gray and that of jelly slightly tinged red. It does not contain the slightest trace of blood-vessels. When a tenth of a line in size, they adhere to the surrounding tissue by numerous filaments. In the opinion of the same observer, they increase by successive degenerations from the healthy structure by a morbid action of the formative function of the part. As the older structure is absorbed, that formed in its place is tuberculous. When blood vessels are found in it, they belong to the interstitial cellular membrane.

It is not our intention, nor would it be in place, to go into the consideration of tuberculous consumption. As the formation of tubercles and of tuberculous or scrofulous matter, is an essential feature in the disease or diathesis under consideration, some examination into the nature of this production was thought necessary. It does not appear that this is essentially different from that of scrofulous matter formed elsewhere. It seems to be the same substance modified in its appearance and manner of deposition, by the structure in which it is seated. In every part of the body, however according to Dr. Carswell, it prefers the mucous tissue.

HEART.—Scrofulous swellings and tubercles have rarely been found in the heart. Wiseman mentions a swelling, weighing two ounces, which was attached to the apex of this organ. In a few

¹ Hecht.

cases, tuberculous matter has been found in the intermuscular cellular tissue. In the phthisical patients examined by Louis, the heart was found not more than one half or two thirds its usual size.

LIVER.—Tubercles are not common in the liver. The most frequent alteration of this organ consists in its conversion into the fatty substance that has already been alluded to. Out of forty-nine examples of this fatty degeneration and enlargement, M. Louis found forty-seven in phthisical subjects. Louis only twice met with tuberculous deposition in the liver. Dr. Carswell says it is by no means rare to find this organ affected with tubercles in children, though very seldom in adults.

PANCREAS.—Wiseman gives one instance of abscess in the pancreas. Dr. Carswell says he has never seen tubercles in this organ. M. Lombard found them in five out of a hundred cases, in children who died tuberculous.

SPLEEN.—According to Dr. Carswell, this organ in children is frequently the seat of tuberculous deposition, but in adults this is rarely the case. Louis found tubercles in seven out of ninety cases. Mr. Lloyd says they generally acquire a larger size than in the lungs, perhaps owing to their not being so liable to induce suppuration. Sometimes they are very numerous, of the smallest size, and diffused through the whole gland.

INTESTINES.—The small intestines are of all organs most frequently affected with tubercles, at every period of life. They are often completely studded with them. Ulcerations of the mucous follicles and of the surrounding mucous and cellular textures, were found by Louis in five sixths of the cases he examined. These are preceded by enlargement and induration of the two sets of glands, forming hard, white, cartilaginous granulations, as well as tubercles. The large intestines are found affected in a similar manner as the small, with the exception of the cartilaginous granulations, which are not found.

KIDNEYS.—These are very subject to scrofulous action. Tubercles are common, and sometimes exist in great numbers; both kidneys being usually affected, when the deposition has taken place in either. Sometimes the whole kidney has been destroyed, leaving nothing but a bag in its place. M. Louis found the kidney affected in about one half of those who died of phthisis.

BRAIN.—Abscesses sometimes occur in the brain and create so little disturbance, that they have been found on examination after death, in subjects who have shown no marks of cerebral irritation during life. Lloyd mentions a case in which several small tubercles, and an abscess the size of a pigeon's egg, was found in the

brain of a young man who died suddenly, without having shown any particular signs of affection of the head during life. Tubercles are not uncommon. They are more frequent in the cerebellum, than in the cerebrum. The spinal chord is sometimes the seat of these depositions, the cervical part being generally preferred. In a few cases they have been found in the lumbar portion. According to Dr. Carswell, tubercles are found in infants, in the cerebrum, and in the cerebellum, oftener than in older children, and in the latter more frequently than in adults.

TREATMENT.

Every age laughs at the follies of that which has preceded it. While the wonders and pretensions of alchemy were regarded with contempt in the age of Charles II., and even astrology began to grow out of favour, the age of animal magnetism and homœopathy is disposed to ridicule without mercy the credulity of those who trusted in the power of the Royal Touch.

Are those who believe in the power of specifics, who bring forward new medicines, or revive old ones, for the cure of any particular disease—who waste time, paper, and ink, in setting forth to the medical world the merits of their favourite specific—and who hold that they have detected the grand arcanum, which in some manner, they cannot tell how, is suddenly and infallibly to banish the disease for which they recommend it;—are these men, intelligent, talented, experienced though they may be, one whit wiser than those who formerly wasted their lives in the pursuit of the elixir vitæ?

We have already undertaken to show that the royal touch might have been efficacious upon principles which do not require miraculous agency for their explanation. In the same manner may be explained Dr. Warren's case, illustrating the efficacy of the imagination in the removal of a tumour by the touch of a dead man's hand. The awe excited by the idea of this remedy was probably much the same as that produced by the royal touch; the belief in the certainty of the cure was doubtless complete, (faith being an indispensable requisite in all such cases,) and the subject was dwelt upon for a long time both before and after, producing an impression upon the mind, which could not fail to act powerfully as an alterative and stimulant upon the whole system. Whoever devised this remedy, therefore, was wiser than we should be at first disposed to think him. As the divinity which was formerly supposed to encircle the person of a king, has departed, a dead man's hand, to a person unfamiliar with death, was the best succedaneum. It is very possible that we might find as much wisdom, or *cunning*,

if the term seems preferable, in other superstitions, could we trace them to their origin. As long as a cure was actually accomplished, the end was answered equally well, whether it was done by a medicine or a charm. Even now we are indebted for half the efficacy of our medicines to the faith of the patient. Confidence in the skill of the physician is half the battle. Could we acquire the faculty of operating upon, and controlling the emotions of the mind, we should have at our command more powerful stimulants, alteratives, and tonics, than any the pharmacopœia can furnish. Animal magnetism would give us this power, if the public had but a little more faith, or a little less curiosity—if they would be content with witnessing effects, instead of inquiring too closely into causes.

Upon principles not very different from those which have been alluded to, to wit: the action of the royal touch, animal magnetism, &c.; the grand remedy for the cure of the scrofulous diathesis, the one of most general and proved efficacy—is the removal into the country, or to the sea shore. The excitement of change, the entire alteration of habits, the exhibition of new objects to the mind, of interest and occupation, apart from the effects of pure air and sea bathing, tend to arouse the energies of the system, to excite the appetite, and quicken the circulation. But it is not our present purpose to discuss this remedy. We return to specifics, and to the particular specific for scrofula—*iodine*.

Since the discovery of this mineral, it has been employed universally in this, and occasionally in other diseases; but in this, its use has been general, and it continues as almost an essential prescription. Were it possible to estimate the amount of mischief that has been done by the use of this powerful drug, it would probably be found far greater than that of good that will ever be derived from its employment. But the same remark may apply to arsenic, mercury, antimony, &c.

The best conducted and longest continued series of experiments upon the effects of iodine, seem to be those of M. Lugol. He at first employed it dissolved in water. Half a grain, two thirds of a grain, and a grain, were put into three several quantities of a pound of distilled water each, so as to form three preparations of different degrees of strength; and to these he gave the names of mineral solutions, No. 1, 2, and 3. The commencing dose was half a grain taken daily.

He found the external effects of iodine to consist in a sensation of pricking or smarting. The internal use increased the appetite to such a degree that the hospital allowance of food was insufficient. It acted as a powerful diuretic, often as a purgative, sometimes producing colicky pains. In some instances there was a remarkable degree of salivation, both from its external and internal use. The pains to which it gave rise were appeased by quinine. Far from producing emaciation, he says, it is a powerful stimulant, which revives the organic functions, fortifies the general constitution,

and encourages the growth and increase of size. The general results obtained in the treatment of scrofulous females were as follows :

1. That thin females have acquired a state of *embonpoint*.
2. That corpulent women have not become emaciated.
3. That those in the middle state have lost nothing, but gained increased strength and improved health.

In his first memoir, published in 1829, M. Lugol gives thirteen cases of scrofulous disease of various parts of the body, in which iodine was employed, both externally and internally, with great success.

In his second memoir, he gives an account of his invention of ioduretted baths. He employed troughs of wood as better adapted than metal to resist the action of the mineral. He dissolved six drams of the hydriodate of potash, with three drams of iodine, in twenty ounces of distilled water. This was added to the quantity of water necessary to a bath. It does not appear that the effect of these baths differed from that of the substance applied externally in other forms ; only that from the whole surface of the body being exposed to it at once, its action was of course more speedy and more general.

The report of M. M. Magendie and Dumeril in 1831, upon M. Lugol's treatment, is very favourable. They say, "not only have we witnessed the cure of scrofula, in the first and second degree, but we have also seen the successful treatment of the disease in the most aggravated forms."

"Deep seated alterations of the glands, and various other organs, serious lesions of the bones, and their principal articulations, accompanied by the general symptoms which forebode a speedy death, have been perfectly cured in a great number of cases, in the space of a few months, leaving the patient in the best possible state, and free from every vestige of the malady, except the ineffaceable scars it had originally effected. Moreover these results are rendered still more valuable by the fact that the majority of cases subjected to M. Lugol's practice, were previously in a desperate state, and only admitted into his wards, as deplorable examples of the ravages of an irremediable disease."

Subsequently to the publication of his first memoir, M. Lugol abandoned the preparations above mentioned, and gave the iodine with hydriodate of potass, as follows :

	No. 1.	No. 2.	No. 3.
R. Iodin.	gr. $\frac{3}{4}$,	gr. 1,	gr. 1 $\frac{1}{4}$.
Potass. Hydriod.	gr. iss,	gr. ij,	gr. iiss.
Aquæ Distillat.	ζ vij,	ζ vij,	ζ vij. M.

Of this he gives half a grain daily on commencing. In the second fortnight he gives the entire of No. 1, that is three quarters of a grain daily. During the fourth fortnight, or in the beginning of the fifth, he gives a grain daily, and continues this to the end of the

treatment. Sometimes he has increased it to one grain and a quarter, and still more rarely to one grain and a half. Another formula of his for a concentrated solution is as follows :

R. Iodin. *scr. i.*
 Potass. Hydriod. *scr. ij.*
 Aquæ Distillat. ζ vij. M.

This mixed with sixteen pounds of distilled water, forms thirty-two bottles of half a pint each of mineral water No. 1. It is also given in doses of six drops, morning and afternoon, in half a glass of water, flavoured with sugar. Every week the daily dose is increased by two drops. For children under seven years, two drops twice daily, gradually increased to five drops. From the age of seven to fourteen, sixteen drops are given twice daily.

His external applications consist in an ointment of iodine and the hydriodate of potass, in the proportion of twelve grains of the former, and two scruples of the latter, to two ounces of lard:—an ointment of the proto-ioduret of mercury of two, three, and four scruples to two ounces of fresh lard:—a solution of four grains of hydriodate of potass, and two of iodine to a pound of distilled water, and for the second and third degrees of strength six and eight grains of the hydriodate, with three and four grains of iodine to a pound of water.

M. Lugol gives also a formula for a rubefacient solution of four drachms of iodine, an ounce of the hydriodate of potass, to six ounces of distilled water, by adding which to a sufficient quantity of warm water, the local ioduretted baths are formed; and one for caustic iodine, composed of one ounce of iodine, and one ounce of the hydriodate, mixed with two ounces of distilled water. This produces small scars.

The good effects of iodine have been confirmed in the work of M. Baudelocque, who published, in 1834, the results of its employment at the Children's Hospital in Paris, and by M. Eager in the Dublin Journal for the same year, who witnessed its results in both hospitals; (viz. the Children's Hospital, and Hospital of St. Louis, where M. Lugol attended,) and by numerous other writers.

That benefits have resulted from the employment of this medicine, we think is sufficiently proved by the fact of its continuing so long and so generally in use for this disease. It certainly has not invariably produced the good effects which it appears to have done in the practice of M. Lugol. Dr. Warren, after long trial of it, both in hospital and private practice, seems to consider it as nearly nugatory in its effects as a remedy in scrofula. His reviewer in the Medico-chirurgical expresses his approbation of Dr. Warren's sentiments, and bears his testimony to the degree in which the powers of iodine have been overrated. He says, "because some forms of scrofula have been benefited by iodine, this has been employed in all cases of scrofula, to the neglect of those old and approved measures, stamped as beneficial by established uses, and long continued general assent."

Sir Astley Cooper¹ says in his lectures, "you may lay it down as an axiom, that there is no specific for the cure of scrofula; and he that says there is, attempts to gull mankind by the assertion of what is not true."

These remarks, however, apply to the use of iodine as a specific—as a substitute for all other remedies and modes of treatment; not to its employment in aid of other remedial means, and with more moderate anticipations. We may observe also, that a patient in the wards of a hospital, or residing in a crowded city, is not favourably situated for his cure. M. Lugol employed exercise in the treatment of his patients; but in general, exercise, fresh air, and mental recreation, are not accessible in either of the situations we have referred to.

Sir James Clark, and Dr. Todd, speak favourably of iodine in the treatment of scrofula. The former says, that we are better acquainted with the management of mercury than of iodine, but the operation of iodine appears to be more general. Its action on the uterine system is decided. On the secreting functions of the liver and kidneys, its operation is evident, and it appears to promote the insensible perspiration. It thus diminishes abdominal plethora, promoting the activity of the eliminative functions, and through them of the assimilative. Its beneficial effects upon strumous constitutions, he adds, are undoubted. Under its influence, when judiciously employed, the patient recovers flesh, strength and colour; hitherto pale and feeble, he becomes full, strong and florid; glandular swellings disappear, or are greatly reduced, and the limbs restored to their natural size, and the condition of the whole animal economy is greatly improved.

It is remarkable that some writers consider iodine a tonic, while others, as Dr. Todd, believe it to act especially upon the liver, and as in fact an alterative. Some other medicines are in the same predicament. Mercury is esteemed by some a tonic; while the writer we have just mentioned attributes the favourable effects of the chalybeates in scrofula, not to their tonic, but to their alterative powers. With regard to iodine, from its resemblance in its effects to mercury, from its occasionally producing salivation, &c. we incline to consider it an alterative. That it is not always a tonic, is very certain. We may conclude then, in regard to this drug, that if given as an adjunct to other measures of treatment, with proper precautions, and under proper circumstances, it may be useful, and we would give it in the manner recommended by Dr. Todd, and approved of by Sir J. Clark. This will be described hereafter.

The principles upon which the treatment of scrofula should be founded, are, according to Sir Astley Cooper, 1st. To make better blood. 2d. To strengthen the solids. 3d. To give vigorous action to the circulation. Those laid down by Dr. Todd for the treatment of strumous dyspepsia, are—

¹ Lancet. A. Cooper's Lectures.

1st. To correct the morbid constitution of the body which constitutes the essential foundation of the disease.

2d. To render the function of digestion easy of performance by a regulation of diet suited to the nature of the disease.

3d. To improve the general tone and strength of the system.

The action of the heart and arteries is naturally feeble, the serum of the blood preponderates, whilst the fibrous portion is deficient in quantity: the first object therefore is to make better blood, and without this nothing will be of any avail. The next thing is to strengthen the solids, and give a vigorous action to the circulating system. For the first of these objects, Sir A. Cooper recommends animal food in small quantities, and often. At breakfast between eight and nine, he allows an egg, or a little meat. At 12, a sandwich. Meat at dinner at 3 P. M. He recommends also a glass of good beer or a glass of wine. Water he considers not good; the stomach is imperfectly supplied with gastric juice, and therefore requires to be stimulated. Rest should be taken after eating. For the second object exercise is very important. He mentions having seen at least five hundred cases within a year, and often ten a day, and scarcely a boy among them. Boys he says will take exercise, girls are not allowed to. Without good air, all other means are useless. Air, exercise, nourishment, are the three great points. Medicine, Sir Astley considers as occasionally useful, with a view to improve the digestive powers, and regulate the secretions. From three to five grains of the carbonate of iron, with two grains of rhubarb, may be given to children daily for a short time. Two grains of rhubarb, with from four to six grains of dried sub-carbonate of soda, and ten grains of columba, taken with sugar, is a good preparation for the same purpose. Chamomile infusion with hydrarg. cum cretâ, taken at bed time; or one grain of corrosive sublimate in two ounces of tincture of bark, a teaspoonful twice a day in a glass of chamomile tea. When the bowels are costive, rhubarb may be given instead of bark. The child should be well clothed and wear flannel. A bath of sea water when practicable may be taken three times a week at eleven in the morning. The temperature of the bath should be ninety-four degrees, and it may remain in from sixteen to twenty minutes; after which a walk should be taken. A child may be brought to bear the bath by sprinkling it with tepid water daily. This is the treatment of Sir Astley Cooper.

Dr. Todd advises the application of a few leeches, when there is much tenderness of the right hypochondrium, with febrile excitement and a red and dry tongue. He advises an antiphlogistic diet during the presence of these symptoms, with small but repeated doses of the nitrate of potass, to be given occasionally in a saline solution, or in a carminative or bitter infusion, according to circumstances. Dr. S. speaks highly of the nitrate of potass, which is recommended by Wilson Philip. He considers it partly a substitute

for mercury, and by combining it with mercury less of the latter is required. Mercury, Dr. Todd considers as the safest remedy in scrofula. It should be given only in intermitted doses, and not allowed to affect the system. Hydrarg. cum cretâ may be given combined with Dover's powder, when the bowels are too free, or with nitrate of potass, or ext. aloes, when they are confined. In either case it should be followed every morning or every second morning with a teaspoonful of castor oil, electuary of cassia, or sena, or a small dose of sulphate of potass. The mercurial action is promoted by a course of taraxacum or of sarsaparilla. The advantages of mercury, Dr. T. says, are obtained more permanently and effectually by the use of iodine. Where there is no inflammation of the mucous membrane, or but very slight, he considers iodine preferable. Where there is any scorbutic tendency, it is decidedly contraindicated. It should be commenced in small doses, and invariably intermitted for a few days, to guard against any bad effects from its continued use. Dr. T. thinks it probable that the muriate of lime has a similar effect. When the mucous surfaces admit of the employment of chalybeates, they are of great power, and correct the congestion of the abdominal organs. Ferrum tartarisatum alone, or qualified by mixing it with small doses of carbonate of iron, nitrate or sulphate of potass, or still better by giving them in chalybeate water, will be beneficial. Iodine combined with chalybeates Dr. T. considers highly useful: as in the following—

R. Tr. ferri muriat.
Tr. iodini. aa ʒij.
Aquæ puræ ʒss. M.

Thirty drops of this mixture, three times a day.

Upon the whole, it may not be difficult to reconcile the plans of treatment recommended by Sir A. Cooper and Dr. Todd, especially if we consider that Sir Astley refers to a more advanced stage of the disease than the strumous dyspepsia of Dr. Todd, in which there is no inflammation present. The principal difference consists in Sir Astley Cooper's enforcing a meat diet, with wine or porter, whereas Dr. Todd, Sir James Clark, Dr. Maunsell, and other recent writers, positively forbid the use of wine and other stimulants; and confine the patient, in the first stages, to an antiphlogistic diet with water, barley water, or toast and water, for drink, until the difficulty of the abdominal organs is removed.

Sir James Clark and Dr. Todd have been the first to call the attention of medical men particularly to that state of the digestive organs which they consider the constant attendant of the strumous or tuberculous constitution.¹ The former declares that the tonic treatment at present adopted, although it may give a temporary degree of strength and tone to the system, very generally tends to augment and confirm the evil it is intended to remove. He considers

¹ On Consumption.

the chalybeates highly useful, but not until the irritation of the gastric system is removed, and the functions of the whole chylopoietic viscera brought into a healthy state. When this has been done, tonics, external and internal, change of air, and other means for exciting and bracing the general system, will prove of the greatest utility. Abernethy's treatment is similar, and may be expressed in very few words, as in his lectures. He directs his patients to go to the sea-side, and attend to the digestive organs. In this short direction, he includes the use of mercury, a nourishing but appropriate diet, and sufficient clothing.

Dr. Todd does not approve of the continuance of an antiphlogistic diet, except during the existence of febrile symptoms. It should never be long continued, and the patient should return to a limited animal diet, which is easy of digestion. As cow's milk seldom agrees well, unless considerably diluted with water, a little beef tea or plain bouillon may be occasionally substituted. Porter, ale, beer and wine, he considers unnecessary, and as better avoided. Fish is very unwholesome.

We are to seek to relieve the congestion of the liver, by increasing the action of the kidneys, by alteratives, and by exciting the cutaneous vessels by a warm sea water bath, by sponging the body with vinegar and water, or salt and water, by the nitro-muriatic lotion, warm clothing and exercise; or when exercise cannot be taken, by friction over the whole surface of the body, for at least half an hour daily. The bowels should be kept open, but not purged.

Chalybeates, as we have already said, will sometimes be required, but the most powerful tonic is unquestionably sea bathing. When it agrees with the patient, that is, when it does not produce languor or chilliness, it will be the most beneficial. The shower bath, cold ablution, exercise in the open air, in a dry healthy atmosphere, either upon the sea shore, or in an elevated country, are the most important points to be attended to. Horseback exercise is of the most advantage, especially for girls who cannot easily obtain sufficient exercise in any other manner. For children, amusing plays and moderate and pleasant occupation of mind should be devised.

One remark of Sir A. Cooper's deserves attention. That the physician who is called in winter loses credit, since the complaint is aggravated on the approach of spring, but subsides during summer. If called in the spring, he will gain credit. In October and November it will become worse, but in winter is better than in the spring.

From the full discussion into which we have entered, with regard to the causes that tend to produce scrofula, where it is not hereditary or congenital; and from what we have now said, we think that our ideas of general treatment of the disease or diathesis, will be sufficiently understood. These are, in brief, that medicinal agents are of little importance in comparison with proper diet, pure air, sufficient exercise and clothing, cleanliness, pure water, sea bathing,

&c. As a substitute for exercise, friction employed for a sufficient time, either with the hand, a flesh brush or a coarse towel, will be useful; but it will not supply the place of fresh air. Where sea water cannot be had, the shower bath, or cold bath, may be substituted, and common salt may be added to the water. The practice of cold ablution which we hope is becoming common among us, is highly advantageous. We consider iodine when used with caution, a useful remedy when an alterative is required. In all cases, the digestive organs must be attended to, and the proper measures taken to restore their healthy action. Where there is much irritability of the mucous coats, mercury will be preferable to iodine. Were we to lay down a general rule, perhaps we should direct mercury to be given in every case, where an alterative was required, because it is more under our control, and we understand its action better. Iodine is hardly yet entitled to any better than the name of an empirical medicine. Nevertheless, there are many cases where it may be used with safety, and with greater advantage than mercury, in consequence of its more general action upon the system.

Sufficient has also been said in regard to the use of iodine for the general condition of the system, to indicate the proper circumstances under which it should be used for local symptoms; we shall not, therefore again return to it, in speaking of the different treatment of the various local forms of scrofula. By M. Lugol and others it is used as a topical application in all these varieties; but the application of iodine to a denuded or delicate surface is unsafe, and its effects as an external remedy are not sufficiently understood, nor its advantages made manifest. If forced to give any rule, as to its external employment, we should say that it might be employed under the same circumstances as mercurial ointment, and we believe that whatever benefit resulted from it, would be attributed to its action upon the system at large.

In every variety of scrofulous affection there can be little use in topical remedies, unless measures are at the same time resorted to for improving the condition of the whole system. Local applications are considered important; but, compared with constitutional treatment, they are of little efficacy. We will briefly allude to the measures resorted to, in the different scrofulous disorders that have been described.

LYMPHATIC GLANDS.—The local applications which we employ in this case, are the same as are used in simple inflammation, or in phlegmonous swelling. Cooling or evaporating lotions, composed of, liq. plumbi. subacet. and spirits of wine, or liq. acet. ammoniæ, are directed, with a view of subduing the inflammation and promoting the resolution of the tumour. As soon as suppuration commences, a poultice should be applied. As these swellings, like other scrofulous appearances, occur most frequently in females, it is a great object to prevent their leaving scars. The moment, therefore, the slightest redness and fluctuation appear, a small opening

should be made with a lancet or a cataract knife. The incision should be made transversely in the direction of the folds of the neck. If the opening is not made until the skin becomes of a livid colour, it is best not to use the knife, but to leave the opening to nature, because it will be too late to derive any advantage from an incision. After opening the abscess, all the matter should be carefully squeezed out. During the suppuration of the tumour, rhubarb and carbonate of soda may be given twice a day, and a small quantity of hydrarg. cum cretâ, three or four times in twenty-four hours. After the abscess has opened, if the wound be indolent and indisposed to heal, a solution of sulphate of zinc, about one scruple to a pint of water, may be employed as a wash or injection.

ULCERS.—In the treatment of scrofulous ulcers, a similar injection may be employed, when it is requisite to excite action, or we may apply a solution of nitrate of silver, or touch the sores with the solid nitrate. A poultice of bread and water, of hemlock leaves, or sea weed, may then be applied. These ulcers are often extremely obstinate, and when they are large will afford the surgeon no trifling degree of perplexity and trouble, and often call for all the resources of his ingenuity; for as they continue for weeks, months, and even years, in nearly the same state, the practitioner will be thought very remiss if he merely perseveres in the same treatment, which has been found inefficacious. For his own credit and the satisfaction of his patient, he must continually vary his treatment, although he may have little to expect, unless some change can be effected in the constitution of the patient. We recollect a formidable case of a large ulcer upon the leg of a female, which for a long time defied every remedy, slowly increased, and threatened to wear out finally the strength of the patient. A consultation was held, and it was determined to remove the limb. When this decision was communicated to her, it produced a great shock, and she opposed it most earnestly. The operation was delayed, and from that moment the limb began to improve. This might have been accidental, but it is also possible that the sudden and powerful impression upon the mind, produced a reaction or a change in the whole system, and effected what all local and general measures had failed to accomplish.

MESENTERIC GLANDS.—The irritation or inflammation of the mucous membrane of the stomach and bowels, or of the glands themselves, is to be removed by antiphlogistic regimen, leeches to the abdomen, and the use of sedative medicines. In all cases, the warm bath and friction over the bowels are useful. Dr. Evanson considers iodine as the principal means of effecting resolution of the enlarged glands. He, however, cautions us against the liability of this medicine to irritate the stomach and bowels, and advises us always to suspend its use when such irritation is present. He gives the concentrated solution of M. Lugol, (vide page 36) in the dose of from one to five drops in sweetened water. When there

is any irritation of the bowels, he prefers the hydriodate of potass, in the quantity of half a grain or a grain, given in the decoction of sarsaparilla—a desert spoonful two or three times a day. A little laudanum or syrup of white poppies added to each dose, lessens the liability to disagree. Dr. Evanson also uses iodine ointment, or an ointment of the hydriodate of lead, ten or fifteen grains to an ounce of lard, which is rubbed upon the skin. The mercurial ointment may be employed in the same manner.

The medicines, especially recommended by Sir Astley Cooper, are one grain of the oxymuriate of mercury, in two ounces of the tincture of bark, or, when the bowels are costive, in the same quantity of tincture of rhubarb; given, as before mentioned, in the dose of a teaspoonful twice a day. He recommends also hydrarg. cum cretâ as an aperient. Where there is much febrile action, antimony and nitre are of great service. Rhubarb may be given with sal. polychrest or sulphate of potass.

As long as febrile or inflammatory action of the system continues, an antiphlogistic diet must be employed, but as soon as this is overcome, animal food may be resumed. Sir A. Cooper, indeed, considers a diet of animal food, prepared so as to be easily digested, the most essential part of the treatment. He also allows wine and water. Evanson and others say, that wine and fermented liquors, if used at all, must be allowed with great caution. The last named writer approves of the use of chalybeates, but thinks them inferior to iodine and its compounds, which he regards as tonics.

OPHTHALMIA.—In commencing the treatment of scrofulous ophthalmia, an emetic of antimony or ipecac. is beneficial. From one to four grains of antimony may be dissolved in a pint of water, to which from one to two ounces of salts may be added. Two or three table-spoonfuls of this may be given every half hour, until vomiting is excited; after which the dose is to be repeated every three, four, or six hours, as circumstances may require. This of course is the quantity for adults. For children, antimony, if used, must be adapted to the age of the patient, and must be used with much greater caution. Mr. Travers recommends calomel and antimony, or calomel and opium, with blisters to the neck, and, where there is much inflammation, the application of leeches. A solution of nitrate of silver, quite weak, will be useful in some cases, and the black wash, with or without laudanum, in others; wine of opium in others. In the case of children, it is generally desirable to avoid severe local applications, especially blisters. Dr. Maunsell considers all local applications hurtful, and particularly those of a caustic nature. He advises that a shade should be applied over the eye. When there is much redness or pain, a poultice of bread and cold water, or of alum curd, may be enclosed in a muslin bag, and placed over the eye at night. Three or four grains of sulphate of zinc or alum, to an ounce of rose water, he prefers as an eye water. Ulcers of the cornea, he says, often disappear under the

use of iodine, without local treatment. If the conjunctiva in old cases becomes granular, caustics, such as nit. argenti, or cupri sulph. will be required. M. Lugol injects a solution of iodine upon the conjunctiva, and into the lachrymal fossæ with a syringe. Mackenzie recommends, in adult subjects or older children, evaporating lotions, fomentations, scarification, and stimulants, to the inflamed surface, especially the solid nitrate and red precipitate salve. Ulcers of the cornea may be touched with the point of a pencil of lunar caustic. In cases of central ulcer, belladonna is useful.

DISCHARGES FROM THE EAR.—These may be benefited by exciting a discharge behind the ear, by means of a piece of woollen thread, (as recommended by Dr. Maunsell,) smeared with blistering ointment, and placed in the angle between the ear and the scalp. Care must be taken also to wash off the discharge, and keep the part constantly clean.

SCROFULOUS DISCHARGES FROM THE VAGINA.—The principal treatment for this must be directed to improve the general health, and to preserve a perfect state of cleanliness.

BREAST.—The treatment in this case need not be very dissimilar to that of the diseased lymphatic glands already described. In the first stage, cooling lotions, leeches, decoction of hemlock or poppies, may be employed, and as the swelling advances, a poultice should be kept upon the part. Perhaps a simple poultice, even in the first stage, is as good an application as any. Though always employed to promote suppuration, a poultice does not prevent resolution: on the contrary, it favours this action, when there is any disposition in the part to take it. A poultice made of sea weed is a useful application; in other cases, a plaster of the red oxide of iron may be placed upon the part. As in this case there is not the same necessity of avoiding a scar, it will be better to leave the opening to nature. When this is insufficient to permit a free escape of the matter, it should be enlarged. If the abscess remains long open, and is indisposed to heal, it may be necessary to stimulate it by the use of caustic.

TESTICLE.—The weight of the testicle should be supported by a suspensory bandage; and cooling washes or a bread poultice applied to the part. This is said to yield to mercury the most readily of all scrofulous affections. Unguent. hydr. cum camphor. may be rubbed into the scrotum, and blisters be applied to the thigh. The patient must be prohibited from using any exercise, and be kept perfectly still.

PROSTATE.—The principal object of local treatment in this case, is to relieve the symptoms that the enlargement of the gland

produces, such as stricture of the urethra, a gleety discharge, pain in passing water, as also frequent desire to do this, &c.

BONES AND JOINTS.—The principal object in the management of diseases of the joints, is to prevent motion, to keep the limb in a state of perfect rest. This may sometimes be done by the means of splints and bandages, without preventing the patient from taking exercise. The next thing is to remove inflammation. For this purpose evaporating lotions, spirituous or alcoholic lotions, the liq. subacet. plumbi. or liq. subacet. ammoniæ may be used. Sir B. Brodie advises moderate local depletion at the commencement of the inflammatory symptoms. He does not approve of counter-irritation, unless in case of great pain or spasms. Sir A. Cooper advises it, if the disease advances. Blisters, the tartar emetic ointment, vinegar poultices, issues, and setons, are used for this purpose. Where suppuration has taken place, setons should not be applied over the joint, but at a distance from it, if at all. Blisters of moderate size may be applied over the joint, and kept open with unguent. juniperi. After the irritation has subsided, a splint must be applied, and as soon as the limb is free from irritation, it must be subjected to friction. In scrofulous affections of the joints, return to motion must be delayed longer than in other cases: motion should not be permitted as long as it gives the slightest pain. When the disposition to suppurate has subsided, strips of soap plaster should be placed over the joint, so as to apply moderate pressure to the part. Sir A. Cooper thinks that amputation should never be resorted to, unless there is so much irritation as to threaten life.

HIP JOINT.—The main object in this, as in diseases of the joints generally, is to enforce entire rest, and prevent any motion of the joint. If there is much pain, leeches must be applied to the part. Evaporating lotions should be used for a short time. If the inflammation does not yield readily, a large blister should be placed over the joint, and be kept open. Abscesses should be opened as late as possible, and unless very large, ought not to be opened at all, as it exposes the cavity of the joint. To prevent motion of the joint, Sir B. Brodie recommends a splint made of thick, hard leather, which can be softened like the pasteboard splints, by putting it into warm water, and will take any form that is desired. This can be moulded to the hip, and secured by a bandage. As it fits perfectly to all parts, it is very easy to wear. Where the joint is much bent, however, other contrivances answer better. In such cases, a splint may be used formed of wood in a double inclined plane, so as to be adapted to the flexed state of the knee joint, and pass from the thigh to the heel. A fracture bed is also used for the purpose of forming an inclined plane. Sir B. Brodie describes the use of Earle's bedstead in such a manner as to form three inclined planes, one of which raises the shoulders, another the thighs, and a third supports the leg. In this manner, there can be very little motion.

SPINE.—Much more can be accomplished in the prevention, than in the cure of spinal disease. The exciting causes of scrofulous caries of the spine must be considered to be the pressure produced by the weight of the trunk, owing to the weakness of the muscles that ought to support this weight. By giving strength to the muscles of the spine, chest, and shoulders, the weight is properly supported and the spine strengthened. These complaints are most common among females, owing to the causes that have been already alluded to.

There are many of the gymnastic games practised in France, and represented in the large work of Delpech, which might perhaps be practised here by young ladies without too great a sacrifice of decorum. The triangle is almost, if not quite, the only machine of the kind that is used among us. Delpech has given representations of a large number of these machines. Such are, the balance, the plays upon the loose rope, the oblique and the horizontal ropes, &c. the object of all which is to accustom the pupil to support the whole weight of her body, by her hands, in climbing, swinging, &c. and thus to give powerful developement and strength to the pectoral muscles, and in fact all the muscles of the back, spine, arms, and chest. By exercises of this kind, employed daily, such an effect is produced, that a greater part of the danger of spinal curvature is avoided. While upon this subject, we may notice an effect of the use of stays, which we have not seen mentioned by any writer but Dr. Barlow in the Cyclopædia of Practical Medicine. This is, that by furnishing an artificial support to the upper part of the body, they deprive the muscles of the trunk of their proper office, which consequently obey the general law of the system—that powers which are disused are at length lost. This is an effect not generally understood, it being commonly supposed that all objection to the article of dress in question is obviated by avoiding tight lacing. The games or plays above mentioned have also the good effect of promoting the general health, by giving sufficient exercise, and obviating constipation, a fertile cause of spinal disease. In incipient spinal curvature, they restore the proper form of the spine. In this case, cold ablution, or the shower or common bath, should be used daily. Friction with a brush or coarse towel, should be employed for at least half an hour a day, and exercise in the open air, especially upon horseback, is very important. The use of dumb bells from their being easy to keep at hand is very convenient, and is a very good exercise. In this manner curvature of the spine may be prevented, or it may be removed before caries has taken place to any extent. After this has occurred, an entirely different course must be adopted. The recumbent posture must be observed in order to remove all pressure from the diseased parts, and entire rest must be enforced. In the angular curvature, where the body of the vertebræ has become carious; it is useless to attempt to preserve the form of the spine, as in so doing we defeat the object of nature. It is out of the question to avoid deformity.

The principal object must be to strengthen the system. Where the child cannot be kept in the recumbent posture, a contrivance should be worn for the support of the upper part of the body, fixed upon the pelvis and shoulders. Blisters, setons, &c. often do harm by the irritation they produce.

PSOAS AND LUMBAR ABSCESS.—The treatment recommended by Sir A. Cooper, is to open this abscess, as soon as a blush or redness is perceived upon the skin. A small valvular opening is made to discharge the matter, and immediately closed again, and pressure with a bandage applied. He considers the advantage of blisters or setons doubtful. Benefit is often derived from injecting solutions of sulphate of zinc or of alum into the abscess.

RHACHITIS.—A bandage should be applied around the head, to prevent the effects of arterial pressure. Exercise is of importance. Two springs of steel may be added to the stays, one upon each side of the spine. When the knees are affected in boys, horseback exercise is of great advantage. Children may be accommodated with rocking horses.

The treatment of scrofulous affections of the heart, lungs, brain, and other viscera, excepting in as far as it is included in that of the scrofulous diathesis generally, would be out of place here, even if any particular local treatment were of service. But as the marks of scrofulous disease of the viscera, with the exception of the lungs, are seldom ascertainable during life, they admit of no local treatment. For the treatment of consumption, we must refer to the many and valuable works upon the subject, of recent date.

March, 1839.

The principal object here is to strengthen the system. Where the
could be kept in the scabrous part, a solution of
below the support of the upper part of the body, and upon
the feet and shoulders. It is often better to
the manner they produce.

Food and Drink. — The treatment recommended by
Stark (op. cit.) is to give this liquor as soon as a blow or bruise
is perceived upon the skin. A small quantity, opening in nature,
dissolves the matter, and immediately local agents, and together
with a bandage applied, it considers the advantages of liniments
restores health. It is often advised to mix with the
loam of sulphate at six or of zinc into the liquor.

Liniments. — A liniment should be applied around the head to
prevent the effects of cerebral pressure. It is necessary not to
Two ounces of each may be added to the water, or upon each
of the spirit. When the head is affected in any part, a
remedy of great advantage. It is often mixed with
liniment.

The treatment of scabies is effected by the use of large doses
and other means, extending to as far as it is included in that of the
scabies itself generally, would be out of place here. It is the
any particular local treatment, such as of scabies, but in the
occasions of several the scabies, with the exception of an
has some resemblance during the time of the first year
means for the treatment of scabies, as we have seen, to the
dry and variable which upon the skin.

March 1857

DISSERTATION

ON

“THE PATHOLOGY AND TREATMENT OF RHEUMATISM.”

“Frustra fatigamus remediis aegros.”

There is no name of a disease more familiar to the public, as well as to medical men, than rheumatism; none that an unprofessional man would think more simple and intelligible. Such a one would say, “every body knows what rheumatism is.” Yet, what is rheumatism? Is it a local or a constitutional affection? is it inflammatory or nervous; a disease of the muscles, or the arteries, or the ligaments, or the bones? In what manner does it transfer itself, suddenly and violently, without obvious cause, from one extremity to another, attacking a sound part at a distance from that first affected, and leaving the former, as well as the intervening parts free from disease. Above all, what connection has acute rheumatism with disease of the heart?

Sydenham's description of the disease is brief. According to him it occurs at any one season, but principally in autumn, and chiefly affects those in the prime of life. It is generally occasioned by exposing the body to cold air, immediately after having heated it by violent exercise, or in some other way. It begins with a chilliness and shivering, which are soon succeeded secondly by heat. Thirdly, in a day or two, or sometimes sooner, there arises an acute pain in some one or other of the limbs, especially in the wrist, shoulder, and knees; which, shifting between whiles, affects the parts alternately, leaving a redness and swelling in the parts last affected. Fourthly, in the beginning of the illness, the fever and the above symptoms do sometimes come on together, but the fever goes off gradually whilst the pain continues and sometimes increases.

Cullen described rheumatism, “as a disease from an external and often an evident cause; pyrexia; pains about the joints, following the course of the muscles; fixing upon the knees and larger

joints, in preference to those of the feet and hands; increased by external heat.

Scudamore says, the fibrous textures of the body are the true seat of rheumatism, and most commonly the tendinous structure is the part affected.

Dr. Good is inclined to the belief that the arteries are concerned in rheumatism, and, in support of this suggestion, he mentions a case furnished by M. Barde.

All authors make a distinction between acute rheumatism, commonly known under the name of rheumatic fever, and chronic rheumatism. Our attention will be given in the first place to the former.

Acute rheumatism is attended with a more violent fever, than corresponds with the degree of local inflammation. The pulse is from 90 to 110, or 120, full, not hard, not tense and incompressible, but compressible and bounding, like the pulse of healthy persons quickened by exercise, and indicative of great arterial action. One writer maintains that there is a peculiarity in the pulse that will alone prove the existence of the disease. The respiration is highly accelerated. The tongue is covered with a white pasty coat, but is not thickly furred. The bowels are costive. The urine is scanty, loaded with urea, uric acid, or lithic acid, reddening litmus paper. It is high coloured, often as dark and thick as porter, and early deposits a copious lateritious sediment. It has been described, also, as resembling the lees of new or sweet wine, or the urine of mares. The skin is hotter than in most other inflammations, but the perspiration takes place freely; and in a day or two it becomes offensively sour, exhaling an extremely disagreeable odour, by which some undertake to distinguish the disease. These perspirations form an essential feature of the complaint. They exhaust the strength of the patient without relieving him. There is great tolerance of venesection, and the patient bears much loss of blood without fainting. The blood is highly cupped and buffed, and continues so after repeated bleedings.

The invasion of acute rheumatism is generally preceded for a week or two by certain premonitory symptoms, which deserve more attention than they have generally met with. These symptoms, (according to M. Roche,) are "malaises" of every kind, congestion in different organs, giddiness, ringing in the ears, bleedings from the nose, burning in the throat, (*chaleurs de la gorge*,) palpitation, oppression, hemorrhoids, &c., all which announce a too fibrinous state of the blood. By Dr. Barlow's theory, the symptoms of plethora must for some time precede rheumatism. These are those above mentioned, and such as belong to the state of false adynamia, that attends too great fulness of the blood vessels—*langnor*, debility, &c. Such are the signs by which a patient, who has suffered from rheumatism, may recognise the appearance of a fresh attack, but they are hardly sufficient to point it out where there is no known predisposition to the disease; but when to these

is added a white tongue, fixed or wandering pains in the limbs, and especially in the joints, the nature of the disease is rendered certain.

Dr. Barlow, in the Cyclopædia of Practical Medicine, goes into the consideration of the nature of acute rheumatism, as to its constituting a local or a constitutional affection; as to whether the local affection is to be considered prior in its origin, and the exciting cause of the constitutional affection, or whether it is secondary to the latter, and dependant upon some general morbid condition of the system. Dr. Barlow arrives at the latter conclusion, which is in accordance with the opinions of writers, as well as with general practice and experience. For in acute rheumatism it is well known, that topical applications are of little importance, and that the treatment to be efficient must be applied to the constitutional affection. Dr. Barlow, like many others, places the constitutional affection in the blood, and maintains that it arises from plethora. An extraordinary degree of health, he says, always precedes rheumatic attacks. There is a redundancy of nutritive matter in the blood, and hence congestion, producing a state of weakness or false adynamia. Inflammatory fever is first excited by the excess of fibrine, and then rheumatism succeeds. The pains run along wherever the blood is distributed. Venesection is the principal remedy which diminishes the mass of blood, and thus puts an end to the disease, by removing the excess of stimulus. The editor of the *Med. Chirurg. Review*, whose opinions are in general highly judicious, maintains a similar opinion; to wit—that an excessively fibrinous state of the blood is the cause of rheumatism.

“Of all the tribe of the *pneumasiæ*,” he says, “there is none in which the blood is more seriously altered from a healthy state, than in acute rheumatism. If this be true, and the proofs are so numerous and well known to every experienced physician, that it is unnecessary to enlarge upon them—we are bound to consider the disease as affecting not only the solids but also the fluids—in short, to regard rheumatism as *partly* and to a certain degree a *humoral* disease. The blood has undergone certain changes, the most important perhaps of which seems to be a great and disproportionate increase in the quantity of the fibrinous matter.”

Dr. Alison (*History of Medicine*) says, that the inflammation of rheumatism is strictly specific, although the particular ingredients in the blood cannot be ascertained. That there is something peculiar in the vital constitution of the blood, he considers as rendered extremely probable, by the nature of the peculiarities that most highly distinguish it, by its tendency to affect different parts in rapid succession, by the total absence of suppuration as an effect of this inflammation, by the comparatively increased proportion of the fibrine, and the complete separation of it in the blood, and by the remarkable proportion of fibrine in the exudation produced when it affects the heart.

According to M. Magendie, the blood in acute rheumatism is

thickened and incrassated, the particles of the fluid becoming too gross to pass through the minute vessels. It therefore stagnates in the affected parts, loses its heat, and hence occasions the sensation of cold felt by the patient himself, and sometimes perceptible to the bystander. This theory is in accordance with Boerhaave's general doctrine of inflammation.

John Hunter maintains, that the difference in different inflammations does not consist in the parts they affect; and this he proves from the fact, that in cases of wounds all the parts injured take on the same inflammation. If the wound is closed immediately, skin, cellular membrane, muscle, tendon, &c. all take on the adhesive inflammation. If it remain open, they take the suppurative. We do not have the erysipelatous in the skin, the suppurative in the cellular membrane, the adhesive in the muscular, and the rheumatic in the serous membranes, but we have the same in all. Dr. Hope gives the following reasons for believing that the inflammation of acute rheumatism is peculiar. It will hardly be denied by those who have seen or suffered from it, that it is an inflammation.

I. "The migration to all parts of the fibrous tissue is unique. You see it not in inflammation of any other tissue, nor even in common inflammation of the fibrous tissue."

II. "The very slight tendency to suppuration, ulceration, and adhesion, is peculiar, for all these processes are common in ordinary inflammation of fibrous tissues, as from injuries, &c."

III. "The perspirations are unique, even the whiteness of the tongue is singular."

IV. "The excessive buffing and cupping of the blood, sometimes even after the utmost possible venesection, is extraordinary, and seems to indicate something peculiar in the constitution of the blood."

V. "Experience shows this disease is less certainly and uniformly relieved by antiphlogistic treatment than other inflammations."

"All these circumstances evince, I think, something peculiar, 'specific,' in the system, or if you please in the vital constitution of the blood, which I believe is M. Andral's opinion."

"I have dwelt a little on this subject, because, if the inflammation be specific, we are not rigidly bound, in the treatment, by the ordinary principles of inflammation, if we find them less than usually successful; but are justified in circumspect deviations approved by experience."

M. Roche, also, who agrees with Bonillaud as to the extent of blood letting, tells us that it appears certain that in rheumatism, besides the articular inflammation, there is an alteration in the blood, "*qui tient même en partie celle-ci sous sa dependance.*" The precursory symptoms show, he says, a state of plethora, and consequently prove that the blood is too fibrinous, and that this liquid is become too exciting for the organs with which it is continually put in contact. A simple state of plethora cannot give rise to such

symptoms. The blood, drawn before the articular inflammation is developed, is as highly cupped and buffed as afterwards.

The reviewer of M. Bouillaud's work, in the *Med. Chirurg. Review*, maintains that there always is a peculiarity of the pulse by which alone he can recognise rheumatism. He applies to it the term *fleeting*. It throbs against the finger as strong and full as in other inflammations, but instead of continuing its impulse for an appreciable time, it flies onward with the rapidity as it were of lightning. This is the case whether the patient has been bled or not. The reviewer considers it as expressive of a highly irritated state of the heart, which in his opinion always exists in acute rheumatism.

An additional proof of the alteration of the blood in acute rheumatism may be found in the state of the urine.

From the quotations and references above given, it would seem that if the case is not made out in favour of those who hold the theory of the alteration of the blood, there is at least a very respectable bulk of evidence in their favour. Still, there are many who maintain the reverse opinion, and see nothing specific or peculiar in the affection. M. Bouillaud's opinion appears to be, that rheumatism depends only upon a highly excited state of the circulation.

DIAGNOSIS.—It is said by writers generally, that there is no difficulty in the diagnosis of rheumatism from any other disease but gout. The hereditary nature of gout, its proceeding from an internal cause, and its being confined to the smaller joints, while rheumatism prefers the larger—the difference in the pain, and its periodical occurrence, are the most striking marks of distinction. Dr. Gregory observes, that it is by no means easy to distinguish chronic rheumatism of the sclerotica. "Lumbago has been mistaken for nephralgia or lumbar abscess; rheumatism of the intercostal muscles for pleurisy, and sciatica for ulceration within the cavity of the acetabulum." Rheumatism is very liable to be confounded with nervous affections, and nervous affections, on the other hand, mistaken for rheumatism. Neuralgia of the head has of late become a fashionable disease among us, though formerly we heard only of rheumatic headaches. Many of these painful affections are very difficult in practice to distinguish. Dr. Nichols, in his "Annual Discourse," seems to resolve rheumatism into "irritation of the nerves," and to connect it with an affection of the spinal marrow. To distinguish irritation from inflammation is, in many cases, no such easy task. How many poor children have been bled to death in the hydrocephaloid disease of Dr. Hall? How many persons have lost their lives from venesection, in other cases of "irritation from loss of blood," or from similar causes?

The following case came under the observation of this writer. A lady lost her child after undergoing much fatigue in watching, &c. during his illness. She was seen by an experienced physician who had attended her child. She complained of violent pain in

the back and limbs, which he without much examination imputed to fatigue, prescribed quinine and a full diet. She found her pain increase very much under this course, abandoned it, and asked the advice of a medical friend. He found her labouring under acute rheumatism. The pain in the back was severe, particularly at night—coming on after she went to bed. He prescribed low diet, and a large mustard poultice to the back. The next night the disease migrated to the forehead and eyes, and her sufferings became very severe. Leeches were applied with considerable relief. Guaiacum, combined with jalap, was now given as a cathartic, and the low diet continued, under which course the pain abated, and the disease gradually went off.

The writer has often seen neuralgia of the head mistaken for inflammation of the brain.

Rheumatism may undoubtedly attack the neurilema, as has been already said. There is a disease which sometimes comes on as suddenly as a flash of lightning, as in the following case. A. B. was suddenly seized in the evening with a violent pain in the small of the back, extending forward to the walls of the abdomen, affecting the breathing. He said it came on like a musket shot. He had been affected with catarrh for some time previous. The pain was steady, not darting like that in neuralgia. He was freely purged with calomel and jalap, a large sinapism applied to the back, and a pill containing opium, calomel, and antimony, given every two hours. The pain subsided towards evening, and did not return.

Mrs. A. H. while stopping at a friend's house in Boston, on her way from Charleston to Dorchester, was suddenly seized with violent pain in the back. The writer saw her the next morning. The treatment was much the same as in the former case. The sinapism removed the pain in a short time, and on the third morning she was able to set out for home.

Mr. A. Z., while standing in the street, was suddenly seized with a pain in the calf of the right leg. After getting home, the pain continued steady in the same spot; easy when perfectly at rest, but very painful when moved or touched. There was swelling of the whole limb. He was old and his constitution nearly broken up; the confinement, anxiety, and uneasiness, as well as the pain, brought on great disorder of the stomach, which in a few days was succeeded by cough and hemorrhage from the lungs, which were previously weak; and he died about a fortnight after the commencement of the attack. It was remarkable in this case, that the pain was confined to one spot, apparently the fascia of the gastrocnemius muscle, and did not extend from this, or quit its place. He never suffered from pain elsewhere; there was therefore no metastasis to the vital parts, though the pain subsided when the stomach became disordered. When at rest he was free from pain. The complaint was therefore rheumatic.

The nature of the pain in the other cases proves them rheumatic

also. Neuralgic pains are as sudden in their onset, but they are characterised by their shooting, coming on and going off like flashes of light. They are unattended with inflammation. The effect on the system is trifling in comparison to the degree of suffering. The pulse is quickened, but has not the fulness or force of an inflammatory pulse. With regard to the pains, however, the reason that neuralgic or irritative pains are so often mistaken for inflammatory, is, that the patients are in such suffering that they can give no distinct account of their symptoms.

In common parlance, every thing that proceeds from a cold is called rheumatic, and hence, even by medical men, the term is apt to be used as synonymous with catarrhal. Dr. Mackenzie, for instance, as we shall see hereafter, uses the appellations rheumatic and catarrhal ophthalmia as synonymous. But the constitutional condition that precedes rheumatism, its nature, and its seat, sufficiently distinguish it from common catarrh, or the effects of cold.

Dr. Hall, after Chomel, makes the following divisions of rheumatism according to the parts of the body which it affects, thus :

1st. Pia mater and brain.	Rheumatism of the head.	Hemicrania.
2d. Pleura and lungs.	“	“ Thorax. Pleurodynia.
3d. Pericardium and heart.	“	“ Diaphragm.
4th. Pleura and diaphragm.	“	“ Loins. Lumbago.
5th. Peritoneum and liver.		

It is not the writer's purpose to take up these divisions in order. Rheumatism is best described as a disease of a particular texture ; it is too migratory in its nature to be considered as belonging to any particular part, and is much the same wherever found, unless when a vital organ is affected. Dr. Hall does not include rheumatism of the eyes in his divisions ; and it is not described by many writers. Every one must have seen the eyes become affected by migration or metastasis, in a patient suffering from acute rheumatism. The cornea and the conjunctiva are the parts attacked, and the person suffers most excruciating pain. This is not, however, the rheumatic ophthalmia described by Mackenzie, for in that the pain is confined to the coats of the eye. The pain is comparatively slight, and it is unprecedented by constitutional affection. It is in fact merely catarrhal ophthalmia.

Rheumatism of the chest is liable to be confounded with pleurisy. It is distinguished by being more diffused, and attended with great heat. The pain is increased by very slight pressure even upon the sternum. In pleurisy, the pressure to produce pain must be hard and made between the ribs. The rheumatism will also generally be found in some other part of the body.

A form of rheumatism has been described as above mentioned by Dr. Good, and others, affecting the arteries and veins. This is not to be distinguished by any particularly diagnostic symptoms ; it is most probably, as in the case quoted by Dr. Good, connected with pericarditis or endocarditis, and not a primary disease.

Rheumatism of the peritoneum, &c. when violent, may be mistaken

for gastritis or enteritis. It is distinguished by being more increased by motion than by pressure, though the slightest pressure is painful.

SEAT AND PATHOLOGY OF ACUTE RHEUMATISM.—It has been a subject of much discussion, whether the seat of rheumatism is in the muscular, the tendinous, or the synovial system. Scudamore says that the fibrinous structures are the true seat of rheumatism, and most commonly the tendinous texture is the part affected. Whether in a muscle the constituent parts are each primarily affected, or whether it is confined to the tendinous portions alone, he does not determine, though he thinks the latter most probable. Some writers, as Dr. Good, for example, are of opinion that the muscular fibres participate in the disease; while M. Bouillaud and his followers would confine acute rheumatism to the synovial membranes: M. Brachet, of Lyons, Johnson, Macleod, Hope, and many others of eminence, on the other hand, maintain that it is a disease of the white fibrous, not muscular, membranes. This system is expanded over the whole body:—wherever there is muscle, there is aponeurosis, or fascia, or tendon, or periosteum. The fibrous and serous textures, the aponeurotic expansions which cover the muscles, the periosteum, and fibrous coverings of the nerves, the cornea and sclerotic coat of the eye, are, according to them, the parts most frequently affected. Dr. Chambers has drawn a distinction between the *acute* fibrous rheumatism, and the *synovial* rheumatism; and in this distinction he has been followed by Dr. Hope and other English writers. It is probable, that an attentive examination of the early history and progress of acute rheumatism, would show that it is confined to the textures above mentioned, the white fibrous textures. In many cases the affection commences in the middle of the sole of the foot, apparently in a tendon: it gradually extends upwards, the pain being felt in the whole course of the leg, until it reaches the thigh, and produces pain and swelling, not in any particular joint, but equally through the whole limb; the swelling, however, is principally confined to the lower part. Here it will remain stationary, or, leaving this locality, it by migration or metastasis suddenly affects the leg or the arm of the opposite side, as in the case which will be given hereafter. The pain also, in acute rheumatism, is felt not in the joint, but in the course of the limb: often seeming to extend up and down the long bones. Dr. Barlow tells us, “the pains run along wherever the blood is distributed.”

Patients so seldom die during or immediately after an attack of acute rheumatism, that few opportunities can be obtained for examining the state of the joints. A case is copied into the *Med. Chirurg. Review*, April, 1837, from the *Journal Hebdomadaire*, in which the history and post mortem examination is given in full. The patient had acute rheumatism of the knees, hips, loins, and afterwards of the ankles and wrist. The heart became affected, delirium ensued, and he died in about thirty-one days from the

commencement of the attack. All the joints which had been affected were carefully examined. The swelling had subsided; there was no trace of inflammatory blush in the synovial membranes, the synovia was in moderate quantities, viscid, semi transparent, and of a yellowish colour, and inodorous. All the component parts of these joints presented no appreciable alteration, either in their consistence, their colour, or their thickness. In the same number of the Review, two cases are mentioned from M. Chomel's Clinical Report. In one patient who died from endocarditis, all the affected joints were minutely examined, but not the slightest mark of morbid change was found in any of them. The other was a patient in the Hôtel Dieu, who died also from endocarditis: the results of the post mortem examination were equally null with regard to the rheumatism. Dr. Macleod says, that in two instances in which he was enabled to examine the state of the parts first affected, owing to the disease having proved fatal by extending to the heart, he found no striking result. "The external redness had disappeared in both cases, and the swelling was very much diminished, so that nothing appeared but a certain portion of serum and lymph, in the subcutaneous cellular membrane. The ligamentous tissues appeared *perhaps* rather thicker than natural, but without redness; the synovial membrane without any apparent participation in the disease." Dr. M. thinks it probable that the ligaments and the other white, dense, fibrous tissues, are the primary seats of the disease, whence it extends to the other tissues. It appears then that this form of the disease does not in general produce any serious organic change in the part in which it is seated. Indeed, from the fugitive nature it evinces, we need not be surprised that this is the case. Notwithstanding the extreme suffering produced, notwithstanding the swelling, heat, and redness, so often witnessed, it has in general no tendency to suppuration, and frequently deserts its seat as suddenly as if by magic, and leaves hardly a perceptible trace behind. In an extremely violent case of acute rheumatism, which will hereafter be related, in which the left hip joint was for several days the seat of extreme pain and spasm; this joint was left perfectly well on the recovery of the patient: but what is singular, the opposite joint has since (though several years have now passed) been the constant or at least occasional seat of weakness and pain, which is felt when particular motions of the limb, which strain the ligaments, are executed.

By some, rheumatism has been considered as affecting the muscular system, at least occasionally. The soreness of the flesh, and the pain which attends any muscular motion, has undoubtedly given rise to this belief, the pain sometimes appearing superficial, and pervading the whole muscular substance. The soreness to the touch is also extreme in acute rheumatism. The swelling, according to Dr. Hope, arises from vascular turgescence, and serous effusions into the fibrous and cellular tissues, and sometimes there is a little synovial effusion into any contiguous synovial membrane,

such as sheaths of tendons, bursæ, &c.—the inflammation extending from the fibrous to the synovial membrane by contiguity of tissue. That the muscular fibre is not the seat of rheumatism, seems to be proved by several circumstances. In the first place, muscle, as far as we know, is not capable of intense pain, while we know that the white fibrous membranes, though nearly insensible in health, become possessed of the most acute sensibility in disease. The rapid migration of the disease also, can be much more readily explained upon the principle of its being seated in the fibrous tissue. The pain, also, is in general, deep-seated, not superficial, (although the external parts are acutely sensible to the touch) but the steady pain that is felt when the limb is at rest, seems to be in the bone, or in the centre of the joint itself. It is probable that the periosteum is often affected, even where the disease is migratory. Scudamore says, that from frequent careful examination of the whole course of a muscle by pressure, the inference has in general clearly presented itself to him, that its internal structure has not been the seat of the complaint. The immediate recovery of muscular action as soon as the disease leaves it, by migration or otherwise, shows that the disease does not affect the muscle; while on the other hand, in a joint affected with articular rheumatism, occasionally pains and difficulty of motion remain for months or years. It is evident, that the pain attendant upon muscular motion or effort, does not show that the muscle is the seat of disease, since the whole joint or limb is excessively swollen and tense, and the muscles cannot contract without pressing upon some diseased tissue. Muscular motion is also attended with motion of the joints.

RHEUMATIC AFFECTIONS OF THE HEART.—The tendency of rheumatism to attack the white fibrous membranes, and the continuity and extent of these membranes through every part of the system, accounts for the frequency with which the pericardium is affected by migration or metastasis. The coincidence of an affection of the heart with acute rheumatism was first observed in England by Dr. Pitcairn, in 1788. But the first published observations were contained in Dr. Baillie's *Morbid Anatomy*, published in 1797. Sir D. Dundas published a paper upon the subject, in the first volume of the *Med. Chirurg. Transactions*, in 1808, and Dr. Wells a more copious one, read to a society for medical and surgical improvement, on rheumatism of the heart, with a number of cases in 1810. In France, Corvisart noticed this affection, but still it does not appear to have been treated with much attention either in France or England, until recently. The fatality ascribed by Corvisart to diseases of the heart, and its envelopes, has prevented the belief of its occurrence in many cases of acute rheumatism, which has always been regarded as seldom fatal. It is undoubtedly true, that pericarditis is much less fatal than was formerly supposed, as has been proved by Louis; rheumatism is much more so in its remote consequences—organic disease of the heart being

the frequent ultimate result of a rheumatic attack. Chomel, one of the principal French writers on rheumatism, does not allude to the affection of the heart. Andral, indeed, describes a case which he considers as metastasis, but Laennec, and even Louis, pass it over in silence. In this state of things, M. Bouillaud, writing in 1836, claims the merit of discovering the frequency of this connection. Sufficient has been said to show that this connection was understood in England, and we find allusions to it in most writers upon rheumatism. Still the labours of M. Bouillaud have undoubtedly thrown much light upon the subject, and attracted great attention to its frequency, both in England and France. M. Bouillaud, like most of those engaged ardently in a particular enquiry, has probably been led into the discovery of the disease he looked for, in many cases where it did not exist. He estimates the coincidence of pericarditis and endocarditis, as will be seen, at one half of the whole number of cases of acute rheumatism.

This writer observes that he has found an inflammation of the internal membrane of the blood-vessels, often accompanying acute articular rheumatism.

An acute affection of the heart, he found to be the most usual accompaniment of rheumatism. Pericarditis existed in about one half of the cases. Pericarditis, under a larger point of view, he says, is an inflammation of the sero-fibrous tissues in general, developed under a special influence. He gives ninety-two cases in his work on diseases of the heart, thirty-seven of pericarditis, and fifty-five of endocarditis. Seventeen of pericarditis, and fourteen of endocarditis, corresponded with acute articular rheumatism. Articular rheumatism, therefore, was found to exist in a third part of the cases, but although not observed in the other cases, M. Bouillaud is not confident that it did not exist in the remainder.

Pericarditis, he says, is certain, when the following symptoms are present. A dull sound over the precordial region, much more extended than in the normal condition, (double, triple, in every direction,) an arched form of the same region, remote beatings of the heart, but little or not at all sensible to the touch, sounds of the heart distant, obscure, accompanied with different abnormal sounds, some arising from the rubbing of the opposite coats of the pericardium against each other, others from the complication of pericarditis with valvular endocarditis. A pain more or less acute at that region of the heart, palpitations, irregularities, inequalities, and intermissions of the pulse, are sometimes conjoined with the above symptoms.

Endocarditis, says M. Bouillaud, is certainly coincident with acute articular rheumatism, whenever the following signs are present.

“Bellows, file, or saw sound, in the precordial region, with a dulness of this part on percussion to an extent much more considerable than in the normal state, and which also presents, but in a

less degree, than pericarditis with effusion, an elevation, or abnormal arching; the movements of the heart elevate with force the precordial region; and they are often irregular, intermittent, unequal, and accompanied at times with a vibratory trembling. The pulse is hard, strong, vibrating unequal, intermittent, like the beatings of the heart."

It is often difficult, he says, to distinguish between pericarditis and endocarditis: the distinction is easy, with experience, in well marked cases, but in others it is not so.

Drs. Watson and Latham, say, that pericarditis, &c. accompanies acute rheumatism in all its forms and degrees;—that it is as frequently the attendant of mild cases as severe ones. Dr. Macleod, on the other hand, is of opinion that the more violent the disease, the more liable is the pericardium to become affected; a conclusion more consonant to probability. There are two principal sounds that denote that the heart or pericardium is affected. Dr. Stokes and Dr. Watson were the first in England to point out the means of recognising disease of this membrane, by the "to and fro" or rubbing sound. This *rubbing* sound is supposed to be produced by the rubbing of the opposite folds of the pericardium against each other; either from a morbid state of dryness or roughness of these membranes. This sound, however, is not perceptible in the early stage of the disease; and it ceases upon the adhesion of the two opposite surfaces, or upon the absorption of the lymph which is the cause of the roughness. The latter cause is most probably the real one. The other sound alluded to is the *blowing* or whizzing, which probably depends upon the increased friction of the blood as it passes through the internal apertures of the heart. This is louder, and sometimes disguises the former. Sometimes it may be heard all over the region of the heart; but it is generally "most distinct at points corresponding with the aortic, and the auriculo ventricular valves of the left side; that is to say, where the relative situation of the parts is not changed by previous disease, the blowing sound will generally be best heard by placing the ear or the end of the stethoscope at the lower part, and towards the left side of the third bone of the sternum for the aortic, and a little further to the left for the mitral valves." This blowing sound is produced by an affection of the valves of the heart.

Drs. Graves and Stokes¹ have recently published the following statement, in regard to the diagnosis of valvular disease of the heart.

"1st. That the physical signs of valvular disease are not yet fully established.

"2d. That taken alone, they are in no case sufficient for diagnosis.

"3d. That even in organic diseases, the *nature and situation* of the murmurs may vary in the course of a few days.

"4th. That all varieties of valvular murmurs may occur *without* organic disease of the heart.

¹ Lancet of August 25th, 1838.

"Fifthly and lastly. That organic disease of the valves may exist to a very great degree without any murmur whatsoever.

"Of this assertion we shall hereafter bring abundant proofs.

R. J. GRAVES.

W. STOKES."

This statement has been replied to by Dr. Hope, in the Medical Gazette; but it is evident that until the signs of valvular disease are universally recognised, they must be considered uncertain.

Dr. Watson says, that when the inner membrane is affected, which very seldom escapes, the inflammation exercises a kind of preference; its effects are limited in a great measure to the valvular apparatus of the heart.

Occasionally, the natural transparent portion of the membrane which covers the muscular fibres is thickened and rendered whitish and opaque, and occasionally, some of the deposits that are common on the valves, encroach somewhat beyond them, and even stud here and there the interior of the several cavities. But the valves, or cartilaginous rings from which they spring, are the parts first and chiefly implicated, especially the mitral valve, and the aortic valves, and not uncommonly the tricuspid valve; also sometimes even the semilunar valves of the pulmonary artery. Here again the fibro-cartilaginous nature of the part would seem to determine the preference of locality.

The valves become thicker, and lose their transparency and pliancy; become puckered—sometimes folded down, or glued to the opposite surface—but more frequently present *vegetations* or small wart-like granulations or excrescences. This is found when death takes place at an early period. At a later period, hypertrophy and dilatation are met with.

One of the principal indications of the occurrence of pericarditis in rheumatism is pain, which is commonly the severest symptom, though sometimes wanting in very grave cases. It varies, also, in kind and in degree. Tenderness on pressure, especially by pressing in the intercostal spaces. Palpitation to any notable degree is often absent, though the action of the heart is increased to 100 or 120. A more important indication that the heart is implicated, is derived from the aspect of the patient. The anxious expression of the countenance, and the evident distress which indicates affections of the heart, are well known. The patient lies, in general, on his back, or a little to the right, but displays the greatest unwillingness to the slightest motion—even in order to assume the easiest position. A frequent disposition to syncope is another characteristic of this affection.

The coincidence of pericarditis with rheumatism was formerly attributed, as in the case given by Andral above alluded to, to metastasis, but this opinion is now pretty much abandoned. The disease does not, at least in all such instances, leave its original seat. Dr. Hope says, he has often seen the heart attacked, while the

disease was in its full intensity in the limbs—he has even seen the heart attacked first. In two cases of acute rheumatism which we purpose to give hereafter, the rheumatism was preceded by an affection of the heart. The extension of the fibrous tissues throughout the system, before noticed, readily explains the manner in which the migration of the disease takes place.

According to Dr. Macleod, and to Dr. Watson, whose opinion he cites upon the subject, this affection occurs principally in very young subjects: the younger the child the more disposed he is to pericarditis.

Out of eighty-five cases of acute rheumatism given by Dr. Macleod, (in the *Med. Chirurg. Review*, January, 1838) the heart was implicated in eighteen, rather more than one fifth. Of these only thirty were females, eleven of whom had pericarditis—one third—and only seven of the men. Of the eighteen cases, there was only one in which the pain of the limbs was simultaneously alleviated on the occurrence of the pericarditis. In one of these cases the pericarditis came on first. Is it not probable, that if the patients more accurately recollected their first symptoms, a precursory attack of the heart would oftener be found?

In regard to the fatality of this affection, we have before remarked, that M. Louis has shown that the fatality of pericarditis or endocarditis has been much exaggerated. M. Bouillaud says, that intense endocarditis is not fatal in many instances even under improper treatment. He adds, however, that these affections ordinarily leave in their train lesions, called *organic*, under which the patient finally sinks. "This takes place when pericarditis has been followed by thickening, indurations, adhesions, vegetations of the valves with deformity, obliteration of these valves, contraction of these orifices, dilatation of the cavities, hypertrophy of the muscular substance, &c." M. B., however, remarks, that endocarditis and pericarditis are less fatal than the true phlegmasiæ, as Stohl says of other rheumatic inflammations. They extend much in surface, but are less in depth. True inflammation, on the contrary, makes up in depth what it wants in surface.

Dr. Macleod treats of acute rheumatism as a very serious affection, and Dr. Hope remarks:

"If then you consider that, independent of the *immediate* danger of pericarditis and endocarditis, an adhesion of the pericardium, or a disease of a valve, so frequently entailed by these diseases, necessarily cripples a man for life, and often contracts his existence within the space of a few years, you will at once see that acute rheumatism, formerly considered harmless to life, is really a disease of the first magnitude and importance, and always to be regarded with anxiety."

The occurrence of delirium or insanity in consequence of an attack of acute rheumatism is not very uncommon. Scudamore, says, as a rare occurrence, the dura mater appears to become the seat of inflammation under this disease, and the tunica arachnoides

becomes excited to increased action. He had seen one case only, that of a young lady of delicate constitution, in whom a rapid transference of the inflammation of the limbs, from one part to another, had taken place previously. The affection of the limbs did not cease when the head became disordered. The event was speedily fatal.

Dr. Hope speaks of this affection of the dura mater as so rare, as hardly to require notice. It has been fully described by Andral, by Dr. Francis Hawkins, by Dr. Latham, by Dr. Watson, and by Dr. Macleod, as an accompaniment to the affection of the heart. It seldom leaves any perceptible trace after death; the membranes of the brain show no decided marks of inflammation.

On the whole, it does not appear that rheumatic pericarditis differs from pericarditis from other causes; indeed Dr. Hope, Dr. Elliotson, and many others—in fact, most of the highest authorities, now consider rheumatism as the most frequent cause of pericarditis.

Dr. Watson says, that the inflammation probably begins in the fibrous texture of the pericardium, and then extends rapidly to the serous. The consequences are, the effusion of serum, the deposition of lymph, adhesions. The inflammation spreads over the greater portion or the whole of the serous surface, and when adhesion does not take place, the deposited lymph assumes a variety of forms in different cases; but in every case Dr. W. has found its prevailing character to be that of roughness. Sometimes it has a cellular arrangement, and is compared to lace work, to a sponge, or a honey-comb, or some specimens of coral, or the interior of a calf's stomach; sometimes it bristles with a multitude of small, short, pointed, papillæ; less frequently it is softer and shaggy, always it is rough or uneven. Dr. Elliotson describes the post mortem appearances as the same as those from inflammation of any other serous membrane. Sometimes there are stars, and sometimes patches, of redness. The redness is seldom deep even in the most violent cases. The membrane does not become thickened, but of course a quantity of fibrine is found lying upon it, and a quantity of serum is collected in the cavity. Fibrine is found generally in very fine layers upon the pericardium, and sometimes these pores, these little singularities—are very considerable. Laennec has compared them to two slabs placed together with butter between them, and then forcibly separated. A number of knobs then appear with little excavations between them. There is often a great deal of this exudation, when the redness is considerable, and it glues together the two portions of the pericardium. The fluid is not in great quantity. Its general appearance is the same as in other serous membranes. It is sometimes turbid, of a yellow colour, containing a few flakes of lymph; but sometimes pus, even in large quantities, and even within the pericardium. Dr. Baillie has found the quantity in one case to amount to a quart. No ulceration is found. The pus, in these cases, is secreted by a serous exactly as by a mucous membrane.

One of the most minute and interesting descriptions of the morbid appearances of pericarditis, has been recently given in the valuable work of Dr. Hodgkin. The secretion of the pericardium, he says, is often preternaturally increased, without sensible alterations, forming hydrops pericardii, which may in general be distinguished from pericarditis by the presence of a few films of false membrane, (or non organisable matter,) in the effusion formed by the latter. The two diseases tend to pass into each other. When the quality as well as the quantity of the effusion is altered, we have either coagulable lymph, or an effusion of a more purulent character. The former leads to the most perfect cellular adhesions. Sometimes, the surfaces of the close and reflected portions become so intimately united as to appear identified, and lead to the supposition that the pericardium is wanting. In other cases the adhesion is looser. In a third variety it is produced by a multitude of filaments, and in a fourth by broad and membranous bands. Bridles of adhesion connecting the opposed surfaces are common. Adhesions are always the result of inflammation. When there is much non-plastic matter effused, their production is prevented; in which case, the surface of the heart is not unfrequently covered with long, shaggy, soft, and very feebly organised villi, presenting an appearance which has undoubtedly given rise to the stories of the heart being found covered with hair. In other cases, in which the adhesion is prevented, the surface of the false membrane presents a reticulated appearance, which has been compared to the *bonnet* or second stomach of the calf. When the matter is of the most inorganisable kind, it has a puriform appearance. Ossific depositions are apt to form upon the attached surface. The pericardium is more prone than any other serous membrane to assume a scabrous appearance. Dr. Hodgkin, who derives his knowledge upon the subject from very numerous post mortem examinations—for which his situation as Demonstrator of Morbid Anatomy, and Curator of the Museum of Guy's Hospital, afforded him remarkable facilities—maintains that the danger from pericarditis is much overrated, and that it is very much more common than has been supposed.

M. Bouillaud maintains that pericarditis or endocarditis usually accompanies acute rheumatism. He says, that in the great majority of cases of diffuse articular rheumatism with fever, there exists, in a variable degree, a rheumatism of the sero-fibrous tissue of the heart; the coincidence is the rule—the non-coincidence the exception. His reviewer, in the *Medico-Chirurgical*, goes farther, and maintains that there is some derangement of the heart in every case of acute rheumatism. Chomel, on the contrary, says that he has tested this matter, and twice only found any other derangement in the heart, after careful examination by auscultation and percussion, than an abnormal sound. He examined forty-nine cases of acute rheumatism, without finding endocarditis, or pericarditis. M. Brichteau says, “we ought not to forget that copious detractions of blood may of themselves induce the blowing, rasping, or

rubbing sounds during the heart's movement, although no inflammation of any of the structures of the heart be present. The blowing sound has been found in a case of peripneumony, where the patient had lost upwards of six pounds of blood; but exhibited, on post mortem examination, no traces of any disease of the heart. Dr. Elliotson says that pericarditis is most frequently accompanied or preceded by rheumatism, possibly, because the same state of the system produces both diseases, which on the whole seems a more plausible conclusion, than that which considers pericarditis as *caused* by the rheumatism. Pericarditis sometimes appears three or four months after rheumatism. Dr. E. has never seen it the result of suppressed rheumatism. It is always pericarditis that succeeds, and when this has existed for a time, organic changes take place. The affection is most frequent in children, even in infants; and children are not liable to any organic disease, except that which is produced by scrofula. Pericarditis, according to Dr. Elliotson, may be controlled as easily as inflammation in any other part.

The conclusion that may be drawn from what has been said, and quoted above, is that pericarditis is undoubtedly a much more common disease, and a much less fatal one, than has until recently been supposed—that it most frequently coexists with an acute rheumatic affection, either as the effect of rheumatism or of the same constitutional state as that which produces the latter disease. But it is by no means proved, that acute rheumatism does not ever, or even frequently, exist without pericarditis. With regard to the affection of the valves of the heart, this often succeeds acute rheumatism, very possibly from the same constitutional condition, or as a consequence of pericarditis; and makes its appearance at a distant period of time. It is, however, to be kept in view, that the causes above referred to, the loss of blood for example, may imitate the sounds indicative of heart disease; and that when the ear is strongly predisposed to receive certain sounds, it will sometimes be deceived. The same thing may be said of the pulse, when it is felt with reference to peculiar delicate variations, which are perceptible only to certain observers.

Perhaps the true state of the case might be briefly and simply expressed, by saying, that in acute fibrous rheumatism, there is a strong disposition to the affection of the pericardium, or in other words, that the pericardium is highly liable to become affected, in that diathesis or condition of the system which constitutes acute fibrous rheumatism.

The two following cases of acute rheumatism, which have been already referred to, will illustrate some of the remarks that have been made.

Feb. A. B. after having had a cold for some time previous, and having been out of health, and subject to anxiety and depression of spirits, was attacked towards morning with dyspnœa and a stricture about the region of the heart, which rendered it impossible to lie down in bed. This came on for several nights successively,

so that on the third morning he was compelled to rise several hours earlier than usual. The next night, having taken very freely of a hot draught to promote perspiration, he slept quietly until day break, when he was again disturbed, and obliged to stand some time at an open window. In the morning, Feb. 11th, he felt perfectly free from pain in the chest, and oppression. In the course of the day, a pain came on in a spot in the middle of the inner margin of the right foot, apparently at the spot where the tendon of one of the muscles of the foot is attached. This was attributed to wearing new and very thick, stiff boots. This excited little attention. He kept in the house, however, most of the time this day in consequence. 12th. The lameness increased, walked out once during the day upon business, without much inconvenience. In the evening, walked again to a place in a distant part of the city; the weather being cold, and the ground covered with snow. The lameness increased on this walk, and returning, he found himself much lamer at every step, so that it was with difficulty he reached home. On withdrawing the boot, it was found impossible to stand; the foot was very much swollen. Slept well that night. 13th. Could not put the right foot to the ground. At noon, six or eight leeches were applied to the foot. The pain extended up the leg in a direct line. Towards evening a pain was felt in the other leg, the pain continuing in that first attacked. On going to bed took a Dover's powder, and bathed the feet in warm water. The bowels were costive.

14th. Was awoke this morning with violent spasms in the left foot and leg, felt principally in the hip joint, and in the toes, which were forcibly contracted. The right limb was nearly free from pain. Took hyd. submuriat. gr. x; jalap. gr. x. M. About ten A. M., was bled freely from the arm, without much relief of the spasms. The spasms continuing after the medicine had operated, took laudanum, and through the night a solution of sulphate of morphine, ad libitum. 15th. Twelve leeches were applied.

17th. The spasms continued, but to-day were somewhat less. Took a warm bath with considerable relief; but imprudently remained in three quarters of an hour, and afterwards being wrapt up in a blanket, and the room kept very hot, most profuse perspiration took place, attended with great weakness and diarrhœa. The diarrhœa was checked by laudanum, but returned, and continued through the night. Partial delirium through the night. After this time, the disease abated. The spasms were less severe, and the patient, whose leg at first had been kept in a straight position by the spasmodic action, having flexed it while in the bath, took the utmost care to avoid extending it. It was some days, however, before the spasmodic action ceased; and afterwards, any sudden noise, the opening of a door, or a very slight mental cause, would bring it on. This spasmodic action was attended throughout with the most intense suffering. While these spasms were continuing in the left limb, and subsequently, the disease was

pursuing the migratory course it had commenced from the first; the arms and legs being attacked successively, one leg swelling and becoming painful as the other was relieved, and one arm in the same manner swelling and becoming painful as the other became free—the wrist being generally first affected, and hence the pain proceeding up to the elbow, and next the shoulder joint, the whole arm swelling, and the pain appearing to be not only in the joints, but in the whole course of the long bones. When the pain ceased, the parts were left numb and palsied. But although one limb was relieved as the other became affected, it was not exempt from repeated attacks. As soon as a joint was affected, a blister or a sinapism was applied, at the earnest desire of the patient, who experienced great relief from the change of pain. The moment they produced their effect by drawing a blister, or exciting considerable irritation, the pain subsided in the part, but soon reappeared in one of its former haunts. The pain felt was of every possible description; it was severe when the parts were at rest, but increased by motion, sometimes sharp and lancinating, sometimes burning, sometimes pricking, sometimes a dull heavy aching. It was in general aggravated by motion; but it was not the fear of pain that caused the loss of the power of motion—it was after they became free from pain, that the temporary palsy took place. It seemed that the suffering had deprived the part for a time of its ordinary functions. The urine was at first almost suppressed; afterwards scanty, bowels confined. Upon the 16th, and several days subsequently, there came on a sensation in the chest, as if of collapse of the lungs, attended by great weariness and exhaustion. This was relieved almost immediately by hot port wine and water. During convalescence a very strict antiphlogistic diet was enforced, and laxatives given when required. No opiates were given after the 17th, although the patient obtained hardly any sleep. The warm bath was repeated once. In a fortnight from the time the attack commenced, he was free from pain, though very much reduced and emaciated. About a week after he left his chamber. In a week later he was able to walk out, four weeks from the commencement of it. The left limb, particularly the hip joint, however, recovered very gradually and slowly; and continued weak and lame for some weeks. Two or three months after this, he first perceived a weakness in the right hip joint, which was felt only on executing certain motions. This has since continued. This joint did not apparently suffer but very slightly during the acute attack. The right shoulder joint has also continued affected in the same manner. For some time after his recovery, slight pains would be felt always after exposure to cold or wet, and what is worthy of attention, a diet a little more stimulant than ordinary would very soon exhibit its effects in the production of pain.

REMARKS.—In the first place, it may be observed, that the patient, who was the reverse of a plethoric subject, instead of having

been in unusually good health previous to the attack, had been for a long time indisposed, subject to indigestion, lassitude, and mental anxiety. This state may possibly, in some cases, be considered as characteristic of plethora, but certainly not of good health. In the next place, the premonitory symptoms from the time that pain commenced in the foot, were striking; and it is probable that had he paid sufficient attention to them, the attack might have been intercepted. They were, however, such as to lead him to apprehend a rheumatic attack; although he had never before suffered from rheumatism. Next the blood letting was probably injurious; venesection is generally injurious in cases of spasm; (except of course where the spasm is manifestly entonic). If instead of the venesection, tartar emetic had been given, alone, (or still better united with opium,) the probability of relief would have been much greater. The nausea or vomiting caused by the antimony, from the relaxation of the system which it produces, would have tended to relieve the spasms, and have prepared the way for the exhibition of opium. Nauseating medicines; particularly antimony and ipecac, are the best we have for overcoming spasm. The narcotics must be given in too powerful doses, and are uncertain in any dose. The opiates given in this case produced great heat and excitement, and rendered the sufferings of the patient more intolerable. Combined with antimony they might have been more successful. The next observation may be considered a trifling one; it is believed, however, to have more importance than will readily be accorded to it. It is simply with regard to position in the case of spasm. If the limb be kept in the extended or straight position, resting on the heel, there can be nothing more favourable for the production and continuance of spasm. Practitioners are apt to be deterred by the idea, that the spasms render it impossible to flex the limb; but if it were even forcibly done, the spasms would, in many probably in most cases, subside. In the present case the limb was kept extended from the 14th to the 17th, but as soon as the patient, when placed in the bath, either from accidental change of position, or from the relief of the spasm afforded by the bath, found his limb slightly flexed, the relief was so great that he had the greatest horror afterwards of straightening his limb, and particularly of allowing it to rest extended on the heel. If this position was accidentally taken for a moment, the spasms instantly returned. (When a horse harnessed in a chaise is hitched by the long reins, it will prevent his going forward, but if he runs back the reins soon begin to pull him, and the further he goes back the harder the reins pull him back. The only way to relieve him, is to seize him by the head and carry him forward in despite of the opposition of the reins. The moment he starts forward they are loosened. It is the same thing with the cords in spasms of the limb. They forcibly extend the limbs, but the moment the latter are flexed their tension ceases.)

Another thing worthy of remark in this case, is the affection of

the chest, which preceded the attack, and which disappeared on the day when the foot first became affected. A case which occurred in the same manner, and pursued a similar course, will be given next.

CASE II. This was the case of a physician. After undergoing a great deal of fatigue and anxiety in a season when the weather was extremely cold, partly on account of the severe illness of some of his own family, he was attacked in the evening with severe pain in the left side of the thorax, oppression, &c. He was purged and blistered. The severity of the symptoms subsided, and on the third day, he was nearly free from apparent disease. Immediately after, however, violent pains came on in the limbs, and with the exception of the spasms, the disease pursued a course parallel with that in the case just described. The principal thing to be remarked is, that as soon as the pain subsided, he was allowed a meat diet and tonics. He had a relapse, was much worse than before, and his convalescence was slow and lingering.

SYNOVIAL RHEUMATISM.—This, as has been before remarked, was first pointed out by Dr. Chambers, of St. George's Hospital, as a distinct form of rheumatism. It differs in many respects from the disease which we have just described. It is a more strictly local complaint. The fever that attends it is not by any means so severe, though in the most acute cases it is considerable. In the severest cases, it is attended with redness, but in general there is no discolouration. It is confined, as its name imports, to the synovial membranes lining the joints. The parts principally attacked are the joints of the fingers and toes, but it displays itself most distinctly in the knee joint. From its attacking the smaller joints, and from other points of resemblance, it has been called rheumatic gout.

It commences with a dull aching pain, and stiffness of the joints. After a time, it becomes more acute or burning, and in a space of from one to several days the parts begin to swell. This swelling is bound down by the synovial membrane, and is confined to the immediate vicinity of the joint, the membrane yielding in particular points, and giving an unequal and peculiar appearance to the swelling. Sometimes the joint becomes enlarged to double or treble the natural size. The swelling is fluctuating and is evidently beneath the capsular ligament; whilst that of acute rheumatism is more superficial, and is seated principally in the cellular membrane; it does not fluctuate, but often pits, as is the case in œdema. Synovial rheumatism affects several joints at once, but it has not the disposition to metastasis or migration, that characterises the acute. It has a tendency to fix itself in a limited number of joints, and become completely local; finally producing, at least after repeated attacks, change of structure, and sometimes suppuration and disorganisation. In general, the principal effect seems to be, an increase of the synovial secretion. Every successive attack leaves

more traces, the joints are left evidently swollen, the ligaments become stretched, the bones altered in their relative situations, and distortion takes place. The synovia is sometimes permanently increased. It is sometimes absorbed, and leaves a thickening of the cartilage. The membrane is left covered with white spots as if sprinkled with a powder. This is found to consist of the carbonate of lime, or lithate of soda.

The functions of the large intestines are not so much disturbed as in acute rheumatism. The perspiration and the urine are more altered than any other of the secretions. Lithate of soda is sometimes found deposited on the skin. The urine is strongly charged with the lithates.

Though the fever is sometimes violent at the onset, it subsides as soon as the effusion becomes considerable, i. e. within three or four days. According to Dr. Chambers, metastasis to the head is more frequent in this variety, while metastasis to the heart is more common in the other. Drs. Watson and Macleod, however, as has been shown, considered the former as generally connected with the latter.

In the account of this variety, the writer has generally followed Dr. Hope. It must be mentioned, however, that the distinction is not generally recognised. The most severe cases of rheumatic fever, are in some cases, attended with affections of the synovial membranes. The two forms blend into each other and are found variously combined.

CHRONIC RHEUMATISM.—Chronic rheumatism differs from the acute by being less in degree. Dr. Gregory describes three varieties. The *first*, subacute, is known by the pains shifting their situation as in the acute form, and by their being increased by warmth, especially in the night. The swelling is œdematous. The hips and joints of the lumbar vertebræ are most liable to it. It is accompanied with a white tongue, thirst, a quickened pulse, and a costive state of the bowels.

The *second* form is marked by the absence of the constitutional symptoms. There may be a loss of tone in the vessels of the affected part. This form is not so common as the other, but sometimes follows it. Stiffness of the joints is the most prominent symptom. Pain is not felt except on motion, or on changes of atmosphere. It is relieved rather than increased by the warmth of the bed. The pain and stiffness do not shift. There is spontaneous coldness and sometimes paralytic torpor. The pulse is seldom quick, or the tongue white.

The *third* species is that described by Dr. Haygarth, under the name of nodosity of the joints. It is attended with permanent derangement of their structure. The ends of the bones, periosteum, and ligaments, become thickened, and nodes form upon them, sometimes in such a manner as to distort the joint in the most unsightly manner. The fingers are parts principally affected, but it

occurs also in the knees and ankles. It is accompanied with pain of the joints, particularly severe at night.

The fibrous membranes are the parts particularly attacked in chronic as well as in acute rheumatism, the periosteum in every part of its extent, the tendons, and tendinous sheaths of the muscles, the ligaments around the joints, the neurilema and investing membranes of the teeth, and the sclerotic coat of the eye.¹

Dr. Johnson has promulgated a theory, in which he does not seem to have been followed by other physicians, to wit; that chronic and acute rheumatism should be considered as distinct diseases. They have, he says, no necessary connection, and are different in their seat, their symptoms, and their cure. The seat of chronic rheumatism, he says, is in the muscular fibres or their investing membranes, while the acute is in the white fibrous substance. The acute disease is in the joints and their immediate neighbourhood, while the chronic is between the joints. Chronic rheumatism, not once in five hundred times, is preceded by the acute. The former does not affect the heart. For these and other causes, Dr. Johnson wishes to substitute the name *arthritis* for that of acute rheumatism, and confine the appellation rheumatism to the chronic form.

In all this, Dr. Johnson does not seem to be governed by his usual good judgment or accuracy. It is matter of common notoriety that those who have suffered from acute rheumatism, are frequently, perhaps generally, subject for years, if not for life, to occasional or constant rheumatic pains and soreness in the parts that have suffered most; and these pains are felt not in the muscles particularly, but precisely in the same situation in which the pains of acute rheumatism were seated. The heart affection which is the result of rheumatism is apt to become chronic. The rheumatic diathesis will undoubtedly in many cases show itself more slowly than in acute rheumatism, and assume the chronic form without being preceded by the acute; but the two diseases are the same in essence, and proceed from the same causes acting under different circumstances, and with different degrees of concentration.

SUMMARY.—If then it be asked, what on the whole are the conclusions to be drawn with regard to the pathology of rheumatism? it may be answered:—In the first place, rheumatism is an inflammation. In the second place, there is strong ground for considering it a specific one—or one resulting from some peculiarity in the constitution existing at the time. Thirdly—this seems to consist in an altered state of the blood, which fluid is richer or contains more fibrine than natural. The writer has not entered particularly into the dispute which is now going on between M. Chomel and Bouillaud, with regard to suppuration in acute rheumatism. It is necessary for the substantiation of the theory of the latter, that

¹ Dr. Gregory.

rheumatic inflammation should suppurate and ulcerate, like simple inflammation; consequently his industry and ingenuity is tasked to prove that this is the case. The fact is, however, that it very rarely, if ever, suppurates. An inflammation, as has been said above, sometimes succeeds rheumatism, which produces suppuration in the joints, and this has given rise to the idea that rheumatism suppurates. Fourthly, Rheumatism is generally, if not always, confined to the white fibrous membranes, especially the tendons, and tendinous expansions. Wherever there is muscle, there is a white membrane forming a constituent part of it. As these membranes also pervade every part of the body, every part may be the seat of rheumatism. The pia mater, the pleura, pericardium, peritoneum, cornea, conjunctiva, &c. Fifthly, Pericarditis often precedes, coexists with, or follows, acute rheumatism, either as the result of the diathesis that produces it, or as an effect of the disease itself; but there is no proof that the one is necessarily coexistent with the other, either as cause or effect. If we are always to infer the existence of pericarditis or endocarditis whenever we meet with rheumatism, the conclusion is, that the former is the cause of the latter. But in what way the disease of the heart and its envelopes can produce disease in the remote parts, does not appear very intelligible. There seems to be no necessary connection between the two, such as to make it probable—no mode by which the causation acts. If on the other hand, the heart affection be the effect, there appears to be no necessity for its being constant or general, any more than the affection of the pia mater, or cornea, should be constant or general. The erratic nature of rheumatism should lead us to expect that the parts attacked should be different in different cases. If rheumatism be altogether produced by an external cause, there is still less necessity for its attacking the internal organs. The conclusion is, therefore, that pericarditis or endocarditis, though frequently coexistent with rheumatism, is not necessarily either its cause or its result.

TREATMENT OF ACUTE RHEUMATISM.

M. Bouillaud, who maintains the identity of rheumatism with inflammation in general, may be considered as the grand advocate for *venesection*. He practices blood-letting, three, four, five, and seven times, and sometimes eight times consecutively, and from sixteen to twenty ounces each time. Under this treatment the patient is ordinarily cured in from fourteen to sixteen days; whereas formerly it occupied five or six weeks. Dr. Johnson remarks that the accuracy of this statement must be doubted; since it must require three or four weeks to correct the fibrinous condition of the blood. M. Bouillaud's method is as follows.

"The patient on the evening of his admission into the hospital, (provided he be very strong and have a good constitution) is bled to sixteen ounces. From very plethoric patients twenty to twenty-four ounces are sometimes taken, but sixteen ounces is the common dose."

"Second day—two bleedings from the arm, of from twelve to sixteen ounces each, and in the interval between them, leeching or cupping, (the latter by preference) to the extent of twelve, sixteen, or twenty ounces. The cupping glasses are applied around the affected joint or the precordial region, if as generally happens, the heart is implicated."

"Third day—one bleeding from the arm, and the abstraction of twelve to sixteen ounces of blood by cupping from the joints, or from the region of the heart."

"Fourth day. The fever, pus, swelling, &c. have sometimes completely subsided by this day, in which case the farther abstraction of blood is not practised, but should they still exist, he is once more to be bled to the extent of twelve or sixteen ounces."

"Fifth day. Generally speaking the disease by the fifth day is in full progress towards resolution. Sometimes, however, the fever still continues well-marked, and in that case venesection to twelve ounces, or cupping to the extent formerly stated becomes advisable."

"From the sixth, seventh, or eighth day, the patient convalesces rapidly, and may now begin to take food."

"Should a relapse take place, (which will sometimes happen, though not so often as after other methods of treatment,) bleeding may again be necessary. Thus in a case in which the disease had been cut short by four bleedings, the patient relapsed, and before recovery took place, it was found necessary to bleed him again five times."

"Slight relapses may be treated by emollients, abstinence, baths, and anodynes, &c. the disease wearing itself out in a few days."

"To escape relapses, it is of paramount importance that patients guard most carefully against the slightest breath of cold."

It is remarkable that M. B. supports himself by the authority of Sydenham, who in his early practice bled every three days, but who subsequently, regrets that he bled so freely, and states that he had found a limited diet, merely attended with as good effects, and free from the inconveniences attending his former method of treatment.

Sydenham, in his chapter on rheumatism, gives the following as his method of treatment. As soon as called, he ordered ten ounces of blood to be taken from the arm. The next day he repeated the bleeding to the same quantity, and in a day or two after, according to the strength of the patient, bled again—then interposing three or four days, as the strength, age, and other circumstances of the patient indicated, he bled a fourth time. In his letter to Dr. Brady, at a subsequent period, he mentions that the bad consequences

resulting from the loss of a large quantity of blood, by repeated bleeding, had induced him to search after some other method of curing the disease. Accordingly he found that a diet of whey, used instead of bleeding, had the desired effect. In old persons, and such as have been long accustomed to too free use of wine and spirituous liquors, he considers such a diet unsafe. In this case, he says, it is highly proper to use nearly the same method of cure as before delivered, only he has found by experience that after the second, or at most the third bleeding, it is better to purge often, than to trust to bleeding only, by which means there is a place left for opiates, which otherwise must be refrained from. In his "*processus integri*," he says, "In young persons, and such as live temperately, and drink wine with moderation, the rheumatism may be as successfully cured, by a very cooling and moderately nourishing diet, as by repeated bleedings, which they cannot so well bear." In the case he gives of Mr. Malthus, the whey diet was continued eighteen days, after which it was gradually enlarged.

One of the principal objections that has been made to venesection, is the supposed danger of its producing metastasis to the heart. Dr. Alison, in the *History of Medicine*, in the *Cyclop. Pract. Med.*, says, "he has no difficulty in stating his conviction that large and repeated bleedings increase the tendency to metastasis." But it is now becoming the general opinion that pericarditis or endocarditis is not the effect of metastasis. Dr. Macleod and Dr. Watson remark, that very young subjects, who are most liable to pericarditis, and in whom it most frequently occurs in connection with rheumatism, are the most seldom bled; and that venesection has been rarely practised in France, and was not performed on those subjects in whom M. Bouillaud found pericarditis and endocarditis to occur in so large a proportion of the cases. This seems to be a mistake of Dr. Macleod, for M. Bouillaud's subjects were bled, so that his reviewer in the *Med. Chirurg.*, though a friend to M. Bouillaud's system, draws a directly opposite conclusion. The influence drawn by Dr. Macleod is, that the heart affection has occurred not in consequence of venesection, but from the neglect of it. It is also asserted that the idea of metastasis being produced by venesection must have naturally arisen from the fact, that it is in the most severe cases that blood-letting is employed, and that it is of course in the most severe cases that the affection of the heart or pericarditis occurs.

It may be conceded, that the danger of metastasis, as a consequence of blood-letting, is not so great as has been represented. The writer has seen it employed with the most positive benefit. In the case of a female of nervous disposition, who suffered extremely from acute rheumatism, he exhibited the common remedies, such as cathartics, &c. without relief. She could not bear opium. It produced vomiting, and increased the nervous sensations to the most extreme degree. About the third morning after the attack, the writer was sent for in haste. He found that the pain had left

her limbs. She was now in the utmost agonies from a pain in her eyes and forehead, crying out and begging in the most earnest manner for immediate relief. She was immediately bled to about twelve ounces. The pain instantly ceased. From this time she was free from pain, and in a few days was able to go about her house, and attend to her usual concerns. This case and some similar ones, has led him to doubt, whether it be not better as a general rule, to delay bleeding, and keep it in reserve for such cases as have been mentioned. It has been the rule generally acted upon, that in acute diseases, venesection if required, must be performed as near the onset of the disease as possible; but the authority of Louis has brought this principle into question. It also seems to be the general theory that rheumatism seldom or never occurs, except in the sanguineous and plethoric. In practice, however, we find that those of spare and nervous habits, are nearly if not quite as often attacked—and in these it is evident, venesection is much less proper, and in many cases is highly injurious. Where the patient suffers from spasm, or other strong nervous affections, blood-letting is improper, unless it can be proved that the nervous affection is the result of entony. In the very plethoric and sanguineous, the disease may in some instances be cut short by free venesection. The opinion of Dr. Barlow, that rheumatism is the result of plethora, has been already alluded to.

Nothing can be more ridiculous than the attempt to lay down a general rule adapted to all cases. On the whole, therefore, the best rule, is to be guided by circumstances. “Nec deus interisit, nisi nodus vindice dignus.” We should not employ a heroic remedy unless it is decidedly indicated. The plan of repeated and copious blood-lettings, notwithstanding the authority of Sydenham, does not appear worthy of imitation; nor is it very intelligible, notwithstanding all that is said of the tolerance of bleeding in rheumatism, how a copious venesection can leave a patient in a condition to be benefited by another and equally copious one within two or three days. The pain in itself is depriving the patient of his strength as fast as possible. An attack of acute rheumatism, unaided by bleeding, will reduce him in a very short time, to the last degree of weakness and emaciation, and it may be very much doubted, whether weakness is not the best preparation for a transfer or migration of the disease, to the heart or brain; whether the system is not in fact less able to resist such transfer in proportion to its want of strength. Although, therefore, we would not forbid bleeding in all cases, we should object to its employment as a general rule. We should say, *cave ab venesectione*.

It must however be conceded, that the testimony of by far the greater number of the best writers, is in favour of at least one bleeding. Venesection is generally regarded the grand specific. For the neglect of it, we have, however, the names of Cullen, Fordyce, Heberden, Haygarth, Joseph Browne, Elliotson, Alison, Chomel, and Louis, &c. &c.

There is another consideration with regard to blood-letting. It will hardly be denied that the operations of nature are generally sanatory. It is certainly becoming more and more the custom to trust the powers of the constitution, and to watch and aid the operations of nature, rather than interfere with them. We make, "natura duce," our motto, though we often forget it. But if we make it a rule to practise profuse blood-letting, or even to commence the attack upon the disease with copious venesections, we take the case out of the hands of the vis medicatrix, and we are responsible for the consequences. We ought, therefore, to be very sure we are right, before we venture upon this course. Sydenham also tells us, that a strict whey diet will cure young and temperate persons full as well, and without the bad consequences of venesection. It seems difficult to account for his having left his sanction upon the heroic use of the lancet. Perhaps, even he felt a lingering attachment to the practice he had for many years employed and advocated, and a degree of shame at confessing, even to himself, that he had been wrong. It is probable that his practice was more essentially modified than his doctrines. With regard to his remarks as to those accustomed to the too free use of wine or spirits; he undoubtedly referred to what are called *good livers*, whose hearty diet renders them plethoric. Those whose constitutions have become debilitated by intemperance, it is well known, are the least able to bear venesection. It is singular that M. Bouillaud remarks, that the cases of Sydenham were probably of long duration. Sydenham did not bleed in accordance with M. Bouillaud's formula.

In cases where the heart or pericardium has become affected, it may be more necessary to bleed. Dr. Elliotson, and Dr. Alison, however, advise local in preference to general bleedings. Here too we must be guided by the nature of the case. The symptoms may be so urgent as to render general blood-letting necessary. The abstraction of blood by leeches and cupping is slow, and considerable time must elapse before they can be applied. The expense attending leeches is also a serious objection among poor patients. A lancet is always at hand, and instant relief may be given. Dr. Watson recommends the use of the lancet in conjunction with mercury. Dr. Seymour, says, he has never in one case omitted venesection without finding cause to regret it.

The next remedy we shall consider is *antimony*. Dr. Haygarth was in the habit of giving antimonial powder, or tartarised antimony, in acute rheumatism, as a preliminary to bark. Emetics of any kind are probably useful in this disease, from their relaxing the system generally, and promoting a tendency to perspiration. In cases where there is a disposition to spasm, there is no remedy more likely to be beneficial. The success which has been found to attend the use of tartarised antimony, in pneumonia, might lead us to the conclusion that the same benefit might result from its use in rheumatism. The free evacuation of the stomach at the onset

of the disease, and the action of vomiting must be of advantage. Some cases were given in the Clinique Médicale of M. Brichteau, 1835, of the administration of this remedy, but it was employed in union with blood-letting. Pneumonia and acute rheumatism, he says, are the two phlegmasiæ which are the most benefited by the tartrate given in large doses. Scudamore says, that if the patient has been seized in consequence of exposure shortly after eating to excess, an emetic should not by any means be neglected. He employs antimony afterwards in the dose of from one eighth of a grain to a grain, in combination with half a dram to a dram and a half of acetum colchici, carbonate of magnesia, carbonate of potass, sulphate of magnesia, and lemon juice.

Two successful cases have been given by a physician of Montpellier, who exhibited it in doses of a quarter of a grain, and increased it until nausea and diaphoresis were induced.

A physician of experience informs this writer, that he is in the habit of giving antimony combined with laudanum in acute rheumatism. Six grains of the tartrate of antimony are dissolved in eight ounces of water, with from a dram and a half to two drams of laudanum, and given in doses of a table-spoonful every two or three hours. As soon as the specific effects of the drug are produced, the suffering of the patient is relieved. Certainly no medicine, unless it is mercury, seems to have the *rationale* more in its favour in this disease. Its power in pneumonia, also, should lead us to expect favourable results from it in rheumatism. Can any one be better calculated to allay the excitement, remove the richness, or alter the too fibrinous nature of the blood, whichever may be supposed to be its condition? If the blood is unaltered in rheumatism, then there is still greater reason for the treatment found beneficial in pneumonia answering in this.

OPIMUM.—Dr. Heberden speaks favourably of the use of opium uncombined, as a safe and effectual remedy for the purpose of mitigating the pains, and procuring easy nights of sleep, and contributing to the cure of the disease by its calming as well as by its sudorific power. This practice which was formerly in vogue, had been pretty much abandoned, but has recently been revived among us, and found some warm advocates.

Dr. Seymour, of St. George's Hospital, tells us that where the disease has continued long, and the patient's strength is much broken, but where the redness, swelling, and pain, continue in an inferior degree, one grain of opium alone, given every four hours, will often operate like a charm. Its safety, he says, has been illustrated by extensive experience in the course of the last eight years, while the calomel and opium treatment, though undoubtedly effectual, has the disadvantage of producing a sore mouth. In the second stage of the disease, opium is certainly more admissible than in the first. But it may well be asked, why give opium by

itself, when we can avoid its well known evil consequences, by combining antimony, calomel, or ipecacuanha with it?

The use of opium, by itself, cannot certainly be employed upon rational principles. If rheumatism is an inflammation, is opium a proper remedy in inflammation? On the contrary, it is considered improper and dangerous. On the other hand, if it be a disease *sui generis*; if it depend upon plethora, will opium remove the redundant materials of the blood; or if the blood is in any manner altered in quality, will opium restore it to its natural state? Is it not rather, (to borrow the strong though not over refined expression of one of our late physicians,) is it not locking up the door after he has got in? Its employment, therefore, is altogether empirical. Nor does it appear that experience is in its favour. There is not sufficient evidence recorded of its utility. On the other hand, there are many objections to its use. In the first place, opium interferes with the employment of other remedies. The suffering in acute rheumatism is very great, and requires a very large dose of opium to subdue it. In many cases it will not succeed, or its effect is only temporary; and then it leaves the patient in a heated, excited, irritable state, in which his sufferings are tenfold what they would have been without it. It also produces obstinate costiveness to which there is already a great tendency in this disease. The evil of this, from its requiring powerful medicines to subdue it, is by no means slight, especially when the patient has been exhausted by pain and disease. The injurious effect of opium upon the stomach is well known; and in the affection under consideration, it is particularly important to preserve or restore the healthy state of this organ. If it be allowed also that the blood is altered, opium will interfere with its restoration to its natural state.

These remarks, however, will be understood to refer to the use of opium uncombined, and as a means of subduing and smothering the disease. As an adjunct, and combined with antimony, calomel, or ipecacuanha, it loses its bad qualities, and forms a most useful remedy.

DOVER'S POWDER is an excellent preparation; but it will be found better suited to chronic rheumatism, or to the acute after the violence of the disease has abated, than at the onset.

MERCURY, CALOMEL AND OPIUM.—The use of calomel has many advocates. Scudamore recommended it combined with colocynth, for the purpose of “producing a more free excretion of bile than would be effected merely by the saline aperients. It also assists in reducing the inflammatory diathesis, and increases the action of the absorbent system.” He gave from one to five grains. Corrosive sublimate has been sometimes employed, and with alleged success, in very small doses. Dr. Pittschaft employed the red precipitate in doses of from one eighth to one fourth part of a grain, twice a day, and if it irritated the alimentary canal, he combined opium with it. Dr. Hamilton seems to have been the first

who proposed the employment of calomel and opium. Since then, it has been employed by many physicians with success, and combines a greater amount of testimony in its favour than any other course, whether preceded or not by venesection. Dr. Chambers employed it with great success at St. George's Hospital, giving ten grains of calomel combined with two of opium, every night and morning, or every night, as the case appeared to require, until the mouth became affected. A number of cases, exemplifying this treatment, are contained in the 56th vol. of the London Medical and Physical Journal, and also several cases by Dr. Macleod, who was led to adopt the practice by witnessing the success of Dr. Chambers. When the mouth became affected, the disease was relieved. Dr. Hope employs calomel and opium in the same manner, and gives colchicum at the same time. By this course he not only cures his patients, but enables them to resume their customary occupations in a week; a degree of success which no one else—even M. Bouillaud—ventures to boast of. Dr. Watson speaks of the use of calomel and opium, as of the utmost importance in aid of the lancet, when the pericardium or heart is affected. Dr. Latham enforces the use of mercury, in still stronger terms, to arrest the deposition, and promote the absorption of lymph. Its efficacy he considers certain, when its specific impression is early produced, but it fails when this is not the case. It cannot be brought to affect the system too speedily.

COLCHICUM.—This remedy has enjoyed much favour in the disease of which we are treating. It has been greatly used, in both the acute and synovial forms; but Drs. Macleod, Chambers, and others, think it principally useful in the synovial forms. Dr. Hope speaks very favourably of it in both. He gives from seven to ten grains of calomel, with one grain and a half, to two grains of opium, at night, succeeded the next morning by a full draught of senna. Then he gives the following, three times a day.

R. Vini colchici. m. xv. ad xx.
 Pulv. Dover, gr. v.
 Mist. salin. ℥x.
 Syrup. ꝑi. M.

As soon as the mouth becomes sore, the calomel is stopped, but the opium is continued for several days. When the patient suffers much, it is sometimes given once in the middle of the day. By this method the patient is generally cured, and enabled to resume his usual occupations at the end of the week. A case of longer duration Dr. Hope considers an exception. The principal objection to this is that it promises too much. If, however, a patient may be cured in this manner in one week, while the shortest method advocated by others does not profess in less than a fortnight, as a general rule, and the average duration of rheumatism is fixed at from twenty to forty days, it certainly ought to have the palm

assigned to it, over every other method. Notwithstanding, however, the apparent extravagance of its pretensions, Dr. Hope's name gives it weight and authority.

Mr. Tweedie, in a letter published in the London Medical Gazette, in 1831, states, that in consequence of the uncertainty of strength, in the preparations of the wine of colchicum, Dr. Addison had adopted at Guy's the plan employed at the Mass. General Hospital, of giving colchicum in substance. He administered it in doses of four grains every four hours, six grains every six hours, &c. each dose combined with twenty or thirty grains of Epsom salts. Mr. Tweedie considers that the trials made at Guy's prove colchicum to be the best remedy in rheumatism.

Dr. Graves explains the beneficial action of colchicum as dependent upon its peculiar power of preventing the formation of the lithates, which, he says, abound in the urine of rheumatic patients. As soon as the exhibition of colchicum is commenced, the patient begins to amend, and the quantity of the lithates found in the urine to decrease daily, while the medicine is continued.

GUAIACUM.—One of the most recent testimonials in favour of this medicine is that of Dr. Seymour, published in the October number of the *Med. Chirurg. Review*. Next to blood-letting and purging, it is the remedy he chiefly relies upon. He attributes its good effects not to its stimulant powers, but to its action as an evacuant, provoking purging, perspiration, and a flow of urine, in a very violent degree. When its purgative action is too great, he gives one grain of opium at bed time to check it. M. Alies, of Coulombier, in a paper read to the Royal Academy, some years ago, gave an account of twenty-one cases cured by guaiacum, to which he attributes specific powers, similar to those of cinchona in intermittents, or mercury in syphilis. Ten ounces of the wood were added to three quarts of water, which were boiled down to one quart. One sixth of this quantity was given three times a day. In one case the treatment was continued for twelve days, during which time the patient took five pounds.

CAMPHOR.—This seems to have been first employed in rheumatism by Dr. Amable Chère, at Chalons sur Saone. M. Dupasquier, in a long article on rheumatism, in the *Revue Médicale*, May, 1826, describes it as a remedy almost sure to stop the progress of the disease. It may be given in substance, but is more effectual when applied in the form of vapour. M. Dupasquier thinks it destroys the inflammatory action, by producing a powerful revulsion; that is by inducing perspiration, and afterwards by its absorption through the skin and pulmonary organs, by acting on the general and first cause of the disease as a sedative. The patients were placed in a kind of box invented for the purpose. When this could not be obtained, they were seated in a chair, over a small furnace, with a blanket thrown over them, reaching to the ground, and

drawn close around the neck. A teaspoonful of camphor is then to be thrown every five minutes on a metal plate, covering the furnace. It rapidly volatilises, and speedily covers with sweat every part of the body, with which it comes in contact. When the bath is over, the patient is to be wrapped in a blanket. Half an ounce of camphor is enough for a bath. The number of fumigations must depend upon the strength of the patient. When he is strong and has much suffering they are repeated three or four times a day. Some mild diaphoretic drink is to be given during the fumigation. When the patient cannot be taken out of bed, the bed clothes may be raised up by hoops, or other contrivances, and the camphor volatilised by means of a warming pan, moved up and down the bed. The fumigations must be continued a week after the pains have subsided. A notice of the recent employment of camphor, in the manner proposed above, is contained in one of the late European journals.

It is obvious that it must be a great objection to any remedy that it requires the patient to be removed from bed, as motion increases his sufferings in a great degree; and in the violent stage of the disorder, it will be impossible for him to sit up. If therefore the camphor vapour can be introduced into the bed, either in a warming pan as above mentioned, or by means of the hoops and pipes employed for giving a common vapour bath to a patient in bed, its use will be much facilitated. There does not seem to be any danger in the employment of this remedy, and as, when the patient is in extreme suffering, the attendants must be doing something, or have the appearance of doing something for his relief, there can be no harm in giving it a fair trial.

ACETATE OF AMMONIA.—This remedy is employed by M. Magendie, in consequence of its possessing the power of attenuating fluids in a great degree. By producing this effect upon inspissated blood, M. Magendie hopes to attenuate the particles of the stagnant blood to such a degree that they will no longer be retarded from entering and passing through the minute vessels.

CINCHONA.—It is one of the most singular facts in medicine, that opposite remedies in the hands of different practitioners, and eminent ones too, often seem to succeed, and equally well in the same disease. There is some principle in the economy by which this phenomenon takes place, which has never yet been accounted for. Thus we cure gonorrhœa *rationally* by a strict antiphlogistic course; we cure it often empirically in less time by a stimulant one. On the onset of a cold or catarrh, we can often cure it immediately by the empirical process of giving stimulants. We can cure it rationally, and with more safety, though somewhat more slowly, by a strict antiphlogistic course—withholding liquids, and confining the patient to a very spare diet. If the simile were not too humble, we should be tempted to compare the morbid

action, or the morbid matter, whichever it is, that the system has to get rid of—to a pot of liquor boiling over a fire. If we add more fuel, the pot will boil over, and we shall get rid of the scum in that way, though at the risk of considerable loss and damage. On the other hand, if we go carefully to work and skim it off, it will be a much slower process, but a much safer one.

The bark seems to have been first employed by Dr. Morton. Sir Edward Hulse, Dr. Hugh Smith, Dr. Fothergill, Dr. Geo. Fordyce, Dr. Haygarth, and Dr. Swediaur, were among its most eminent supporters. The principal object of Dr. Haygarth's work on rheumatism, and nodosity of the joints, appears to have been to bring the bark into favour. In 121 cases the bark failed only in four. And Dr. H. concludes that acute rheumatism is cured by bark with more certainty and speed than the ague.

Dr. Good attempts to reconcile the effects produced by opposite remedies, by attributing the success of bark to the residence of the patients in low swampy ground, or to their being of weak and irritable habits; but he allows that this does not explain the general and indiscriminate success, which seems to have attended its use.

IODINE has been employed with alleged success in acute rheumatism by Dr. Clendenning, and Dr. Elliotson, at the New London Hospital, Dr. Roe, at Westminster, and Dr. Williams at St. Thomas's. Dr. Graves has employed the hydriodate of potass, which has been used also by Dr. Elliotson, in doses of two and a half grains, three times a day in solution. It is probable that as iodine becomes stripped of its pretended and extravagant powers, and sinks down into an ordinary member of the Pharmacopœia, it may be successfully employed as an alterative, in the same manner with antimony or mercury, in this and other diseases.

ARTICHOKE.—In the eighth volume of the Boston Medical and Surgical Journal, will be found an article copied from the London Medical Gazette, on the use of the common artichoke, (*cynara solymus*) in both the acute and chronic form of this disease. Four cases of the former and two of the latter are given, all of which were *cured* by this remedy. As the medicines already in our Pharmacopœia, used in rheumatism, are sufficiently numerous, it is hardly necessary to do more than refer those interested in the matter to the paper itself.

ACONITE.—A paper was published in the Gazette Méd. de Paris, in 1834, giving an account of six cases, in which this remedy was employed with speedy success. It was given in the dose of half a grain of the alcoholic extract, three times a day. Where opium does not agree with the system, our invention will be taxed to find other narcotic remedies for the relief of the pain. The uncertainty of this remedy is the greatest objection to its use. An instance of this may be found in the second of the cases referred to. One

grain was prescribed to be taken four times a day—eight grains were inadvertently taken at once, and no unpleasant effect ensued. Half a grain will act more powerfully on some persons, than five grains upon others.

EXTERNAL AND TOPICAL APPLICATIONS.—These are principally beneficial in chronic or synovial rheumatism. The warm bath, vapour bath, sulphur and camphor baths, which last has been already sufficiently discussed, are the chief that are recommended in the acute disease. To imitate the douche baths, at Aix les Bains, the following method has been devised by a London physician. He says, I set my rheumatic patient in a chair, at the side of which is placed a large vessel capable of containing three or four gallons of boiling water, and envelope patient and all with a blanket pinned close round his neck. In a few minutes he is bathed in a copious perspiration, and in this state he is directed to apply percussion to the pained joints by means of an elastic ball made of cork, covered with kid leather, and fixed on a handle of cane or whalebone about a foot in length. I have seen the most decided benefit follow this practice; and in one case of seven years' standing, after the daily employment of this dry douching, my patient was beaten into excellent health, and threw aside a crutch which he had long used." Dr. Johnson speaks of the warm bath as dangerous, excepting where metastasis has taken place from the extremities to an internal organ. The same remark would probably apply as forcibly to the others. How far there may be danger of their producing metastasis at the onset of the disease, the writer is not prepared to say, but as their tendency is to throw the action outward from the internal organs to the skin, it does not appear that there is this danger. The trouble and fatigue to the patient is a serious objection to the warm bath: the others it would seem might afford great relief by promoting healthy instead of diseased perspirations. At any rate they may be employed with safety and advantage, when the fever has begun to subside. The sulphur bath is of known and well tried efficacy, especially in chronic rheumatism; but its unpleasantness is a great objection to its use. It would undoubtedly be employed much more frequently, if it were possible to induce patients to use it: and it is hardly possible to have it in a private house. The camphor bath or fumigation has not yet been sufficiently tried, to demonstrate its utility; but it seems to be well deserving of trial, if only on the ground above mentioned, to fill up time.

BLISTERS AND SINAPISMS.—The relief afforded by blisters, in the case that has been detailed, was so great, that the writer has always been in the habit of employing them or sinapisms, and always with apparent benefit. The sinapisms were less effectual in the relief of pain; but they may be employed sometimes where blisters cannot. As these applications draw the action towards the

surface, they certainly have more tendency to fix the disease than to drive it to another part. Blisters are employed in erratic erysipelas to fix the complaint; they can hardly therefore promote metastasis. Instead of their adding to the suffering, they are actually the most pleasant remedies possible, from the relief they afford. Where the pain, however, is not felt, while the parts are kept perfectly at rest, there is not the same reason for their use. In cases of rheumatic pains in the lumbar region, the writer has seen a sinapism act like a charm in removing the complaint.

VERATRIA.—Rheumatism is one of the diseases in which this remedy is recommended by Dr. Turnbull. He employs it only externally, in an ointment composed of ten grains to the ounce, rubbed upon the joints in the decline of acute rheumatism, after the active symptoms have abated, and in chronic rheumatism.

LEECHES AND CUPPING are undoubtedly among the most important of local measures. Dr. Elliotson, Dr. Alison, and others, who disapprove of venesection, make them the principal remedy in the heart affection.

ENDERMIC APPLICATIONS.—The acetate of morphia has been used of late, externally, by M. Brachet, of Lyons, and other physicians, English and Continental, for the cure of this disease. A small blister is drawn as near as possible to the part affected, and one half to one grain of the acetate applied to the denuded surface. In one instance, the writer has known this method employed with great relief. It produced at first extreme pain, as the application of laudanum does to a denuded or delicate surface, but in half an hour the pain in the joint was entirely removed. It is obvious, however, that this is better suited to chronic rheumatism, or to acute rheumatism after the fever has subsided. Such a remedy may relieve a part from pain, but cannot subdue the constitutional affection.

SETONS.—Some cases, illustrative of the value of setons, employed even in the most acute cases of rheumatic affections of the heart, are given in the Addenbroke Hospital Report, in the last July number of the Medico-Chirurgical Review. In chronic cases their benefit is well known. It is doubtful whether they can be as useful in acute cases as blisters; but where any thing prevents the application of a blister, and in chronic cases, they may be employed with much advantage.

A simple application, but one that will sometimes afford great relief to the swelled and painful joints, especially after the fever has diminished, is a bath or wash of warm water and soap. "It is only weak minds that slight things because they are common and simple."¹

¹ Sydenham.

ACUPUNCTURE.—The same number of the *Revue Médicale* that contains the article on the use of camphor above referred to, contains the account of a case of rheumatism of the heart, cured by acupuncture, by M. Peyron. A young lady, aged 18, of a good constitution and nervous temperament, after having lived for several years in a damp house, was attacked with rheumatism of the legs and arms. After leaving the house this was relieved, but she soon began to be seized with acute pains in the heart, palpitations and delirious loquacity, the attacks lasting from a quarter of an hour to three hours and more. M. Peyron found the pulsations of the heart very violent and distinctly audible at the upper and back part of the side of the chest, and even of the right; impulsion of the ventricle to that of the auricle, as one to five eighths, pulse quick and intermitting. A needle thirteen lines in length was introduced without however touching the heart. This was followed by a paroxysm attended with spasms and partial delirium. A needle fifteen lines in length was then used with more powerful effect. A needle eighteen lines long was next passed from the upper border of the cartilage of the sixth rib through the pericardium until the point entered the heart. No bad result ensued, the pain was relieved and did not return.

Dr. Elliotson, the grand experimenter with new remedies, gave this a fair trial at St. Thomas's Hospital, and in private practice. He found it chiefly useful in rheumatism of the fleshy parts; and the more so in proportion as the disease was less inflammatory. One needle left an hour or two in the part, he found more beneficial, than several used for a few minutes only. Acupuncture, if useful at all, must be chiefly so in chronic rheumatism. With regard to its application in the cardiac affection, one would hardly wish to imitate the practice of M. Peyron.

ABSTINENCE.—There is no disease in which a strictly regulated diet is of more importance than in this. None in which any variation or indulgence is more sure to produce a relapse. During the violence of the fever and pain, indeed, there is little danger that the patient will exceed, though even here there is need of great caution; but as soon as he is free from suffering, his appetite must be cautiously guarded. A diet of whey, according to Sydenham, is a sufficient cure for this disorder. If it were not for the prejudices of the vulgar, he says, this diet might be suited to other diseases. This remark is as true now as it was when Sydenham made it, and we seem to be getting every day more to act in accordance with it, employing a low diet, in place of blood-letting and purgatives. A low diet, the writer is convinced, ought to be employed in most cases of chronic rheumatism, but in the acute disease it is indispensable. Still more necessary, if possible, is it when the acute affection is attended with pericarditis; and it is most probable that if an antiphlogistic diet were carefully persevered in,

subsequent to the cure, organic lesions of the heart would be much less frequent as the sequelæ of rheumatism or pericarditis.

From what has been said it will be seen that the writer is not inclined to recommend blood-letting as a general rule, a sine qua non, although he confesses that the majority of the best European writers, even those most opposed to the sanguinary system of M. Bouillaud, maintain the necessity of at least one bleeding at the onset. In this he has the support of M. Louis, and, as he believes, of our principal physicians. At the same time, there are cases in which venesection is undoubtedly of service, especially after the disease has seized upon an important or delicate organ.

The grand imperfection of all medical treatises, especially with regard to treatment, is that the writers are obliged to lay down general rules, which the inexperienced reader would naturally apply to all cases; whereas no two cases, perhaps, will ever allow of precisely the same treatment. It is well, therefore, that we have such a variety of therapeutical means within our reach as we have in this disease. And here another suggestion occurs. When so many articles of the *Materia Medica* have their advocates in any particular disease, the common conclusion is that they all fail, and the disease is designated as the *opprobrium medicinæ*. But may we not fairly draw another inference—to wit, that where so many means have been accidentally or otherwise resorted to, each finds too many advocates, and none is employed so generally or with sufficient patience to enable it to acquire the preference? The writer is hardly willing as yet to allow to rheumatism the title of a self-limited disease. He is unwilling to believe that it cannot be cut short by judicious management at the onset.

As a substitute for venesection, and as a medicine well calculated to answer the indications, he would give tartar emetic at the onset, in the same manner as in pneumonia. In the most violent attacks, attended with pericarditis, he would resort to venesection. This is a remedy he would always have in reserve, to be employed when decidedly indicated; but in milder cases of the heart affection, he would trust to the antimony and to local depletion, especially by leeches—succeeded by a blister or a seton, and in some cases the antimonial ointment. In cases where there is any objection to the use of tartar emetic, the calomel and opium plan should be preferred, combining antimony with the pills, or not, according to circumstances. If antimony is employed at first, a pill of antimony and opium may be given at bed time. After the antimony, or if the antimony is not given, the colchicum may be employed, either as recommended by Dr. Hope, or in substance. The uncertainty with regard to the strength, must always be an objection to the wine.

If the suffering is severe when the parts are at rest, blisters and sinapisms may be applied to the affected regions successively. These are more important and useful in proportion as the disease is local and fixed. Blisters are more effectual, but their operation is slower, and they are more troublesome afterwards.

In a disease where there is so much suffering, it is difficult to avoid doing more than is absolutely useful, and it is well to employ means which serve to fill up the time, and amuse the patient and his friends. For this purpose the vapour and camphor baths may be employed. After the violence of the disease has abated, and in proportion as it assumes a chronic form, such measures become more important. We cannot hope to accomplish much by local means, while the constitutional affection is at its height.

Costiveness is always an attendant on rheumatism, and guaiacum given according to circumstances will be the best remedy to obviate it.

With regard to diet enough has already been said. The most strict antiphlogistic diet must be maintained from the commencement of the attack, until the cure is completed, and the patient placed beyond the danger of a relapse. Unless this is strictly enforced, medical treatment is of no avail, and it is not quite certain that this alone is not sufficient for the cure.

TREATMENT OF SYNOVIAL RHEUMATISM.—In the synovial form the fever is generally less violent. The disease is more of a local one, than the acute fibrous rheumatism. Here the colchicum is found more beneficial. Calomel and opium may be given until the mouth becomes slightly affected. Blisters, leeches, &c. are here also more useful. The guaiacum may be employed as in the other. On the whole the synovial and fibrous forms run so much into each other, that it is difficult to make a practical distinction. The treatment must be adapted to the individual case.

TREATMENT OF CHRONIC RHEUMATISM.—With regard to the treatment of chronic rheumatism, we have not much to say. The local measures we have already described, are here our principal therapeutical indications. Even here, a rigid diet is of importance; though it must be regulated in accordance with the age, habit, and constitution of the patient. Chronic rheumatism is more of the nature of a chronic inflammation, and as such it should be treated. Leeches, cupping, blisters, sinapisms, setons, the warm bath, vapour, sulphur, and camphor baths are here most beneficial. Mezereon is considered useful. The compound decoction of sarsaparilla, which contains guaiacum and mezereon, is a good preparation. The calomel and opium pill may be given at night, taking care to discontinue it as soon as the mouth becomes in the least affected. Ten or fifteen grains of Dover's powder may be given at bed time, as recommended by Dr. Gregory. Some cases can only be benefited by a change to a warmer climate.

March, 1839.

in a clause where there is no main subject, it is difficult to avoid doing more than a subsidiary clause, and it is well to employ some other verb in filling the gap, and some postpositive in (trans) position. For this purpose, the infinitive and participial forms are employed. For the purpose of the present, let us consider the infinitive as it appears in clauses where such a construction is used. We can see that to accomplish this purpose, the infinitive is used in the form of a noun.

of course, we always understand an infinitive and its meaning given according to circumstances, which is the first tendency to be observed. The first tendency is to regard it as a noun. The first tendency is to regard it as a noun. The first tendency is to regard it as a noun. The first tendency is to regard it as a noun. The first tendency is to regard it as a noun.

The second tendency is to regard it as a verb. The second tendency is to regard it as a verb. The second tendency is to regard it as a verb. The second tendency is to regard it as a verb. The second tendency is to regard it as a verb.

The third tendency is to regard it as an adjective. The third tendency is to regard it as an adjective. The third tendency is to regard it as an adjective. The third tendency is to regard it as an adjective. The third tendency is to regard it as an adjective.

The fourth tendency is to regard it as an adverb. The fourth tendency is to regard it as an adverb. The fourth tendency is to regard it as an adverb. The fourth tendency is to regard it as an adverb. The fourth tendency is to regard it as an adverb.

A DISSERTATION

UPON THE QUESTION

**“WHAT ARE THE CAUSES, SEAT, AND PROPER TREATMENT OF
ERYSIPELATOUS INFLAMMATION. (ERYTHEMA ERYSIPELA-
TOSUM OF GOOD.)”**

“Opinionum commenta delet dies, naturæ judicia confirmat.”

It appears that this disorder has been known and described since the time of Hippocrates, from whom is derived the term erythema employed by Dr. Good. The words erysipelas and erythema, seem to have met with a singular fate in being employed differently by most writers who have undertaken to treat of them; while we find others who, dissatisfied with the vague manner in which these terms have been employed, give us cases of the same disorder, under the head of constitutional irritation, irritative fever, &c. each writer classing a particular group of symptoms under a particular designation, according to his fancy. Thus, Mr. Lawrence under the head of erysipelas, includes the whole genus erythema of Dr. Good, the inflammation of the cellular membrane, adipose membrane, &c. On the other hand, some writers, as Mr. Liston, employ the word erythema, to express simply an inflammation of the skin, or exanthematous flush, and apply the word erysipelas to the more serious affection, in which the cellular membrane often becomes involved. Others, as Mr. Earle, separate the inflammation of the cellular membrane from the inflammation of the skin; whilst another class, among whom is Cullen, have brought in herpes under the designation erysipelas.

It is not the intention, nor is it the province of the present writer, however, to discuss the nomenclature of the disease. Modern medical writers have been censured for their inclination to dispute about words—to write treatises upon philosophy rather than medicine. It shall be my object to confine myself to erysipelatous inflammation, or erythema erysipelatousum, and to the sense in which it is understood by Dr. Good.

Unfortunately it is not merely in regard to the designation that writers disagree. They differ equally in regard to the nature and treatment of the disease. We find one party maintaining warmly, that it is an inflammation, and is produced by the ordinary causes of inflammation, and must be treated by antiphlogistic remedies, while the opposite affirm as positively, that it is an asthenic disease, and must be universally treated with tonics. To this it is replied by others, that an asthenic inflammation is an impossibility—a black swan. These two parties remind us very much of the contention of the two knights respecting the shield, one side of which was gold and the other silver. A third party are for having us attend to the symptoms of the individual case, the constitution of the patient, &c. giving him support when he seems to require it, and using antiphlogistic remedies when the inflammatory action requires it. Others remonstrate against this caution, affirming that the disease depends for its origin and support upon a morbid poison, and that in such a case it is not safe to be guided by symptoms. There may perhaps be found yet another class who think nature would do better, if left altogether, or nearly altogether, to herself: and that, in the present state of our knowledge of the complaint, the patient oftener recovers in spite of our remedies, rather than by their aid; that it must go through its course, and that all attempts to cut it short are futile.

It is indeed probable that there is not half the difference in practice, that there is in theory, in this affection. Fortunately for the sick, the physician loses sight of his hypothesis at the bedside of his patient. There are certainly few practitioners who would give quinine to a person labouring under all the symptoms of active inflammation, with a quick full pulse and other marks of high fever. Nor can there be many who would resort to free venesection and other antiphlogistic remedies, when the patient is suffering from debility. A physician acquires by experience a sort of intuitive knowledge of what the state of his patient demands; and he will prescribe correctly though his abstract reasoning may be false. In proof of this we find that there are no advocates of the antiphlogistic course, who do not allow that the necessity for tonics may sometimes exist; nor any or but few, who forbid the use of antiphlogistics in all cases.

In following the course I have prescribed to myself, of adhering strictly to the limits marked out by Dr. Good, it is necessary to reject much that Mr. Lawrence has included in his account of erysipelas. In his second class he has placed as synonymes, erysipelas phlegmonosum, the diffuse cellular inflammation of Earle, the inflammation of the cellular tissue of Mr. Arnott, diffuse phlegmon of Dupuytren, and the pseudo-erysipelas of Rust. Of course much of the disease described by Dr. Butter under the head of irritative fever, many cases of which occurred after dissecting wounds—by Dr. Craigie under that of adipose inflammation, and by Mr. Travers

under that of constitutional irritation would be embraced within the same limits.

Dupuytren, however, shows a distinction between *phlegmon diffus*, and erysipelas. He says, "although this malady (*phlegmon diffus*) is very frequent and severe, it has been completely passed over in silence by most writers, confounded by others with its complications, and described by modern writers under the names of erysipelalous phlegmon, phlegmonous erysipelas, traumatic erysipelas." We understand him, therefore, to consider erysipelas as a complication of diffuse phlegmon. In Dr. Butter's cases erysipelas appeared in many, but it was as a "complication." In short, erysipelalous inflammation is frequently the attendant of cellular inflammation, but cellular inflammation is not always erysipelalous. One of the most marked characteristics of erysipelalous inflammation, is that it commences in the skin, and extends inward, affecting the cellular membrane secondarily, and this even when the cause is internal. Hence Dr. Copland has drawn the distinction between erysipelalous inflammation and inflammation of the cellular membrane, that the latter has its origin in the cellular membrane, and the skin is secondarily affected. To this distinction I shall adhere, and hence irritative fever, diffuse phlegmon, diffuse cellular, or diffuse adipose inflammation, however near they may border upon my subject, or however frequently complicated by erysipelalous inflammation, will be out of the range of the present inquiry.

As this is a subject upon which much novelty or originality can hardly be expected, it will be my aim to collect and compare the opinions of as many of the best authors, who have treated upon it, as are accessible.

I propose, in the first place, to consider what erysipelalous inflammation is, and as there exists so much confusion and disagreement in regard to it, to examine briefly the descriptions given of it by the most approved writers.

Dr. Good makes the difference between erysipelas and erysipelalous inflammation to consist in the one being a constitutional affection, accompanied with the latter as an exanthem, whilst the latter is the local or cutaneous affection, which accompanies the constitutional. He considers them both as diseases of weakness, requiring a tonic treatment. Although he has classed them under different orders, he makes no other distinction than this, that the one is the local affection combined with the constitutional: the other is the local affection alone. For the rest Dr. Good follows J. Hunter, almost verbally, in his whole account of this inflammation. The older writers, as Hippocrates and Galen, considered erysipelas as closely allied to phlegmon; the latter making the principal difference to consist in an increased yellowness, which he attributes to the presence of bile.

Sydenham describes erysipelalous fever, as attacking every part of the body, particularly the face, at all seasons, but particularly about the end of summer. The face becomes suddenly swollen,

red and painful, and the tumour is distinguished by small pimples, which upon the increase of the inflammation, sometimes become vesicles. Hence it spreads over the face and head, and the eyes are buried in the swelling. The symptoms resemble those produced by the sting of bees, except in the presence of pustules. It is generally preceded by or attended with rigour, shivering, and subsequently thirst, restlessness, and other symptoms of fever, which appear as the disease advances. The fever first produces the pain, swelling, &c. (which increase from day to day, and sometimes terminate in gangrene) and these in their turn contribute to the increase of fever.

Such is Sydenham's description, and I think it will be readily recognised as applying to the acute cases of erysipelas of the face, &c. which we often meet with as sporadic. They occur in different parts of a town or village, like many other diseases not epidemic, appearing about the same time in different situations. In a majority of the cases that have come under the notice of this writer, they have been solitary and insulated, not going from one individual in the same house or family to another. Sydenham's method of treatment is generally successful.

There is also, he says, another kind of eruption, though less frequent, which generally affects the breast, and fixing itself in some certain place rises very little if at all higher than the skin, and appears like a broad spot, or a kind of branny scurf of a yellowish colour. In this species, Sydenham recommends the use of wine and flesh, and forbids antiphlogistic remedies. This is more nearly allied to the erysipelatous inflammation of John Hunter.

John Hunter describes erysipelatous inflammation as arising spontaneously, in consequence of low or debilitating fever, sometimes from accident—when, however, it is secondary. It is commonly cutaneous, but in some constitutions takes the place of every other inflammation in all parts. The extravasation is not so great as in the adhesive or œdematous inflammations, nor does the fluid extravasated produce adhesions; it seems to support itself by sympathy, for it begins at a point and spreads itself to the adjacent surface, while the part first attacked is getting well. The part which has gone through the action either has its sympathy exhausted and becomes healthy, or the inflammation is such as to contaminate while it spreads. It sometimes begins round a wound on the scalp, and extends over the whole head and face, the eyelids being very much swelled, and the ears thickened. Thence it advances to the shoulders, body, and extremities, the part it leaves being cured, and the skin peeling off. The inflammation has a determinate edge, the skin feels a little thickened, and not so pliable as natural, colour a darkish red. It begins with fever, lowness of spirits, loss of appetite, prostration of strength; but it does not last long, and the inflammation spreads after the fever has subsided.

Thus we find Mr. Hunter describes erysipelatous inflammation as attended with low and debilitating fever. He considers it,

therefore, as a disease of weakness, and directs the strength of the patient to be supported by tonics, as bark, &c.

Mr. Lawrence who describes erysipelatos inflammation under the head of erysipelas, follows Galen and Sydenham pretty closely. He argues that the disease in question is an inflammation; it is therefore produced by the same causes, and demands the same treatment. It is merely a modification of cutaneous, or cutaneous and cellular inflammation. Erysipelas affects both the skin and cellular membrane; and hence it is distinguished from the exanthemata which affect the skin only. Phlegmon has its original seat in the cellular membrane, and the skin is secondarily involved. It is a more violent inflammation than erysipelas, though sloughing is more frequent in the latter. The most striking and important distinction is, that the inflammation is confined to one spot in phlegmon and is distinctly circumscribed; while in erysipelas it is diffused and spreads without limit. Coagulating lymph is wanting in erysipelas in which the effusion is serous.

Mr. Lawrence divides the affection into simple or true, œdematous and phlegmonous.

M. Sanson, of Paris, proposes a new division of the varieties of erysipelas. The first is the same with that of Mr. Lawrence, proper erysipelas; the second, lymphatic phlegmonous erysipelas; and the third, venous phlegmonous erysipelas. As his descriptions are more minute and graphic than the others which have been given, I may be excused for quoting them, although at the hazard of being censured for repetition.

In the first, M. Sanson says the inflammation does not extend beneath the skin, and is characterised by a stain of a red colour, more or less deep, like that of the lees of wine, irregularly circumscribed, disappearing for an instant upon pressure, and giving a sensation to the finger of an elevation, varying in height and consistence, according to the region and the texture of the skin it occupies. When the latter is soft and fine, the tension which causes the elevation is not considerable, and is not very sensible; but if it arises in a part where the skin is hard and thick, less moveable, and fixed to the deep parts, by unyielding cellular membrane, it acquires considerable consistence and hardness. On the forehead and nose the erysipelas presents these characters; on the thigh, the surface is rude, rough, raspish, and as it were dried up. Examined with a glass, it is interspersed with a great number of little phlyctenæ, which when broken discharge a fluid of a yellow citrine colour, and semitransparent. This is the bullous, miliary, phlyctenoid erysipelas of writers.

To these local characters, which are accompanied by a sense of weight, heat and pruritus in the part affected, general symptoms are almost always joined, either as causes or effects. Some of these precede erysipelas: pains in the epigastrium, nausea, and squeamishness; bitter or clammy mouth—in a word, all the symptoms of

foul stomach. Sometimes, on the other hand, they accompany or follow it, but they are generally unimportant.

In other cases, whether it be that the inflammation is propagated from the cellular membrane to the skin, or from the skin to the cellular membrane, in persons whose skin is fine, white, and delicate, though not always lymphatic, erysipelas is formed in this manner. Under the influence of the causes that may produce it, we see upon the inner side of the limbs, over the course of the veins, small striæ of a beautiful rose colour, undulated, parallel with each other, painful on pressure, and situate in the substance of the skin itself. They soon increase in volume, grow to half a line in diameter, anastomose, and thus form a network with larger meshes, which gradually become more numerous, narrower, and at last touch each other, and become confounded, forming a red plate or scale, which differs from proper erysipelas in its vividness and colour.

The skin becomes tense and smooth, and the limb augments very considerably in volume. The neighbouring ganglions are engorged, and become painful on the slightest pressure, the warmth is in general increased and becomes painful; the pulse is quick, frequent, confined, and tense. The head is affected, and delirium comes on, characterised by violent agitation, and sometimes furious transports.

In the great majority of cases this form of erysipelas, which M. Sanson calls lymphatic phlegmonous erysipelas, goes on rapidly, and terminates, in spite of all we can do to prevent it, in suppuration, and even in the complete destruction of the cellular membrane. M. Sanson has seen many cases of this kind, and mentions one in which the skin of the leg was entirely stripped of cellular membrane, and formed, as it were, a stocking to the subjacent parts.

Lastly, in cases where it is seated in the skin, and in the subcutaneous cellular membrane, but in individuals whose skin is not much coloured, and very thick—erysipelas shows itself with characters diametrically opposite to those of the preceding species. The striæ with which it commences, are violet, and sinuous not parallel, and form a tarnished rose colour, scaled like that of simple erysipelas, but without the elevation that we have described in speaking of the latter.

Upon this coloured ground, there soon appear scales, irregular in number and extent, brownish, violet, like the ecchymoses produced by a contusion, not disappearing upon pressure by the finger. There is enormous congestion in the subjacent cellular membrane, the skin is tumefied, hangs in folds, and, what is remarkable, the epidermis assumes a brilliant and resplendent aspect.

The ganglions are not engorged, gangrene rarely commences in the subcutaneous cellular membrane, but in the skin, and begins constantly in the scales which have been described. When this is

not developed, we observe phlyctenæ, more or less numerous, scattered over all the inflamed surface, and which are the commencement of the first degree of eschar that characterises gangrene.

The general symptoms are not less different than the local ones. The skin of the rest of the body takes a livid earthy colour: the warmth is not much elevated with moisture. Pulse small, soft, depressible. Tongue dry, raspish, covered with fur. The patient is seized with extreme muscular weakness, and the least motion is an exertion. The prostration becomes more and more marked; the faculties are obscured, and the patient soon falls into a deep stupor. Then delirium comes on, which is very different from that observed in lymphatic phlegmonous erysipelas; it is vague, unquiet, without agitation, accompanied by dreams, broken by sudden returns to consciousness and reason.

If it is not arrested, and the symptoms increase, the venous branches inflame, and the inflammation proceeds to the large trunks. The most marked phlebitis is developed, and hastens to a fatal termination. If to signs so striking, there is also added erratic shivering, which precedes or accompanies this species of erysipelas, the different state of the blood drawn by general bleeding, metastatic abscesses, in fine evident inflammation of the internal coat of the veins, which are found on opening the body; we cannot hesitate to place the point of departure and the seat of this form of erysipelas in the venous system.

The first of these species is met with in *persons of all ages and temperaments. The second, more particularly in children, and in those adults whose skin is fine, white, and easily injected. The third is more common in old men, and in those whose skin is thick, without colour, and whose veins are prominent. It never occurs in children.*

M. Blandin has published the results of his observations at the Hôtel Dieu, for two years, and it must be allowed that this hospital furnishes a pretty fair field for the study of this affection.

He says we must seek the nature of this disease in its cause. It may be internal, and then the malady exists in the economy before acting locally. It may be external; the disease in this case, most frequently coming on in consequence of a contusion, a wound, or an operation. Here the affection is entirely local from its origin. This cause is readily appreciable; the other is not. Erysipelas is often epidemic. But we find also, in the medical wards, isolated cases which are truly sporadic, and for which no special cause can be assigned. The course of these two species differs, owing to their etiological nature. That from a local, external, cause soon tends to become general. The fluids altered by it have a concentric course, are soon dispersed over the system, and excite violent reaction.

When it arises from an internal cause, at first general, it tends to localise itself. It is a critical effort of nature precipitated towards

one point; the perturbing element that carries the trouble into all the systems at once.

It results from this theory, that the febrile action must predominate at the beginning, where the cause is external. At the same time, we must allow that the latter having place almost always after wounds, contusions, ulcers, and operations, the traumatic fever will mask the erysipelatous.

In regard to its anatomical nature, most writers call it cutitis; but it is much more than cutitis. The element pre-existing, dominant, is a phlegmasia of the lymphatic radicles of the skin.

M. Blandin quotes the observations of others in support of his opinion. M. Ribes, he says, supposed that there was something of a capillary nature in erysipelas. He found the internal tunic of the arteries and veins of the integuments inflamed, and that the disease attacks principally the small cutaneous veins, the small arteries being less affected. M. Blandin thinks he mistook the lymphatics for veins. Dana found the greatest advantage in applying leeches to the lymphatic ganglions at the base of the jaw. Chomel says, that whenever an individual is taken with shiverings, nausea, horripilations, red lines under the skin, and pain in the submaxillary ganglions, he will have erysipelas of the head. Lymphitis not only predominates but pre-exists. In convalescents, there is an œdema which cannot be the result of venous or lymphatic inflammation, or an obliteration of the vessels that carry the lymph.

There is then capillary lymphitis, and cutaneous inflammation, which is posterior to the first.

But these two elements are not in equal proportion. In erysipelas arising from an internal cause, inflammation of the dermis preponderates: in traumatic erysipelas it is that of the white vessels. This makes the difference in severity. The first is often produced by a miasm, which shakes the whole economy, but an erysipelas like that of the face exhausts the morbid cause. Those from an external cause, on the contrary, invade the system instead of leaving it; and the lymphatic vessels carry into all the tissues, according to their course, the fluid altered by a violent phlegmasia, at first local and then becoming quite concentric. These, says M. Blandin, are positive facts, and how often do we see women in childbed succumb, under uterine, inguinal, and femoral lymphitis; described under the name of *phlegmasia alba dolens*. Physicians consider erysipelas a trifling affair, surgeons, a serious one. Erysipelas from an internal cause is rarely ambulant. The other is so, and almost always extends concentrically towards the trunk. That of the trunk sometimes proceeds superiorly, at others inferiorly. The phlegmasia extends in the direction of the network of vessels, and we see the red lines before the appearance of the redness of the dermis and its tumefaction.

There are, however, cases of erysipelas from an external cause, where it directs itself towards the extremities, as lymph does not

always proceed concentrically. The wards under M. Blandin's superintendence offer hardly an example of this. It is sometimes the same with phlebitis : but these are exceptions.

Erysipelas is sometimes produced by a double cause, a local one acting externally, and a general one acting internally, at the same time, when the patient suffers both from the atmospheric constitution, and from the absorption of matter into all the tissues.

Dr. John Stevenson published in the second volume of the Edinburgh Medico-Chirurgical Society's Transactions, for 1826, an abstract account of twenty-one cases of erysipelas of the head, in all of which there was a peculiar and severe affection of the throat, and which tend to prove the contagious nature of erysipelas.

This affection of the throat occurred so frequently in persons who had been much with erysipelatos patients, that he came finally to the conclusion, "that it was erysipelas of the fauces spreading occasionally to the adjacent parts in different directions. The febrile symptoms by which it was ushered in, were generally severe, even in the milder cases; very full and frequent pulse, severe pain of the head and back, restlessness and great heat of the surface. The period at which the affection of the throat came on varied from the second to the sixth day. It commonly began with a red or purplish blush, more or less extensive over the velum and uvula, accompanied with very little tumefaction, but with considerable difficulty in swallowing: often, after a few days, excoriation of the inflamed surface followed, with superficial ulceration, which at times soon healed, but at others spread and discharged a good deal of purulent matter. In many cases, the disease terminated without extending farther than the parts mentioned, but in a few, it spread to the larynx, producing a state of respiration very similar to that of idiopathic croup; in others it extended to the pharynx and œsophagus. When the last became affected, fluids and even solids, could be partially swallowed without difficulty; but after a few seconds pain was felt in the course of the gullet, an inverted action began, and they were wholly or partially returned to the mouth. In some protracted cases, glandular swellings appeared in the neck which suppurated externally. This disease is readily distinguishable from cynanche tonsillaris, by the want of swelling, by the redness being more diffused, and by the pyrexia being generally greater than could have been expected from the degree of local affection." It was distinguished from croup by the larynx being affected in only a small proportion of cases; by the inflammation not commencing there, and by the age of the patients. It was distinguished from scarlet fever by the absence of cutaneous eruption, and by attacking persons who had already had that disease.

All of Dr. Stevenson's patients whose cases he has reported, with the exception of three, had been with others who had similar affections, so that there was strong *prima facie* evidence of contagion. Ten of them had sore throat simply, without cutaneous affection.

Dr. Stevenson and Mr. Arnott (London Medical and Physical Journal, vol. 57,) are the principal authors who have noticed erysipelatos inflammation of the throat. Mr. Arnott has given three cases which occurred in his practice, that of a father, mother, and daughter, in which there was similar evidence of contagion. It is upon a consideration of these cases in connection with those of Dr. Stevenson, some of Dr. Duncan and others, that Mr. Arnott wishes to confine the use of the word erysipelas to the affection of the head and throat merely, which he considers contagious.

In the first of Mr. Arnott's cases, Mrs. M., there was pain and difficulty in swallowing, without perceptible redness, or swelling of the posterior fauces. She died, and the inflammation was found to have occupied a limited extent of the pharynx. There was a spot of mortification not much larger than a silver penny. The other two cases, Mr. Arnott believes to have owed their origin to the first. The second case was that of the husband of the preceding. There was diffused redness all over the posterior fauces, which increased, and the next day a blush of redness with tumefaction of the upper eyelid was observed. On the next day erysipelas had developed itself in the eyelid and was extending to the cheek. He recovered. Miss M. was attacked July 22d, with fever and sore throat, after nursing her father. There was redness of the palate, uvula, and tonsils, with some swelling. The posterior surface of the pharynx was covered with a layer of yellow glairy mucus. On the 24th, vesicles appeared on the nose, and erysipelatos redness on the cheek which extended over the whole head. She recovered.

Three of the cases given by Dr. Duncan, Jr. (Edinburgh Med. and Surg. Journal, 1821,) were attended with inflammation of the throat. Mr. Travers has given one, and there are two in the Med. Chirurg. Review, for Oct., 1835. In several if not all of these cases, death appears to have been occasioned by suffocation.

A very lucid account of the history and progress of erysipelatos inflammation, when epidemic, has been given by Dr. McDowell, as it occurred in the Dublin Hospitals in 1834. The disease was epidemic and very frequently fatal. It attacked all ages and both sexes indiscriminately, the healthy as well as the sick. Almost every kind of injury was followed by this affection. It occurred after leeching and bleeding, venereal ulcers, and even the application of liniments to the surface. Surgical operations were generally succeeded by it. It was characterised by extreme prostration of strength. Dr. McDowell divides it into three classes.

In the first, occurring in healthy persons, and usually after injuries, there was much local and constitutional disturbance. The disease was often phlegmonoid, but in other cases the skin only was acutely attacked.

The second class occurred in persons of weak constitutions and unhealthy habits, in whom the stomach and biliary organs were deranged. In these the constitutional symptoms seldom ran high.

In the third class, the subjects were persons whose constitutions were broken down by habits of intemperance, want, age, or organic disease of long standing. In this class, there was less redness and heat of surface, pulse quick and weak, fever typhoid, tongue more or less coated, dry, and brown, or red, dry, and scabrous near the apex, with elongated papillæ; the rest of the surface much loaded.

The fatal cases of this disease are generally those where the head and face have been affected, and where coma ensues before death. In these he found "much sanguineous congestion in the different tissues from the skin to the brain, serous infiltration of the loose cellular substance under the scalp, and sometimes sero-purulent fluid, white or milky appearance of this membrane between the convolutions of the brain, with abundant subarachnoid effusion into the cellular tissue of the pia mater, sinuses, cerebral veins; jugulars and right side of the heart much congested, cerebral substance firmer or softer than natural, showing numerous bloody dots."

"In most cases of protracted erysipelas, inflammation of different portions of the gastro-pulmonary mucous membrane was found, especially of the stomach, bowels, and bronchiæ, the inflammation being most intense at the bifurcation of the trachea, with frothy sanguineous effusion into the smaller ramifications. Gastritis was indicated by epigastric tenderness, vomiting, ardent thirst, loaded tongue, dry, red, and scabrous near the apex, rapid pulse, &c. the strength being very variable. Muco-enteritis was known by abdominal tenderness, of variable extent, tympanitic distention, diarrhœa, the pulse often but little disturbed, and the alvine discharges being mucous, gelatinous, with blood occasionally. When the disease spread to the large intestines, there were dysenteric symptoms."

It will be seen that the cases which came under Dr. McDowel's notice were undoubtedly cases of erysipelatoous inflammation, most of them occurring in consequence of some external injury. They were therefore proper surgical cases, cases arising from an external exciting cause. Dr. Good has also placed the disease with which infants are affected in this species. Hence the erysipelas with which children are affected, as described by Dr. Dewees, is erysipelatoous inflammation. That which occurs to certain individuals also upon slight injuries, as a prick of a pin, a burn, or an excoriation, is undoubtedly of this species. On the other hand, the acute cases, where the inflammation affects the face, for instance, without local injury, and with violent constitutional symptoms, is the erysipelatoous fever of Sydenham; the erysipelas of Dr. Good. The inflammatory affection of the throat also, noticed by Stevenson, Arnott, and others, when unattended with an eruption of the skin, if it is either, is erysipelatoous inflammation.

It seems evident, however, that there must be a mutation in these affections, that they must be convertible, if the cutaneous affection

is the same in both, which no one appears absolutely to deny. Thus in the account given by Dr. McDougal, it occurred in some cases in healthy individuals, and not in consequence of injury of any kind. Here, therefore, there was medical and surgical erysipelas prevailing epidemically at the same time. In proportion as the attack was severe, and the constitutional affection violent, the case would be a medical one, while on the other hand, if the constitutional symptoms were slight, the inflammation would demand attention. The cases which came under the notice of Sir Astley Cooper, Arnott, Lawrence, Earle, Travers, Sanson, Blandin, &c. were unquestionably cases of erysipelatous inflammation. In coming to the subject of our inquiry, therefore, into the causes, seat, and treatment of erysipelatous inflammation, it may be difficult entirely to separate the two affections, particularly in referring to other writers. I will premise that in erysipelatous fever a sthenic character, and in erysipelatous inflammation an asthenic character, will generally be found; hence the remark of M. Blandin, that physicians think erysipelas a trifling affair, surgeons a serious one: the one most generally occurring in debilitated subjects, the other in the healthy.

The case is very different when the patients are such as those described by Mr. Hutchinson (Surgical Observations,) robust, healthy, seamen, accustomed to live well. Here the sthenic will prevail. On the other hand, in the class described by Sir Astley Cooper, and of which the patients of most of the London Hospitals are perhaps composed—a class taken from the poorer sort of people, who lived miserably, and many of whom are addicted to the intemperate use of ardent spirits, we may naturally expect the asthenic character to be common.

According to Mr. Hutchinson, seamen are more subject to this disease than any other class of society, owing to their diet, the free use of strong liquors, and their exposure to sudden alterations of temperature, which affect the secretions of the cutis. In them it appears principally upon the lower extremities, probably owing to their being frequently wet, and to the friction of coarse clothes.

CAUSES.—Erysipelatous inflammation has the four principal characteristics of inflammation—heat, pain, swelling, and redness. It is therefore properly an inflammation. It differs from adhesive inflammation, in the rapidity with which it spreads, like a drop of ink upon damp paper. A clear fluid is effused, which has not the property of forming adhesions, and hence its progress is not limited as in the adhesive inflammation—where coagulating lymph is thrown out, and forms a barrier to the advance of the affection.

Adhesive inflammation is that which arises in a healthy person in consequence of a wound, or other lesion in some part of the system. It is a healthy process arising in a healthy person, and designed to repair the lesion, by which it is excited. Erysipelatous inflammation is an inflammation modified by certain causes, either

in the *part* in which it occurs, in the *subject* in whom it arises, or in the *season, location, or atmosphere*, in which it is generated. It is in other words an unhealthy and preternatural action, produced or perverted by a morbid cause.

With regard to the part of the system in which it occurs, we have seen that it may, according to John Hunter, affect any part. It is true, it commences in the skin, but there is no proof or probability that it arises from a cause applied externally, like psora or gonorrhœa. Healthy inflammation of the skin is of the adhesive kind. There is therefore nothing in its seat to account for its character.

In regard to the subject of the affection the case is different. John Hunter, whose powers of observation render a hint from him worth volumes from others, informs us that there are some persons in whom every inflammation takes this form. We find, in fact, that there are many persons in whom it is constantly occurring in different parts; and a person once affected, is, in general, more liable to a recurrence of the attack. Sometimes the hand or foot, sometimes the face, sometimes the genital organs, are affected, and each attack can be traced only to very slight causes, or to no cause whatsoever. There may therefore be considered to be in some persons a predisposition to erysipelas; in some natural, in others acquired.

This inflammation though most prevalent in summer, or according to Sir Astley Cooper, in spring and autumn, does occasionally arise in all seasons.

In regard to location, the genuine soil of erysipelalous inflammation, is a crowded, ill ventilated, hospital; there it flourishes most luxuriantly in its worst forms. There it may be said to appear in its concentrated state, attacking persons of all ages and sexes, (as in the account given by Dr. McDowel,) healthy and sick indiscriminately, coming on after injuries of any kind; even the irritation produced by adhesive plasters being a sufficient exciting cause.

Mr. Abernethy considers this affection always the result of a disordered state of the digestive organs. In this opinion he is so far supported by other writers, that they consider it a frequent cause, and generally attendant upon erysipelalous inflammation.

Habits of intemperance are also a very frequent cause, producing a deranged state of the digestive organs, and a debilitated state of the system, with an unhealthy or vicious performance of all the functions.

Desault attributed the erysipelalous inflammation consequent upon wounds of the head, to an affection of the liver, excited by those wounds.

The above may be considered as the predisposing causes of erysipelalous inflammation. The principal exciting causes are wounds, or lesions of the skin. These have already been described in the extract given from Dr. McDowel's paper.

It is however in individuals whose constitutions have been

broken down by intemperance, long continued organic disease, old age, or other causes, that erysipelatos inflammation occurs more readily, and in its worst forms. In these cases it has more of an asthenic character. On the other hand, in proportion to the healthy state of the individual, and the soundness of his constitution, the characters of the disease will approach nearer to those of healthy, active inflammation. There are also idiosyncrasies rendering some individuals much more predisposed than others to the disease. There is a constitutional susceptibility or insusceptibility, such as we find in regard to cow-pox, small-pox, &c. In proportion to the violence of the epidemic, and to its concentration, will be its tendency to overcome a certain degree of constitutional insusceptibility. In proportion to the constitutional predisposition, on the other hand, other things being equal, or in other words, as the predisposition to the disease is greater, will the inflammation approach nearer to the worst form of erysipelatos inflammation.

Dr. Williams (*Elements of Medicine—Morbid Poisons*), who is a thoroughgoing contagionist, allows that it may be determined with certainty whom erysipelas will attack, to wit—the convalescent from fever, the dropsical, the syphilitic, and the scrofulous.

Where there is a strong predisposition to the disease or where it is purulent, the slightest injury is sufficient to produce it. Sir Astley Cooper informs us that the surgeons of the English hospitals were formerly deterred from operating in the spring and autumn, because the irritation produced by the strap of adhesive plaster employed to bring the edges of the wound in contact, occasioned erysipelatos inflammation.

Operations from the smallest to the most important—cupping, leeching, venesection, a burn, or any excoriation of the skin, the prick of a needle, the application of rubefacients or irritative plasters, in short the slightest irritation of the skin, will give rise to the disorder, under circumstances such as those described by Dr. McDowel, that is to say, in a crowded hospital, where erysipelas prevails. The same causes will excite it in any individual otherwise situated, who is strongly predisposed to erysipelatos inflammation. According to Dr. Johuson, the kind of erysipelas is modified by the kind of wound. A mere prick or scratch is usually followed by cutaneous erysipelas, a deeper wound produces either diffuse cellular inflammation, or erysipelas phlegmonoides, a lacerated wound being more likely to produce it than a punctured wound, and a punctured wound more likely than a clean cut.

Certain articles of diet, according to the same writer, notoriously occasion erysipelas. Shell-fish, and salmon, frequently do it, and in some individuals always do it. Acids have been known to do it.

Is contagion a cause of erysipelatos inflammation? According to Dr. Good, erysipelas is contagious, but erysipelatos inflammation is not so. Here we suspect Dr. Good was misled by theory. Erysipelas he considered a constitutional affection, erysipelatos inflammation a local one; the local disease could not produce

contagion. The fact is, if either is contagious, erysipelatous inflammation is so. It is the latter that spreads so alarmingly in hospitals; while we are constantly meeting sporadic cases of erysipelas which are not communicated to those most exposed to it. But is erysipelas contagious?

There are many who deny that erysipelas is generally contagious; but affirm that it is so in some cases. Dr. McDowel affirms that he has known it occasionally contagious, though in the epidemic, his description of which we have quoted, he says he could see no proofs of its contagiousness. Several other writers, of high reputation, say that they have known cases of undoubted contagion.

Others go much further. Mr. Travers, (in his Inquiry concerning Constitutional Irritation,) affirms that the proofs of the contagious character of the disease are more decisive, and unfortunately more abundant, than of almost any one with which he is acquainted.

Dr. Robert Williams, in his recent work on morbid poisons, is equally decided in his opinion of the contagiousness of erysipelas. Dr. Williams refers to the paper of Dr. Wells of St. Thomas's Hospital, published in the second volume of the Transactions for the Improvement of Medical and Chirurgical knowledge.

As the cases collected by Dr. Wells are so much referred to by other writers, and as previous to his communication the disorder does not seem to have been suspected of being contagious, it may be well to quote them somewhat at length in this place.

On the 30th of May, 1796, he visited William Emerton, who had erysipelas upon one of his legs. He was then somewhat delirious, and a few days after he died.

On the 10th of June, Dr. Wells was desired to see the widow of the above. She had low fever of a bad character. There were upon the skin several irregularly shaped patches of a bright red colour, and of the size nearly of a half crown piece, but the parts so affected were not elevated, and gave no pain upon being touched. One of her arms was considerably swelled and appeared livid; but there was no visible disease of the outer surface of the true skin of the arm, nor was the scarf skin separated from it. She died the same day. As she had been constantly in the same room with her husband, and as her disorder bore some resemblance to erysipelas, Dr. Wells suspected it was communicated from her husband.

On the 8th of August, Dr. Wells visited a man of the name of Skelton, who died about a week after, with erysipelas of the face. On the 19th of September, he visited the landlady of the above, Mrs. Dyke, whom he found labouring under erysipelas of the face, and on inquiry, found that the wife of Skelton had been seized with it a few days after his death, and died in about a week. While Mrs. Dyke was sick, her nurse was attacked with the same disorder. A nephew of Skelton was seized with the disease, a few days after visiting him, and died. The neighbours were deterred

from visiting Mrs. Dyke, by a report that the plague was in her house.

In December, Dr. Wells visited Mrs. Hunter, who had erysipelas of the face. She had about ten days before been with a friend who had St. Anthony's fire in her face, and died a few days after, and Mrs. Hunter had assisted in putting the body of her friend in the coffin. Two sisters of the deceased, and two servants of the family, one of them an old woman in whom it proved fatal, the other a young girl, had all been ill of the same disease. Three of these persons lived in one house, and two in another. Mrs. Hunter recovered in a few days and no other person in the family was attacked. In proof that it was not epidemic in the neighbourhood, Dr. Wells mentions that he saw only two other instances of the disease at this time. These two occurred in one house, and one of the patients was seized a few days after meeting the other, while in a convalescent state, upon a narrow staircase. He also mentions several cases observed by Mr. Whitfield, apothecary of St. Thomas's Hospital, Dr. Pitcairne, and Dr. Baillie.

Mr. Whitfield says, that in 1760, a person labouring under erysipelas of the face was brought into St. Thomas's Hospital, and died; that from some accident a patient having a different disease was put into the same bed, before it was properly aired, he was shortly afterwards seized with erysipelas of the face. Several other persons were about the same time attacked with this disease, among whom was the upper nurse or sister, who died. Hence arose a rumour that the plague was in the hospital.

Dr. Pitcairn attended a lady in February, 1797, who was attacked with a fever immediately after being delivered of a child, which was accompanied with an affection of the skin somewhat like erysipelas; her child about three days after birth, was seized with that species of erysipelas which the French call *lagelure*, which first appeared upon the pudenda, and then extended itself to other parts, among the rest to the face. Both lady and child died after a few days illness. About eight days after the death of the child, the lady's mother and servant maid, both of whom had attended it, were attacked with erysipelas of the face, from which both recovered.

Dr. Baillie says, that during the years 1795 and 1796, erysipelas of the face was much more frequent at St. George's Hospital, than he had ever known it before. Many persons were attacked after they came into the house, especially those in a particular ward. He mentions a case on the authority of another practitioner, which he thinks unquestionable. A lady came to London to attend a friend who had erysipelas of the face, and was assured by the physician of the latter that the disease was not contagious. In a few days, however, she was seized with erysipelas of the face. A hired nurse was also attacked with it during her stay with them.

In the twelfth volume of the London Medical Gazette, an account

of six cases of erysipelas is given, as affording proof of its contagiousness. Their history was briefly as follows.

1st. William Parfitt received an incised wound on the scalp from an ox. About sixteen days after he was attacked with erysipelatoous inflammation, commencing in the wound, affecting the head, and attended with delirium and coma.

2d. About a week after, Anne Parfitt who had been his nurse, was attacked slightly.

3d. The father was next attacked, a man broken down by intemperate habits, and in him it proved fatal.

4th. Another sister twenty-six years of age, who had waited on her father and brother, was next affected. She recovered.

5th. Daniel Parfitt, a brother who had lately come home, affected with low fever, became the subject of erysipelas the day after the patient last mentioned.

6th. David Parfitt was seized with the disease about ten days after Daniel.

Mr. Burg adds, that he had not seen erysipelas in the neighbourhood for four months before he witnessed it in the case of William Parfitt. One other person only was affected, and that was the aunt of the above. She had watched two or three nights with the person first attacked.

Cases of this kind, however, prove nothing with regard to contagion, more than the extension of the disease in hospitals. For, in the first place, there is no proof that the first patient would not have had erysipelas, if he had not received the wound; at all events the wound was only the exciting cause, and had any other member of the family received it, it might have occurred in them. They were persons of the same hereditary constitutions, occupying the same residence, using the same food, probably bad, (an inference we may draw from the habits of the father.) Fatigue and watching was the exciting cause in the second individual seized. The same causes, fatigue and anxiety produced it in the father, and acting upon a system worn out by intemperance, &c. were fatal. Such circumstances will account for the extension of the disease, without contagion, in accordance with the general principle of epidemics. The same remark applies as strongly to hospital cases, with the exception of hereditary similarity of constitution being wanting in the latter. On the other hand, the patients of a surgical ward, being generally the subjects of wounds or injuries, are placed in a similar position to each other.

The following cases, published by Dr. Macklachlan, in a late number of the *Edinburg Med. and Surg. Journal*, though not given by him as proofs of contagion, are yet stronger evidences of it than those mentioned above, being free from the objections made to those cases, in as much as the subjects were not resident in the same house, nor members of the same family.

CASE I.—A soldier who had been in the hospital with angina pectoris, had a seton inserted in his neck. Ten days after this,

erysipelas commenced in the wound, spreading slowly over the scalp and face and chest, threatening dissolution.

CASE II.—James Smith, aged thirty-one, entered the hospital with slight superficial wound of the scalp, and was placed in the same ward, about twenty feet distant. On the fourth day after admission, (March 12th) the wounds became puffy, tender, and discharged on pressure a thin ichorous fluid. In the afternoon erysipelas commenced. The face soon became frightfully swollen and distorted, the eyelids suppurated and sloughed. Alarming typhoid and cephalic symptoms appeared, coma supervened about a week before the termination. He died on the 26th.

CASE III.—Was that of a debilitated paralytic young man, who had a seton applied about ten days after the patient last mentioned. He died comatose.

CASE IV.—A case of phlegmonous inflammation, occurred in a patient affected with pneumonia, who had been blistered; he recovered.

CASE V.—A woman living in the vicinity, employed to wash the clothes of Smith, had an attack on the face and scalp.

CASE VI.—A young person waiting upon the one last mentioned was similarly affected.

These were the only cases that took place in the neighbourhood. Several cases of erythema anatomicum, or of diffuse cellular inflammation, occurred among the persons employed about the bodies of the above patients, in whom it proved fatal, in consequence of the absorption of matter through slight punctures of the skin.

The cases published by Dr. Stevenson were considered nearly all as proved to have arisen from contagion. The details of those cases are, however, so brief, that the reader has no means of judging for himself. The mere fact of one patient having visited another previously to having the disease, is no proof of contagion. Mr. Arnott's cases in which the patients were all members of one family are liable to the same objection as the Parfitt's. The fact that Mr. Arnott, though he admits the contagious nature of erysipelas of the face and throat, considers it not contagious when it appears elsewhere, is a strong argument that erysipelatos inflammation, is not at least in general contagious; otherwise Mr. Arnott as a surgeon would surely have seen instances of it.

In a report of surgical cases, that occurred at the Glasgow Royal Infirmary, Dr. Davidson has given an account of some cases of erysipelatos inflammation, that came under his charge in two wards in which it prevailed epidemically, June 8th, 1836. The first patient in whom it appeared, was an unhealthy, unmarried woman, who had undergone amputation of the breast. She died in about a fortnight. The second case was that of a woman who had cancer of the breast, in whom it arose at an excoriated point of the tumour, a few days after the other. She died in about four days. After this many other cases occurred. Notwithstanding every precaution that was taken to cleanse, fumigate, and ventilate

these wards, and to keep them closed for a month, the disease reappeared in October, and in the course of this and the next month, almost every patient in these wards, was affected. It is only in these wards, that this disease has prevailed epidemically for some years past. They are at the top of the house and well ventilated.

On two or three occasions, almost all the patients of a particular ward have been affected, in rapid succession ; the first case being generally a solitary one, either originating in the house, or brought to it, while labouring under the disease. Dr. Davidson queries, whether the promiscuous use of sponges and towels, &c. can have any effect in producing the extension of the disease ?

According to Dr. Doepp, seven children who were vaccinated from one at St. Petersburg, had erysipelatous inflammation. He does not, however, consider the disease contagious, neither is it so considered at that place.

Sir Astley Cooper, in his lectures, speaks of the disease as contagious. Notwithstanding, however, all the evidence that has been brought forward in support of contagion, there are still a large proportion of the medical world, who remain unconvinced. The contagionists in general do not sufficiently discriminate between the laws of contagious diseases, and those of epidemics not contagious.

It will ever be difficult to prove the contagiousness of a disease. Persons exposed to the foul air of a crowded room ; persons belonging to the same family, or living together on the same diet, in a similar manner, and under similar circumstances, will be exposed to the same epidemic diseases. It is very common for us to find several members of the same family attacked successively by diseases which no one considers either epidemic or contagious. The effect of the imagination in producing nervous diseases by imitation, is well known. It is generally allowed that the timid and fearful fall victims most readily to epidemics or contagion, while the resolute and fearless escape. John Hunter tells us, that he could at any time produce a sensation in a particular part of his body, by fixing his attention steadily upon that part. Now is it not probable that, in diseases not contagious or epidemic, the attention being insensibly called to a part predisposes that part for the reception of the disease ? Is there not this sort of sympathy of organs ; of course through the medium of the mind, but the mind being entirely unconscious ? In some the predisposition thus created will be very slight, in others very strong, according to the impression made upon them by witnessing the disease, and the readiness with which their organic functions were influenced by the mind. It would seem that all other circumstances being the same, a person is more liable to have a disease similar to one he has recently witnessed, than one which he has never seen. Is there not some proof of this, in the fact of our so frequently finding individuals of the same family attacked with similar diseases ? This however, is a mere suggestion ; there are abundant causes for the

propagation of epidemic diseases, without making any such explanation necessary.

The statement of Dr. McDowel, that although he had seen in former years undoubted evidence of the contagiousness of the disease, yet in the epidemic, of which he gives us an account, severe as it was, he saw no proof of its contagion in any one instance, is strongly against the general contagiousness of the disease.

Under many circumstances in which the small-pox arises, we might account for its extension, without allowing its contagiousness. If, however, a person setting sail from another port where small-pox prevails, is landed in Boston, at a time when no cases are known to exist here; and if he takes up his residence in a house, and is there attacked with small-pox—if all those, or nearly all those who continue to reside with him in the house, and who have not been vaccinated, are attacked in the same manner, and if those who leave the house, go to different towns or villages, and are subsequently attacked, and communicate the disease to those around them in each place, and if those who visited at the first house, are shortly after attacked at their own residences, the chain of evidence is pretty strong that small-pox is generally contagious. Formerly, it would have been easy to furnish these proofs of the contagiousness of small-pox. Now, happily, owing to the general prevalence of vaccination, it might be difficult. But if erysipelatous inflammation, or erysipelas, is as contagious as small-pox, we ought to have as good evidence that it is so. But this is not the case. Let the inmates of a hospital affected with erysipelatous inflammation be dispersed, and placed in healthy situations, and they either die or get well, and the disease ceases. They do not communicate the disease in places to which they are removed. Ample and abundant proof might be brought, that erysipelatous inflammation is not always or even generally contagious. With regard to erysipelas or erysipelatous fever, we are constantly meeting with sporadic cases, which occur singly; the disease not extending to those who live with, or attend upon the patient, while instances of more than one of a family being attacked, are comparatively rare.

On the whole, we do not presume to affirm that erysipelatous inflammation is never contagious; but only that in the present state of the question, there is no decisive proof that it is so. It certainly is neither universally nor generally contagious.

SEAT.—True or proper erysipelatous inflammation, all authors agree, commences in the skin, and affects the skin only. Hence writers have variously named it, simple, genuine, exanthematic, and its varieties, acute, chronic, periodic, fixed, ambulant, erratic, saltant, or volatile, miliary, vesicular, bullous, phlyctenoid, idiopathic, traumatic, sympathetic, bilious, and gastric.

Always arising in the skin, the true erysipelatous inflammation has a tendency to affect the cellular membrane beneath, where

collections of matter are formed, the skin is rendered exceedingly tense; suppuration takes place rapidly, and as this inflammation does not ulcerate, the matter works its way through the cellular membrane, which is finally destroyed, and the skin detached, in cases where the constitutional symptoms are not sufficiently severe to produce death.

Mr. Hunter expresses some doubt whether this is the true seat of erysipelatoous inflammation, and some modern writers, as Mr. Earle and Mr. Arnott, have attempted to restrict the term, to the affection of the skin only. It would, perhaps, have been better, if Mr. Hunter's suggestion had been attended to, but writers succeeding him have so universally applied the term to the inflammation extending to the cellular membrane, that it is now impossible to limit its use to the former only. In fact, if, as it appears to be generally conceded, the true erysipelatoous inflammation has always a tendency to affect the subjacent cellular membrane, and if the latter is generally in some degree involved, the distinction is perhaps hardly practicable or important.

But if erysipelatoous inflammation affect the cellular membrane, we shall be likely to find it in every part of the body where cellular membrane exists, or at least in every part where it is in contact with the skin. When we find mucous surfaces affected by it, such as the vagina, the rectum, the mouth, throat, &c. we must attribute its origin to the skin and cellular membrane, from which it extends, by sympathy, or irritation, or metastasis. It is probable also that in those whose skin is thick, and vessels sluggish, the same cause that would produce true erysipelatoous inflammation in others, affects the deeper seated tissues, giving rise to inflammation of the fauces, vagina, veins, &c. Hence it is principally in old people that these membranes are affected. In the venous phlegmonous inflammation of M. Sanson, the skin is the part first affected, and the difference in symptoms is naturally such as may be ascribed to difference in age, texture of the skin, and activity of the vessels.

M. Sanson, as we have seen, supposes that in at least one form of erysipelas, the veins are the primary seat of the disease. M. Ribes found the internal coats of the small vessels inflamed, and supposed the disease attacked principally the small cutaneous veins. M. Rayer says, that he has frequently met with true inflammation of the principal veins, in limbs that were the seat of phlegmonous erysipelas or simple phlegmon. He thinks phlebitis a complication of the inflammation of the cellular tissues, more commonly than that of the skin.

The cases of inflammation of the throat, considered as erysipelatoous, and furnished by Dr. Stevenson, Mr. Arnott, Travers, Johnson, &c. have already been spoken of. Mr. Hastings also mentions an inflammation of the throat, as frequently attendant upon erysipelas in the hospitals. Mr. Hunter says, "there is an inflammation which attacks the internal canals, which is classed with the

erysipelatous, but how far it is the same I do not know. It is certainly not the suppurative, and as almost every other inflammation was formerly called erysipelatous, this has been supposed to belong to this kind of inflammation. The inflammation I am speaking of is more common to the throat than to any other part, after going down the trachea. Whatsoever the inflammation is, it is certainly attended with nearly the same kind of constitutional affection. The fever in both appears to be the same, viz. accompanied with debility, languor, &c. It produces adhesions, where the adhesive inflammation seldom takes place, except from extreme violence; hence it opposes suppuration in those places where suppuration most easily takes place, as in canals and outlets; for there it more easily throws out coagulable lymph.

In persons who die of erysipelatous inflammation, the face and head are generally the seat of disease. Hence the brain, with all its membranes, is generally more or less engorged. The congestion arises from metastasis, or revulsion, or perhaps from the impediment afforded to the circulation. We cannot consider the brain ever the seat of erysipelatous inflammation. We come therefore to the conclusion, that the skin and cellular membrane are the seat of erysipelatous inflammation: that it tends to proceed to the subjacent cellular membrane, and form phlegmonous, erysipelatous inflammation, (the erysipelas phlegmonodes of Galen,) that in some individuals, the mucous membranes become affected, and sometimes the coats of the veins, either by sympathy, by the pressure of the inflamed and swollen parts around, or by metastasis.¹

We have before alluded to the distinction between this and diffuse cellular inflammation—that the first arises in the skin. Mr. Lawrence does not allow this distinction, but says, that he has never observed this priority. He therefore includes diffuse cellular inflammation, erythema atonicum, &c. in his observations upon erysipelatous inflammation. Most other writers allow the distinction. This proceeds from without inwards, the other from within outwards; erysipelatous inflammation, however, often occurring as a complication of the other.

TREATMENT.

Sydenham's method of treating erysipelatous fever consisted in free venesection at the onset. The next day he gave a cathartic, followed by a paregoric draught at bedtime; with fomentations,

¹ According to Dr. Gregory (Practice of Physic,) the mucous membrane lining the passages of the throat, vagina, &c. may be considered a continuation of the skin; and hence erysipelatous inflammation may affect these passages without leaving its true seat.

and afterwards stimulant lotions. A single bleeding and purge, he says, generally effect a cure, provided they are used in time. But in cases where the fever is high, he sometimes repeats the bleeding a second and a third time, interposing a day between each. Diet, water gruel and barley broth. There is, he says, another kind of eruption, wherein no evacuations avail. In this all antiphlogistics are hurtful; and wine, and flesh of easy digestion, must by all means be allowed.

Hunter, considering erysipelatoous inflammation as a disease of weakness, recommends the use of bark. It is evident that Hunter being called to treat surgical cases, and Sydenham medical, Hunter must have had a greater proportion of asthenic cases, cases wherein erysipelatoous inflammation arose in consequence of wounds, operations, &c. in debilitated subjects.

Mr. Lawrence is one of the strongest advocates among surgeons, in favour of depletion. Venesection, local bleeding, and purging and low diet, according to him, are the first measures to be attended to, to which saline and diaphoretic medicines may be afterwards added. Vigorous treatment in the beginning, he affirms, will cut short the attack, and prevent the disease spreading beyond the original seat. But Mr. Lawrence adapts his treatment to the age and constitution of his patient. In young persons, and in those of full habit, where the pulse is full and strong, or where there is headach and white tongue, in erysipelas of the head with symptoms denoting affection of the sensorium, and more particularly in the very beginning of the affection, it will be proper, and may be necessary, to bleed largely, to repeat the evacuations, and to follow venesection by local abstraction of blood, by means of leeches or cupping. The alimentary canal must be cleared by an active purgative, followed by salines, and antimonials, with the occasional use of milder aperients. Low diet. "Nothing can be more different from such a case, than that of an elderly person, with a small feeble pulse, in the advanced stage of the disease." "I have often seen such patients labouring under erysipelas of the face, in its advanced stage, with rapid and feeble pulse, dry and brown tongue, recovered under circumstances apparently so desperate, by the free use of wine and bark." "The intervals between these extremes is filled up by numerous gradations requiring corresponding modifications of treatment. The antiphlogistic plan embraces a wide range, in point of degree, from blood-letting, local and general, to the exhibition of a mild aperient, with some saline medicine." He says that almost all the cases in young persons which he has seen, proceeded from external causes, and the stimulant and antiphlogistic treatment has been injurious under such circumstances. Mr. Lawrence quotes, in support of the practice of venesection, the authorities of Cullen, Vogel, J. P. Frank, Joseph Frank, Dr. Duncan, jr., and Roche and Sanson. On the other hand, it is opposed by Fordyce, Willan, Bateman, Carnichael, Smith, and Pearson. Mr. Lawrence allows, that "when the

redness and swelling are gone, when the pulse is quiet, and the tongue clean, that is, when the patient is well, there can be no great objection to the bark." When there is any doubt, whether stimuli should be employed or not, he prefers the subcarbonate of ammonia.

Mr. Abernethy, who considered erysipelatos inflammation as occasioned by a local cause, acting upon a subject predisposed to it by previous irritation of the digestive organs, simply orders the bowels to be kept regular, the stomach clear, and something soothing applied to the inflamed part. In order to remove this disorder of the alimentary canal, he speaks highly of calomel and jalap.

The treatment of Desault is not very different from that of Abernethy. It consists of the exhibition of tartarised antimony, one grain in a large quantity of water for a dose. A single grain of the emetic was sometimes sufficient; but in other cases it was necessary to repeat it two and even three times. His local applications were a cataplasm, moistened with some resolvent liquor, or compresses steeped in a similar lotion.

Mr. Arnott recommends venesection in young subjects, and under circumstances similar to those mentioned by Mr. Lawrence. Aperients and purgatives he finds almost invariably useful, and when there is a foul state of the stomach, he gives tartarised antimony with opium. Cold spirit lotions are applied externally.

M'Dougal employed general or local bleeding, calomel and neutral salts; and, when there was irritable stomach, purgative enemata and saline effervescing draughts. If the disorder did not yield, he exhibited two or three grains of calomel with a small portion of opium every fourth or sixth hour, until the mouth was affected. Where acute erysipelas is limited to the skin, he applies leeches. In traumatic erysipelas, Dr. M'Dougal employed fomentations, emollient poultices, and sometimes cloths dipped in cold water. In the second class of cases he describes, general bleeding was inadmissible; leeches, blistering, and the nitrate of silver lotion, were sufficient. In the third class he was forced to resort to the free use of wine or porter, beef tea, quinine, carbonate of ammonia and opium.

Dr. Macfarlane, of Glasgow, (in a volume of clinical reports, 1834,) says, that there are certain cases which require tonics and stimulants; yet in the majority of cases, erysipelas is more effectually controlled by venesection, local bleedings, emetics, purgatives, diaphoretics, &c. As local applications, he recommends spirit lotions; but if there is much vesication, dry flour or fleece cotton.

Mr. Travers (Inquiry concerning Constitutional Irritation) recommends a middle course, between active depletion and the use of stimulants.

Mr. Mackenzie (Diseases of the Eyes) recommends, as an emetocathartic in this disorder, one or two grains of tartarised antimony, with an ounce or two of sulphate of magnesia, dissolved in two pints of water, and given every two hours. In robust subjects he

says, venesection may be practised with advantage; but not in the aged and debilitated. He thinks that saturnine lotions are highly beneficial.

Dupuytren employed a treatment similar to that of Desault, administering an emeto-cathartic, or tartarised antimony, in bilious habits. Where there was well-marked debility, as in old persons, he considered tonics indicated.

M. Rayer, (*Diseases of the Skin*, 1835,) recommends free venesection in the majority of cases, and local bleeding. In mild cases, lotions with cold water, he says, are sufficient. In erysipelas of the head, advantage may be derived from mustard foot baths, vesicatories to the legs, and laxative injections. Where there is no inflammation of the digestive organs, M. Rayer recommends tartarised antimony in emetic doses. This practice he says, has a great number of partisans. (*Dict. de Méd. et de Chirurg.*)

Mr. Liston, in his *Elements of Surgery*, lately published, says that in mild cases of erysipelas, attention to the state of the bowels, and regulation of the diet will be sufficient; but in the severer cases, he recommends the resort to free incisions or punctures, in an early stage, in order to prevent suppuration; as well as after suppuration has taken place, to give free issue to the matter. He disapproves of all local applications, flour, chalk, and camphor, being of little use and producing irritation; while cold applications are fraught with the utmost danger from their tendency to produce metastasis. Some accounts have been published in the *Lancet*, of trials by Mr. Liston, of belladonna and aconite given internally. In the cases mentioned the trials were successful. Mr. Liston notices the difference in hospital cases from others, patients in civil hospitals being generally in a weak state before the accession of this disease, and hence requiring stimulants.

Sir Astley Cooper's method (*Surgery*, by Lee) is to give calomel freely in the first instance, to restore the secretions of the liver and the intestinal canal. In the debility consequent upon the first stage of the disease, he recommends quinine or the common tonics; and in patients of the lower class, who are addicted to the free use of spirits, he has found benefit from allowing them gin. He recommends the local application of camphorated spirits of wine in the first stage. When the blisters are about to break, or have broken, powdered starch should be applied, and if gangrene should take place, a port wine poultice, or a nitrous acid lotion, in the proportion of one dram of the acid to a quart of water.

Dr. Dewees, in speaking of the erysipelatoous inflammation of children, advises that in the early stage of the disorder the child should be freely evacuated, but not severely purged, by small and repeated doses of calomel. If the fever run high or is attended with strongly marked cerebral inflammation, blood is taken from the arm, or leeches are applied to the temples. But when suppuration commences, or when there is a tendency to gangrene, the system becomes enfeebled, especially if the disease is epidemic, and

then the bark, he says, is absolutely necessary. When the motions of the bowels become too frequent, he checks them with chalk mixture.

In Dr. Stevenson's cases in which there was inflammation of the throat, he found the most successful treatment to consist in copious and repeated blood-letting, and in the application of leeches to the neck, a measure which was never omitted when the affection of the throat was severe.

In the cases of a similar kind published by Mr. Arnott, the treatment was also antiphlogistic. In the first, eighteen ounces of blood were taken from the arm, and leeches were applied to the throat, which afforded much temporary relief to the difficulty of swallowing, &c. In the second case, the treatment was strictly antiphlogistic in the outset; and when the violence of the symptoms abated, stimulants and tonics were resorted to with opiates at night. Some wine given when the patient appeared sinking from the effect of purging, evidently did harm. In the third case, eighteen ounces of blood were taken from the arm, with tonics in the subsequent stage.

In one case given by Mr. Cox, (Med. Rep. April, 1825,) the oil of turpentine given combined with castor oil, by the mouth, and per anum, seemed to have a very beneficial effect. The patient was a female with erysipelas of the scalp, face, and breast; coma, insensibility, and other symptoms of a fatal event, were present. The medicine produced several offensive stools, with marked relief; and the patient recovered. As turpentine is a useful cathartic in cerebral affections, it may be considered very applicable in cases of this kind, where the head is affected, and the patient in a sinking condition.

The authors we have above quoted, nearly all of them, recommend an antiphlogistic course of more or less vigour. Most of them advise blood-letting. There is another class of writers, at the head of whom is Dr. Fordyce, who deny the benefit of antiphlogistics, and recommend an entirely tonic plan.

Dr. Fordyce (Trans. of a Soc. for Med. Improvement, 1793) says he has always found bleeding and other evacuations hurtful. Peruvian bark, given in substance in as large a quantity as the patient can bear, commonly a dram every hour, he considers the best remedy that can be employed; and is almost always successful, in pure erysipelatous inflammation, unmixed with phlegmonous inflammation, or increased secretion of the mucous glands.

Dr. Wells (in the second volume of the same Trans.) supports the same method of treatment, which he adopts with the expectation of cutting short the disease. Dr. Fordyce, he informs us, has been accustomed for twenty years to give the doses above mentioned at St. Thomas's Hospital.

Dr. Robert Williams (Elements of Medicine) has advocated the use of tonics, particularly wine, in erysipelas, and since the publi-

cation of his work it seems to have been adopted in various parts of England.

Mr. Graves, at the Meath Hospital, Dublin, where the disease occurred in patients already debilitated by fever, gave first an emollient clyster, succeeded by a clyster containing from five to ten grains of quinine in mucilage of starch, twice a day, with wine and light nourishment. (*Med. Gazette*, January, 1837.)

Mr. Henry Bullock, in the same volume of the *Medical Gazette*, advises the administration of wine in all cases, which he says is the method now adopted at St. Thomas's Hospital with great success. In diseases dependent upon morbid poisons, he says, it does not do to trust to symptoms. But it may be asked, if erysipelas is a morbid poison, which is by no means proved, does the tonic treatment answer in all morbid poisons? Is it found that wine is a specific against the poison of measles, of scarlatina, of small-pox, or of any other morbid poison? If we are to treat a disease not according to symptoms, because it is a morbid poison, it must surely be by the use of specifics and antidotes. But as long as it remains doubtful whether we have a single specific in the pharmacopœia, and more than doubtful whether we have any that neutralise the morbid poisons, the rational method must be at least safer than the empirical. When wine, bark, or any article is *proved* to be an antidote to erysipelas, then and not till then we may give up attention to the symptoms.

If we have a specific in medicine, it is mercury in syphilis; yet notwithstanding it has been used for years, there are still very many who deny it this title; and in fact it has often been found to fail. Its action too in syphilis may be accounted for, upon the same principle as in other diseases, its alterative properties, its effects upon the secretions, upon the liver, &c. I believe it is now generally allowed that it is as an alterative merely, not as a specific, that it acts in syphilis. But if mercury is not a specific, then we have no such thing as a specific. Nothing then can have a more mischievous tendency than this doctrine, that diseases are not to be treated according to symptoms.

Dr. J. Green recommends the use of hot air, and particularly the sulphur fume baths, in the more indolent and chronic forms of this disease, especially if in the lower limbs, and attended with much œdematous swelling.

The writers from whom we have quoted above, direct their principal attention to the constitutional treatment. We shall now consider the principal methods that have been applied to the local treatment of the disease.

The principal of these are the application of a blister over the inflamed surface, or above the inflamed portion, upon the sound part, around the limb; nitrate of silver over the inflamed and border of the healthy skin; mercurial friction; leeches to the inflamed surface, or to the lymphatic ganglions; bandaging the limb.

The application of a blister to the inflamed part was used, we

are told, in the time of Ambrose Paré. It seems, however, to have been neglected or fallen into disrepute, until revived and made popular by the sanction of Dupuytren. In this country, Dr. Physick first brought it into notice. The view which led to its application is undoubtedly either to give issue to the matter, as no ulceration takes place spontaneously in this inflammation; or to change the action of the parts. Dr. Dewees speaks of this application as attended with good effects which are wonderful. He has frequently succeeded with it both in the adult and in the child, and it is perfectly safe, when the part is such that a blister can be applied to it. The blister should be so placed as to rest firmly upon the sound skin, and should be dressed as in other cases. When the situation of the part, or any other cause, renders a blister inexpedient, Dr. Dewees employs strong mercurial ointment. Dr. M'Dougal also speaks highly of the good effects of blisters.

M. Rayer, (*Dict. de Médecine et de Chirurgie*, vol. 7th.) and Messrs. Roche and Sanson, recommend this method to fix the ambulant erysipelas; but neither of the three last mentioned authors speak very favourably of it. "This method," says the latter, as quoted by Mr. Lawrence, "always occasions severe pain, usually leads to the formation of an abscess, and sometimes causes mortification."

Blisters have been employed in this affection in a somewhat different manner. Mr. Hutchinson, in a letter published in Dr. Butcher's work on irritative fever, says he recollects an instance of the application of a blister round the arm, which stopped or seemed to stop the progress of the disease; for the inflammation did not extend beyond the blister, and the patient recovered. John Hunter, in a note before quoted, says, that if the inflammation is such as to contaminate while it spreads, but is cured after it has acted, then the proper course would be, to destroy the parts beyond it, so as to stop its progress. This hint, whether founded or not upon a probable hypothesis, may have suggested both the practice of Mr. Higginbottom, and that of which we are now speaking. The same effect also is answered still more effectually, by the actual cautery of Baron Larrey. This manner of applying the blister seems to be free from some of the objections made to it when placed upon the inflamed surface, and it is well spoken of by those who have employed it. It should be so placed as to completely encircle the limb, immediately above the inflamed part. An interesting case of the successful application of blisters is given by Dr. Ware in the first volume of the *Boston Medical and Surgical Journal*.

The application of nitrate of silver to the inflamed surface and neighbouring sound parts, as proposed by Mr. Higginbottom, has met with considerable favour. He applies the caustic to the sound skin, for a space of about two inches bordering the inflamed part, as well as upon the surface of the latter, breaking the vesicles when there is vesication; but allowing the vesicles produced by the caustic to remain undisturbed. In the cases which Mr. Higginbottom has

given, it is difficult to decide whether the disease was cut short by the application. It is possible, however, that fatal metastasis is often prevented, and this must be the principal advantage to be derived. M. Rayer speaks of several trials of this remedy by himself as not uniformly successful. Dr. M'Dougal speaks very favourably of its success in the epidemic above described, but he found a blister preferable, where the situation of the disorder admitted its application. Dr. Davidson found incisions highly beneficial. Mr. Lawrence, Mr. Liston, and Mr. Hutchison, the original proposer of this method, considering that, at least where erysipelas prevails in a crowded city, in every severe case the cellular membrane will soon become affected, collections of matter form, and the disease progress so rapidly as to be beyond the reach of treatment, are for employing incisions in the commencement of every severe case, without waiting for the formation of matter. They were practised by Dr. Davidson, in various parts of the affected region, to the extent of from one inch and a half, to two inches and a half; these he tells us were more beneficial than leeches or punctures. He found that the solid nitrate of silver succeeded in a great majority of cases, in preventing the spreading of the inflammation. He applies it to a sound part of the integument, a part where there is no swelling or redness, but as near to the inflamed part as possible. The inflamed part is to be encircled by the caustic line. This may be done by wetting with a large hair brush the part upon which the caustic is to be applied, and then rubbing a cylinder of caustic very freely over the moistened surface. Distinct vesication should be produced over the whole surface to which caustic is applied. The editor of the *Med. Chirurg. Review*, and others, speak highly of the nitrate of silver.

Mercurial friction has been highly recommended by some writers. Dr. Little and Dr. Dean, of America, contest the merit of introducing it into practice. The warmest advocate in its favour appears to be M. Serre. He speaks of it in terms which, if they found general credence, would settle the question at once. The application of strong mercurial ointment, according to him, continued for two days, will remove the disease if confined to the skin. If it continues after two days, we may be sure that suppuration has taken place, and incisions must be resorted to. He wishes the effect of this remedy to be taken as a sure test of the existence or non-existence of matter. It is to be feared, however, that while there continues to be such a variety in human constitution as at present, we shall never be able to form so certain a conclusion from a remedy in any disease; and in this least of all. Dr. Dewees advises the use of mercurial ointment in cases where blisters cannot be applied around the sound part. M. Rayer opposes this practice, as in his experience useless. Sir B. Brodie, some years since, in consequence of the benefit which had been reported to result from this application, and the ill effects which had attended its use, by producing excessive salivation, determined to make trial of simple

lard as a substitute, believing that the virtue of the ointment in this disease consisted simply in the unctuous matter. The result of his experiments convinced him that such was the case, and that this simple application answered all the purpose of the mercurial ointment. It is obvious that this is not the principle upon which it has been used : the object being to alter the unhealthy secretions of the part and restore healthy ones, by means of the well known properties of mercury. Dr. Dewees employs the strong ointment, and M. Serre considers it of no effect, unless mercurial ointment of a requisite strength is employed. Dr. M'Dowel and Mr. Reid, the latter of whom gives an account of its use in Mercer's Hospital, speak very highly of it. It is more applicable in children than in adults, as the former are not so easily salivated. Where there is much irritability of the parts the ointment cannot be borne.

Baron Larrey, in cases of traumatic erysipelalous inflammation, has used the actual cautery. This is probably a remedy which will never be a favourite in our country, from the horror which patients testify to its application.

In France, where its use is common, it is regarded without aversion. It is probably attended with as little pain as the potential cautery ; while its good effects are more decided and rapid.

M. Blandin, whose opinions in regard to the nature of the disease we have already quoted, considering the disorder seated in the lymphatic system, applies leeches to the ganglion above the lymphatics affected. This is to be done at the very commencement of the disease. This method has been so successful that during two years' practice, we are told, he hardly lost a patient ; and in an epidemic of thirty cases he lost none. Where the disease is seated upon the trunk, it is less applicable than when seated in the limbs ; and it is useless after the disorder has affected the system. Leeches applied to the inflamed surface, M. Blandin considers worse than useless. M. Lawrence, whose opinion in favour of the application of leeches we have already quoted, affirms that the cautions given by Willan and by Thompson are groundless, and that they may be applied with perfect safety. It is probable, however, that leeches applied as M. Blandin advises, would be sufficiently near the seat of the disease to answer every purpose, while being placed upon the sound skin ill effects will be less likely to ensue. No other writer that we have met with speaks of this practice, and no fair opinion can be formed until it has been submitted to further trial.

M. Velpeau, some years since, recommended compression by means of a bandage covering the whole limb. (*Archives Gén. de Médecine.*) Although he considered it highly successful in the cases he gives of its application in the different species of erysipelalous inflammation, it has been found as might be conjectured productive of mischief in the hands of others. Unless its use was sanctioned by general approbation, we should naturally hesitate to adopt such a method in a disorder like the present. M. Rayer speaks of it as useless, or dangerous, when there is infiltration of

pus. He thinks its use should be deferred to the end of the inflammation, when there is swelling and œdema of the limb. It is better, he says, only to recommend it in the œdematous erysipelas. This seems to be now the general conclusion in regard to this practice; that it is only useful where there is œdema. Dr. Johnson recommends in such cases the application of strips of linen or calico, spread with soap cerate and lead ointment, over which a roller is carried up the limb. This prevents the occurrence of small collections of matter.

A preferable course to that of M. Velpeau, at the commencement of the disease, or where it is confined to the skin, would seem to be the application of a tight bandage *above* the inflamed part. A ligature has been found highly beneficial in preventing the absorption of the venom of reptiles. Might not the action be thus arrested almost as completely by this simple method, as by the application of a blister round the limb? It would have this important advantage over M. Velpeau's method, that the progress of the inflammation could be always watched; incisions might be made when they became necessary; whereas according to M. Velpeau's method the parts must either be neglected, or from the rapid progress of the disease the bandage must be so frequently removed, in order to examine the parts, as to render it nearly useless.

I have thus given a brief abstract of the opinions of various authors, from which it will be seen that surgeons are divided into two principal classes, in regard to the treatment of erysipelatos inflammation. The discrepancy, however, seems to be rather in regard to the proportion of cases that require the tonic, or the anti-phlogistic treatment. Dr. Fordyce, it is true, supports the merits of bark in very unqualified terms, but in his communication which we have referred to, his observations upon erysipelatos inflammation are too brief, to form a judgment of his treatment of the disease. It is evident, however, that being a new remedy it was given both by him and by Mr. Wells, in the belief that it had some specific control over the disease, not as a mere tonic. As it was only in pure erysipelatos inflammation, too, that they found it beneficial, it is most probable that the disease would in many if not most cases, have subsided without any treatment whatever. A great deal may depend upon the manner in which bark is given. If care is taken to keep the alimentary canal free from irritation, the bad effects, and perhaps much of the activity of the bark, are avoided and lost, and the recovery of the patient may be owing fully as much to the laxatives as the tonics. Erysipelatos inflammation, like most cutaneous diseases, is generally connected with derangement of the digestive system. Now the most philosophical as well as the surest and safest way to remove the digestive disturbance is to evacuate the alimentary canal. This is done by emetics, purgatives, or enenata, and if any irritation is left it may be removed by alteratives. When a person by free living has brought on a state of indigestion, he will continue to be constantly troubled, while he

allows himself to live as usual. An emetic, or in some cases, a powerful cathartic, will remove the irritability of his stomach, and by moderation he will soon be restored to complete health. He may however prefer a different course. A glass of brandy taken after eating will stimulate the stomach to perform its duty, and will relieve the patient from the horrors of indigestion. It is true that after the discharge of its duty, the stomach is left debilitated like an over-worked horse, and the stimulus must be daily renewed. It would seem that these two methods by which the same end is answered had not been sufficiently considered; or at least the aptitude of stimulants and antiphlogistics to produce the same apparent effect. The latter excite the digestive system, with the absorbents, lymphatics, in fact the whole bodily machinery to healthy action, by removing the obstructing causes; the former by imparting additional impetus, and making it work in spite of the obstructions. It is true that a skilful watchmaker when a watch is brought to him, the machinery of which has become foul, will carefully clear away and remove the extraneous matter, he will not endeavour to give additional strength to the spring. Should he do so, the wheels will be injured by the friction of the foreign particles. The bark, however, might have been a perfectly safe remedy in the hands of such men as Dr. Fordyce or John Hunter, but in those of inexperienced persons much harm must result from its employment, as a general rule, in erysipelatous inflammation; the cases described by Dr. Fordyce being such as, if any, most require depletion. Where there is any inflammation of the stomach, the bark is of course improper. Bark is said sometimes to have produced inflammation of the stomach.

Hunter, however, and those who have followed him, recommend tonics with a different view from that of Dr. Fordyce and Mr. Wells. They give it in cases of evident debility, to support the strength, not to cut short the disease; with precisely the same intention that it is given to prevent mortification. The inference we must draw from a careful consideration of John Hunter's remarks is, that in the majority of the cases that had come under his notice, the patient required the support of tonics. He gives us only what he himself observed. An original thinker, like Sydenham, he did not trouble himself to quote the experience of others.

Sydenham, Lawrence, Travers, Rayer, Mackenzie, McDougal, Arnott, Macfarlane, &c. agree in recommending an antiphlogistic course in certain cases: that is, where there is active inflammation in a young and plethoric subject. They agree that it may be requisite in cases of debility to give tonics. All of them agree with Desault and Abernethy, so far as to prescribe emetics, when the stomach is disordered, and cathartics and calomel in every case.

We might form a general rule from the methods of the authors above quoted, that an emetic of antimony, or a mercurial cathartic, should be given at first, according to circumstances, unless the violence of the inflammation demanded venesection. If the disease

occurred after an important operation—if the patient were debilitated by sickness or any other cause—if the debility came on after the active symptoms were removed—we should give ammonia, quinine, or wine. We think that upon a careful examination of the authors referred to, it will be found that none of them denies the expediency of resorting to tonics in certain cases. Mr. Lawrence, who seems to have been considered as the champion of an ultra heroic, antiphlogistic course, points out very distinctly the cases in which venesection is forbidden, and tonics required. It is true, however, that the general tenor of his whole paper is in support of venesection and antiphlogistics, and opposed to tonics.

Sir Astley Cooper, who stands perhaps at the head of European surgery, might be claimed by the advocates of tonics (from the report of his lectures as originally published in the *Lancet*,) but it seems to have been rather from the brevity required by the limits of the lectures, or from the manner in which they were reported. For in the recent publication of his lectures, edited by Lee, he says that it is in the debility consequent upon the first stage, that stimulants are required. Sir Astley Cooper most certainly would not give tonics under the circumstances described by Mr. Lawrence as requiring venesection; “in young persons, in the robust, and those of full habit, where the pulse is full and strong,” &c. It would be contrary to all the principles of his practice.

In regard to topical applications the weight of testimony of the authors cited is in their favour, as at least harmless, and not likely to promote metastasis. In regard to the nitrate of silver, it has been found to be beneficial in some cases, and to fail in others. The application of mercurial ointment has some advocates in its favour, and some opposers, but the principal objection to its use, its liability to salivate profusely, does not apply in the case of children. Dr. Dewees's name is sufficient to stamp its value. The application of blisters to the diseased part has met with little favour. M. Velpeau's method is not applicable except where there is œdema, and in a late period of the disease. The application of leeches to the ganglions is worthy of further trial. Blisters applied around the limb to the sound part, have been successful as far as they have been tried.

In the treatment of erysipelatos inflammation, when suppuration has taken place, incisions are of the greatest value. This would seem to be a new practice recommended by M. Copeland Hutchison, in a paper in the fifth volume of the *Med. Chirurg. Transactions*. It has, however, the sanction of Mr. Hunter: “when this inflammation produces suppuration,” he says, “as the sores seldom ulcerate, they should be opened early, for the matter either gets into the cellular membrane, from the want of adhesions or its separate parts, which may be only attacked,” &c.

Mr. Lawrence advises incisions, where there is any tendency to the affection of the cellular membrane, which he thinks to be

always the case, where the disease is violent; simple and phlegmogenous erysipelas differing more, he says, in degree, than in their seat.

Mr. Lawrence has been censured for the length of his incisions. Mr. C. Hutchison¹ protests strongly against their length. He prefers several shorter incisions instead of one of the length recommended by Mr. Lawrence. In this, however, as in every other part of the treatment, we must be guided by circumstances. It is evident that where a wide surface is inflamed, a single incision, however long, will be insufficient, while, on the other hand, more than one will sometimes be unnecessary. Mr. M'Farlane, after a trial of the methods of Lawrence and of Hutchison, says, "that when the disease extends over an entire extremity, and the tension is uniformly diffused, and so great as to indicate an affection of the subfacial cellular texture, I have experienced more benefit from one or two long incisions, than from smaller, and more numerous ones." But when the disease is exterior to the fascia, as most frequently happens, indicating the presence of gangrene or suppuration, in circumscribed portions of the texture, one or two, he says, are not attended with so much success as smaller and more numerous ones.

At all events the incision should be free and sufficient—one free incision is better than a number of small ones, though we need not adopt what Mr. Hutchison calls the "murderous" practice of Mr. Lawrence.

In England, France, and America, this practice seems to have been confined to the cases of adults; but in St. Petersburg, we are informed by Dr. Doeff, (*Lancet*, 1837,) it has been used extensively in the case of children, and with so great advantage, that whereas the mortality was formerly four fifths, it is now only one fifth. The incisions are made long and superficial.

In the same volume of the *Med. Chirurg. Transactions*, that contains Mr. Lawrence's paper, is one by Dr. Dobson, in which he recommends numerous punctures. In his practice he found it very successful, but this has not been the case with others. The plan has met with little success. They are painful, and where the cellular membrane is only slightly affected they are not required, and where it is more deeply affected, they are insufficient. They do not answer the important purpose effected by incisions, of giving issue to the purulent matter, nor of relieving the tension of the skin. In fine, the eye of the practised surgeon can alone judge where there is a tendency to suppuration, and hence where incisions are proper. They ought not to be resorted to as a general rule, in every severe case of erysipelatous inflammation. If they do not relieve the patient, we have, in addition to the previous disease, ill conditioned wounds, which may give us no small degree of embarrassment and trouble.

The present writer has no new plan to offer in addition to the

¹ *Med. Chirurg. Communications*, vol. 14th.

numerous and opposite methods he has described. In simple erysipelatous inflammation, he would recommend the treatment to be in all instances adapted to the individual case. There must be different classes of cases in different places. Thus the surgical wards of a hospital are apt to be crowded with the subjects of chronic disease. Many of them have been exhausted by long suffering, some by severe operations; and a large class of those brought in, in consequence of accidents, are victims of intemperance. Is there not necessarily an important difference between such patients, and infants otherwise healthy? In the case of adults, age, constitution, habits, and present particular condition, must determine the treatment. It is very much to be doubted whether, except where tonics have been given in cases of manifest sinking and debility, any patients have recovered under their use, who would not have recovered without them. There are, however, cases, where no judicious surgeon would think of withholding them. There is so great a natural temptation to the use of tonics—our patients and their friends are so apt to think if they “only had something to strengthen them, they should get well,” that the caution of Mr. Lawrence may well be repeated. He says, “medical practitioners in general are anxious to begin the strengthening plan, they seem to have the fear of debility constantly before their eyes, and lose no time in directing the employment of bark, and recommending animal food and wine. In this way relapses are frequently produced; the inflammation and fever are renewed, further local mischief is caused, and recovery retarded.” The maxim, slow and sure, is worthy of the utmost attention in medicine and surgery. It is better to trust to the natural powers of the constitution, which, unless there is some particular reason for the contrary, will restore the strength as rapidly as the safety of the patient will allow. The ground that erysipelas is a morbid poison and therefore requires tonics, is to say the least empirical and unsafe, unless all diseases thus named, typhus, small-pox, measles, scarlatina, &c. are to be treated with tonics, which is going back to the doctrines that Sydenham obtained so much honour by opposing.

In a mild attack, a saline cathartic, antiphlogistic diet, with calomel and Dover's powder, or a pill of calomel, antimony, and opium, at night; and saturnine or spirit lotions to the part affected, will be all the treatment required. Lead water, or camphorated spirits, or cologne, are good external applications in the outset; and when the blisters have broken we may apply powdered starch or flour, as advised by Sir Astley Cooper.

In a severer attack, if there is much gastric disturbance without inflammation of the stomach or bowels, we should give tartrate of antimony in the manner recommended by Desault; or ipecacuanha and calomel in large doses. Where there is less foulness of the tongue and other symptoms of deranged stomach, the bowels should be evacuated by a full dose of calomel and jalap; and a pill

exhibited of one third of a grain of antimony, half a grain of opium and two of calomel, at night, or ten grains of Dover's powder with two of calomel. If the attack be violent, the patient robust, the pulse full and strong, free venesection will be necessary; but this only in an early period of the inflammation. In judging of the propriety of blood-letting, the pulse must be our guide here, as in all other diseases. If the patient is a man of intemperate habits, or in proportion as his constitution has been weakened by an operation, organic disease, or any other cause, we should be cautious in the use of the lancet. In most cases we should prefer general to local bleeding in this complaint.

After the violence of the disease has abated, or after the employment of depletory measures, if the secretions from the wounded or inflamed part, appear unfavourable, evincing a tendency to mortification; if the strength of the patient fail; stimulants, the best of which are the ammonia and the quinine, should be resorted to; and the same rules which govern our administration of them in ordinary cases are applicable here. We are now to regard the disease as under the same conditions, and demanding the same treatment, as when we have reason to apprehend mortification.

In regard to the local treatment, this should be varied according to the case, and to the progress of the disease. In the commencement, cooling applications, such as have been just mentioned, are most suitable. After the vesication has occurred, warm applications will be found more grateful, or sprinkling the parts with flour, starch, &c. There seems also to be a capriciousness in the disease which requires the applications to be constantly varied. The writer recently had a case of erysipelatous inflammation occurring in the genital organs of a female. The lady who had been subject to attacks of this complaint on former occasions, made use of various remedies before she would submit herself to the care of a surgeon. She had employed hot lotions, cold lotions, stimulant washes, herb fomentations, flour, &c. Most of them seemed at first to relieve her, but after repetition each would increase the distress, and the ultimate effect had been to bring the parts into the highest degree of irritation. When I saw her, all local applications were intolerable; the parts were described as very much swollen and inflamed. The only application that could be endured was a bread and milk poultice, and this was so intolerable that it was difficult to prevail on her to continue it. Applied warm one day it increased the distress, the next a cold application distressed her, so that it was necessary to employ it, hot or cold, according to the state of the parts each day. It, however, with the internal treatment, relieved the irritation, and the swelling subsided; after which lotions could be borne. I may mention, however, that the poultice was removed, during the night, and the parts covered with flour, as the weight and moisture of the poultice prevented her sleeping. Laxatives, and a pill of calomel, opium, and antimony, were the principal internal remedies. The irritability of the parts subsided,

but they had not become perfectly free from inflammation, when I last saw her, which was several months after I had ceased my attendance. She informed me that since then an inflammation had occurred in her finger which swelled to a great degree. She had no medical advice, and in the course of three months from its commencement, the skin of the finger came off entire. In regard to lotions and powders, the principal object is to satisfy the patient, and to soothe the irritability of the parts. Such therefore should be chosen, as prove most grateful in the particular case. We should consider it a strong argument against any local application that it produced pain.

The use of the nitrate of silver and the mercurial ointment have too much testimony in their favour to be rejected; I do not think that either is applicable, where there is much local or constitutional irritability. Each may, however, be useful in particular cases; the nitrate of silver, we are told, will prevent metastasis; and in many cases where neither a blister nor the nitrate can be applied, we should find mercurial ointment beneficial. In all cases, however, where the situation of the part and other circumstances will admit of it, we should apply a blister around the limb, upon the sound part, especially in children. On the other hand, where we apprehend mortification, we must apply a yeast poultice or the nitrous acid lotion, as recommended by Sir Astley Cooper.

When the parts are red, tense and shining, and we have reason to believe that suppuration has taken place, free incisions must be speedily resorted to, and they must be more or less numerous according to the extent or the situation of the disease. Where œdema has taken place, we should employ bandages.

On the whole, we are in favour of an expectant rather than a too active treatment. We do not approve of the thoroughgoing tonic course of Fordyce, &c. nor of the extreme antiphlogistic. To moderate the inflammation where it is violent; to remove gastric irritation; to restore the healthy nature of the secretions; to give an early outlet to collections of matter; to support the strength of the patient where it is likely to fail—these should be our principles of treatment. Dr. Bigelow classes erysipelas among the self limited diseases; we have as yet no *proof* that it can be arrested or cut short. All violent measures should therefore be avoided.

The general principles of inflammation may serve to guide us in this. We do not say with Mr. Lawrence that it is an inflammation, and must be treated as such. We say that it is an inflammation modified by certain causes, and must be treated according to the general principles of inflammation modified by a consideration of its causes, and of the circumstances of the patient.

There is one point of contention among the English writers, which I have not perhaps alluded to with sufficient distinctness. The idea has been advanced by some, and ridiculed by others, that the disease is different in London and in the country, and requires very different treatment. It does not appear that there is any

ground for this ridicule. In a crowded city like London, there is a vast number of individuals, extremely destitute, living upon unwholesome food, in damp, unhealthy, ill ventilated, and crowded habitations; many of them accustomed to the excessive use of ardent spirits. In them, inflammatory diseases must necessarily take a very different character, and demand very different treatment from what they do in the inhabitants of the country, breathing a pure air, and living comparatively well. There are a thousand causes, which make the air of a crowded city unwholesome, and likely to produce a predisposition to such a disease as erysipelas. The class alluded to by Mr. Hutchison, that of seamen, who he tells us are more subject to the disease than any other, demand very different treatment from those first mentioned. I do not mean to say that one class of these subjects demand universally one mode of treatment, and the other class an opposite; but only that one class includes a greater number of subjects requiring the tonic treatment than the other; while the other contains a larger number requiring the antiphlogistic. The observations made in regard to London, are applicable in a degree to American cities: where there are unfortunately a sufficient number who are in a similar condition to those I have alluded to in London. On the whole, the causes that promote and aggravate the disease, exist to a much less degree here, than in Europe. No universal treatment can be laid down. We must study the constitution of the patient, his age, temperament, habits, and even his hereditary constitution, and above all his peculiar condition at the time. Our treatment must be adapted to the symptoms, progress, and character of the disorder in the particular case.

March, 1838.

THE END.

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Marshall, Henry

On the enlisting, discharging and
pensioning of soldiers.

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