

A selection of papers and prize essays on subjects connected with insanity, read before the Society for Improving the Condition of the Insane.

Contributors

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Royal College of Physicians of Edinburgh

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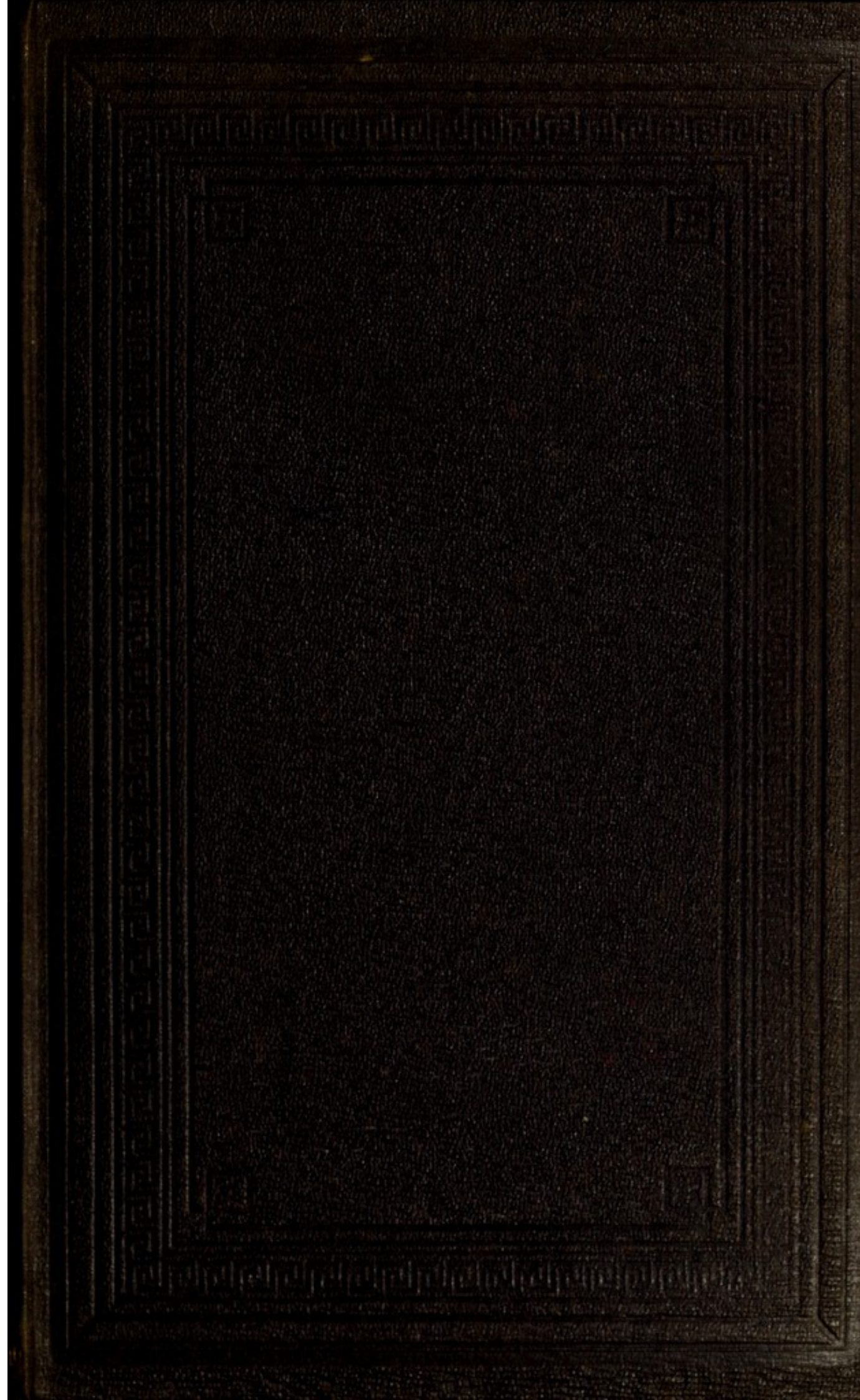
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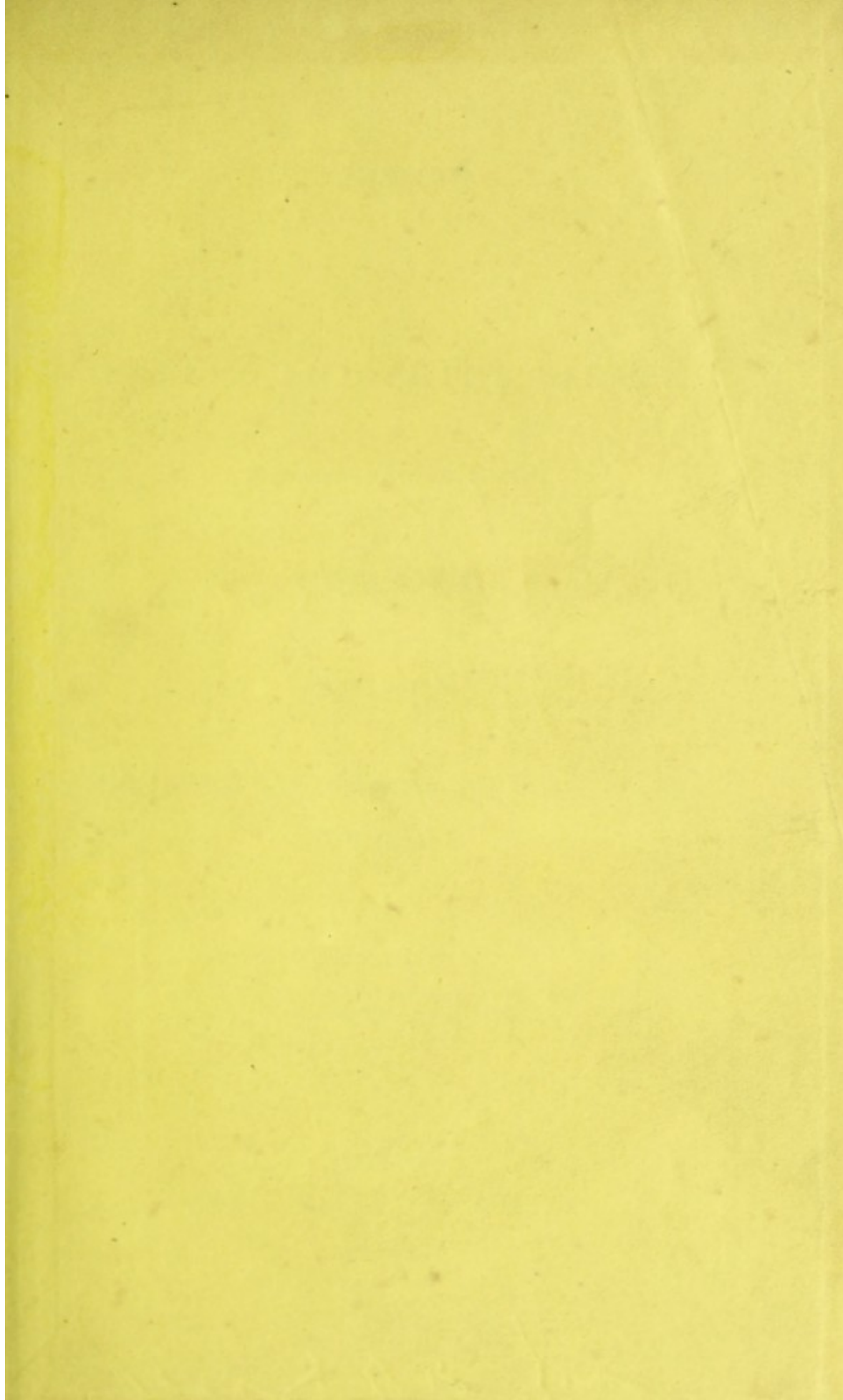



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A SELECTION
OF
PAPERS AND PRIZE ESSAYS
ON SUBJECTS CONNECTED WITH
INSANITY,

READ BEFORE
THE SOCIETY FOR IMPROVING THE CONDITION OF
THE INSANE.

“ ——— Animum rege, qui nisi paret
Imperat.” ——— HORACE.

LONDON:
PUBLISHED BY THE SOCIETY.
1850.

1. SECTION

PAPERS AND BRIEF ESSAYS

ON SUBJECTS CONNECTED WITH

INSANITY

LONDON: W. S. D. PATEMAN, PRINTER, WINE OFFICE COURT, FLEET STREET.

THE SOCIETY FOR IMPROVING THE CONDITION OF

THE INSANE

ASSISTED BY THE

LONDON

PRINTED BY THE SOCIETY

1850

DEDICATION.

TO THE

RIGHT HONORABLE THE EARL OF SHAFTESBURY.

MY LORD,

As the following Papers and Essays have been selected for publication by the Society, it is natural that the Members of it should be anxious to send them into the world with your Lordship's name, as a small token of their obligation to you for the great and continued interest you take in its prosperity.

The honorary position which has been conferred upon me, as secretary, affords me no small gratification, in giving a sketch of the Society up to the present time :

In 1842 a few gentlemen (among whom was your Lordship) having met together at the residence of our Treasurer, Sir Alexander Morison, where the meetings continue to be held, it was suggested that a Society might with advantage be formed, to award prizes to male and female attendants, for the longest term of good conduct and humanity to those under their care. As the income derived from yearly members of one guinea, and ten guineas for a life membership increased, "The Society for Improving the Condition of the Insane" have likewise given yearly prizes of twenty and thirty guineas for the first, and ten guineas for the second best essay, on subjects selected for competition, some of which (with the exception of those already printed separately,) are given in this volume, with other papers read before the Society.

As your Lordship is aware that the Society has lost some of its original Patrons, it may not be out of place to lay

their names before the public, as commemorative of the interest they took in its welfare ; they are as follow :—

The Hon. Col. Howard,
 Lady Caroline Morrison,
 Admiral Mangin,
 Dr. Haslam,
 Dr. Warburton,
 Dr. Burrows,
 William Gordon, Esq.
 Eades Summers, Esq.
 Sir John Chapman,
 Louis Hayes Petit, Esq.

Notwithstanding the success which has hitherto attended the Society, it is still very desirable to extend its usefulness ; and it is to be hoped that its numbers may increase, to attain the objects it has in view.

I have the honour to remain,

MY LORD,

Your Lordship's most obedient servant,

JOHN C. SOMMERS, Hon^y. Sec^y.

26, Cavendish Square,
 February, 1850.

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ERRATA.

- Page 21, for "Ο' γεγραρα, γεγραρα," read "Ο' γεγραφα, γεγραφα."
Page 85, for "Ο' γεγραρα, γεγραρα," read "Ο' γεγραφα, γεγραφα."
Page 136, "omni" out of place.
Page 153, line 10, for "παξανοια," read "παρανοια."
Page 153, line 10, for "μελαγχολια," read "μελαγχολια."
Page 153, line 32, for "παξανοια," read "παρανοια."
Page 157, line 30, add o to melancholic."
Page 160, line 1, for "idicatis," read "indagatis."
Page 164, line 4, dele , after "ordinairement," and for "combaltre,"
read "combattre."
Page 169, line 38, for "beau comp," read "beaucoup."

RULES OF THE SOCIETY
FOR
IMPROVING THE CONDITION OF THE INSANE.
INSTITUTED 1842.

PRESIDENT,
THE RIGHT HONOURABLE THE EARL OF SHAFTESBURY.

THE SOCIETY FOR IMPROVING THE CONDITION OF THE INSANE has been instituted for the purpose of enquiring into the present state of Insanity, and of collecting facts relative to its nature, causes, and treatment, and also for the purpose of endeavouring to improve and alleviate the condition of the Insane, by raising the character of their attendants.

The Society proposes to effect these objects by the following means:—

1st.—By inviting those who may in any way be connected with the subject of Insanity to favour the Society with their correspondence.

2ndly.—By annually offering Premiums for Essays on some subjects relative to Mental Diseases, to be sent into the Society.

3rdly.—By annually offering Premiums to those Attendants on the Insane who shall produce testimonials of meritorious service.

The Society shall consist of a President, Vice-Presidents, a Treasurer, an Honorary Secretary, and an unlimited number of ordinary and Corresponding Members.

The ordinary and Corresponding Members shall be elected by ballot.

The ballot shall take place at the ordinary Meeting succeeding that upon which the Candidate was proposed, provided six Members be present. Two black balls shall exclude.

Each Member shall pay an Annual Contribution of One Guinea, which may at any time be compounded for by paying Ten Guineas.

The Annual Contribution shall become due upon the first day of January in each year in advance.

When a Member shall be one year in arrear in the payment of his Annual Contribution, the Treasurer shall forward to such Member a letter requesting the payment of his Contribution.

If the arrears be not paid within six months after the forwarding of such letter, the Treasurer shall report such default to the next Meeting of the Society, and the Society shall use its discretion in omitting the name of such Members from the list.

Any Member shall be able to withdraw from the Society, by signifying his wish to do so by letter, under his own hand, addressed to the Secretary of the Society. Such Member shall, however, be liable to the Contribution for the year in which he signifies his wish to withdraw, and shall continue liable to the Annual Contribution until he shall have discharged all sums due to the Society.

The ordinary Meetings of the Society shall be held upon the first Wednesday in the months of December, February, April, June, and August.

Business shall commence at eight o'clock p.m. precisely, when the Minutes of the preceding Meeting shall be read.

The Business of the ordinary Meetings shall be to read the Minutes of the preceding Meeting, to propose and ballot for Members, and to read and discuss such communications relative to the subjects of Insanity as have been approved by the preceding Meeting.

In all Meetings of the Society three shall form a quorum.

All questions shall be decided by vote, unless a ballot be demanded, and the decision of a majority of Members shall be considered as the decision of the Meeting, the President or Chairman having in all cases of equality a casting vote. The Treasurer has special charge of all accounts, and shall see to the collecting of all sums of money due to the Society; and he shall report to the Society from time to time the names of all such Members as shall be in arrear, together with the sums of money respectively due by each. In concert with the Honorary Secretary, he shall keep a complete list of the Members of the Society, with the name and address of each accurately set forth, which list, with other books of account, shall be laid on the table at every ordinary Meeting of the Society.

He shall also pay all accounts due by the Society, so soon as they have been examined and approved of by the Society.

The Honorary Secretary shall have a general charge of all the arrangements, and of the execution of all the orders of the Society. He shall conduct their correspondence, attend their Meetings, take minutes of their proceedings during their progress; he shall, at the ordinary Meetings, read the original papers communicated or letters addressed to it; and he shall also make abstracts, when considered of importance, of the papers read at the ordinary Meetings, to be inserted in the Minutes.

Every Paper which may be presented to the Society, shall, in consequence of such presentation, be considered as the property of the Society, unless there shall have been some previous engagement with its author to the contrary, and the Society may publish the same in any way, or at any time that it may be deemed proper.

But should the Society refuse or neglect, within a reasonable time, to publish such Papers, the authors shall have a right to copy the same, and publish it under his own directions. No other person, however, shall publish any Paper belonging to the Society without their previous consent.

The following is a List of the present Members of the Society :—

The Earl of Shaftesbury, *President*.
 The Earl of Arundel and Surrey, } *Vice-Presidents*.
 Lord Somerville,

*Sir Alex. Morison, M.D., *Treasurer*.
 J. C. Sommers, Esq., *Honorary Secretary*.

Ordinary Members.

*His Grace the Duke of Norfolk.	John Jeffery, Esq.
*Her Grace the Duchess of Norfolk.	C. J. Beverley, Esq.
The Hon. W. Booth Grey.	James Phillips, Esq.
The Hon. Mrs. Howard.	Charles Richard Nicoll, Esq.
*The Hon. Philip Pierrepont.	John Bush, Esq.
Colonel Wood, M.P.	Dr. Bryan.
John Ivatt Briscoe, Esq.	E. L. Bryan, Esq.
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Charles Summers, Esq.	Geo. Wythe Daniel, Esq., M.D.
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Dr. Philp.	Dr. Roscoe.
Thomas Copeland, Esq.	*Thomas Coutts Morison, Esq.
Edward Wyndham, Esq.	(late Hon. Sec.)
Dr. A. J. Sutherland.	Hugh Welch Diamond, Esq.
John Thomas, Esq.	Wm. Batchelor Diamond, Esq.
H. B. Lee, Esq.	

Corresponding Members.

Alex. C. Morison, Esq., Bengal.	Dr. Maximilian Jacobi Siegburg,
Dr. Thomas Cock, New York.	Prussia.
Dr. Hitch, Gloucester.	Dr. Frederic Stimmel, Tübingen.
Dr. Selmer, Copenhagen.	*T. C. Morison, Esq., Montrose,
Dr. Button, Dorset.	N.B.

* These Members have compounded for their Annual Contributions.

Subscriptions and Donations are received by Messrs. TWINING & Co., Bankers, Strand, London.

The Essays and Testimonials, to be sent to the Honorary Secretary, 26, Cavendish Square, London, on or before the first Monday in February.

The Society has already paid £126 for Prize Essays, and £73 10s. to Meritorious Attendants on the Insane.

ON RESTRAINT AND COERCION ;

CONSIDERED NOT MERELY AS MEASURES OF SECURITY, BUT
ESSENTIALLY CONTRIBUTING TO THE CURE OF INSANITY.

—BY DR. HASLAM.—Read 3rd April, 1833.

THESE terms, with some justice, have been interpreted as formidable agents for the treatment of insanity. If we revert to the established practice 50 years ago, it was considered that every keeper ought to be able to manage and subdue his patient. It will be seen that when the strength of the contending parties was equal, the mastery could not be obtained without considerable violence and damage to the unfortunate patient. By the existing law, no person can be secluded except it be competently certified that such individual is of unsound mind, and likewise a proper subject for confinement, a wise and humane regulation, there being many persons tainted with absurd superstitions and prejudices of education, but who are perfectly harmless, and whose conduct is never from the impulse of their delusions. Confinement, in its mildest acceptation, amounts to incarceration, and the patients in a public hospital or private receptacle are equally prisoners with the inhabitants of the Queen's Bench or Newgate. The key precludes them from any intercourse with the world, and the airing ground, with its lofty walls, confines them to a scanty and beaten track. In this seclusion, they must be contented, for remonstrance and complaint are unavailing. When night draws on, for the economy of fire and candle, they are sent early to bed, and if several sleep in one apartment, the turbulent and vociferous prevent the quiet and orderly from taking rest, and under a state of convalescence, this interruption may be considered an impediment to their recovery. This may appear a gloomy sketch of a Lunatic Asylum, but these contingencies are inevitable when they are placed by the poverty of friends or relations on the lowest class: besides it is not to be expected that the proprietor of a private receptacle should be loser by their care and maintenance. There are other modes of restraint which deserve to be noticed, and will be duly considered, but which are asserted to have been abolished in a country asylum, where the greatest number of lunatics are imprisoned. The pretension to effect impossibilities is readily be-

lieved by the weak and unreflecting portion of mankind, and they are always prepared to vituperate the necessary precautions that have been wisely and humanely adopted. Every proprietor of a lunatic asylum is responsible for the personal safety of every patient committed to his custody, and who ought to be returned to his friends without injury or mutilation. When a highly excited and dangerous patient is received, it ought to be mildly but at the same time emphatically communicated to him, that the intemperate sallies of his disorder would be controlled by adequate restraint, and these ebullitions of fury require the particular care of the medical practitioner. If the patient be disposed to separate his arms for the purpose of inflicting a blow, they ought to be secured, and a propensity to kick will require a similar restraint on the feet. To prevent the ferocious and brutal control of a single keeper, two or more should co-operate, to whom the refractory patient submits without a struggle, and they should be equally circumspect not to irritate or degrade him by abusive language, for although logic and persuasion are but feeble antagonists to the mischievous efforts of a powerful and determined madman, yet a person who is a gentleman, and accustomed to the society of his equals, never forgets an insult, and holds the person in contempt who has conveyed it. This is perhaps sufficient to shew the necessity of restraint for those who are impelled to the injury or destruction of others.

It now remains to shew an equal necessity for restraint in a more pitiable form of disordered mind, that is, where he meditates and employs every contrivance to effect his own destruction. When this propensity prevails, every stratagem is resorted to for its accomplishment. When the means are considered by which such destruction of life may be effected, it becomes the duty of every proprietor of a receptacle for the insane, by adequate vigilance and circumspection, to prevent it. It is unnecessary on this occasion to relate the different means and stratagems which the insane have contrived for their own destruction, and which they have generally accomplished under a hatred of existence. In such lamentable cases, which however recover more frequently than might be expected, the hope and probability of such event is a sufficient justification for the restraint that may be necessarily employed, and it is likewise the duty of the medical attendant, by frequent and skilful examinations, to ascertain, both by his conduct and discourse, that his hostility to

his own existence has subsided. Since the doctrine of non-restraint has been promulgated, it has increased the practice of secluding and concealing the more violent patients from public inspection, with the hope of impressing those who visit the institution that they had discovered the important secret of rendering them orderly and tranquil; and some have even professed to divert their thoughts into different channels. In my own opinion, under proper restraint and control of the keeper, they ought to be allowed to associate with the others. Under such restraint they would consider themselves as objects of suspicion, and thereby acquire the habits of *self-restraint*, the first advance towards recovery. When immured in their cells, they have unbounded leisure to contrive mischief and to meditate revenge. By seclusion their health is impaired, and they are deprived of exercise and the respiration of a free and wholesome atmosphere. Every person knows that the ferocity of a dog becomes exasperated by being chained. There is another form of this disease originating from the practice of *self-pollution*,—a vice to which both sexes are equally addicted, and the effects are lamentable without it be arrested by adequate restraint. There shortly ensues on this indulgence a constrained, shy, and diffident demeanour, and a wish for retirement. They form no attachments demonstrative of friendship, and are equally cold and indifferent to the opposite sex. By continuance of the practice the memory begins to fail, some delusion usually supervenes, and by protracted indulgences they become epileptic or paralytic, and incurable imbecility concludes the scene. In the early stages of this detestable practice, it is always to be remedied, but this requires incessant vigilance and constant restraint. Briefly adverting to my own experience, many patients who have recovered from a state of insanity, and were well educated, have assured me that they were indebted for their cure to the restraint that had been imposed. “When I found myself unable to accomplish the mischief I had projected, I began seriously to contemplate the motive that impelled me, and the consequent restraint to which I was subjected; and this meditation gradually disconnected the motive or impulse from the action.” Many patients who have been apprehensive of the return of a paroxysm, have solicited the imposition of restraint to prevent them from injuring themselves or others: they found themselves approaching to a state in which they should possess no control over their thoughts and

actions. Restraint is necessarily and properly administered to those of the soundest minds. There are many surgical operations of a painful nature that require the patient to be secured. There is no surgeon who would cut a patient for the stone until he had been tied and confined so that his utmost endeavours could not interrupt the skilful performance of the operator.

It now remains, according to the nature and operations of the human intellect, to give a brief physiological explanation of the benefit that insane persons mischievously disposed derive from that mild and efficient restraint, that by perseverance will control the motives of their dangerous volition. A degree of consideration is excited before the impelling suggestion is precipitated into action, and they anticipate the restraint that will necessarily ensue on a display of violence, and thus, however mentally disordered, they acquire a habit of correct conduct, and are capable of being trusted to a considerable extent.

COERCION may be considered equivalent to compulsion, yet the forcible introduction of both food and medicine is, on proper occasions, indispensable, and consistent with the most humane treatment of insanity. It is resorted to for the preservation of life, the maintenance of health, and for the ultimate recovery of the patient. When the bowels become torpid, they should be rendered and maintained regular by appropriate medicine, to the introduction of which they are usually averse and violently resist; yet when you have convinced them that you can compel the act of deglutition with perfect safety, they voluntarily swallow the dose that has been ordered. Many insane persons refuse all sustenance, and are determined to starve themselves. Ought such resolutions to be sanctioned by the medical attendant—especially when the determination is easily defeated, and the patient eventually recovers? Such forcible introduction of food however requires considerable discrimination and experience. In many instances they refuse food from actual want of appetite, there being some disease or torpor in the stomach and upper intestines, and which until judiciously removed by aperient medicines, prohibit the introduction of food, and should there be an accumulation in the lower bowels, such should be removed by injections before nutriment is employed. Should the patient require the abstraction of blood from the arm, either by cupping or by leeches, these ought to be performed by a competent medical practitioner. That these necessary restraints and indispensable coercions have

formerly been deeply abused must be evident to those who have had frequent access to the receptacles for insane persons, when restraint and coercion were considered as punishments, and employed as such by an unfeeling keeper, not disposed to discriminate between disease and delinquency. How these efficient and protecting restraints and necessary coercions can be abolished in the most exasperated forms of insanity, and which amounts to the indulgence and encouragement of their mischievous propensities, is of very difficult solution, especially as experience has convinced the most intelligent and skilful, that they essentially tend to their ultimate recovery.

AN ATTEMPT TO INSTITUTE THE CORRECT DIS-
CRIMINATION BETWEEN CRIME AND INSANITY.—

BY DR. HASLAM.—Read 1st May, 1843.

THERE can be no connection between soundness of mind, which renders the individual responsible for his actions, and unsoundness, insanity, or madness; which, sufficiently proved to have existed prior to, and at the time the violence was committed, exempts the person from punishment. No states of intellect can be more distinct, or widely separated. This discrimination has been eagerly sought after, both by lawyer and physician, and when the features of insanity are prominently marked, they have usually been unanimous, but when the slighter shades of this disorder have only been developed, it has produced a contrariety of opinion. "It is undoubted law," says Lord Campbell, "that partial insanity alone, is not necessarily relieved from responsibility. The medical evidence deposes to his conduct and conversation, together with the statement of those who had long and intimately known him, and the supposed lunatic may be skilfully questioned on such supplied information, and when the physician deposes his evidence, he will be able to afford substantial reasons that he has not been imposed on by any counterfeit or simulated insanity." Lord Erskine with much acuteness observes, "in cases of atrocity the relation between the disease and the act should be apparent;" and again more explicitly, "I think as a doctrine of law, that the delusion and the act ought to be connected." Every person, sane or insane, acts from the motives that impel him, and if the motive that prompts him should be a delusion, he will be compelled to follow its dictates without further deliberation. The acts of the sound mind, however atrocious, are *voluntary* commissions, and generally urged by the predominance of evil passions; he hazards his life for the chance and calculation of escape from detection, but madness is involuntary, in fact a disease. The person of sound mind exercises his rational faculties and considers the motives that impel him, before he precipitates his thoughts into action; he meditates and considers the result of his conduct, and deliberates before the execution of his will. The lunatic has been termed an involuntary agent, and such term requires some examination. That he possesses volition to direct his hand for the destruction of an imaginary enemy

is most evident, and his will is directed by the impelling motive for the accomplishment of his intended purpose; but he is incompetent rationally to examine the motive that urges him, and it is well ascertained that existing delusion becomes confirmed and exasperated by frequent meditation. Where it is a sudden explosion of violence, and there is no attestation by competent evidence that *his purpose was a delusion*, and had been matured by meditation, he ought not to be exempt from the punishment that the law inflicts. It is unnecessary to enumerate the various evil passions that haunt and corrupt our nature, they are certainly not counterbalanced by the milder affections that are its ornament. The repeated explosion of violent and deleterious passions open an avenue for the entrance of delusion, and may be considered the loom in which it is woven. Even the excitement and partial delirium of intoxication divests us of much of that moral restraint which it is our duty to impose on our actions and produces a promptitude to reply and quickness of determination without the ordinary deliberation we bestow on the succession of our thoughts; and by increasing the stimulus, liberates from their feeble inclosures many of our violent and destructive passions. When any of the fine perceptive organs are imposed on, it is termed according to the correct phraseology of Milton, *illusion*—

“ Thus I hurl my spells into the spongy air,
That hath power to cheat the eye with blear *illusion*,
And give it false presentments.”—*Comus*.

Delusion seems to be the product of our reflections, under the influence and sway of over-ruling passions, and after long brooding on it becomes part and parcel of the mind, and directs our actions. The ear appears to be more frequently beguiled than the other organs of preception, yet they may all be the subjects of illusion. I have often listened to conversations between insane persons and their imaginary friends or opponents, and from their subsequent conduct have had reason to believe that they were mischievously tutored by these nonentities. Some insane persons have asserted that they have received special commands from the Deity not to eat or speak, and sometimes that he persuaded them to acts of violence, to evince his displeasure and vengeance. These auricular illusions may be regarded as unfavourable symptoms. In ordinary soundness of mind, these

illusions are not unfrequent, we often fancy that we hear the ringing of bells, and after dancing, some favorite tune will occupy the ear to the interruption of sleep.

I am persuaded that delusion originating from the operations of the mind long brooded on, and digested under the urgency of exalting or depressing passions, will produce that condition of insanity that exempts the individual from the imputation of crime. I have known a tea-dealer proclaim himself a monarch and assume the attributes of awe and majesty, while others of competent fortune, under the influence of fear, and haunted by dejecting passions, become convinced that they shall be eventually consigned to the workhouse. It may be difficult to conceive how a person can overlook his real situation in life, and mistake his personal identity, yet a fixed delusion constantly recurred to, will effect it, and produce that morbid condition of the brain which is usually detected in cases of insanity.

Human nature is strangely chequered and distorted by its attendant passions, and it is not to be presumed that the *voluntary* indulgence of these is to create a distinction between crime and insanity, because such indulgence constitutes crime. The term *voluntary* implies that the person is conscious of the nature, tendency, and illegality of his conduct, but insanity denotes that his mind is in such a state of perversion that he overlooks these considerations, and strongly impelled by a delusive motive, which he is unable to control, is impelled to the perpetration of his intended purpose. In some cases of violent insanity, where they are in constant and irregular motion, the mind appears to be distracted, and hurries from one expression to another without any evident connection, or capacity to construct an individual sentence, and may be likened to those spasms and distortions that are attendant on locked-jaw. Such patients, in whatever receptacle they may be placed, are usually properly secured, or at least ought to be (notwithstanding the pretence and imposture of non-restraint) when little is to be apprehended from their violence. It is the silent and sullen lunatic from whom mischief is to be apprehended, on whom some delusion has fastened, and on which, in the gloomy recesses of his mind, he has brooded and ripened, and which, to ordinary persons, bears the character of deliberate revenge, although the foundation, or motive from which he acts, is imaginary. With respect to crime,

which cannot be committed by an insane individual, that is the province of the Counsel, Judge, and Jury.

It now only remains to conclude this short and imperfect essay with a few observations on simulated madness. Some delinquents, during the time they were held in custody, have counterfeited insanity, and about half-a-dozen cases of such imposture are in my recollection: but in all the assumption was readily detected. They sang, danced, and affected incoherence in their discourse; they practiced the demeanour that in their own minds was the display of insanity; but they were deficient of the confident and solemn detail that results from actual delusion, nor would they have strength or even patience to mimic a paroxysm of protracted duration. When returned to their cells or apartments, they became immediately tranquil, and when alone, saw no reason for continuing the deception. If it should be tolerated by the law, in cases of supposed insanity, would it not be desirable (before trial) to send such patients or delinquents to Bethlem Hospital, where the state of their minds might be accurately ascertained, and veraciously reported; where, by repeated examinations both of conversation and conduct, the real condition of intellect might be detected; presuming, also, that there was no chance of escape either from negligence or connivance. For this purpose, some preparation should be made in the apartment where the supposed delinquent is confined, and through which he might be inspected when alone. Bethlem Hospital has been mentioned, because it is the receptacle for Government lunatics, improperly denominated criminal; and considering the skill, experience, high and honourable characters of the medical officers of that institution, there is every reason to believe that the public would be satisfied with their decision.

ON THE INCREASE OF INSANITY, WITH AN ENDEAVOUR TO DETECT THE CAUSES OF ITS MULTIPLICATION.—BY DR. HASLAM.—Read 7th August, 1843.

If the population fifty years ago could be accurately ascertained, and the numbers of the insane who were then confined, precisely detected, together with the population at the last census, and the numbers now in seclusion; such information would be the basis on which this inquiry might with certainty be instituted. My endeavours have been persevering to furnish this comparative estimate, and many intelligent friends have been consulted; but their computations have materially varied, and therefore, are unnecessary to be introduced on the present occasion. Although the numbers of persons cannot be accurately ascertained, yet the provisions for their accommodation have been alarmingly multiplied, which must demonstrate the increase of this disease. To my knowledge there are no political causes for the accumulation of this disease; the civilization of the people has been extended, and the habits of intemperance among the middle and industrious classes, appear to have diminished. In addition to those secluded in hospitals, and private madhouses, a considerable number are placed in private lodgings under the management of one or more keepers. Many who are under a commission of lunacy reside in the houses of their committees and relations, and others occupy apartments in the dwellings of medical practitioners. To these must be added such as wander in a state of destitution. If these persons are prematurely liberated under the presumption that they are cured, both women and men return to their husbands and wives, fully competent to transmit this disease to the offspring that may ensue from the more frequent intercourse that naturally results, and from the same causes those who are single require but little persuasion to the altar.

Those whose existence has been sufficiently protracted, and have confined their practice to insane cases, must have witnessed the frequent supervention of this malady in the offspring, when either of the parents have been previously affected with this disease. In general both parties, especially the husband, are much delighted with those who are able to trace in the features of the child, a resemblance to themselves; but it should be fully understood that many diseases, moral and intellectual defects are

equally capable of being similarly transmitted. It is perhaps impossible to prevent this occurrence by any legislative restrictions; but if a small part of the science and solicitude employed in breeding of cattle, were devoted to the propagation of the human race, we should produce fewer lunatics if not more philosophers.

It should also be considered that insanity is often intermittent, and among females very often periodical. This recurrence may be observed in the class of patients deemed *incurables*, who without any evident cause, are subject to paroxysms of violence or depression, and many females are similarly visited from the suppression or abundance of their periodical secretion. The late Rev. Dr. Francis Willis, asserted before a Committee of the House of Commons, that of patients placed under his care within three months from the commencement of the attack, nine out of the ten had recovered, and what is still more extraordinary, that *age* was no impediment to their restoration to sanity. Reverting to the receptacles public and private for insane persons, it would seem that the inhabitants of county towns do not consider them sufficiently complete and embellished without the ostensible erection of a Lunatic Hospital, and such abundant provision can only be paralleled by the pious zeal for building new churches. If the philanthropic promoters of this scheme for multiplying madmen had foreseen the result of their contrivance, they would probably have reflected before it was precipitated into action.

INSANITY IN FRANCE.—From government returns respecting madhouses,—“More than 30 departments possess no establishment for persons affected in their intellect. Out of 51 departments which take charge of their madmen and receive those of their neighbours, 30 belong to the north and 21 to the south. The former reckoned in the beginning of 1835 and 1841, 8741 and 10,480 patients; the second 3445 and 4693. The whole number in these establishments in 1835 was 11,786, whilst in 1841 it had increased to 14,173, shewing an increase of 22 per cent. Out of 100 madmen admitted into the hospitals, Paris obtains 20. In 1841 the average expense per head was 177f. (under £7 10s.) the minimum in the Isere, and 579f. the maximum (nearly £25, a wonderful difference, if the figures be correct) in the Ain. It amounted to 544f. in Paris. In 1835, out of 11,508 patients, 2273 were of liberal professions, 4852 belonged to the class of mechanics, 3771 to that of labourers or servants, and 2332 were of calling not ascertained. In 1841, out of 12,806 patients, 2533

were of the liberal professions, 3101 belonged to the class of mechanics, 3976 to that of labourers and servants, and 3216 were of callings not ascertained. In the last-mentioned year soldiers were set down for 412, and artists for 96. If the causes of the evil be looked for, it will be found that out of 10,111 patients, 6964 may attribute their misfortunes to physical causes, and 3147 to moral ones. Old age is down at 541, excess of work 176, want 329, debauchery 441, and drunkenness, 792; on the other side ambition is down at 314, pride 291, affliction 1186, and love and jealousy 767. Out of this number of 10,111, there are 2234 idiots, and 1137 epileptic patients. Out of 21 patients from the Pyrenées Orientales, 11 became so from political causes, whereas in the Seine, out of 633, the same motive caused only 3 to be shut up. Love and jealousy would appear to have troubled most brains in the Bouches du Rhone; out of 651 patients, 59 were indebted to this cause for their confinement. The whole number of patients in 1835, when compared with the population, is 43 for 10,000 inhabitants, and in 1841, 58."—*Literary Gazette*.

From the annexed statement, if it be correct, it would appear that insanity has increased in France, and when completed there is no difficulty in finding medical practitioners prepared to treat insanity in all its various forms and presentations. It is natural that the governors or directors of such institutions should feel deeply interested in their prosperity, which is usually estimated by the numbers who are discharged cured, and when they find from the reports of other hospitals that they are in a considerable minority, they of course feel dissatisfied, and can only attribute their failure to a want of skill in the medical officers, without having ascertained the validity of such reports; and it is not improbable that the doctors, in order to avoid a degrading comparison, may entertain hopes of ultimate recovery at the dawn of convalescence. It is my own opinion, upheld by ample experience, that no insane person should be certified cured until the lapse of three months after the period of amendment, during which repeated personal examinations should take place, together with a satisfactory observation of the patient's conduct. Another impediment to the advancement of our knowledge on the subject of insanity, is the want of a rational system of the physiology of the human intellect. We are in the habit of speaking and writing about *mental* disorders or *mental* derangement, without any precise inquiry into the nature of the human

mind and its operations, to ascertain if it be a disease of the brain and nervous system, or whether that incorruptible and immaterial essence, *entilichia* or *soul*, be capable of such perversion; and perhaps we may long and ignorantly speculate on the latter question. We see the mind built up by instruction, termed education, which is conveyed through the organs of perception, and also by the individual's thoughts or reflections, if he be capable of such exertion. We are not deficient of voluminous treatises on the powers and faculties of the human mind, which have been the especial and fanciful creations of their authors, but its real physiology has not hitherto been investigated. We are overwhelmed with systems of scholastic metaphysics, but the exposition of the nature of the human mind has not yet been developed; and it is by such elucidation that the treatment of insanity will become a science, and not, according to its present practice, continue a trade, with inadequate and declining emoluments. If the numbers of insane persons have extensively increased, the medical practitioners who treat this malady have been abundantly augmented, which ought to lead to the hope, if not expectation, that some efficient method of treatment would have been discovered as the result of their conjoined wisdom and experience. Those who have preceded us in this department of practice, have not bequeathed to the present generation any valuable legacy of successful remedies, they have eulogised certain substances and compositions, but in succession they have disappointed the expectations of those who employed them, and most of them are at present discarded! The different European nations have not been more successful than ourselves in their therapeutics. With much labour and disappointment I have perused their principal treatises and dissertations. France* has thrown but little light on this obscure subject, and the extensive domain of Germany, notwithstanding their accuracy and minuteness, have not attained any superiority of medical treatment. It is perhaps unnecessary to range further in search of remedial improvements. If we, with the other civilised nations of Europe, have not advanced in our *medical* treatment of this disorder, it must be acknowledged that our moral management of insane persons is vastly superior, and displays an enlightened system of mild, humane, and, at the same time, efficient treatment, to prevent the

* *Vide* the estimate of this disease in that kingdom.

patient from doing injury to himself or others, and which contributes to his ultimate recovery.

CONSIDERATIONS ON THE LEGALITY OF CONFINEMENT, WHERE INSANITY IS DERIVED FROM THE HABIT OF INTOXICATION.—The metropolitan commissioners require those medical practitioners whose certificates consign individuals to public hospitals, or private receptacles for the insane, that such persons should be of unsound mind, *and likewise that they* should be proper subjects for confinement.

This is a wise, humane, and salutary regulation; there being many inoffensive persons of minds comparatively weak, and whose education has been tainted with absurd prejudices, superstitions and religious apprehensions, which their future progress through life had never removed, who, advancing in age, become too old to learn, and obstinately adhere to the doctrines they have heretofore imbibed. Among our species, that individual is most to be regarded whose original thought has dispelled the errors which his childhood had adopted, or which, at a subsequent period, authority had enforced. There are many quiet and respectable persons who confide in doctrines which the majority of the world consider as absurdities or delusions; yet are never impelled to act from their prevailing opinions. The impulse of the will is too feeble or distrustful to precipitate the thought into action. There is no doubt, in cases of anxiety and depression, that the products of fermentation or distillation will afford a transient relief, yet an exhilaration of very limited endurance. When the depression returns they require an augmented dose of the stimulus, and pass their time in a state bordering on delusion. A continuance in these habits, diminish the respectability of the person, disarrange his affairs, and, if during an interval of reflection, he should contemplate his degraded condition, it excites a propensity to suicide. There are two modes of detecting the insanity of an individual, conversation and conduct. Every human being, in his senses, estimates his office and personal identity, and if he assume a character superior to his actual condition, it may be presumed that his mind is unsound. Among the lower classes of society I have witnessed the assumption of royalty, and the inference is very natural, that this morbid persuasion will deem the reigning monarch an usurper.

Some have assumed the characters of prophets of Jesus, and one lunatic assumed the office and person of John the Baptist.

There is a balance and equation of delusion, and some titled and opulent persons have been so alarmed by the apprehensions of approaching poverty and the dread of the workhouse, that they have refused all sustenance until it has been compulsively administered. The insane state of a person's mind is equally discoverable by his actions, and these are the only criteria by which a judgment can be formed in those who are born with their ears impervious to sound, and are rendered consequently dumb. When we observe a person deviate from the ordinary track he was accustomed to pursue with approbation; if he become restless, hurried, and wandering, irascible, and whose life is a succession of absurdities, under such circumstances, every medical person would pronounce such person to be insane, and a proper subject for seclusion. Let us now inquire whether this train of symptoms constituting acknowledged insanity, may not be produced by the habit of intemperance. This does not imply an occasional deviation from the rules of strict sobriety, which mirth and agreeable society, together with the best wine, may occasionally reconcile, but a fondness for excess, not only at convivial meetings, but also an indulgence in secret, to dispel the gloom of reflection and dissipate impending despondency, constitute the habit of intoxication. The great mass of mankind view these habits as vicious propensities, and I should extremely regret to be supposed the apologist of delinquency. At the commencement, this indulgence may be vanquished by parental authority, by the counsel of friends, and by medical exposition of its fatal consequences. When the habit of intoxication has endured for a considerable time, its removal is nearly hopeless, more especially in females, and there is but one remedy, which is seclusion under a vigilance that deprives them of all access to fermented or spirituous liquors. If we examine the bodily state of these devotees to intemperance, we find them at the commencement of their career to become bloated, but as they proceed emaciation is observed, and which rapidly advances. The appetite fails, and is no longer provoked by its favourite dishes, the bowels become irregular, and the hands are tremulous and unsteady. The state of intellect suffers in a greater degree; when sober, they are idle and desponding, and want confidence and energy to proceed with that which they ought to perform, and when excited by an additional stimulus, they either become

turbulent and irascible, or are overwhelmed by drowsiness and stupidity. The sleep they obtain is seldom of long endurance, and the morning, without the customary dose, is an unwelcome visitor, and this is the time, under the pressure of wretchedness and despondency, they are tempted to the commission of suicide. There is a cause and commencement for all the different forms and species of insanity. When death or misfortune deprives us of the most dear and intimately connected with our happiness or worldly prosperity, and these circumstances, independently of any habits of intemperance, are sufficient to account for the supervention of insanity, even in its wildest exhibitions and pitiable depressions, and, in these states, they ought to be placed in seclusion, under humane custody to defeat their occasional mischievous intentions, both to themselves and others, together with skilful treatment, with the hope of their being restored to reason. It is acknowledged that a temporary indulgence in intoxicating liquors will pervert the intellect, exasperate the passions, and divest the party of many moral restraints.

If we inquire into the causes usually assigned when persons are admitted into the receptacles for the insane, habitual intemperance forms but a small portion of such numbers; in fact, the practice, after some continuance, will induce that degree of bodily weakness that renders them inadmissible into the metropolitan asylums and most of the county asylums, where it is especially considered a *vicious* habit, and of improbable relief. Although this question may be attended with many difficulties, by regarding the habit of intoxication solely as a *vicious* habit and propensity, yet, when it has been caused by those afflictions that overwhelm the intellect, and the person has previously manifested those symptoms that denote his incompetence to conduct himself in society and to manage his affairs, the propensity to intoxication may be considered rather the effect than the cause of the disease.

If we inquire into the causes usually assigned, when insane persons are admitted into public or private receptacles, intemperance forms but a small proportion of such cases; in fact, the practice, after some continuance, will induce that degree of bodily disorder, that renders them inadmissible, and if this should be aggravated by paralysis, they may be absolutely excluded. Although this question may be attended with many difficulties,

by regarding the habit of intoxication solely as a vicious practice, yet, when it has been preceded by those misfortunes that overwhelm the intellect, and the person has manifested an incompetence to conduct himself rationally in society, and incompetent to the management of his affairs, he is, in my opinion, a proper subject for seclusion. It is unnecessary to relate my own experience, and adduce the numerous instances in which the resolutions of these persons, when confined, have failed, so that my dependence on these protestations is very much diminished, and I still think that the relapse is not so much the gratification of a vicious propensity as the result of depression, a melancholy survey of existing conditions, and the cheerless prospects of surrounding circumstances. A reason for the continuance of this practice is, that it always administers a temporary relief, and diffuses some short-lived gleams of exhilaration.

If we inquire minutely into the causes that have preceded and established the baneful habits of intemperance, we shall often find that some disastrous event or moral degradation has induced the practice—the descent from opulence to poverty, the loss of female virtue and character, the abandonment of those who ought to afford us protection, and the loss of those most dear to us. I have endeavoured to trace the precursors of this pernicious habit, which will always have a fatal termination. As their promises and resolutions cannot be confided in, there remains only one remedy for this destructive habit, which is seclusion, and an interdiction of all intoxicating beverage; how long this confinement ought to continue, must be determined by the good sense and discretion of the medical practitioner. The habit of intoxication is allied to delusion, it is employing for a short-lived exhilaration, an agent destructive in its nature, which confuses the intellect, and, according to the doses taken, is a gradual or rapid accomplishment of suicide. For the indulgence of temporary and treacherous gratification, all the family duties are neglected, and the health and moral advancement of the offspring are disregarded.

REMARKABLE CASE.

Read by Sir A. MORISON, 4th December, 1843.

B. H. was, from infancy, of rather weak intellect, but was capable of receiving a certain degree of education sufficient to enable him to fill the situation of a copying clerk. He fell into bad company, and was induced to commit theft, for which he was tried, and acquitted on the ground of insanity; he had previously been in an asylum at Bristol. In general he was quiet and inoffensive, not devoid of religious impression, seldom speaking except when spoken to, and answering a few questions regarding the ordinary incidents of life in a rational manner.

He was subject to occasional excitement of several days' continuance, during which he talked incoherently, was restless, and apt to strike and kick those about him; these attacks were preceded by shuffling his feet. About eleven years ago, on the attendant being called out of his room, in which B. H. then was, he shut the door, placed a long sitting form close to the fire, laid his body on the form and the back of his head against the bars of the grate; he was found in this position, and in a state of insensibility.

The following is the attendant's account of the transaction:—
“On the 18th of March, 1830, during the absence of the attendant for breakfast, B. H. went into the attendant's room and shut the door after him; he then took one of the forms, which he put close to the grate, on which he laid himself down and put his head quite close to the bars, there being at the time a large fire burning; in this situation, the attendant, to his astonishment, found him. He instantly removed him, and with assistance, took him as near the window as possible, to all appearance in a dying state.

Previous to that time, in moments of excitement, he was in the habit of *butting* his head against the wall, and once in particular, when he had done so, some of the other patients had told him he “was afraid to do it again.” “Am I,” said he, and immediately did it with much greater force.

On his removal to the open window, a copious discharge of blood took place from the nose, and in about half an hour the state of insensibility ceased. His head, upon which the hair had been very thick, had much the appearance of what in Scotland is termed a “singed sheep's head;” the bone was

visible in several points, in one of which it was quite black, large portions of scalp, bone, and brain with its membranes, were successively removed, leaving a nearly circular surface of about six inches in diameter, which, up to a short period before his death, was protected by a thick membranous substance, yielding upon moderate pressure, which gave no uneasiness. Some parts of this membranous integument were of a more dense texture than others; it occasionally threw off thick scales, more or less firm, approaching to a horny consistence; it was for the most part dry, but at times a purulent moisture exuded from portions of it. Previous to this occurrence he had made an attempt to cut his throat with a razor, and was also in the habit of knocking his head against the wall; he did not, however, repeat the attempt afterwards."

It appeared that this extensive injury, by which the greater part of both parietal bones, part of the occipital bone, and a large portion of the upper surface of the brain were destroyed, did not produce any perceptible change in the mental condition of the patient.

EXAMINATION OF THE HEAD OF B. H.

Bethlem, Sept. 24, 1841.

The hernial protrusion of the brain, which, during life, had been equal in size to a large hen's egg, had become much shrunk, and was quite placid in twenty-four hours after death. Much fluid had escaped from the interior, at the base of this protrusion, so that the large cicatrix, covering the upper and back part of the head, had fallen in and become concave.

When the skull cap had been sawn off, it was found that the protruding portion of brain was a part of the posterior lobes near their extremity, and principally of the left.

There were two ulcerated openings in the dura mater, close to the posterior part of the falx cerebri; that on the left side was about an inch and a half in diameter; the other being much smaller, a very slight adhesion, which gave way in raising the brain gently out of the skull cap, existed between the left cerebral hemisphere, and the dura mater at the vertex. With this exception, *the opposed surfaces of the latter membrane and of the brain were in a normal state.* The fluid in the lateral ventricles was partly of a purulent character, and there was slight purulent infiltration of the choroid plexuses. From the

mode, in which it was necessary to cut through the contents of the cranium in examining this singular case, the quantity of fluid in the ventricles could not be ascertained. The vessels on the surface of these cavities were injected.

No other morbid changes were observed in the contents of the skull. The deficiency in the upper part of the skull, caused by the large exfoliation of bone, was filled by a thick, dense, tough, and very firm structure, in which the dura mater and the external cicatrix were inseparably blended. The external surface of this structure had the character of an ordinary cicatrix; the interior was the dura mater presenting its usual character of structure and smooth surface.

WM. LAWRENCE.

A PRACTICAL ESSAY ON "PUERPERAL INSANITY."

—BY MR. SPENCER T. SMYTH.—Read 5th February, 1845.

"Ο' γεγραπα, γεγραπα."

(a). DESCRIPTION.—By puerperal insanity is meant that species of insanity or aberration of mind, which is observed in lying-in women; it may occur at any period of the puerperal state, either in a severe or in a slight form, as well as also individually, or in combination with other maladies: for the most part, however, it assumes the characteristics of two varieties, "mania and melancholia," in some few instances it presents a mixed form, or that of mania, alternating with melancholia. Symptoms of the disorder may display themselves at any period, from the time of *conception* up to some few weeks after *weaning*, but most frequently they present themselves a few days after delivery, when, in fact, to all appearances, the patient is considered to be progressing favourably, the general health being apparently undisturbed.

First, then, this species of insanity may occur at any time, from conception to parturition, and is therefore termed the insanity of pregnancy (*insania gravidarum*); for the most part, it is slight or partial, chiefly affecting the understanding. Pregnancy, in some women, occasions more or less excitement of the nervous and vascular systems, and sometimes gives rise to various morbid impulses or aberrations of mind, particularly in those females predisposed hereditarily to insanity, and in those, also, possessed of a nervous temperament. It may even show itself immediately after conception, and disappear altogether as soon as quickening takes place. M. Esquirol mentions the case of a young female, of very sensitive habits, who had attacks of madness on two occasions, each of which continued for the space of 15 days, and commenced immediately after conception. At Salpêtrière, several women became insane during the period of pregnancy. It may occur at any time of utero-gestation, continue through, and cease upon delivery being accomplished; or it may persist through all the circumstances, supervening upon parturition; at this period, then, it seldom retains the same character, but in general verges into a more violent attack. From the great sympathy existing between the brain and stomach (which latter organ is more or less deranged in women during the period of gestation), the functions of the former are very prone to become remarkably affected;—in some

there is only a slight head-ache, whilst in others there is an acute pain of the head, which is chiefly referred to the temples, attended with vertigo, particularly upon lying down or stooping, the eyes are dull and suffused; these signs are always exceedingly dangerous at the latter months of pregnancy, or at the time when delivery should take place, insanity being, in many instances, the result. In some few cases it ushers itself in as an attack of hysteria or catalepsy, after which, it assumes the form either of mania or of melancholia. The most frequent state of mental derangement observable at this period, viz., "of pregnancy," is the one designated by the term "melancholia," the singular whims and caprices of the patient frequently attending the state of pregnancy, cannot be looked upon in the light of insanity, inasmuch as they seldom engage her thoughts or influence her conduct. In some females, pregnancy not only occasions great fears and melancholia, but also various morbid impulses, giving rise, in some instances, to unlawful acts or crimes; in unmarried persons, for example, their dreads and fears are greatly increased by shame, the abandonment of their lover, and ill-treatment of friends; under such circumstances, therefore, the mind is frequently so harassed as to occasion them to commit some heinous offence,—suicide, perhaps, may be the result. In the great majority of cases of insanity occurring during pregnancy, there is an hereditary predisposition to the disease, or the patient has been previously suffering from various nervous affections, such as hysteria, catalepsy, convulsions, &c. Puerperal insanity is not peculiar to any habit of body, although women of sanguine temperament are chiefly observed to suffer from it; during pregnancy, perhaps, no symptoms may have been present to suspect it. Most writers are yet at variance respecting the cause, some ascribe it to an inflammatory condition of the brain and its meninges; some imagine it to be dependent upon an exhausted and debilitated state of system; whilst others suppose it to be occasioned by some irregularity, existing in the secretion of milk. It certainly does, in many instances, arise from a peculiar irritability of system, the nervous system being more in fault than the vascular; hysterical females, and those of an highly irritable habit of body, being excessively predisposed to attacks of insanity at the period of parturition, or rather, in a few days after delivery, particularly so if her mind have been greatly harassed about domestic affairs. It is

observed that all women, in the puerperal state, are more irritable and more easily affected, both as regards their mind and body, than at any other period of their existence.

(β). Puerperal insanity may occur also at any time, from the day of delivery, to about three or four weeks after that period : this is termed the insanity of parturition (*insania post partum*). This species generally assumes an acute character, sometimes passing into the chronic stage, is generally preceded, during pregnancy, by great anxiety of mind, harassing fears, sleepless nights, unpleasant dreams, &c.; in some instances, various hysterical disorders, great excitement, or even depression of spirits, irritability of temper, with slight symptoms of mental affliction, have been recognised by the friends during gestation. Generally speaking, symptoms of derangement of the mind become visible from the second or third day to about the sixteenth or seventeenth, but they may occur almost immediately after delivery, or be delayed to about the third or fourth week. Some practitioners assign the third and fourth, and thirteenth, fourteenth, and fifteenth days, as the most frequent periods of their appearance; the chance of an attack is greatly diminished, however, after the third or fourth day, when the milk is being secreted. It takes place either suddenly, or gradually; in some, it may commence with want of sleep, great anxiety of countenance, restlessness, and ill-grounded fear respecting some matter; for the most part, the patient's manner becomes quick, without any disposition to sleep, the temper irritable and peevish, for a few days prior to the attack manifesting itself. The form of the mental disorder varies greatly, but in general, in this state, viz., "*insania post partum*," it assumes the character of mania; even this may alternate with melancholia, and other slighter forms of partial insanity; at first, and particularly in cases occurring soon after delivery, the disorder is maniacal.

(γ). Puerperal insanity may also occur during or after lactation (*insania lactantium*). It is in general gradual in its approach, but when, however, violent impressions are made upon the mind, or the secretion of milk is suddenly disturbed or arrested, the attack may display itself suddenly, without any premonitory symptoms; in general, a change of temper is observed for some time, prior to the attack developing itself: the manner becomes quick and suspicious, the countenance anxious, the temper fretful, and perhaps she becomes careless respecting her infant;

at length, sleeplessness, violence of conduct and language, with false impressions, supervene. It may occur at any period of lactation, but is much more frequent upon weaning, or very soon afterwards. It, for the most part, assumes the character of melancholia, perhaps alternates with mania. In short, during that long and tedious process, in which the sexual organs are highly engaged in forming, lodging, expelling, and lastly, feeding the offspring, there is no time at which the mind may not become more or less deranged in its functions; in some instances, the disease appears to be excited by any sudden agitation, and then, for the most part, the attack comes on suddenly, without any previous warning; whilst in others, in which no cause occurs, and the disease arises spontaneously, its approach is more gradual, several days perhaps elapsing, during which period the only symptoms perceptible may be a quick pulse, restless nights, with something quick and peculiar in the manners, being somewhat different from those of her accustomed habit.

Cases of puerperal insanity are by no means uncommon, M. Esquirol has stated, among 600 insane women at Salpêtrière, there were 52 cases of this description. In another report he states, there were 92 cases, among 1,119 insane women, admitted during the period of four years into the above-mentioned hospital. He also is of opinion that the proportion is still greater among the higher classes of society, since out of 144 cases of mental derangement, occurring in females of wealthy families, the symptoms had displayed themselves in 21, either soon after child-birth, or during the period of lactation. Dr. Haslam makes mention of 84 cases of puerperal insanity in 1644 cases, received into the Bethlem Hospital. Dr. Rush only mentions 5 cases in 70 received into the Asylum at Philadelphia.

Puerperal insanity, occurring in the first period after parturition, is generally of the character of mania, accompanied with excitement of the feelings, and mental illusions; while the disorder, which displays itself in women of a debilitated constitution, resulting either from suckling or any other cause, is most commonly connected with depression of the feelings amounting, in fact, to that state termed melancholia.

SYMPTOMS.—Puerperal insanity appears rather suddenly in the majority of cases, the patient awakening perhaps frightened during sleep, from dreams, &c., or it seems to display itself from some accidental circumstance; she talks incessantly, and

generally about one object, supposing, perhaps, her child is killed, or that it resembles something unnatural in appearance; her conversation, although prior to the attack was free from every improper and indecent words, now becomes, in the generality of cases, most disgusting to all around; oaths of the worst description are issued forth in rapid succession, although she was previously of a religious turn of mind. In other cases, she is less talkative, but is anxious to rise and go out into the streets. She, for the most part, recognizes surrounding objects, and either answers questions put to her, or becomes more exasperated by them. Sometimes she evinces a childish disposition for harmless mischief, is gay, joyous, laughs, sings, and talks loud and for a long duration. She is often suspicious of those around her, imagines everything poisoned, and her mind is engaged about some nonsensical or fanciful object. In some instances, however, she reasons for a short time tolerably correctly upon her insane imaginations; the eye has a wild and troubled appearance; the pulse, when there is much nervous irritability, or great bodily exertion, becomes quicker, but, in general, it is but little accelerated; the skin is frequently at first hot and dry, afterwards becomes moist, particularly about the cervical region, and cool upon the extremities; the head is frequently hot, or is warmer than usual, but the heat is not always permanent, it frequently occurs at intervals, and is sometimes greatest when the rest of the body is cool; occasionally, however, the scalp is cool throughout. The general heat of the body is seldom increased, unless when the disease is attendant upon the first secretion of milk, or with symptoms of an inflammatory action, or, unless when occasioned by the violent struggles of the patient, the tongue is moist, furred, and white; the secretion of milk is often, but not always diminished in quantity, although it may be defective in regard to its nutritive qualities; the bowels are usually constipated, the abdomen is generally soft, cool, and free from tenderness, upon the application of the fingers, unless the uterus be in an irritable or inflamed state, under which circumstance, more or less pain will be felt in the hypogastric and iliac regions. Pain, sometimes pulsations of the temporal and carotid arteries, noises in the ears, are present; the face is generally pale, and the expression of countenance is more that of trepidation, combined with imbecility. There is seldom permanent headache often, neither pain, nor vertigo, but

these symptoms are sometimes produced by lying or stooping down, and by attempts to evacuate the bowels, particularly if they be in a confined state; sometimes there is considerable difficulty in obliging the patient to remain in bed, and making her take either food or medicine; often she voids both urine and *fæces* in bed, without informing her attendants: this she does mostly from obstinancy or inattention. The lochia are generally suppressed.

In some instances, the mind is much less affected from the first than the body; there is fever, but the pulse is rather small and variable as to the number of pulsations; the skin is hot and dry, the tongue is clean, the head is free from pain, the milk is secreted less in quantity, but the lochia for the most part continue. The bowels are generally relaxed, the pupil is dilated, the eye is generally fixed, and the features quiet and immovable, and the body remains as still as if under the influence of syncope; then this condition alternates with more or less motion of the extremities; the delirium is of the mild kind, and generally the patient is enabled to recognize those who are attending upon her. This variety of the disease seems to be dependent upon, or connected with, a congested state of the vessels of the brain, followed by more or less effusion of serosity under the *dura mater*, and perhaps in the sheath of the spinal chord.

Melancholia, or depression of spirits, usually comes on at a later period than mania; it is obstinate towards recovery, and generally continues until after the strength of the patient has recruited, or the child has been weaned.

Another variety of this disease is that in which the patient, very soon after confinement, complains of restlessness, with inability to sleep; there is slight pain in the head, with great prostration of strength; the pulse is slightly accelerated; then, rather suddenly, the symptoms greatly increase, the pulse becomes much more rapid, the skin hot and dry, the tongue furred and dry, the face flushed, the eyes suffused and fiery; there is thirst, the bowels are constipated, the secretion of milk takes place much in the same quantity; there is often no apparent mental derangement, the patient being only dull, and occasionally irritable in temper; but, in some instances, decided insanity is the result. If the disease be not immediately attacked by proper measures, the limbs, in a short space of time, become paralytic, the pulse slow and weak, and death, in some instances,

ensues. This variety is imagined by Dr. Burns to depend upon a congested or inflammatory condition of the spinal cord and its membranes.

There is no peculiarity observable in the phenomena of puerperal insanity, by which the disease is distinguished from other varieties of mania. Dr. Gooch has remarked, that if a medical man were taken into the room of a person whose mind had become deranged from lying-in or nursing, he could not tell by the mere condition of the mind that the disease had originated in these causes. I do not mean, says that writer, to represent the disease as strictly uniform—cases sometimes occur under a peculiar form, but these are not the rule, but the exceptions. Thus, he adds, he has seen the disease strikingly similar to that form of disease termed delirium tremens, and in another instance catalepsy occurred during the progress of the malady, which has been related by him (Dr. Gooch), in the following case:—

Mrs. ———, in her twenty-ninth year, has been long unusually subject to the common forms of hysteria. I (Dr. G.) have seen her after being strongly excited in conversation, sink down insensible, and, in a few minutes afterwards, recover with choking and sobbing; her husband tells me that he has often seen her, whilst sitting at the dinner-table, become apparently insensible, with her eyes open, sitting up, continue in this state for several minutes, and then come to herself again, but totally unconscious of what had taken place in the interval. She married nine years since, has been pregnant many times, but has only borne one living child; every other time she has either miscarried during the early months, or, what was more common, the child has died without any obvious cause about the sixth or seventh month, and premature labour has come on a week or two afterwards. A few days after her last delivery of a dead child, at the seventh month (a circumstance which was attributed to some domestic agitation), she was seized with a violent pain in her head and face, of the left side, and which subsided under the use of hemlock, but she continued to suffer flatulence of the stomach, had a quick, weak pulse, and was much depressed in spirits. One evening, she told her husband that she had never discharged the duties of a wife as she ought to do, and that her death would be a happy release both to him and her; the next morning, she made an unsuccessful attempt to cut her throat. Dr. Gooch met Dr. Sutherland in consultation;

she was put under the care of a regular attendant, and was at times so violent, that it was necessary to confine her with a waistcoat. A few hours after our first visit, we were summoned to observe a remarkable change in her symptoms; the attendants said she was dying, or in a trance; she was lying in bed, motionless and apparently senseless; it had been said that the pupils were dilated and motionless, and some apprehensions of effusion on the brain had been entertained, but, on coming to examine them closely, it was found that they readily contracted, when the light fell upon them, her eyes were open, but no rising of the chest, no movement of the nostril, no appearance of respiration could be seen, the only signs of life were her warmth and pulse, the latter was weak and about 120; her fæces and urine were voided in bed. The trunk of the body was now lifted, so as to form either an obtuse angle with the limbs, and there left with nothing to support it; there she continued sitting while we were asking questions and conversing, so that many minutes must have passed. One arm was now raised, and then the other, where they were left there they remained; it was now a curious sight to see her, sitting up in bed, her eyes open, staring lifelessly, her arms outstretched, yet without any visible sign of animation. She was very thin and pallid, and looked like a corpse that had been propped up, and had stiffened in this attitude. We now took her out of bed, placed her upright, and endeavoured to rouse her by calling loudly in her ears, but in vain; she stood up, but as inanimate as a statue, the slightest push put her off her balance, no exertion was made to regain it, she would have fallen if I had not caught her. She went into this state three different times; the first time, it lasted fourteen hours, the second time, twelve hours, and the third time, nine hours, with waking intervals of two days after the first fit, and one day after the second. After this, the disease resumed the ordinary form of melancholia, and, three months from the time of her delivery, she was well enough to resume her domestic duties. Dr. Sutherland also mentions a similar case, in which the young lady continued in this state for several months, and was preserved only by great vigilance and management in feeding her.

DIAGNOSIS.—The diagnosis of puerperal insanity is sometimes difficult, particularly in those cases occurring after delivery; the absence of fever has been considered as peculiarly charac-

teristic of such a malady, but fever accompanies many cases, especially those commencing about the third or fourth day, when the secretion of milk occasions some degree of febrile excitement in the general system, and, at a later period, also, when the lochia are on the point of taking their departure. Still it is a rapidity of pulse, and an irregular determination of blood, with increase of heat about the head rather than fever, that are more commonly observed.

In phrenitis, the patient has headache, vertigo, throbbing in the temples, singing and noises in the ears, a flushed state of countenance, vascularity of the conjunctivæ, intolerance of light and sound, heat of the scalp, rapid and full pulse, a dry, hot skin, suppression of the secretion of milk and of the lochia, bowels confined, with scanty and high-coloured urine, before the delirium makes its appearance; in general, these symptoms are first ushered in with rigors or chills; in proportion, then, as these phenomena are manifested, before the mental affliction appears, the disease may be looked upon as possessing an inflammatory character. Puerperal phrenitis soon passes into coma subsultus tendinum, catchings in the limbs, and the evacuations of the bladder and rectum take place involuntary; it frequently terminates fatally as early as the third, fourth, or fifth day, and very seldom exceeds the eighth, whereas puerperal mania is not so rapid in its progress, seldom proving fatal at so early a period, even those cases, accompanied with febrile symptoms; in puerperal mania, the delirium, for the most part, manifests itself, before even symptoms of a deranged state of system display themselves, whereas, in phrenitis, the physical signs are developed prior to delirium occurring.

When low *nervous* fever supervenes upon delivery or lactation, it can scarcely be confounded with puerperal insanity, as the febrile symptoms precede for several days the mental disturbance; there is prostration of strength, the patient cannot endure the upright posture, the pupils are but little affected on the admission of light, the tongue, when protruded, is exceedingly tremulous; there is want of sleep, and complaints of vertigo, with confusion of the intellectual faculties, rather than pain in the head, and, when delirium supervenes, it is attended with symptoms of a low, muttering description, being seldom, however, violent, or accompanied by muscular exertion. The pulse is frequent and small, the bowels are easily moved even by the

gentlest aperients, and the secretions of milk and lochia suppressed. As the disorder advances, coma, twitchings of the tendons, pickings at the bed-clothes, unconscious evacuations, supervene; these symptoms denote extreme danger, and are quickly followed by death. Sometimes puerperal insanity assumes the character of delirium tremens; this, for the most part, appears soon after delivery, and is to be chiefly attributed to the shock produced upon the nervous system, already injured by excess in spirituous liquors, by the shock of parturition, and by the removal of accustomed stimuli.

PROGNOSIS.—With respect to the prognosis, attention must be paid to all the symptoms present, whether accompanied by febrile disturbance or not; if unattended by fever, the prognosis will be favourable, and, in the majority of instances, if fever be present (especially at the commencement of the attack), death will, in all probability, ensue. The greatest danger is to be apprehended, if the patient be in a debilitated state of health, or be suffering from great exhaustion of the powers of life, brought on either for want of sleep, or from any undue excitement of the circulating system; a frequent rapid pulse, also, is an unfavourable symptom: likewise, if the patient be in a restless condition, and does not sleep; if, after there has been sleep, she does not awake somewhat more composed in her mind, the prognosis will, generally speaking, be unfavourable. If, on the contrary, these symptoms be not present, then the case will, in the majority of instances, terminate in recovery. The greatest reliance must therefore be placed, not upon the estimate of the proportions which deaths bear to recoveries, but upon the symptoms of individual cases, for out of the 92 cases, mentioned by Esquirol, of which 55 terminated in recovery, there were six deaths, thus leaving 31, or 1 in 3, as incurable. Of the 55 that were discharged cured, 38 took place within the first six months. The late Dr. Haslam also mentions, that out of 85 cases admitted into the Bethlem Hospital, there were only 50 that recovered, thus leaving 35 as the number that were discharged as incurable. Dr. Burrows also states, that out of 57 cases, 37 recovered, and 11 continued incurable; 28 became convalescent within the first six months, 10 died, and one committed suicide. But Dr. Gooch has remarked, that these statistics throw but a faint light only upon the real proportion of recoveries, and he also adds, that of the many patients, about whom he has been

consulted, affected with puerperal insanity, he only knows of two who remain perfectly deranged, one of them having been so prior to her marriage. To a person previously deranged, whilst in the puerperal state, the utmost care must be taken, not only in the next, but in all subsequent confinements, but this caution being taken, the proportion of cases, in which the disease occurs twice, is small. The average mortality in puerperal insanity, has been supposed to be about one in fifteen; puerperal insanity in most cases terminates either in the recovery of the patient, or in death; in a few instances, however, it has fallen into complete, or, in other words, into permanent madness. From the statistical tables, however, a great difference of opinion exists, as to the proportion of the number of deaths and recoveries; it must be recollected that only the more obstinate and severe ones are sent to asylums, and not until medical treatment had been previously and unsuccessfully employed. Of those patients not sent to such institutions, a much greater proportion than that assigned by Esquirol, Haslam, and Burrows, recover, under judicious and proper management, particularly if the malady be not attended with febrile symptoms. Cases accompanied by much febrile excitement, more especially those approaching either to phrenitis, or to low nervous fever, are attended by much greater danger; and frequently terminate either fatally or in permanent insanity, particularly in those persons predisposed hereditarily to mental affliction. The chief danger in this disease arises from debility and exhaustion of nervous power, and this is the more to be dreaded when the insanity follows hæmorrhage, when the pulse is feeble, rapid, or fluttering, and when there are likewise great restlessness and long continued want of sleep. Recovery is, in all probability, more likely to take place, the more remote the attack, from the period of delivery, or when the disorder occurs during lactation. The appearance of it during utero-gestation, will in the majority of instances, assume a severe form after parturition. Moral causes, also, give rise to more acute attacks than the physical ones, and the maniacal form terminates favourably more frequently, and in a shorter time than the melancholia, inasmuch as the recovery of reason is concerned; but deaths are more likely to occur, after a short period, from the attack. When the delirium is of a mild character, and the patient is cheerful and lively, the attack seldom continues for any length of time,

but when it is attended by fierce delirium, and dread of committing suicide, it is then not so easily cured, and generally assumes a more serious nature. Dr. Gooch has laid very great stress upon the state of the pulse, considering it a very important symptom, in reference, not only as to the nature and treatment of the case, but also to the prognosis. Mania, he states, will in all probability be fatal, when attended with fever from the commencement of the attack, but if unattended with fever, the patient will, in the majority of instances, recover, although febrile symptoms usually display themselves, for a short period, before a state of convalescence is observed, and considers, therefore, puerperal mania to consist of two varieties: *one* of which is attended by fever, with a rapid pulse; the *other*, without fever, with a slight increase only in the action of the heart and arteries. Instances of the *first* variety, for the most part, prove fatal, whereas those of the *second* variety generally terminate in recovery. At one time it was a prevailing opinion, that these were diseases that never proved fatal—nevertheless there can be no doubt that a very large proportion of cases of disordered minds of puerperal women ultimately recover.

CAUSES.—The predisposing causes of puerperal insanity, are nearly the same as those which occur in the other forms of mental disorder; the puerperal states being superadded causes of predisposition to these, and the period immediately following delivery, being the most influential of these states. Hereditary tendency, constitutional debility, and susceptibility of the nervous system, most powerfully co-operate with the puerperal states.

Dr. Gooch states the cause of puerperal insanity to be that peculiar state of the sexual system, which occurs after delivery; the sexual system in women, he says, is a set of organs which are in action only, during half the natural life of the individual, and even during this half they are in action only at intervals. During these intervals of action, they diffuse an unusual excitement throughout the nervous system; for example, he says, witness the hysteric affections of puberty, the nervous susceptibility, which occurs during every catamenial period, the nervous affections of breeding, and the nervous susceptibility of lying-in women. I do not mean, he states, that these appearances are observed in every instance of puberty, menstruation, pregnancy, and child-birth, but that they occur sufficiently often to shew

that these states are liable to produce these conditions of the nervous system. Dr. Marshall Hall thinks, that the susceptibility of the puerperal state is to be explained by mere exhaustion, and does not at all depend upon the influence of anything specific in the condition of the sexual organs at that time; but would an equal or a greater degree of exhaustion at any time occasion the disease? Certainly not, as he states, he has seen patients who have been deranged in childbed, and who had recovered at a future period, much more exhausted by illness, and much more agitated in mind, without the slightest indications of mental affliction.

No doubt, in some instances, puerperal insanity does arise from some excitement existing in the uterine system, whilst in other cases, however, symptoms of the disease do not shew themselves until after that period has passed, for the excitement in the uterus to have altogether subsided; more properly speaking, the disease manifests itself from some irritation occasioned by the secretion of milk, the lacteal system being, in all probability, the one most involved. The disease is much more frequent amongst pregnant single women than amongst the married, this being attributed to the more intense operation of the moral exciting causes on the former, than on the latter. M. Esquirol imputes the frequency of this malady, in the unmarried, in a great measure to the influence of suppression of the lacteal secretion, and premature weaning, comparatively few unmarried females suckling their children. Females, who have been subject to attacks of hysteria and other nervous disorders, are very prone to attacks of insanity at the period of parturition, particularly if they are unmarried; and those who have been once attacked, are highly predisposed to the disease on each successive return of the puerperal state; persons of the lower grade are also liable to this derangement of mind, particularly amongst the ill-fed, and those addicted to the inordinate use of spirituous liquors.

Sanvages has distinguished two different varieties of puerperal insanity; one of them he has denominated "*Paraphrosyne Puerperarum*," which succeeds in the course of a few days after delivery, before the secretion of milk has perhaps properly taken place. Dr. Burrows states that these attacks will frequently take their departure, under the operation of a brisk purgative and an opiate; in other cases the delirium is more

lasting. Sanvages has designated his second species by the term "*Mania Lactea*." Dr. Burrows is of opinion, that the lacteal system is the one in fault, as the maniacal symptoms frequently do not manifest themselves, until about the third or fourth day after delivery, at which period the milk is being secreted. From the statistical records of M. Esquirol, it appears that, in the years, 1811, 1812, 1813, and 1814, 1119 insane women were received into the Salpêtrière, of whom 92 laboured under puerperal insanity; of these, 16 became delirious from the first to the fourth day after delivery; 21 from the fifth to the fifteenth day; 17 from the sixteenth to the sixtieth day; 19 from the sixtieth to one year; and 19 after that period, thus shewing the disease to be the result of delivery, but not of lactation. Dr. Burrows also remarks that, out of 57 cases, the disease commenced on or before the fourteenth day in 33; and after the fourteenth, and before the twenty-eighth day, in 11 cases. As to the age at which the disorder is most frequent, he observes, that from the age of 20 to 30, it is more frequent than at any other period, in the proportion of nearly two to one. M. Esquirol states, that of 92 females, 22 were from 20 to 25 years of age; 41 from 25 to 30; 16 from 30 to 35; 11 from 35 to 40, and 2 only from 40 to 43.

Dr. Ferriar states, that, during utero-gestation and after delivery, when the milk begins to flow, the balance of the circulation is so greatly disturbed, as to be liable to much disorder, from the application of any exciting cause. If, then, cold affecting the head, want of sleep, uneasy sensations, frights and noises, distress a lying-in woman, before the determination of blood to the breasts is regularly established, the impetus may be readily diverted to the head, and produce either hysteria or mania, according to circumstances. The natural determination of blood is to the breasts, to the mammary gland, but owing to accidental or predisposing causes, the blood may be propelled elsewhere; owing, in some instances, to the excitability of the brain, blood is very prone to be directed towards that organ, the mind becoming to a greater or less extent implicated. Those cases of mental derangement, which occur at later periods of lactation, are of two kinds; in *one*, the disease supervenes on weaning, being then occasioned by the suppression of the lacteal secretion; the *other* variety has its origin from the constant excitement and exhaustion of the system, from the

repeated and long continued acts of suckling, many females at that period being excessively nervous, and consequently very prone to fall into delirious or melancholic habit of body. A case is recorded by Dr. Pritchard, of a lady, who, upon former occasions, had complained of sensations termed nervous, and had been much indisposed when giving milk, was persuaded to continue suckling the infant until the 14th month; she was then attacked with maniacal derangement, which continued, though mild in its nature, for upwards of a twelvemonth.

Mental derangement is frequently said to be occasioned by weaning, *i. e.* by the sudden suppression of milk, but with this opinion, Dr. Gooch does not at all coincide. Among the fashionable women (he mentions) of this country, nothing is so common as not to nurse their children; the milk comes into the breast about one or two days after delivery, and they become as hard as stones, but not a drop is extracted, and sometimes by cold spirituous lotions constantly applied to the breasts, sometimes by embrocations of oil and brandy, sometimes by poultices, with gentle aperients, the milk is suppressed in a few days. Dr. G. also adds, that he has known this done in more than in 100 instances, during the first week after delivery, in fact, a time much more liable to a disordered mind, than a later period, and in not one case did it occasion puerperal insanity; the weaning appears to be the consequence of the disease, and not the disease the consequence of weaning; patients had been reduced in health by nursing, their memories had become enfeebled, their spirits depressed, and their minds ultimately disordered, and they were directed by their medical attendants to wean their children, because they had neither milk nor strength to enable them to nurse. It is certain that puerperal insanity depends on a peculiar state of the constitution, yet this state, so far from being obvious, is often known to exist only by a disordered condition of the mental faculties.

The *exciting* causes also are frequently identical with those which produce mental disorders in other circumstances, although there are others which belong more particularly to the puerperal states. The most common are, moral emotions, errors of diet, &c., improper food, either too stimulating or badly seasoned, exposure to a cold, damp atmosphere, wet and improper clothing, the suppression of the secretion of milk and lochia, premature rising from the bed, exertion, anxiety about domestic

affairs, and a deranged and vitiated state of the secretions and excretions. Moral emotions are well known to create great effect upon the nervous system, as well as upon the secretions during the period, either of pregnancy, of parturition, or of lactation. M. Esquirol states that, 46 out of 92 cases of puerperal insanity were caused by moral emotions, whilst Dr. Burrows estimates the physical, as being ten times more influential than the moral causes. The most frequent moral emotions, are those which operate chiefly on the minds of the unmarried; also fright, fear, anxiety, anger, domestic dissensions, grief, dread of the malady, after having experienced it during a former pregnancy. In the year 1814, 11 cases were caused by terror and fear, out of 13 admitted under his treatment. Any sudden shock, or whatever startles or alarms the patient, will frequently occasion the disease, particularly if it occur a few days after delivery. The abuse of intoxicating drinks also excites the disease, either by stimulating the nervous and vascular systems, at periods when all excitability should be avoided, or they indirectly cause it by the sudden abstraction of the usual excitement they have afforded, at a time when the frame is depressed by the suffering and evacuations attending the process of labour. Any derangement existing in the organs of digestion is very likely to give rise to an attack of insanity, particularly if the patient be hereditarily predisposed to it. In some cases the delirium is dependant upon some affection of the uterus, particularly of its veins, which are in an inflamed or congested state; then there is fever, with thirst, frequent pulse, and tenderness in the hypogastric and iliac regions; sometimes the delirium is dependant upon dilatation of the os uteri, but as soon as it is sufficiently patulous to allow of delivery being accomplished, the delirium then will disappear. In short, puerperal mania may be excited in some persons by any trivial circumstance, particularly if the patient have had an attack on some previous occasion, and particularly if the nervous system be highly irritable, and if there be an hereditary predisposition to attacks of madness; in such cases, everything which may excite the patient after her confinement, should be most sedulously avoided; uterine hæmorrhage, on any circumstance whatsoever, tending to depress the powers of the body as also of the mind, greatly predisposes to this disease. Some are particularly predisposed to this disease, after parturition. Gardien denies that

puerperal insanity depends on the puerperal state, but states, it is to be attributed to moral causes, such as fright, jealousy, &c. in consequence of the irritable condition, at that particular time, of the nervous system.

THE PATHOLOGICAL APPEARANCES OF PUERPERAL INSANITY.—M. Esquirol states, that he has examined the bodies of several women, who have fallen victims to this variety of insanity, without being capable in the least to detect any morbid appearances that pointed out the locality of the disease, and even Dr. Gooch has given in the detail of a case, that, although the body was examined by a most skilful anatomist, no traces of disease were discovered, either within the cranium, or in any other part of the body, although in many other instances, recorded by the same author, there were discovered on dissection, thickening of the meninges of the brain, the sinuses filled with blood, effusions of serous fluid under the arachnoid membrane, and upon cutting into the substance of the brain, the vessels were found to be much congested, although the patients had previously suffered from uterine hæmorrhage. The appearances observed after death, occasioned by true puerperal insanity, particularly when it occurs soon after delivery, or during suckling, consist chiefly of deficiency of blood in the brain and its membranes, and in some instances, of slight effusions of serum between the membranes and in the ventricles. There are no symptoms of inflammation, or even of congestion, discoverable, excepting in such cases as have assumed the character of phrenitis. The pure cases of this disease present little beside anæmia of the brain and its coverings, and of the system generally.

There is a strong disposition to attribute raving of the mind, to inflammation of the brain; perhaps, in the first onset, it originates in this, that the disorder of the mind, with which we are most familiar, is intoxication, which is well known to be occasioned by the use of intoxicating drinks, and to be relieved or cured by abstaining from them. Mania is called brain fever, and the sight of a raving patient instantly suggests the thought of cupping-glasses, iced-caps, low diet and purgatives. This view of mania, is, when it occurs in child-bed, still farther corroborated by the popular notions about lying-in women. If a woman become deranged in child-bed, it is said not only that she has a brain fever, but that the milk has flown to the brain, hence the term "*mania lactea*." Dr. Denman states, that in his time,

it was a prevalent notion amongst the public to attempt relieving the disease, by restoring the milk, and the lochia ; but experience has proved to us that a disorder of the mind may be connected with very opposite states of the circulating system, sometimes with inflammation, or active congestion, for which depletion is the shortest and surest remedy ; sometimes with an opposite condition of the circulation, which depletion will only aggravate. Cerebral excitement does not necessarily depend on inflammation or even congestion, nor is depletion, however moderate, the proper remedy. It is frequently increased by depleting measures, and in some cases, has actually been occasioned by them. Every attention must therefore be paid to the causes, which brought on the attack, and to the symptoms that are present, before a proper course of treatment can be adopted, in any way with safety to the patient, as well as also with credit to the practitioner. Dr. Burrows has also referred to several cases, in which there were indications of cerebral congestion, and particularly to one of Newman's dissections, in which the arachnoid membrane was nearly as thick as the dura mater. The arguments adduced against these remarks by some writers, are :—*First*, that puerperal insanity frequently attacks those persons, who are labouring under great exhaustion of the powers of life, and are considered improbable to be attacked by diseases of an inflaming tendency.

Secondly, that puerperal insanity cannot be safely treated by bleeding, purging, &c., as it occurs in persons of a debilitated and exhausted state of system ; but Dr. Gooch wisely makes the following remark :—"Are we then," he states, "to shut our eyes to the symptoms, during life, to the effect produced by remedies, to the manner in which death comes on, that is, with symptoms of exhaustion, and to the remarkable emptiness of the veins throughout the body, and because there was a little serum effused under the tunica arachnoidea, and more bloody points than usual in the medullary substance of the brain, conclude, that it was a disease of congestion, or inflammation, and that perhaps the patient died, because she was not blooded sufficiently ? But these arguments then do not disprove the existence of inflammation. Do not, in many instances, inflammatory symptoms supervene upon an exhausted state of system ? Most certainly they do, as are observed almost daily in parturient women, after the blood vessels had been, in a great degree, drained of their contents, owing to uterine hæmorrhage. Antiphlogistic remedies must *not* be used in ma-

niacal cases, without weighing well in our minds, the symptoms that are present; for to bleed a person, labouring under great weakness of the powers of life, would be nothing more or less, than to commit murder, but the existence of inflammatory symptoms, combined with an undue degree of vascular fulness, must be combated by proper antiphlogistic remedies. The morbid condition more immediately occasioning the malady, seems to consist of increased nervous susceptibility, frequently in conjunction with deficiency of circulating fluid. The balance of circulation is also often disturbed and irregular determinations of it take place, especially to the brain, and to the uterus, for whilst the circulation is active in one locality, it is deficient in another, and the functions of the brain are more or less deranged. After delivery, the susceptibility of the brain, and of the nervous system in general, is increased, the susceptibility being great in proportion to the shock sustained upon the system, by the tedious process of labour, and by the loss of blood and exhaustion, consequent thereon.

The occurrence of the disease during lactation, is to be principally referred to exhaustion and debility, and its appearance after weaning, to a disturbance of the balance of the circulating system, a greater determination of blood taking place to the brain than to other parts, upon the cessation of the secretion of milk.

After what has been stated respecting the pathology of true puerperal insanity, I think I cannot do better than by concluding this part of the subject, with the appearances usually discoverable after death in maniacal cases generally, more particularly as the attack in most instances occurs to those persons, hereditarily predisposed to insanity.

Morgagni has given the *post mortem* appearances of a few cases of insanity, in which he found the substance of the cerebral hemispheres firmer, and that of the cerebellum softer than natural; in one instance the medullary substance of cerebrum was hard and of a somewhat brownish colour, and its blood-vessels as well as the choroid plexus, much distended with blood; in another, there was hardening of the hemispheres with ramollisement of the fornix, a congested state of the vessels of the cerebrum, and adhesion of the pia mater; in a third, injection of the membranes and the plexus, hardening of the cerebrum, and softening of the cerebellum. He also discovered

effusions of serum into the ventricles and into the tissue of the pia mater. The researches of Greding have displayed thickenings of the cranium, either partially or generally observed in 167 ordinary maniacal cases out of 216, in 78 out of 100 cases of raving madness, and in 22 out of 30 of idiotism or imbecility; softness of the brain (*ramollissement*) in 51 cases out of 100.

In briefly summing up the principal morbid changes, observable in cases of mania, indications of inflammation are evidently present; intense, general diffused redness, in many cases tumefaction, and lastly, in the chronic state, the formation of adhesions between the cortical substance of the convolutions, and the contiguous membrane, also adhesion of the different layers of the cerebral substance to each other in a certain number of cases. As the different traces of inflammation are more constant in the brain than in the membranes, it is necessary to conclude that the essential change has taken place in the brain, and that the change produced in the membranes is only accidentally complicated with it. This fact is denied by M. Bayle, as he attributes insanity to be a disease of the membranes. In cases of insanity, displaying no general disturbance of the intellectual functions, and consisting principally in a morbid state of the temper and affections, we do not expect to find strongly marked changes in the brain, and there is, indeed, but little evidence that the brain is in some of these cases diseased. And where there is more considerable disorder in the functions of the brain, arising secondarily or through sympathy with the state of other organs, the traces of such disorder may be very slight. It has been remarked by M. Foville, that in some accidental affections of mania, succeeding the action of debilitating causes, as in the puerperal state, nothing has been discovered in the brain more striking than its extreme and general paleness, and, that although there are in these instances some mottled appearances of a light red or rose colour on the cortical substance, such changes are too slight to be considered as idiopathic. He also adds, that the disorder in the brain has appeared to him to be sympathetic of some deep-seated disease of the uterus or abdomen; in general, however, the fact is evident that insanity depends upon organic lesion of the brain, and that this lesion consists at its commencement of a degree of inflammatory action. The phenomena of mental disease are so various that they may be thought to arise from very different

states of the system; there are instances of the disease, attended with so much atony and debility as to indicate a very different state from that of inflammation; anatomical investigations in such cases shew a pale discolouration of the brain with abundance of serous fluid, softening of substance; here then are symptoms differing greatly from those of inflammation, though, perhaps, the inflammation was, in the first instance, the cause of such appearances.

Arnold attributes the disorders of the intellect to a modification in the density of the substance of the brain. Amongst the alterations found *post mortem*, the most remarkable are dropsy of the arachnoid, with thickening also of this membrane, a congested state of the vessels of the brain, ramollisement, dilatation of the ventricles, granulations of the arachnoid, concretions in the pineal gland, and accumulation of fluid in the third and fourth ventricles.

Greding found in 216 cases, that the bones of the cranium were much thickened in 167, and very thin in 38, that in the majority the conformation of the skull was natural, and that the most frequent and manifest alterations occurred in the membranes.

In 100 cases observed by Chiarugi, at the hospital of St. Boniface, in Florence, there were 34 of œdema of the pia mater, thickening also of it, and dropsy of the ventricle; 15, in which the consistence of the brain was augmented, 3 of ramollisement, 36 in which it seemed natural, and 5, in which he could not discover any lesion.

Sœmmering attributes mania to inflammation of the brain, and thinks that thickening of the bones of the cranium may occasion stupidity by compressing the brain.

Haslam points out opacity of the arachnoid, infiltration of the pia mater, ramollisement and induration of the substance of the brain, the dotted bloody appearance of the white substance, hyperemy of the cortical substance, suppuration of the cellular tissue, and of the pia mater.

Gall endeavours to prove that mental alienation has its exclusive seat in the surface of the brain; in insanity, he admits that a functional lesion precedes the organic, and he thus explains how a mental affection (lasting but a short time) may leave no trace discoverable after death, while, on the other hand (when the disease has continued some time) lesions are always discovered, such as ossification of the vessels, a remarkable diminu-

tion in the cortical or medullary substance, and various deposits on the surface of the brain. Gall dwells particularly on the coincidence of thickening of the skull with atrophy of the brain, as the principal characteristics of chronic insanity.

Spurzheim believes the approximate cause of insanity to be in the brain itself, and that the same pathological appearances are to be found in it, as in other organs, such as congestion, inflammation, suppuration, dropsy, ossification, with defect of development, and that many alterations of colour and texture might be easily perceived.

Georget also admits that he finds in the two substances a number of shades of colour and consistence, and believes that the infiltration of the pia mater and accumulation of serum, are the true causes of the general paralysis observed in some instances of insanity.

M. Foville mentions that in the most acute cases of insanity the cortical substance is of a deep red; its blood-vessels, which in the healthy state are scarcely visible, are so distended that they present open mouths; slight sanguineous effusions, no larger than a pin's head, are also observable; the consistence of this (cortical) substance is increased at the surface, while it is diminished at the centre, but there is no adhesion of the membranes, this being a condition characteristic of chronic insanity only. In chronic alterations of the grey substance, when the external stratum is peeled off, the parts exposed have a red soft appearance, resembling granulations in a wound. A diminution of the size of the convolutions frequently coincides with this alteration; they are atrophied either at their summit or base, so that the intervals between seem to be enlarged. In chronic insanity, the grey substance may also be so much softened as to adhere to the fingers.

The alterations of the *white* substance are in colour, density, and texture; it is also the seat of sanguineous injection. When cut into, it presents an appearance as if dotted with bloody points; when this injection takes place in the finer capillaries, the appearance of the divided white substance is of mottled red; sometimes it is observed to be of refulgent whiteness, being then free from vascular injection, and its consistence is augmented, so as in some instances to be almost as hard as cartilage. M. Foville also alludes to œdema of the brain and the abundance of serum, compressing it internally and externally, and of small

cavities that are met with in its substance. In acute cases, the arachnoid membrane preserves its transparency, but the pia mater is greatly injected; chronic alterations of the meninges are marked by opacity, thickening of the arachnoid, the formation of granulations and false membrane on its surface, and serous effusion into the cellular tissue of the pia mater and of the ventricles.

According to Foville, the different degrees of mental alienation correspond chiefly with the lesions of the substance of the brain; those of the cortical substance, which are the most constant of all, corresponding to intellectual derangement, while those of the medullary substance produce lesions of the movements. In the views of this physiologist, the cortical or grey substance is the essential part of the brain. These ideas are also noticed by Bouchet and Cazaviehl, who consider epilepsy to depend on a chronic inflammation of the medullary substance, as also that mental alienation depends on an inflammation, either acute or chronic, of the superficial substance.

M. Ferrus states that the alterations of the brain and nervous system, present as great a degree of certainty as the lesions of any other organs.

M. Guislain supposes in insanity the order of the phenomena to be as follows: nervous excitement, congestion, irritation of the tissues, chronic inflammation, disorganization, albuminous exudation, opacity of the membranes, and lastly, adhesion of the convolutions.

TREATMENT OF PUERPERAL INSANITY. — The greatest danger to be apprehended for patients labouring under this malady arises from the extreme degree of exhaustion of the vital powers, usually in attendance upon such a deranged state of the mental faculties, owing to which circumstance alone many women fall victims within a short interval from the commencement of the attack, and that if they survive this period, the mind is in general restored to perform its healthy and natural functions, from which it is therefore evident that our chief object must be directed towards the present support of life, for if we can maintain and restore the general health and keep the secretions of the body in a natural state, the disease will in all probability subside; antiphlogistics must therefore be used with great caution. In the treatment of puerperal insanity, the most important point to be considered is, whether the

derangement of the mind is attended by symptoms of active cerebral congestion or inflammation, for, in such instances, antiphlogistic remedies would be required, but such cases, comparatively speaking, are rare; or whether it has its origin from an exhausted state of the vital powers, in which instance, an opposite mode of treatment must be adopted. In every case strict attention must be paid to the condition of the vascular system. When the circulation is active, and particularly when accompanied by a phlethoric habit of body, a small blood-letting will then be found advantageous; but, in all cases, however, it must be remembered that the system has sustained a shock of a greater or less severity during the period of delivery; that the nervous system has also suffered great excitement; and that the vascular system likewise has received loss sufficient, in many instances, to disturb the balance of the circulation in various parts of the frame.

With respect to the treatment of puerperal mania by antiphlogistics, the most powerful remedy is that of blood-letting, or venesection; this is regarded by most writers, in the majority of cases, as a hazardous remedy, being followed by too great depression of the powers of life. M. Esquirol is decidedly opposed to it. Dr. Gooch states that, in puerperal mania, and melancholia, and also in those cases, which more resemble delirium tremens, blood-letting is not only seldom or ever necessary, but generally almost always pernicious; cases may occur which require the use of the lancet, and the rule which he lays down for our guidance is, never to have recourse to it as a remedy for disorder of the mind, unless that disorder be accompanied by symptoms of congestion or inflammation of the brain, such as would lead to its employment, though the mind continued unaffected; even in these cases great caution is to be observed; local is safer at all times than general bleeding, for a case is recorded by Dr. Gooch, in which the head was hot, the face flushed, and the pulse rapid and somewhat hard, yet a bleeding of eight ounces only, was followed by a rapid sinking of the pulse, and, in less than six hours, death ensued. The only cases, attended by a quick pulse, which Dr. G. had seen recover, were those in which *no* blood was abstracted. In *bona fide* cases of inflammatory diseases of the brain, blood-letting is of course absolutely essential, pain of the head with fever, being a much better indication for abstraction of blood,

than disorder of the mind *without* these symptoms. Blood-letting incautiously had recourse to, would only leave the disease undiminished, and, at the same time, exhaust the powers of life.

With respect to venesection, Cullen considered it a proper and even a necessary remedy in those instances of mania, in which there is fulness with frequency of pulse, and when marks are observed of a greatly increased impetus in the vessels of the head; he prefers bleeding from the arm in the perfectly erect posture, and bringing on a state of syncope, which, he says, is a pretty certain indication of diminished tension and fulness in the vessels of the *eucephalon*. Pinel is opposed to this practice, as he considers the symptoms of inflammation of the brain very deceptive. In short, blood-letting is injurious in those cases, attended by symptoms resembling those of delirium tremens or nervous fever; but when it assumes the character of phrenitis, the head being hot, the pulse full and hard, and the secretions and excretions vitiated, blood-letting then might perhaps be beneficial; yet, in these cases, the practice of resorting to it, must be exercised with great caution. Those symptoms sometimes are deceptive, for they are occasionally produced by the violence of the nervous and mental excitement, dangerous exhaustion, in fact, soon supervening; in such, even a small bleeding would increase the danger. In cases, which commence with pain in the head, febrile symptoms, heat of the scalp, flushings in the face, an injected state of the conjunctivæ, with altered secretions and excretions, rigors, and in which the delirium is clearly dependant upon the febrile and inflammatory symptoms, a recourse to venesection, with other antiphlogistic measures, are absolutely requisite.

In the majority of instances, where inflammation is dreaded after parturition, there being an undue degree of excitement and fulness of the vessels of the *encephalon*, the circulation in the extremities and in other parts at the same time being somewhat impeded, then the continued application of cold evaporating lotions to the head, and mustard fomentations to the extremities, will frequently remove the disorder and equalise the circulation. In the melancholia form, or when there is a tendency to stupor, rather than excitement, blisters on the nape, or behind the ears, are generally of great service.

In cases attended with much heat about the scalp, it will be

proper to shave the head, and keep it cool by means of cold evaporating lotions, or a bag, fitted with iced water; if, with these symptoms, there be much excitement in the circulation, and the strength of the patient will allow, a few leeches may be applied to the temples. Blisters either to the scalp or nape of the neck are very frequently advantageously employed, particularly when stupor, rather than excitement is present. The lower extremities, which are, for the most part, cold, should be often immersed in hot water, and bottles of hot water applied to the soles of the feet. Dr. Burrows strongly recommends bathing the legs and feet in an infusion of mustard or horse-radish. When puerperal mania is attended by suppression of the lochia and milk, Esquirol thinks, that leeches applied to the thighs, and vulva, are more useful than blood-letting, which latter, he considers, should be employed with great caution. Sinapisms laid on the nape of the neck, or legs and thighs, he also uses. Blisters have not succeeded with him at the onset of the attack, but have so, in the sequel; clysters, also, he strongly recommends.

M. Georget proposes clysters of milk and water, the use of the tepid bath, and in those cases, accompanied by symptoms of congestion, local depletion by leeches, adding, that venesection has been much abused.

Dr. Gooch, in the 6th vol. of the Medical Transactions, states, that blood-letting is seldom safe, but if the pulse be full and strong, and not brought to its proper state by purging, and applying cold to the head, blood may be taken from the scalp or nape of the neck, by cupping or leeches. When the pulse is only frequent, without any symptoms of determination of blood to the head, he forbids even topical bleeding. The best soporific, he states, is the tepid bath, with camphor and extract of henbane, each in the dose of ten grains.

Gardien also recommends leeches to be applied to the vulva, in cases attended with suppression of the lochia. In plethoric habits, and where blood-letting is proper, Dr. Haslam recommends the application of cupping-glasses to the shaven scalp, the quantity of blood to be abstracted must depend upon circumstances; when a state of stupor has succeeded to one of excitement, he considers that bleeding is contra-indicated. Dr. Rush, on the other hand, is the most strenuous advocate for bleeding in maniacal cases, and the arguments which he has adduced in support of this practice, are the following:—

1st. The force and frequency of the pulse, the sleepless and agitated state of maniacal patients.

2nd. The appetite, in some instances, remaining unimpaired, and sometimes even stronger than usual; a plethoric state of the vessels easily arises in such habits.

3rd. The importance of the diseased organ, the delicate structure of the brain, which prevents it from long supporting morbid action without being exposed to the danger of permanent disorganization. This danger, he states, is much increased by the want of sleep, the cries and exclamations, and the constant agitation of insane persons.

4th. The want of any natural channel of discharge from the brain, by which the ordinary results of inflammation might be abated, or got rid of, in that way, by which serous discharges in other parts relieve the inflammatory state.

5th. The accidental cures, which have followed the loss of a large quantity of blood. Dr. Rush has seen several insane persons, who had attempted self-destruction, by cutting their throats, cured by the abundant hæmorrhage which has followed. From these statements, it is sufficiently evident, that the cases were those of an inflammatory character, certainly not those of a debilitated or exhausted state of the system.

M. Foville states, that in recent cases of insanity, he has employed abstractions of blood, general or local, abundant or in moderation, according to the strength of the patient, the state of the pulse, the redness of the eyes, the heat of the head, the agitation and the want of sleep; he always prefers general bleeding, when there exists a plethoric habit of body, which is evinced by the force and frequency of the pulse: in opposite circumstances, leeches on the neck, temples, or behind the ears, cupping also upon the same part, and upon the shaved scalp, have produced very decided benefits. Local bleeding has appeared to produce marked effect upon the brain, M. Foville having employed it in conjunction with general depletion, for he mentions, that, in many cases, he has prevented the return of the attacks by the adoption of blood-letting, as soon as the redness of the eyes, the flushings of the face, and wakefulness have manifested themselves.

From the facts, brought forward by Dr. Pritchard, it is evident, that blood-letting ought to be by no means neglected, in cases, occurring in young and plethoric subjects, attended with

symptoms so acute, as to denote a free determination of blood to the head, viz. :—full and throbbing state of the temporal and carotid arteries, redness of the face, and conjunctivæ, heat of the scalp, intolerance of light and sound, headache, vertigo, startings, agitations or convulsions; in such cases, then, it should be adopted before symptoms of exhaustion and coma display themselves.

CELSUS, LIB. III. CH. XVIII.—Asclepiades perinde esse dixit, his (*i. e.* phreneticis) sanguinem mitti, ac si trucidentur : rationem hanc secutus, quòd neque insania esset, nisi febre intentâ ;—neque sanguis, nisi in remissione ejus, recte mitteretur. Sed ipse in his somnum multâ frictione quæsivit ; cùm et intentio febris somnum impediat, et frictio non nisi in remissione ejus utilis sit. Itaque hoc quoque auxilium debuit præterire. Quid igitur est ? Multa in præcipiti periculo recte fiunt, aliàs omittenda. Et continua quoque febris habet tempora, quibus, etsi non remittit, non tamen crescit : estque hoc, ut non optimum sic tamen secundum remediis tempus. Quod si vires ægri patiuntur, sanguis quoque mitti debet. Minus deliberari potest, an alvus ducenda sit.—Tum, interposito die, convenit caput ad cutem tondere ; deinde aquâ fovere, in quâ verbenæ aliquæ decoctæ sint ex reprimentibus ; aut prius fovere, deinde tondere, et iterum fovere ; ac novissimè rosâ caput nasesque implere ; offerre etiam naribus rutam, ex aceto contritam ; movere sternutamenta medicamentis in id efficacibus. Quæ tamen facienda sunt in iis, quibus vires non desunt. Si vero imbecillitas est, rosâ tantùm caput, adjecto serpyllo, similive aliquo, madefaciendum est. Utiles etiam in quibuscumque viribus herbæ duæ sunt, solanum et muralis, si simul ex utraque succo expresso caput impletur. Cùm se febris remiserit, frictione utendum est ; parcius tamen in iis, qui minus hilares, quàm in iis, qui nimis tristes sunt.

Shaving of the head should always be done, where much vascular excitement and heat of the scalp are present, for by this means, a greater degree of tranquillity is produced ; it is not sufficient to cut the hair short, the scalp in fact should be shaved, as often as the growth of the hair requires it. While acute symptoms are present, as a general rule, blisters should not be applied, but the head is to be kept cool by means of evaporating lotions. After the state of excitement has passed away, and signs of stupor display themselves, then blisters will be found of essential service, either applied to the scalp, temples,

behind the ears, or nape of the neck, which latter situation is the best, as a free discharge can be obtained from the blistered surface.

Issues and setons also may be tried, particularly in those cases, combined with paralysis.

Dr. Jenner extols highly irritating ointments, but these are not followed by such happy results, as anticipated. Cold shower baths, and affusions of cold water, are serviceable to women of a nervous temperament; the mode in which the cold bathing is adopted by M. Foville, is, to place a cap or bonnet, containing ice, and closely fitted on the head of the patient, and to keep the body immersed in a warm bath for two or three hours, and to renew this proceeding twice or three times a day, according to the intensity of the symptoms; in several cases he has found it to succeed, having produced sleep and tranquillity of mind by it. Warm bathing has been found advantageous, in those instances, attended with a cold state of the surface, languor of the circulating system, as indicated by coldness of the extremities; but if it occasion too much vascular excitement, then its employment would be followed by dangerous results, and therefore ought to be discontinued.

Purgatives are, of all remedies, generally the most useful in maniacal cases, provided the mucous lining of the alimentary canal be not in a diseased or irritable state, which circumstance alone, would forbid the use of these remedies in strong doses: in most instances, however, aperients are attended with the best success, as then the doses can be frequently repeated in order to keep up a constant and regular action of the alvine secretions. The intestinal canal is frequently in a disordered state, the tongue is mostly furred, and the evacuations are dark and offensive; in such, then, calomel grains should be administered, followed in the course of a few hours by some brisk aperient, as epsom salts with infusion of senna or castor oil.

When there is a decided tendency to constipation, and provided no undue circumstance be present forbidding the use of the remedies, scammony, colocynth, or even croton oil may be administered, caution being observed during their employment. The action of the bowels should be strictly attended to, and after the stools have become healthy, such aperients should be administered, as evacuate the alimentary canal without drawing fluid from the circulating system, such as the compound decoction

of aloes, the compound aloetic pill, the compound mixture of gentian, &c. When, however, the gastric symptoms are very slight, and the powers of the system feeble, active and prolonged purging is dangerous, the great object being to evacuate the bowels daily by means of any mild aperient.

Emetics also are highly extolled in these cases, particularly if the tongue be coated, the skin hot and dry, and the pulse full and frequent, but if the face be pale, the skin cold, and the pulse feeble, emetics would be improper, generally speaking, ipecacuanha is far more preferable than antimony, as it does *not* create such a state of exhaustion of the vital powers.

Dr. Gooch recommends an emetic of ipecacuanha, *not* antimony, as the *modus operandi* of the latter remedy is considered to be too depressing to the system at large, in its after effects. Vomiting has, in some instances, been followed by such great success that some physicians have looked upon it in the light of the most efficient remedy that we possess, but where the face is pale, the skin and extremities cold, and the pulse feeble, the depressing influence of nausea and vomiting, as occasioned by the emetic, would be attended with injurious effects, and, therefore, emetics ought *not* to be administered in this state of system. At the Dublin Hospital, solutions of tartar emetic are frequently given, but certainly ought not to be had recourse to in those cases where the patient is of a full habit of body, and with symptoms, denoting a free determination of blood to the head, as from their action apoplexy might be the result. Emetics have been highly extolled by some practitioners, from the beneficial effects, which, they observed to arise from the use of a rotatory swing, whereby vertigo and vomiting supervened.

Dr. Wake, of York, has assured us, that he has for some length of time considered the rotatory swing a remedy of great efficacy. These remedies are *not* to be administered where the patient is suffering from debility and exhaustion, as they would add greatly to the evil; in such, then, an opposite mode of treatment must be adopted.

After the bowels have been freely acted, and the tongue has become somewhat clean, and the skin moist, great advantage will be frequently derived from the use of *sedatives*, which will give support, in a great measure, to the constitutional powers, and allay, at the same time, nervous excitability. Ten grains of

Dover's powder, or one and a half grains of solid opium, or 40 drops of laudanum, or liq. opii sedativus of Battley, may be given at bed-time; perhaps the preparations of morphine, as the acetate or the hydrochlorate are better forms of the drug, in doses of half a grain every three or four hours, until sleep supervenes. If opium disagree with the stomach, Dr. Gooch recommends henbane (*hyoscyamus*) in combination with camphor: he states that 5 grains of each should be given every six hours, and a double dose at bed-time; he considers narcotics the most valuable remedy in the treatment of this form of insanity, as they frequently produce nights of better sleep, and days of greater tranquillity, and this calmness is followed by some alleviation in the disorder of the mind. These remedies, he also adds, produce salutary effects much more frequently in the mania of puerperal women, than in maniacal cases occurring under other circumstances; if, however, there be heat in the head, flushings in the face, with thirst, and a dry state of skin, their use ought to be postponed, until such symptoms shall have been fully removed by the remedies previously mentioned. Professor Berndt has strongly recommended large doses of camphor. When there is much debility present, it will then be advisable to administer stimulants with sedative remedies. Dr. Copland recommends, then, the following prescriptions, after the bowels have been freely relieved, and no undue circumstance be present, forbidding their employment:—

R. Morph Acet, gr. ℥
 Liq. Ammon. Acet. ʒ℥
 Mist. Camph. ʒj
 Acidi Acetic, m. vi
 Tr. Lavand. Co.
 Sp. Myristicæ } aa ʒ℥
 Sp. Rosmarini }
 Syrup Papav. ʒj misce

Fiat Haustus horâ somni sumend.

Also the following enema:—

R. Camphor, gr. x
 Assafœtid, ʒ℥
 Ext. Ruti, ʒ℥ tere cum
 Ol. Terebinth
 Ol. Ricini, aâ ʒj vel.
 Ol. Olivæ, ʒ ij
 Dec. Avenæ, ʒ x ad ʒ xiv
 Syrup Pap. ʒ ij ft. enema.

CELCLUS LIB. 3.—Ad mentem ipsam componendam, crocinum, unguentum cum irino in caput datum. Si nihilominus vigilant, quidam somnum moliantur potui dando aquam, in quâ papaver, aut hyoscyamus decocta sit: alii, mandragoræ mala pulvino subjiciunt, alii vel amomum, vel sycamini lacrimam frouiti inducunt. Plurimi decoctis papaveris corticibus, ex eâ aquâ spongia os et caput subinde foveant. Asclepiades ea supervacua esse dixit; quoniam in lethargum sæpe converterent; præcepit autem, ut primo die, a cibo, potione, somno abstineretur; vespere daretur ei, potui aqua; tum frictio admoveretur lenis, ut ne manum quidem, qui, perfricaret, vehementer imprimeret; postero deinde die, iisdem omnibus factis vespere ei daretur sorbitio et aquâ, rursusque frictio adhiberetur; per hanc enim nos consecuturos, ut somnus accedat.

During the treatment of this malady, every support must be given to the system, more particularly where no symptoms of febrile excitement are present, carefully considering at the same time the previous habits of the patient. Narcotics certainly are valuable remedies, provided they be administered at proper times. When they have once had the desired effect, the use of them should not be suspended suddenly, but gradually; at the same time, carefully watch the result arising from their abstraction, and administer nourishing diet; if it be found that the removal of them occasions any unfavourable signs, recourse must be again had to the remedy. After opiates have been tried, and have not been followed by success, or any amelioration in the symptoms, the disease at the same time manifesting itself more strongly, our object then must be to support the patient through this distressing malady.

The diet must be rigidly attended to; it may, as Dr. Pritchard asserts, be safely stated, that the greatest risk which patients, labouring under this disease, incur, is, that of being starved through the mistaken notions of their attendants, who are too frequently inclined to consider the excitement of maniacal cases, a reason for withholding food, when, this very condition, owing to the exhaustion attendant upon its long continuance, renders it highly necessary to give support to the system. If febrile symptoms be present, farinaceous and nutritious drinks should be given in lieu of animal food. If the patient be labouring under great debility and exhaustion of system, malted liquors may be given with the food, even wine,

if the digestive powers will allow, for cases are frequently observed, in which, after the extremities were cold, the skin clammy, with sleepless nights, and constant agitation of mind, a state of convalescence has quickly taken place, under the use of beer, wine, and a nutritious diet, which in lieu of occasioning excitement, has appeared to calm the mind, and create sleep.

When the disease assumes a chronic character, or, when it manifests itself during the period of suckling, provided no febrile or inflammatory symptoms be present, tonics ought to be administered, and if there be much exhaustion, they may be given in combination with stimulants, or, if the patient have been previously much addicted to the use of intoxicating liquors, and especially if the disease assume the appearance of delirium tremens, opium may be combined with them. Ammonia is highly useful, and may be given in any bitter infusion, as that of quassia, gentian, orange peel, camomile, or in the decoction of cinchona. By some practitioners, small doses of oil of turpentine are strongly recommended as being one of the best stimuli, provided they do not occasion nausea and vomiting: when there is great debility, the preparations of quinine (as the disulphate and citrate) may be given. During the administration of these remedies, every attention must be paid to the state of the alvine evacuations, the bowels should be daily evacuated. This is of essential importance in the treatment of this form of insanity.

After the system has somewhat recovered itself and the strength of the patient will admit of it, she should be exposed to the influence of the air, and moderate exercise be taken as soon as possible. With respect to the moral treatment, the patients should be separated from their families and friends, and confided to persons accustomed to take charge of insane persons; in general, it is seldom necessary to remove individuals afflicted with puerperal insanity to an asylum, unless the insanity becomes permanent, and then they should not be confined in the same ward, with persons labouring under a different variety of the disease. Change of air and scenery, with pleasant society, will often have a beneficial effect upon the disease; she never should be left for a moment alone, and every possible means should be taken to prevent an attempt at self-destruction. The constant attendants ought to be those who will govern her effectually, but mildly; when the disease has lasted

for a considerable time, and the patient expresses a great desire to see some friend or near relations, her wish should be complied with, as by so doing, the agitation of mind, has, in many instances, been greatly relieved. The late Dr. Haslam has stated, that confinement is too generally recommended and persisted in, for, upon some occasions, an intercourse with the world has dispelled those hallucinations which a protracted confinement in an asylum, would have, in all probability, increased.

After the patient has recovered, too early an introduction to persons must be avoided, as a relapse by so doing, might supervene. Dr. Gooch in his work on the most important diseases of women, has related a very interesting case of a lady, who had been for some months insane, and after having been permitted to associate with her friends and family, perfectly recovered her mental faculties.

After what has been previously stated, bleeding in the treatment of puerperal mania must be resorted to with extreme caution, and then only, when strong symptoms of congestion or inflammation are present. The state of the alimentary canal must be rigidly attended to, daily evacuation of the bowels being absolutely essential. Sedatives are highly beneficial, and every due caution must be enjoined, with respect to the diet of the individual.

ESSAY ON PUERPERAL INSANITY.—BY DISCIPULUS.

—Read 5th February, 1845.

The term "Puerperal Insanity" has been applied to those forms of diseased mind which occur in females who have recently been confined, or who are debilitated by long continued lactation, or by imprudent weaning, whether forced by unforeseen circumstances, such as the death of the infant, or induced in accordance with the fashionable but unnatural customs of the day. Its meaning has, however, been extended by various writers upon the diseases peculiar to the female system, so as to embrace every variety of insanity which may occur during gestation.* I shall, nevertheless, for obvious reasons, confine myself to the consideration of those forms which arise as a consequence of parturition, of lactation, and of weaning, dwelling more particularly upon the former, because it is in that variety that the greatest difficulty will be experienced by the medical practitioner in forming a correct diagnosis from phrenitis on the one hand, and low nervous delirium on the other; the prognosis also, or probable result of the disease, will be much more obscure (at least so far as life is concerned), and the medical treatment, from the nervous irritability and exhausted condition of the patient, will require considerable modification, if not entire alteration, from the plan pursued in cases of ordinary insanity arising from non-puerperal causes.

Many persons have objected to "puerperal insanity" as a generic term, because, as they truly observe, the sort of madness so designated is frequently known to occur at a time when all puerperal causes may justly be supposed to have subsided, as when a woman becomes insane from suckling or weaning. The term "*manea lactea*," however, which they would substitute, is equally, if not more objectionable, because, as the incursion of the disease in by far the greater number of cases, happens within a few days after delivery, before the commencement of the lacteal secretion, it is difficult to conceive how far derangement of that function could be productive of the mental impair-

* "During that long process, or rather succession of processes, in which the sexual organs of the human female are employed in forming, lodging, expelling, and, lastly, nourishing her offspring, there is no time at which her mind may not become disordered; but there are two periods at which such an event is more likely to occur than at any others. The first of these is when the body is sustaining the effects of labour; the second, when the body suffers from the effects of nursing."—GOOCH'S DISEASES OF WOMEN, 109.

ment; besides, even in those cases wherein the disease does not manifest itself until after the first secretion of the milk, the disorder in its secretion is almost invariably observed to follow rather than precede the insanity; I shall therefore continue to employ the term "puerperal insanity" as the least objectionable of the two.

CAUSES.—Before proceeding to the consideration of the causes which more immediately give rise to this form of mental alienation, I shall slightly touch upon those conditions and peculiar conformations of the body, which render the individual more susceptible of their influence, and which have therefore been regarded as "Predisposing Causes."

This term, however, is, I think, calculated to convey a false notion as to the share they have in producing insanity; because in every instance where such predisposing causes exist, some exciting cause (physical or moral) must be superadded in order to call forth their influence.

Hereditary tendency is by far the most important of these predisposing circumstances. In order to account for this singular phenomenon, we must suppose that there exists some peculiar conformation of the nervous system, which thus becomes more sensitive of the influence of outward impressions, and which may either be transmitted from the parent to the offspring, or be produced "de novo" in the individual, in the latter case forming idiosyncrasy of disposition. Extraordinary as this fact of constitutional conformation being transmissible from parent to offspring may be, it is not more remarkable than that a similarity in bodily form, feature, and voice, should be observed to exist in those who are nearly related—a fact which every day experience confirms, but which, from its frequency, excites neither wonder nor astonishment.

Analogy, in the entire absence of facts, would lead us to conclude that if the bodies of those who are nearly related by blood should resemble each other in the more apparent and striking circumstances of voice, feature, and gait, that the more intimate parts of their structure should likewise present a similar concordance, and that any peculiarity, or susceptibility of peculiar impressions, which may exist in the parent, should be found indelibly stamped upon the offspring.

A singular fact illustrative of the transmission of personal deformity occurred within my own observation. A friend of

mine had a peculiar discoloration of the left iris, which is sometimes met with especially in the lower animals; the right eye was hazel, as was also the right half of the left, the remaining part being of a greenish grey. Upon joking with him one day about it, he informed me that two of his sisters and both his father and his grandfather enjoyed the same mark of distinction, and what was still more singular, that the deformity existed in the same eye in them all. The late Dr. Haslam mentions another singular instance of a similar nature. "I am acquainted," says he* "with a person in this town whose middle and ring finger are united and act as one; all the children of this man carry the same defect. A toe-nail also particularly twisted has been traced through three generations upon the same foot and toe."

Sir John Sebright (who has performed many curious experiments upon sheep with regard to hereditary transmission) informs us that if a flock of sheep in which there is any defect are permitted to breed in and in, the defect will gradually increase amongst them. "And Colonel Humphries, by selecting for breeding a marked variety, has likewise succeeded in procuring a flock, all of them with deformed bones."†

Is it then surprising that diseases, which must depend upon a deformity of intimate structure, should likewise be rendered hereditary? or at least that the children of parents, suffering under certain diseases at the time, or previously to their birth, should be more susceptible of those particular diseases, than if they had sprung from an untainted stock?

Hereditary predisposition is much more commonly found to exist amongst those classes of society, who are in the habit of contracting alliances with those of their own rank or mode of thinking. Hence insanity is much more prevalent amongst the royal families of Europe, the Jews, and the Society of Quakers, than amongst other individuals.‡ No doubt many endemic peculiarities found in certain sequestered districts, and which have been attributed to the water and other local circumstances, may with much greater probability be supposed to proceed from hereditary transmission.

* Page 97.

† Adams on Hereditary Diseases, p. 34.

‡ "The Sicilian nobility, in order to preserve the purity of their blood, are continually forming intermarriages with their own family. This is carried so far, that one family in which elephantiasis is hereditary, disdains an alliance with any other on account of their own elevated rank."
—Adams, *op. cit.* 86.

To return to the subject, however, as it more especially relates to puerperal insanity, I may observe that those patients in whom it can less frequently be traced, are (as might be expected) those whose mental derangement is caused by some sympathetic affection.

It is well known how difficult it is for the medical practitioner to obtain full information as to whether any of the relatives of the patient have previously been insane; the very fact seeming to be considered as a crime, and as one that ought to be most studiously concealed; so that we cannot wonder at the discrepancy, which we find in all tables attempting to show the frequency of hereditary tendency in these and similar instances.

Out of 27 cases that I have collected, hereditary tendency was found to exist in 16, while in two more no information could be obtained. In the remaining nine no one of their relations (according to the account of their friends) had ever been insane, or attempted suicide. M. Esquirol out of 264 cases of insanity arising from different causes, (which occurred to him during his private practice) attributes only 150 to hereditary predisposition. I am, however, more inclined to regard the statement of Dr. Burrows,* that he clearly ascertained that hereditary disposition existed in six-sevenths of the total number falling under his notice, to be nearer the truth.

The proportion which the number of cases in which hereditary predisposition was found to exist to those in which no such influence could be traced in the few instances that I have collected, agrees very well with Dr. Burrows' experience; "out of 57 cases," says he, "of puerperal insanity, I could detect hereditary predisposition in only about half of them."†

When once the brain has been so affected, it is always liable to resume the maniacal action, whether the circumstances or events of parturition be the exciting causes or not. I am aware that in thus stating my opinion as to the liability of relapses occurring when the brain has once been affected by insanity (whether adventitious or hereditary) that I have not the authority of Dr. Gooch to bear me out, as he says, "I have attended many cases of females who came up to town to be confined, because they had suffered from derangement during their former lying-in; and with the exception of one lady (*who* was terrified

* "Commentaries," p. 103.

† Op. cit. p. 104.

by a neighbouring house being on fire a day or two after her confinement) none had a relapse of their disorder."*

Out of the 27 cases, however, above mentioned, five had been previously insane once, and one had been insane after each labour, and that, in spite of every care which was taken to prevent the recurrence of the malady.

This form of insanity, differing as it does, in no essential particular from the ordinary varieties of madness, is produced of course by the same exciting causes. It will therefore be needless in me, in this place, to enter into a minute description of all the circumstances which may be supposed to be instrumental in the production of the disease; there are, however, certain causes which more peculiarly exert their influence in exciting puerperal insanity, I shall therefore confine my attention to their consideration.

And first, with regard to the shock which the nervous system receives at the time of labour. To this cause must be attributed those cases of insanity which arise apparently without any obvious origin, as well as those which come on suddenly during a perfectly natural and favourable labour. It has been noticed by Dr. Montgomery,† to come on at that particular stage, when the head of the child is passing through the os uteri; it occurs, perhaps, immediately after the patient has been talking cheerfully, and having lasted a short time, disappears; leaving her perfectly clear and collected, and returns no more even though the subsequent part of the labour should be slower and more painful. "In every case," says he, "which came under my notice, the patients were conscious that they had been wandering, and occasionally apologized for anything amiss which they might have said, although they were not aware of the exact nature of their observations." Churchill‡ also corroborates this latter fact, by mentioning the case of a lady whom he attended, and in whom this species of transient insanity occurred. "She assured him that she knew she had been talking nonsense, but she felt quite unable to resist it." Her condition thus far exhibiting that mental embarrassment observed by Dr. Gooch,§ as occasionally occurring in women who have been debilitated by nursing, in which the mind was wrong, yet right enough to discover its error.

The next cause which I shall notice as more immediately

* Op. cit. p. 126.

† "Dublin Journal," vol. v., p. 61.

‡ "Diseases of Childbed," p. 429.

§ Op. cit., p. 114.

inducing this form of insanity, is intestinal irritation, as most authors upon this subject have attributed a great deal of influence in the production of the disease to it. "I believe," says Marshall Hall,* "that the disorder in general results from all the circumstances of childbirth combined, but especially from the united influence of intestinal irritation and loss of blood." This view of the case is certainly strengthened by the fact that insanity arises from undue lactation, as well as from the circumstances of the puerperal state.† In these cases the sympathetic effect takes place most probably by propagation to the spinal cord and brain. The proper mode of treatment consists in restoring the system to a state of due health, by every means in our power, whilst we adopt every measure which can soothe and allay the morbid irritability of the nervous system.

CASE No. 1.—The following case will serve as a good illustration of insanity arising from this cause:—

M. R., the wife of a small shop-keeper, was delivered of her third child after a quick and perfectly natural labour, upon the 2nd of March, 1841, and was rapidly hastening towards convalescence, when, upon the fifth day after her confinement, she became maniacal. It appeared that her bowels had not been opened for three days previously, and that she had obstinately refused to take any laxative medicine whatever, her tongue was very much loaded with a yellowish fur, her gums and teeth were also covered with sordes, and her spittle was remarkably viscid; her abdomen felt hard, and was much distended, she felt sick, and complained of thirst. As she obstinately refused to take any medicine, a clyster was administered, and the result was a copious evacuation of very dark-coloured fœculent matter, with a few hardened lumps of fœces mixed up with it; a second clyster was administered at nine in the evening with similar success. This second motion contained a greater number of hardened lumps. In the morning the patient was evidently better, and, although still quite maniacal, was persuaded to take some castor oil. This patient, at the end of three weeks, by judicious attention to her bowels and diet, and by keeping her as quiet and as secluded as possible, became perfectly restored to reason.

* Commentary on Diseases of Females, p. 251.

† There are frequently many of the appearances of disorder of the general health, sometimes even jaundice, and the state of the complexion, and of the alvine evacuations, leaves no doubt as to the influence of the morbid condition of the intestinal canal.

In some cases, however, the irritation which gives rise to the disorder is of another kind, as where the breasts have been inflamed, or where an abscess has been formed. When the insanity is traced also to have commenced at the time of first suckling or of weaning the child, we must attribute the incursion of the disease to some local irritation existing in the breasts, and which is in a similar manner propagated to the spinal chord, and thence to the brain.

A 3RD CAUSE.—The pathological fact, that diseases of the brain (and that amongst others from which insanity proceeds) supervene upon the cessation of various discharges, and, upon the disappearance of cutaneous eruptions, has been observed with greater or less attention by practical writers, from the time of Hippocrates. Even the cessation of the usual discharge from the nose, of leucorrhœa, of blennorrhagiæ, as well as the disappearance of scabies, of herpes, gout, and rheumatism, have produced insanity.* Knowing this, we can readily suppose that the sudden cessation of the usual uterine discharge, or the imprudent weaning of the infant, without having recourse to proper precautions, should prove a fruitful source of puerperal insanity. Esquirol attributes 19 out of 92 cases to this latter cause, while out of the 27 cases which I have already mentioned, four were certainly due to this cause.† The two following cases which I have given, are examples; the first of insanity, arising in consequence of suppression of the lochial discharge; the second, of the influence of derangement in the lacteal secretion in disordering the mind; in the last case, strong hereditary tendency existed.

CASE 2.—M. A. B., aged 19, was, on the 16th of May, 1840, delivered of her first child; her labour was tedious and lingering, but was not otherwise unnatural. The uterine discharge,

* In the "Bibliothèque Médicale" there is the following case; tom. xlix, p. 12:—"A young woman, while single, had the menses often obstructed, and, in consequence, experienced many severe attacks of furious mania. During her first pregnancy she was similarly affected. She became a second time pregnant, but from its commencement both her cheeks were covered with a pimply eruption, till near the time of her confinement; during the whole time she had no symptoms of insanity."

† This fact seems to warrant the hypothesis of the milk being absorbed into the system, and although the experiments performed by Chaussier and Bichât would prove that, after death, there is no appearance of milk effused into the abdomen, still they are by no means conclusive, as more recent experiments have shown that, after the ligature of the mammary vessels in suckling animals, milk has been traced in the blood.

from some cause or other, became almost entirely suspended upon the second day after labour, and, upon the fourth day, her mind began to show symptoms of disorder, she became very fretful with the nurse, and accused her of stealing her infant's clothes, and of attempting to set her husband against her; she then endeavoured to rise from the bed and leave the room, and became much excited upon being made to remain where she was; soon after this her husband came home, and upon the patient seeing the nurse and her husband conversing together in a low tone, she immediately conceived that they were going to murder her; she now became very uproarious, and her medical attendant having been sent for, it was deemed proper to put her in a strait waistcoat. Although various means were tried for the purpose of restoring the lochial discharge,* this desideratum could not be effected; but, at the end of seven weeks, four of which she passed in an asylum, she ultimately recovered her mental faculties.

CASE 3.—C. W., the wife of an artisan living in Norwich, whose father and mother had both died in a lunatic asylum, was delivered of a still-born infant. She, however, soon procured another child to wet nurse, and continued to suckle it for two months, at which time, in consequence of the small-pox raging in the neighbourhood, the parents of the nursed child suddenly removed it. The patient took no precautions about her breasts, but endeavoured to get another child to suckle; in this she did not succeed. In a day or two her breasts became very painful to her, and in consequence she went to an hospital to have the milk drawn off. The pain in the breasts soon returned; she, however, did nothing more than apply a wet rag to the nipples. About a week after the removal of the child she became hysterical, and her manner towards her children and husband became much altered, cross, threatening violence. She totally neglected her household affairs, and appeared to be much distressed in her mind; symptoms of decided insanity, with depression, soon began to shew themselves, she thought that the devil had got her soul, and that she had the child by the devil, so that

* "The renewal of the lochia, if suppressed, is desirable. The means of accomplishing this, however, are not very certain. The French are fond of applying leeches to the vulva, in order to produce a vicarious discharge from the vessels contiguous to the uterus. In such cases I have seen good effect from drawing blood by cupping over the sacrum."

—Burrows, Op. cit. p. 404.

about a fortnight from the first interruption of the secretion of the milk, she attempted to commit suicide by throwing herself down stairs. She was removed to an asylum, where, by the judicious remedies employed, and by the powerful moral impression excited by removal from home, she was soon restored to reason.

CASE 4.—The next case presents an instance of insanity arising from the same cause as the last, with the powerful moral cause of grief superadded:—

A. E., aged 29, with three children, undertook in the third month of her nursing, to suckle a second child. Whilst she continued to do this, she used to complain of great faintness and weakness in the limbs. About a month afterwards, the nurse child was suddenly taken away by the parents, who thought that she favoured her own infant at the expense of theirs. This suspicion being expressed suddenly, affected the woman's mind so much as to produce convulsive motions of the muscles of the face, and an impediment in her speech. From this state she appeared to recover in three or four days, but about a week afterwards another of her children, a boy about two years old, threw himself into a very violent passion, holding his breath till the mother was most excessively frightened, and so agitated as to be perfectly hysterical; this agitation subsided, but two days afterwards evident signs of mental derangement began to make their appearance, by her rising from bed and walking about in great distress of mind; she continued very melancholy for some days, when a state of great irritation and restlessness occurred, very often screaming with violence, or talking and singing incoherently. As she several times attempted violence to those around her, she was put in a strait-waistcoat; her bowels also had not been opened for several days. She was afterwards removed to an asylum, where she ultimately recovered.

Moral causes, such as fear, grief, and anxiety, exercise also a very powerful influence in producing puerperal insanity. M. Esquirol estimates that about four-fifths of the whole number of cases mentioned by him are referrible to such causes; whilst Georget observes that of "seventeen cases in which he was consulted, he can recognise two only where the mental disorder has proceeded from any other direct cause than a moral affection. Out of the 27 cases collected by myself, ten were produced by the excitement of the mind through moral emotions.

CASE 5.—M. H., the wife of a journeyman tailor, became suddenly insane, the disorder first showing itself about three hours after she had been put to bed, by her endeavouring to rise up and leave the room. She at first did not assign any reason for this strange conduct, but upon being pressed, said that a dog, which was in the room, had been attempting to get upon the bed, and snatch the child away, and that she felt much frightened in consequence. Upon the object of her alarm being removed, she became more composed. This state of tranquillity, however, lasted but for a short time, as in about half an hour afterwards she became very restless, and refused to permit the infant to remain beside her, saying that it was not hers, but that it was a puppy, and that the dog had taken away hers. She now became very outrageous for some time, but this state of excitement, in its turn, gave way to one of great depression at the supposed loss of her child. She ultimately recovered.

CASE 6.—L. B., soon after her delivery, received news of her husband (who had imprudently engaged in a smuggling party) being committed to jail, till which time she had been in good health, and had never shown the least signs of mental derangement. The attack, however, commenced a very few days after she had received news of her husband's detention. She at first became exceedingly melancholy, but soon began to show symptoms of a suicidal propensity. She leapt into a well, from which she was taken out with difficulty by an accidental spectator. Disappointed in the execution of her design, she next attempted to effect her purpose by three times running a needle into her throat, and a few days afterwards she attempted to cut her throat, but the wound she made was superficial. Before she was removed from home, she also attempted the life of her child, and said that it was her intention first to kill it, and put it out of the way of sin and misery, and then to kill herself. This patient's cure has not been effected.

INCUBATORY STAGE.—When the disease is the consequence of labour, the usual period of accession is about the third or fourth day, ranging from that to about the fifteenth after the accouchment; this, however, is by no means invariably the case, as in the instance before related. In general, however, the chances of an attack diminish in proportion to the length of time that has elapsed since delivery; out of the 27 cases, 2 became deranged almost immediately after the labour, 13 became

so before the termination of the first fortnight, eight first showed symptoms of insanity within six months, and the remaining four became deranged in consequence of weaning. According to Esquirol*—16 became insane from the 1st to the 4th day; 21 from the 5th to the 15th day; 17 from the 16th to the 60th day; 19 from the 60th day to the 12th month; 19 after weaning. Total 92.

With regard to the forms of mental disorder most frequently manifested, I may observe that general insanity is the type ordinarily assumed when the disorder arises in consequence of parturition,† while on the other hand, should the disease make its appearance during lactation, or be the consequence of forced or imprudent weaning, the phenomena of partial insanity, accompanied by ideas of depression, are usually presented; in some very rare instances, fatuity has occurred as the primary disorder. It may here be observed (although the subject more properly belongs to the prognosis of the disease) that when the insanity is of a melancholy cast, accompanied by a dread of poison, or apprehensions as to the safety or identity of her infant, or the fidelity of her husband, the patient's case is as usually obstinate, and difficult of cure. The same remark applies to those forms in which the disease becomes aggravated at the period of menstruation, or in which the catamenia are present in unusually large or small quantities. On the contrary, if the patient's mental disorder be general, if she appear gay and unconcerned, and careless of all around her, the disease is seldom of long persistence.

The disorder, when occurring soon after delivery, generally establishes itself in a very short space of time; and in some instances, like case 5, at once bursts forth without any previous manifestation. The following case is likewise a very striking instance of the rapidity with which this form of insanity occasionally establishes itself.

CASE 7.—M. M., aged 26, with hereditary predisposition to suicide, was delivered after a somewhat protracted labour of her fourth child, her case appeared for the first week to be progressing

* *Medico-Chirurg. Annuaire*, 1819.

† "When insanity takes place in the puerperal state, mania is the most common form of mental disorder; melancholy sometimes occurs, but this is generally after having suckled the child too long. Of 13 cases cured under my care last year, 10 assumed the form of mania."—SIR A. MORISON, *PHYSIOGN. MENT. DIS.* P. 15.

most favourably, and, in fact, she was nearly well, when she suddenly received news of the death of her only brother, to whom she was very much attached. He was a young man of 19 years of age, and had left home in the morning to go to his work (that of a bricklayer's labourer) in perfect health. The next information received of him was that he had missed his footing and fallen from a high scaffolding, and was picked up dead. This distressing news was incautiously communicated to her by a fellow-labourer of her brother's, and the shock it gave her was such, that she immediately fainted away: this was succeeded by a violent hysterical fit which lasted about an hour and a half; symptoms of insanity now rapidly began to manifest themselves, by her declaring that her brother was not dead, that she had seen him go up stairs in his usual working-dress, and that he had called to her to come up too. She became very much excited by the attempts which were made to restrain her. When her medical attendant called in the evening he ordered her head to be shaved, and sent her a purging powder of calomel and antimony. During the night she continued very restless and excited, and frequently broke out into singing, or violent fits of laughter. In the morning her pulse was 110; her head hot, and her eyes glistening and suffused; her tongue also was white, and she complained of headache. It was deemed advisable to draw some blood from her head by cupping, and accordingly $\bar{3}x$. were taken without much good effect, a cold lotion was also given her to keep constantly applied to the naked scalp. Her bowels were kept well open by sulphate of magnesia and tincture of senna, to which some of the compound tincture of cardamoms was added. The violence of her disorder under this treatment became considerably abated; but her mind was still quite delirious. She usually lay still upon her back gazing at vacancy, or else her eyes were shut, as if to hide some disagreeable object from her sight. The names of William her brother, and of her children, were frequently muttered by her: gradually her ideas became of a gloomy character, and she began to imagine that her soul was lost, and that she had committed some great crime for which she was in confinement. By careful attention to the general state of this patient's health, and by her removal to her mother's house in the country, she became restored to reason at the end of seven weeks.

Another case of a very similar nature is related by Dr. Gooch,* of a lady whom he had under his care, and the same whose case he mentions as the only one who became insane a second time from parturition.†

"After her first confinement," says Gooch, "her friends thinking it a time for rejoicing, were footing it about the house, which resembled a rabbit warren. I determined that this time it should be otherwise, and had succeeded in keeping the house tolerably quiet, when a fire broke out in a house near which she resided. She was very properly kept in ignorance of the circumstance; but in the evening she saw some sparks flying about. Almost immediately after this I called, thinking the family would be in a state of alarm. My patient looked and talked rather oddly, and the paroxysm was evidently coming on. I slept in the house that night, and in the morning was called up by the nurse; on entering her bed-room she called out, 'who is there?' I merely replied, 'Dr. Gooch.' She then said, 'now sit down—do you see anything about my forehead?' 'No, ma'am;—' look again!' 'I see nothing there.' 'Then,' said she, 'I was presumptuous, I am deceived, I thought a glorious light issued from my temples, and that I was the Virgin Mary.' I took away a few ounces of blood from the head by cupping over the satures, and by attention to her diet and bowels, she recovered at the end of three weeks."

"All women," says Denman,‡ "soon after delivery are either more irritable, or more subject to irritation than they perhaps are at any other time, and hence arose the necessary custom of keeping them quiet and secluded for a certain time from the chance of meeting such occurrences as might disturb them.§ I have known," continues he, "instances of lying-in women becoming at once deranged by some fright or mishap apprehended to herself or infant, or from some dismal story related to her, who might have escaped had she been managed with circumspection."

In general, however, for a day or two previously to the mani-

* "Compendium of Midwifery," p. 292.

† Antea, p. 16.

‡ "Introduction to Midwifery," p. 501.

§ In order to guard against such causes the ancient Romans used to suspend a crown over the door of every woman after childbirth to point it out as a sacred asylum placed under the protection of the public. And at Haerlem also, there is a municipal regulation which directs that all such dwellings shall be distinguished by a particular mark, so as to keep all unwelcome visitors away.

festation of decided insanity, a slight change will be observed to take place in the temper of the patient. She becomes low-spirited, and as the malady progresses, some supposed cause of discontent is magnified into a source of much uneasiness or of continual vexation; at a more advanced period, she appears to be a good deal absorbed by her own thoughts, so that it occasionally happens that she does not answer when first spoken to, but when aroused (as if conscious of the unreality of her dreams), she endeavours, like a person in the first stage of drunkenness, to appear as rational as possible, and takes it very ill if her mental capacity be at all questioned. She will also on enquiry be found to have for a night or two previously slept imperfectly and in insufficient quantity to refresh her exhausted powers. This state of insomnolency speedily advances to that of more or less perfect vigilance, until at length it is ascertained that the function has become completely suspended. After this total cessation of sleep, a partial alienation of the reasoning faculty takes place, and gradually extends its influence from the primary perversion to other objects until the whole chain of the power of association becomes involved; as a good illustration of this gradual invasion of the disease, I shall narrate the following case:—

CASE 8.—J. W., aged 26, the wife of a bargeman, was delivered upon the 14th of June, 1843, of her second child. She was rather restless during the night succeeding, but towards morning she fell into a sound sleep which lasted some hours; the next morning she was found to be quite quiet, with but little after pain—her pulse was quite natural—her bowels had been once opened during the night, and in fact she appeared to be going on as favourably as possible.

17th.—Upon calling this morning, her medical attendant found that she had not slept very well during the past night and had complained of slight head-ache,—her bowels also had not been opened since the 15th, her tongue was loaded and her pulse about 85; he also learned that her husband had returned home drunk, and had occasioned her considerable alarm on account of his outrageous conduct, and that in the evening he had left the house and had not been heard of until about an hour before he called, when she was informed that he had been locked up all night in the station-house. She was ordered to take a common purging draught, and to be kept as quiet and

secluded as possible. In the evening he called again and found her in much the same state—her bowels had not been acted upon, and she still complained of head-ache. The nurse informed him also that she had been very cross at intervals, and had scolded her about the merest trifles. He asked her if she felt uncomfortable in her mind about anything; she said she only felt vexed about her husband's misconduct, and that he did not care at all about her, or he would never have behaved as he did. While he staid with her, he could plainly perceive that she was very restless, first trying to sit up in bed, then turning round to beat her pillow, or draw the bed-curtains back, then ordering the nurse to clean up the fire-place. Upon enquiry it was found that the lochial discharge had been very trifling for the last four and twenty hours. As her medicine had not operated, she was ordered to take four grains of calomel with one of antimony, to be followed in six hours by a purging mixture of magnesia and infusion of senna.

18th.—10h. 30m. a.m.—This morning she appeared to be much excited and irritable, and told the medical attendant that he intended to poison her.* He learnt from the nurse that she had passed a very bad night, not having once closed her eyes. The medicine had operated once, and had likewise made her feel rather sick, but not to the extent of vomiting; this sensation of nausea had probably caused her to imagine that poison had been administered to her—her pulse was quick, small and frequent (about 100), and a considerable inequality was observed between the force of the circulation in the radial and carotid arteries, being greater in the latter—her eyes were glistening and were continually rolling about—her face was flushed and her tongue very foul, being covered with a yellow fur, and her breath also was very offensive, the milk was secreted in small quantities, and appeared to be vitiated in quality as the infant was affected with colicky pains. The abdomen was rather distended and felt hard, with but little pain, however. She was ordered to take another dose of calomel with the tartarized antimony, and to take two grains of blue pill every six hours.

* She often evinces a suspicion of poison being instilled into everything offered, or perhaps she imagines it is only in particular things: sometimes she conceals this suspicion, and then avoids what is offered upon any trivial pretext, or will spill it as if by accident, but it will be found on questioning, that the real motive is the apprehension of something deleterious being infused.—BURROWS, *Op. Cit.*, p. 369.

6 P.M.—The account received at this hour was, that at 2 o'clock in the afternoon, after partaking of a little mutton broth, she was seized with a shivering fit, succeeded by a great degree of heat; shortly after this she complained of severe darting pains across her loins and down her thighs, the pain in her head had also considerably increased; her skin was hot and dry, but about 5 p.m. she burst out into a profuse perspiration, her bowels were also abundantly opened, the stools containing a large quantity of mucus, with some hard lumps in it. At 6 p.m. the medical attendant found her sitting up in bed, tossing the clothes about, singing, and crying out in a very insane manner; and it was with difficulty that the nurse and her mother, who, in the mean time, had arrived, could manage her. The infant had been removed from her care, as she had become totally regardless of it, and there was great danger of her injuring it.

He ordered her a draught of Tinct. Rhei $\mathfrak{z}\text{ii}$, with Sodæ Tartariz, $\mathfrak{z}\text{i}$, and applied a blister over the lower part of the abdomen. This patient ultimately recovered, and I shall give the further history of her case under the head of medical treatment.

Where the disease is the consequence of lactation or of weaning (when the uterus may fairly be considered to have recovered from the effects of parturition, and where the shock to the nervous system is more gradual in its operation), there is generally a slow but well-marked change in the temper, habits, and disposition of the patient, which, in an experienced observer, would at once excite suspicions of the approach of the disease. As, however, the incubatory symptoms do not differ in the slightest degree from those of ordinary insanity originating in other causes, I shall not enumerate them, but merely observe that they also lose the faculty of sleeping; symptoms of hysteria also frequently manifest themselves, as in cases 3 and 4; in a great many instances, also, there is a great propensity to commit suicide, "so that," says Gooch, "the windows must be secured, and everything down to her garters, with which such a purpose may be effected, ought to be removed; if anything of this kind be left within her reach, she will probably secrete it, and watch for a favourable opportunity of employing it. If necessary, a strait-waistcoat must be put on, and a careful nurse engaged to attend upon her; the best nurse for such a purpose being one who has been accustomed to similar cases, and who is, therefore,

familiar with all their plottings, and can anticipate all their manœuvres*." The following instance will serve well to illustrate the generality of such cases.

CASE 9.—J. C., aged 25, was delivered of her second child after a very good labour, and soon recovered from its effects, and continued in good health for about six months afterwards, when she became decidedly insane. For some time previously she had been observed by her husband to be very low-spirited, and latterly she was frequently found bathed in tears, without there being any apparent reason for this display of grief. This patient has a strong hereditary tendency to insanity, as both her father and her brother have been confined in a lunatic asylum; previously to her disease her temper and disposition was always obliging and cheerful, and her habits perfectly sober, having for the last seven years totally abstained from all intoxicating drinks. The disease manifests itself in great melancholy, as she regards her eternal salvation as utterly hopeless. The exciting moral cause has probably been some impassioned discourse she has heard at chapel, being of the Methodist persuasion; her husband says that she appeared to be very religious shortly before the outbreak of her disease, and frequently repeated such texts to him, as "prepare for the wrath to come," or "without the shedding of blood there is no remission of sin." She at the same time became very restless in her habits, and used frequently to rise in the middle of the night, and try if the door were fastened. She once opened the bed-room window very gently, for fear of disturbing her husband, and placed a chair so as to be able to step upon the bottom of the sash, evidently with the intention of throwing herself out, when he fortunately caught hold of her in time to prevent the consummation of her purpose; when questioned by her husband as to what her motive could be, she denied all intention of throwing herself out; she however appeared to be very unwilling to talk about the subject. From this time she entirely neglected her infant and her household concerns, and shunned the society of every one. One day she ran out of the house without her bonnet on. It appeared afterwards, by her own confession, that she went to the Serpentine river, in Hyde Park, with the intention of throwing herself into it, and that she walked for some time along the banks, but that her resolution failing her, she returned to town, and was at

* Gooch, *Op. cit.* p. 295.

length found by her friends wandering about Holborn. She then resolved to get rid of her life by starving herself, and continued to refuse her food for some days. Her general health is weak, with a feeble pulse and coldness of the skin; her catamenia have lately become very irregular, and her bowels costive; her expression is melancholy, and her countenance sallow with considerable discolouration of the adnata.

It is of course needless to observe that in all cases of insanity (whether general or partial) arising from these causes, the infant ought to be entirely removed from the care and control of its mother, as not only may its life fall a sacrifice to the insane impulses of its parent, but her health, both mental and corporeal, cannot fail to suffer from the continual drain kept up upon her already debilitated and irritable constitution. How far it may be proper, when the patient is in a state of convalescence, to entrust her with the care of her infant, as tending to excite maternal feelings, belongs to another part of the subject, but proper precautions must of course be had recourse to when watching the success of the experiment.

SYMPTOMS.—I shall now proceed to the consideration of the various symptoms which have been observed as characterising puerperal insanity. These symptoms differ very much in intensity and character, as well as in the treatment which they require, so that, in fact, we may regard this form of insanity as being divided into two principal varieties; the first being accompanied chiefly by derangement in the intestinal functions, with but little alteration in the condition of the circulatory organs from the natural and healthy standard; and the second being mostly indicated by great disorder in the circulation, and by great exhaustion and irritation of the nervous power, closely resembling that temporary form of mental disease which arises in consequence of over indulgence in stimulating and intoxicating liquors. There are of course cases frequently to be met with which present a mixture of these symptoms, and these perhaps are the most numerous. The best plan of treatment in such instances is to attend to the particular symptoms manifested, and to employ those remedies which are best calculated to relieve or cure the most urgent and most generally fatal of such symptoms.

In the first variety, the secretions and excretions become impaired and morbid, the bowels generally are costive; occa-

sionally, however, the patient is afflicted with profuse diarrhœa, the stools are almost invariably of a dark colour and very offensive smell. The patient occasionally, also, from inattention or carelessness, passes her excrements in bed. The tongue is white and loaded, and, as the disease advances in severity, it frequently becomes brownish; the breath is fœtid, there is little or no appetite, and rarely much thirst, the urine is generally scanty and high coloured, and in those cases which I have seen was of a high specific gravity; the lochial discharge also is partially or totally suppressed, and if the disease makes its appearance before the lacteal secretion is established, it rarely makes its appearance; should it, however, have commenced flowing, it is either partially or totally suppressed according to the severity of the symptoms. The skin is, however, usually relaxed and cool, especially about the body and extremities, and is not painful upon pressure. In the eighth case before mentioned, the patient complained of severe shooting pains in different parts of her body, and this sensation occurred at different periods during her treatment. Dr. Marshall Hall also relates a very similar case in a woman that he attended.*

The face is generally pale, unless the maniacal excitement be great, and then of course it is flushed and turgid. There is seldom, however, great heat of scalp. Dr. Davis † says that he has never found it to exceed that of the rest of the body more than two degrees, and this absence of material increase of the temperature of the scalp, he regards as an essential means in distinguishing puerperal insanity from phrenitis.

In this first variety, the patient seldom complains of much headache, but this symptom is sometimes produced with considerable violence, accompanied by sense of pressure, noise in the ears, and flashes of light before the eyes, by attempts to go to stool when there is any tenesmus, or by vain efforts to void urine in strangury. A very striking instance of this nature was related to me by a friend.

CASE 10.—He had been attending a lady during her confinement, who became a few days afterwards deranged. Her labour had been attended by considerable hæmorrhage; her habit of body was full, and she was habitually costive. Her pulse had risen to 140 before active measures were had recourse to. At this time she complained of rigour, which was soon succeeded by

* Op. cit., p. 256.

† "Practice of Obstetrics," p. 120.

profuse perspiration. She also experienced great pain in the iliac and hypogastric regions, and her abdomen felt tense and hard. Her medical attendant administered a large dose of calomel, followed by castor oil, and applied a poultice over the whole of the lower part of the abdomen. When the medicine operated she experienced a severe throbbing pain in her head, and complained of noises in her ears, of the glare of light being oppressive (that of a common bed-room candle) and of feeling giddy. These unpleasant symptoms were continued for about four hours, gradually going off at the end of that period. Their return was prevented by the constant employment of common clysters. This patient recovered in about a month.

The pulse is generally compressible, and its frequency seldom very much affected. And even in those cases in which the frequency of the pulsations differs materially from the healthy standard, we must bear in mind, that such variations depend upon the state of irritation and exhaustion produced by parturition, and not upon the mental disease, as we find that the pulse subsides to the healthy standard, as the patient's health becomes re-established, unless when the patient is agitated by some violent paroxysm, when her muscular exertions would necessarily tend to accelerate the frequency of the circulation. I have already alluded to the inequality in the strength and size of the stream of blood in the carotid and radial arteries, though the number of pulsations be the same in both; this symptom is worth paying attention to, as it is almost invariably present in such cases.

The eye has a troubled appearance, and Denman observes:—* “That the general expression of the face is that of trepidation, combined with some degree of imbecility.” The period at which the patient exhibits, perhaps, the greatest degree of excitement, is soon after the first establishment of the disease; as, at the subsequent periods, she mostly lies upon her back, talking and muttering to herself, and usually requires to be addressed more than once before she will return any answer to questions.

In the second form of the disorder, the patients complain of acute headache, and of unusual throbbing within the cranium, the face is flushed, and there is great intolerance of light and sound, the eyes are in perpetual motion, and are very turgid, the expression also is wild; from being full the pulse becomes small and wiry, and is always increased in frequency. The thirst is

* *Op. cit.*, p. 505.

urgent, the tongue is dry and furred, and the bowels are obstinately confined, and, as in all other severe disorders of child-bed, the lochial discharge is entirely suspended. There is hurried and incessant talking, with complete incoherence. As the disorder proceeds, the pain in the head extends along the occiput and spine, and the patient has frightful dreams.

CASE 11.—P. M. This patient, a strong and healthy young fishwoman, was confined with her first child on the 6th of February, 1829; some degree of hæmorrhage attended the labour. Three or four days afterwards she became violently maniacal, and required to be confined in a strait waistcoat, in order to prevent her injuring those around her, as well as to keep her from attempting to leave the house; her pulse was full and about 100, and, at the same time, felt rather jerking; her face was flushed, and the conjunctivæ much injected, the scalp also was hot, and the temporal arteries throbbed violently, she complained of intense headache, and the light of a candle appeared to distress her very much. It was resolved to draw some blood from the head, her head was therefore shaved, and ℥xii. taken away, by cupping over the sutures, she also took ʒss of sp. ætheris nitrici with mxx of vinum antimonii; this for the time appeared to do good, as she became more composed and tranquil, but, within three hours of the bleeding, the pain in her head became much worse, and her pulse rose to 125. A dozen leeches were now applied, and a powder, containing calomel and antimony, administered; the next morning she appeared to be much weaker, and her tongue, when protruded, had a tremulous motion; her eyes were fixed stedfastly at the bed-curtains, and when questioned as to what she saw or felt, she returned the most irrational and incoherent replies; her fingers also were in constant motion, picking the bed-clothes or brushing some particles of dust away, her pulse was very quick, small, and fluttering. She continued in much the same state until the next morning, getting gradually weaker, and then became quite comatose, when she died. No *post mortem* examination was permitted. It was ascertained, however, that this patient was in the habit of drinking ardent spirits, and had, the evening before she became maniacal, drank a quartern of raw gin.

PROGNOSIS.—With regard to the prognosis or probable event of the disease, it may in general terms be stated that cases of puerperal insanity rarely prove fatal; but the assertion which

has so frequently been made in unqualified terms, that women who become maniacal in child-bed always recover, is far from the truth.* The opinion, I presume, is only meant to extend thus far, that if they live they always recover their faculties; but, even with this very limited meaning, the supposition is far from being correct, as must be well known to all who are acquainted with the history of such cases as are admitted into asylums for the insane.

The only way to answer the question whether the disease be likely to prove fatal or not, is by attending to the prognostications afforded by particular symptoms; and we shall find that by far the greater number of deaths occur in the second variety of the disease, that in which there exists much nervous irritation and derangement of the circulatory organs. The principal danger which menaces life in these cases, is a state of extreme debility, induced by the excitement of the cerebral functions, which is so great as to wear out the strength, already at a low ebb, and which is neither recruited by nourishment, nor by sleep, and the patient sinks from exhaustion.

A rapid pulse† must, therefore, be regarded as a most unfavourable symptom; long continued resistance of sleep also, and a state of complete restlessness, as well as the appearance of great weakness and inanition, afford great reason for apprehending an unfavourable termination. In these cases also, where there is any tendency to coma, or where the patient's mind appears affected by febrile delirium, and where their hands are constantly engaged in trifling motion, our prognosis ought to be extremely guarded.

With regard to the restoration of reason, should the patient survive, it may be generally inferred that this event occurs within a few weeks after the first incursion of the disease, more

* "I remember the time," says Gooch, "when it was the prevalent opinion amongst medical men, that this disease never proved fatal. Whilst attending a near relation of one of the most eminent of the provincial practitioners in this island, a letter arrived from him, begging the family to have no fears, as he had seen many such cases during a long life, and had never seen one die. Even the late Dr. Baillie, when consulted about a case of this nature, remarked that the question was, not whether the patient would get well, but when she would get well; the latter patient died a week after this prognosis."—Op. cit., p. 114.

† "Mania," says Hunter, "is not an uncommon occurrence connected with parturition, but of that species the patients usually recover; when they are out of their senses, attended with fever, like paraphrenitis, they will in all probability die."—Quoted by Dr. Gooch, Op. cit., p. 118.

especially if there exists no hereditary disposition to insanity. "Of the many cases," says Dr. Gooch, "about whom I have been consulted, I know only two who are now after many years disordered in mind, and one had been so already before marriage."*

Out of my twenty-seven cases, five died, three remained uncured, and the remainder were all cured, fifteen within three months, and the remainder within the year.

DIAGNOSIS.—I have now come to speak of the means we possess of distinguishing between the two varieties of puerperal insanity which I have described, and delirium and phrenitis.

The first variety of puerperal insanity, that in which the disease depends more on intestinal irritation than vascular and nervous excitement, may be confounded with that low form of delirium which has been so accurately described by Dr. Sims† under the name of "Desipency." "The expression," says he, of the patient's countenance is vacant and relaxed, and their eyes shut, or fixed upon vacancy, their pulse is quick, small, and irregular, so that when numbered it varies exceedingly; their tongue often appears as in health, but when first protruded has a tremulous motion, as have also their extremities. Their skin is soft and relaxed, seldom betraying much heat; they are insensible to the passing of their evacuations, and have little or no inclination or appetite even for drink. They are sometimes fretful with their attendants, but this irritation soon subsides. They like to be left alone to their own meditations, but can be roused so as to give a rational answer, and they take it very ill if their knowledge of passing events be questioned."

This description of low delirium so nearly coincides with that of puerperal insanity in its non-febrile form, that I hardly know how to draw the line of demarcation between them. In both we have the same fretful irritation with their attendants, and although we certainly observe this quickness and irritability of temper much more frequently manifested in well marked cases of insanity than in "Desipency," still we can place but little reliance upon the degree or frequency of these outbreaks in forming our diagnosis. In both we have the same coolness of skin, and the same disinclination for food. The state of the tongue, which "often appears as in health," is perhaps more to be relied on, as in almost all cases of insanity there exists some degree of intes-

* Op. cit. p. 141.

† Med. Memoirs, vol. 5, p. 178.

tinal irritation, and consequent disorder of the digestive organs ; there is also a tremulous motion of the tongue when first protruded that has been regarded as characteristic. A close and particular attention to the state of the pulse also will afford us some aid, as in puerperal insanity the characteristics are compressibility without much increase in frequency, while in this low form of delirium the pulse is small, quick, and very irregular. The absence of febrile symptoms in insanity will afford us no criterion, as in both the mental disorders now under consideration the state of the skin and pulse entirely preclude such an idea. After all, our greatest reliance in forming our diagnosis must be placed upon the difference which exists in the exciting causes, and modes or origin of the two affections. This low form of delirium is seldom completely developed for several days after the labour, and then usually makes its appearance in consequence of some severe injury sustained by the patient.

There can be little danger of confounding the second variety of puerperal insanity with desipency, as the symptoms differ most materially ; the skin here being hot and flushed, the expression wild, the pulse small and hard, with urgent thirst and severe headache ; a much more dangerous and fatal error may, however, be committed in mistaking and mistreating this form for puerperal phrenitis. I shall quote Dr. Davis's description of the latter disease.*

Puerperal phrenitis most frequently makes its appearance within the period of four-and-twenty hours after confinement, and the patient on the succeeding night gets no sleep ; little heed, however, is paid to this circumstance by the medical practitioner, and his attention may not be directed to it by those in attendance on the patient ; when he visits her next morning, he will find that she has feverish symptoms, indeed there is a perfect non-subsidence of the fever of labour, the temperature of the head will be found to be many degrees higher than the natural heat of the body, and above that of all the other parts at the time ; there will also be an extremely rapid pulse—in fact, there is no disease in which the pulse rises to such an extent as in this. The tongue will be found free from fur and foulness of any sort, the eye will be found bright and sparkling, and the expression of the face confident and cheerful ; she will say that she is quite well in all respects, and will express great displea-

* Op. cit. p. 1203.

sure if the speediness of her recovery be called in question ; all the secretions and excretions are absolutely suppressed, the skin of the face will appear as if polished, and there will be found an entire absence of all that perspiration which so generally accompanies the earlier days of convalescence. The patient soon breaks out into a furious delirium, which never subsides ; their eyes now become glazed and bloodshot, and they fix them with great intenseness upon vacancy, where they obviously think they perceive persons or things seen by nobody else, with which they hold conversation apparently of a very interesting nature to themselves ; they are always in appearance intent upon something which, however, can rarely be comprehended by those in attendance ; they have an eager, often a fierce look ; they throw their arms about, and are perpetually attempting to rise and go somewhere, and yet, if permitted, they rarely know what they would be at, they know not where they are, though perhaps in their own bed-room, and they as little know those about them ; their tongue is dry, and they are generally very thirsty, and mostly drink cold water in preference to any other beverage. Three or four hours before death the brilliance of their features, which before excited observation, suddenly alters, they fall and shrink into an expression of miserable fatuity, the pulse becomes tremulous, feeble, and perfectly uncountable ; the patients now rapidly sink into a state of coma, and die." The only treatment which will be found successful in these cases consists in the employment of active antiphlogistic remedies, such as large bleedings, cold applications to the head, and full doses of calomel.

The second form of puerperal insanity, although closely resembling this disease, can yet be readily distinguished from it, from the characteristics of the pulse, as in puerperal insanity the pulse, though quick, does not possess the force and strength that it does in phrenitis ; its rapidity is that of excitement without power, as is proved by the fact that those remedies alone are successful which are capable of allaying nervous irritation, and at the same time give support to the system, such as powerful doses of ammonia in combination with opium or some other sedative. "Those cases which I have seen recovered," says Gooch, "have been such as were not treated for paraphrenitis."*

MEDICAL TREATMENT.—The chief danger to be apprehended

* Op. cit. p. 117.

in recent cases of puerperal insanity arises from the extreme exhaustion which, under ordinary circumstances, is attendant upon child-bearing; our chief endeavours, therefore, should be directed towards the re-establishment of the bodily health, rather than to the cure of the insanity. Upon this subject Dr. Burrows* says:—"With pain I must acknowledge that I have too often found, when called upon to a case of puerperal insanity, that the errors of commission in the treatment have been infinitely greater than those of omission, for in most of them depletory measures have been pushed to an unreasonable extent, so that the issue was already determined before I was consulted, and there remained no alternative but death or a long-continued insanity."

The indications in the treatment of puerperal insanity consist, first, in reducing the force of the circulation; secondly, in evacuating the stomach and intestines, and in amending the secretions which flow into the alimentary canal; thirdly, in inducing sleep and in allaying nervous irritation; and, fourthly, in sustaining the vital powers.

In all cases where there appears to be much vascular action with determination of blood to the head, with præternatural heat of the scalp, and with pain and throbbing in the head, the head should be immediately shaved, and a small quantity of blood be abstracted by cupping, or what is still better, by the application of leeches, over the vertex or temples, but in no case ought general bleeding to be had recourse to, as the most fatal consequences arise from its employment.

In a large proportion of cases of puerperal insanity, there exists considerable disturbance in the functions of the liver and alimentary canal, the large intestines especially being in general loaded with fœcal accumulations. The existence of this loaded state of the bowels is indicated by foulness of the tongue, fœtid breath, by a lurid discoloured state of the skin and complexion, especially under the eyes, and by more or less fulness and tension of the abdomen over the cœcum and sigmoid flexure, and likewise by dark and very offensive evacuations.

Free evacuation of the bowels is of course one of the first things to be attended to, as the delirium has sometimes ceased in a few hours after its accession, simply from purging off an immense quantity of hardened and unnatural fæces.

* Op. cit., p. 399.

The mildest cathartics are to be preferred in most instances, as their use can be longer persisted in without injury to the structures on which they immediately act, and the neutral salts, with infusion of senna, rhubarb, jalap, and castor oil, are, in the majority of instances, sufficiently powerful, and can be used daily or according to circumstances. More active purges are, however, requisite in the early stages, in order to obtain the effects which such remedies are capable of producing upon mental diseases. In such periods of the disease full doses of calomel, with the extract of colocynth and scammony, or with the compound gamboge pill given late at night, and followed in the morning by about ʒiv. of castor-oil, with the same quantity of spirits of turpentine, in milk or some aromatic water, are remedies which have usually been recommended; if these do not operate copiously, an enema, containing about double the quantity of the oils, should be employed in the course of the next few hours. In cases also where there is much vascular action, the addition of tartarized antimony to the purgative, will greatly tend to allay such excitement, and promote the full operation upon the intestinal canal. In chronic cases, where there is much irritability and want of power, the compound infusions of gentian and of senna, or the sulphate of magnesia, with some aromatic tincture, or the compound colocynth pill, with quinine and camphor, will generally be found to be efficacious.

It is impossible here to speak too highly in favour of enemata as a means of evacuating the bowels in puerperal insanity, when there exists much irritability of the intestinal canal, as all the good effects of purgatives are obtained without disordering the stomach and exciting nausea.

Closely connected with the subject of purgation is that of the administration of emetics. There are various reasons, however, which render it necessary to be much more cautious in their use, in any form of insanity, more especially in that which owes its origin to the debilitating effects of child-birth. Dr. Haslam* thus speaks of them:—"However strongly the practice of administering emetics may have been recommended, I am sorry that it is not in my power to speak of it favourably. In many instances paralytic affections have, within a short time, supervened upon their exhibition, more especially when the patient

* Obs., p. 142.

has been of a full habit, and has had the appearance of increased determination of blood to the head." Dr. Gooch* also remarks that they ought to be employed with extreme caution, when the face is pale, and where the pulse is quick and weak with coldness of the extremities." In fact, the only cases in which their use is at all to be recommended, is where the strength of the patient is not much reduced, and where there are febrile symptoms present. Nauseating doses of tartarized antimony, with salines and digitalis, will generally succeed in these cases, although Dr. Gooch prefers ipecacuanha, following its operation by a dose of calomel combined with camphor, and some cathartic extract, and giving a few hours subsequently a draught, composed of rhubarb and magnesia, or any other mild purgative. Another potent reason for the very sparing use of this class of remedies is, that either from obstinacy, whim, or from suspicion of poison, the patient is very averse to taking sufficient nourishment, and that by exciting nausea, besides diminishing the vital powers, we encourage the distaste of the patient for food and medicine.

Want of sleep being an ordinary and distressing symptom of insanity, the means of procuring repose becomes one of our most important therapeutic agents in the treatment of the disorder; great discrimination, however, is necessary in selecting the remedies which are most fitted to produce this beneficial effect, and it must always be borne in mind that where any tendency to coma or determination of blood to the head, narcotics must sedulously be avoided.

In cases where there has been much cerebral irritation and congestion, after the blood-vessels have been relieved by moderate cupping or leeching, and the bowels have been fully evacuated, the application of cold to the shaven head is the safest soporific that can be employed; "its effect," says Burrows † "not only in producing general composure, but sleep also, is wonderful, and the patient is commonly so sensible of the relief it affords that the renewal of it is often directly or indirectly solicited." The cases in which narcotics are more especially and immediately indicated, are where restlessness and prolonged want of sleep have continued after sufficient evacuations have been procured, and where there is great exhaustion, tremor, cold perspirations, fits of violent delirium, and a rapid small pulse.

* Op. cit., p. 297.

† Op. cit. p. 405.

It will generally be preferable when the indications for the use of opiates are conclusive, to prescribe them in full doses at once, especially if the object be to procure sleep, for if administered in small doses, they only serve to increase the irritation. From one grain to a grain and a half or two grains of solid opium may be given as a dose;* when opiates disagree or fail in producing the desired effect, hyoscyamus will generally be found to be of good service, as it possesses considerable advantages over opium in not constipating, or stupifying the patient.

In order to obtain decided soporific effects from the extract, a dose of from 10 to 15 grains should be given at bedtime. In cases where there is great debility and inanition of the vascular system, much smaller doses may be prescribed with advantage; they ought, however, to be prescribed at shorter intervals, and be given in conjunction with aromatic stimulants, or tonics, according to circumstances.

In cases of puerperal insanity, where the disease withstands the operation of narcotics administered in the usual manner, from 10 to 20 drops of tincture of opium might be tried in the form of an enema.†

During the treatment of the disease, it is important to administer due support to the system, more especially when there is neither a febrile state of the pulse nor heat of the skin. In our efforts to restore the system to its natural state of health, we must always bear in mind the previous habits and modes of life of the patient. Thus, when she has been addicted to the use of intoxicating liquors, and especially if the disease assume a form approaching to delirium tremens, we must administer large doses of laudanum combined with camphor and ammonia. Brandy

* Van Sweiten says he has seen 15 grains of opium given at once to a patient. Dr. Binns, of Liverpool, gave two scruples, and another scruple afterwards, and it is said restored the patient immediately. Dr. Brandreth, who reports this success, says that he himself gave 400 drops of laudanum in the greatest possible furor, which acted like a miracle, for in a few hours the patient became calm and rational.—*Med. Comm.* v. XVI. p. 384.

† M. Dupuytren has recently published some remarks upon the efficacy of opiate enemata, not only in traumatic delirium, but in what he terms nervous delirium, which is a mental affection he has met with unaccompanied by fever, wound, or inflammation. In this form of delirium, even large doses of opium do not arrest the progress, or change the course of the disorder, if given through the medium of the stomach, but if 8 or 10 drops of the tincture are injected per anum, in any convenient vehicle, it will remove the most violent paroxysm. M. Dupuytren attributes this effect to the opium being absorbed in an indigested state.—*Journ. Gén. de Méd.* tom. LVII.

and wine may also be given in arrow root. Prichard* recommends, where it is not offensive to the stomach, the rectified oil of turpentine, being one of the best stimulants we have, especially if it can be taken in doses of a drachm three times in a day, combined with cinnamon or other aromatic water.

The diet also requires much attention. The last mentioned author† observes that patients are apt to be starved in this disease, through the mistaken notions of their attendants, who are apt to consider the excitement of the malady as a reason for withholding food, when this very state, owing to the exhaustion produced, renders due support absolutely necessary. Farinaaceous food, such as rice, arrow-root, and sago, should be given at short intervals when febrile symptoms preclude the use of animal food; warm milk, or chicken broth, should also be allowed in small quantities at a time. When the insanity becomes chronic, or when it appears in the course of suckling, tonics, especially cinchona, or any of the bitter infusions, may be given, combined with ammonia and aromatics, at the same time the secretions and excretions ought to be brought into a healthy state by appropriate means, especial care being taken to prevent catharsis. Solid meat, wine, and malt liquor, especially bitter ale, will in general be productive of great benefit, change of air and scene, and appropriate moral treatment being brought in aid of the physical remedies. It is in these cases also that great benefit is to be expected from the use of the cold shower bath.

DISCIPULUS.

London, Jan. 30th, 1845.

* Treatise on Insanity, p. 316.

† Op. cit. p. 316.

AN ESSAY UPON THE MORBID APPEARANCES OF
INSANITY AND ITS COMPLICATIONS; ACCORDING
TO THE BEST AUTHORS UPON THE SUBJECT.—

Read January, 1846.

“Ο γεγραφα, γεγραφα.”

A.—According to best authors, the anatomical appearances of maniacal cases present various phenomena, the principal features of which, I purpose, in the present essay, recording :—

Morgagni is mentioned as having been the first writer upon the subject, in having related the details of seven or eight dissections referring to cases of insanity : in these several important facts have been adduced, which the experience of the present day has, in some measure, confirmed.

The form of the cranium, its thickness and other qualities ;—the meninges, the substance of the brain itself, the ventricles, the pineal gland, the commissures, the cerebellum, have all been analysed by the most dexterous anatomists of England, France, Germany, and Italy, but with no satisfactory result. The shape or thickness of the cranium has been started, indeed, as a cause by many individuals, but the conjecture has been completely disproved by others who have discovered the very structures supposed to be most certain of occasioning madness, exist in numerous instances with perfect soundness of the intellectual faculties. A peculiar shape of the skull appears indeed to be frequently connected with idiotism from birth, or very soon afterwards, but with no other species of mental derangement whatever.

Much discussion, however, has arisen, respecting the morbid appearances observable in those who die maniacal. It has by some been contended that the brain exhibits certain distinctive characters in almost all cases of mania, and a peculiar hardness of the substance of the brain has been usually regarded as the common phenomenon. By others, it is actually maintained that *no* alteration whatever from the healthy structure is discernible within the crania of the insane. Morbid appearances, indeed, are observed, but they are in no way different from such as present themselves in many forms of encephalic disease, such as serous effusions, thickening of the membranes, and turgescence of the vessels.

1st.—According to the celebrated Morgagni, the chief morbid phenomena that were observed by him are as follows :—

The dura mater was firmly adherent to the os frontis for a considerable space on the left side, and in that part so nearly ossified as to be in a kind of intermediate state, between that of a bone and of ligament; this condition was particularly observed in a beggar who had always been insane, and at length became so silly as to throw away the bread which he had acquired by begging; he had always been subject to headaches. The vessels of both the membranes were distended with black fluid blood. A polypous concretion extending through the whole length of the longitudinal sinus was particularly observed in the case of a young female, who, upon being refused admission into a nunnery, immediately became insane; the delirium, as Morgagni observes, was first that of melancholia, afterwards that of mania. Upon dissection, were, along the outside of the longitudinal sinus, on the dura mater, certain small white substances, some round, some oblong, some of an irregular figure, but all were soft; these, Valsalva imagines, were concretions of coagulable lymph, because he had observed such phenomena previously in persons who had fallen victims to wounds in the head, arising from stagnation of purulent matter upon the dura mater; but Morgagni considers these white tubercles to be natural. In some the dura mater was found thicker than usual: water also was discovered between the pia mater and the brain, sometimes in considerable quantities, and sometimes but just sufficient to make the pia mater slip with ease, on the slightest attempt to separate it from between the convolutions of the brain; sometimes air-bubbles were observed in the fluid, and were likewise seen in great numbers in some of the vessels as entirely to fill them. In the dissection conducted by Valsalva, it is mentioned that the brain was moist, which appears to imply that it was soft; and in one of those conducted by Morgagni himself, the brain and cerebellum were found uncommonly soft, but in this instance the patient was free from insanity for some little time prior to his dissolution, and was, apparently, killed by taking a dose of black hellebore, as, upon dissection, the œsophagus and stomach were observed to be generally, but slightly, inflamed; the intestines were also inflamed in many parts, but less so than the stomach, and the large bowels less so than the small ones, excepting the rectum, some portions of which were as conspicu-

ously inflamed as the stomach. The spleen also was something larger than ordinary, of a rosy colour on the part adjoining the stomach, and of so loose a texture, that, on dissecting it, the internal contents were found nearly approaching to a fluid state. The gall was of a pale green colour; a small quantity of bloody serum exuded on taking off the skull-cap, and a little blood was found in the sinuses of the dura mater, and in the large vessels of the pia mater; the brain was so exceedingly soft, that, when placed upon a table, it had not sufficient firmness, excepting a small portion just at the entrance into the third ventricle, to retain its proper form. The same degree of laxity was observed in the cerebellum, medulla oblongata, and in the pineal gland, which was somewhat larger and rounder than usual. In the other dissections, the brain was found more or less hard, generally very much so, especially in its medullary substance, and cerebellum universally soft, except in four cases,—in two of which it was much firmer than usual, and in two very partially so, *i.e.*, only in some portions of the medullary substance.

The substance of the cerebral hemispheres was firmer, and that of the cerebellum, softer than natural; in one instance, the medullary substance of the cerebrum was hard and somewhat of a brownish colour, and its blood-vessels, as well as those of the plexus choroides, much distended with blood; in another, there was hardening of the hemispheres, with softening of the fornix, a congested state of the vessels of the cerebrum, with adhesion of the pia mater: in a third, injection of the meninges and the choroid plexus, hardening of the cerebrum, and softening of the cerebellum; serous effusions also were discovered in the ventricles, and in the tissue of the pia mater.

It is worthy of notice, that, in one instance, where the cortical substance of the brain was pretty firm, and the medullary substance everywhere exceedingly hard, the latter was found not so white as usual; this was supposed to be owing to its blood-vessels being uncommonly full, as the discolouration decreased in proportion as the dissection receded from the cortical substance. The nerves, also, within the cranium, were observed also, on being cut, to be firmer and less moist than common. In another instance, the hardness extended to the commencement of the spinal marrow.

In the corpus callosum, instead of those two protuberant lines or chords, or as Lancisius calls them, longitudinal nerves, which

usually run along its upper and posterior surface, in one subject were observed in their place, two rather deeply indented furrows; in another, the protuberance consisted for the most part of a single line, which, however, in one place, divided and became a double one; in a third, it was one simple line; in a fourth, it is stated to have been in its perfectly natural state, and no mention is made of it in the other dissections.

The pineal gland, was, in some subjects enlarged, more globular than usual, of a soft texture, and of a mucous appearance; in one case, quite flabby and withered; in another, fixed to its place by rather long medullary roots; in some, it was of a yellow brown colour, and it had sometimes adhering to its anterior part a quantity of a pale yellow, granulated matter, resembling in appearance a congeries of small stones, which, when rubbed between the fingers, was found, in one instance, to contain something like grains of sand; in another, the granulations were moderately hard; and in a third, they were so far from approaching to the nature of sand that they had scarcely any perceptible hardness. Water was frequently found in the ventricles, especially in the lateral ones, and between the lamellæ which form the septum that divides them, sometimes in a large, and sometimes only in a small quantity, which was either limpid or turbid, resembling serum, or of a yellowish red colour. But sometimes the ventricles were quite free from water, and their vessels red. Water of various appearances was also observed in other parts of the brain, and its connections.

The plexus choroides was sometimes red and sometimes discoloured; in one instance, it adhered to the mouth of the opening, which leads into the third ventricle, as it passed over it and closed it up. It was in two instances beset with hydatids, in one of which, one hydatid was as large as a moderate sized grape, with vessels running along its coats as large as those of the adjoining membrane of the plexus, and in one instance, it exhibited four large yellow, almost spherical and indurated glands.

The vessels of the brain, were, in some cases, distended with black and fluid blood, both in its substance on the sides of the septum lucidum, and all round the remaining sides of the lateral ventricles; and in others, with florid blood. The arteries, in one subject, were observed to have firmer coats than usual. In one instance, the carotid arteries and internal jugular veins

were larger than ordinary; in another, the pericardium was everywhere adherent to the heart, and in another the spleen was obstructed.

Baglior asserts that in two maniacs whom he had dissected at Naples, he found the dura mater as hard as a board, and almost as dry. M. Littre had, in one instance, observed the membranes of the brain harder and more compact than natural; and M. Geoffroy had also seen them thicker and firmer, and found the falx at the same time almost covered with bony laminæ. Alexander Camerarius and Van Sweiten had also noticed this firmness, and unusual thickness of one or both meninges, the origin of which they attributed to the violence or long continuance of the delirium. This appearance had also been observed by Wepper, after melancholy delirium; by King, after idiotism, and by others. Morgagni found it less unfrequent in maniacs than those large glands, observed by Valsalva in the ventricles of the brain; though something similar had been remarked in the ventricles of some, who had died from melancholy. Lancisius had found the substance of the brain in an idiot, whiter than ordinary.

Sauvages has a species of amentia, which he calls, after Platerus, amentia a tumore, and which he illustrates in the case of a soldier, who, in three years after receiving a violent blow upon the head, became affected with this species of insanity. On opening the cranium, a large globular tumour, of an intermediate texture between that of a scirrhus and a fungus, of about the size of a small onion, was found upon the corpus callosum, and there was water also in the ventricles. Van Sweiten found the vessels of the brain distended with pitchy and exceedingly black blood, in a woman, who had been affected with melancholia.

Fabricius frequently observed in maniacs the plexus choroides turgid with blood; not only have King and others observed plenty of water in the brains of fatui (idiots), but Wepper, in that of a woman who had been troubled with melancholy; and Hoyerus mentions having discovered scirrhus spleens in several individuals, who had died of intermittent fevers, and observes, that he generally ascertained upon enquiry, that such persons had formerly been subject to violent melancholy delirium. Morgagni also states, that stony concretions are frequently met with in the pineal gland in insane persons, and King has also seen them in an idiot. Berlingerus Gipseus, in one

who had become quite stupid through an extraordinary defect of memory, had found the gland converted entirely into stone. Lancisius has seen the gland so small as scarcely to be equal in size to a hemp seed. In one instance, Morgagni had witnessed it quite flabby and emaciated:—on the contrary, it was found to be more solid than usual, and perfectly red, in the case of a maniac, related by Zwingerus.

Sauvages mentions an instance of what he calls, after Bellini, *melancholia attonita*, in whom, on dissection, he found every part of the body remarkably destitute of moisture, the blood viscid, and the brain exceedingly firm and compact. In old people, Haller tells us, the brain is always hard, and thence accounts for their imbecility of mind, and defect of memory: he states, also, in mania, the brain has been dry, hard, and friable,—likewise a congestion of blood in the brain, or its meninges; part of the brain has been consumed, and the remaining portion soft and macerated, glandular substances in the plexus choroides, the carotid arteries having been ossified, and worms have been found in the brain. In *hypochondriacs*, the brain has been harder and drier than natural, the blood has been coagulated in the longitudinal sinus; in the pia mater it has been of a pitchy blackness, the cerebral vessels have been distended, and there has been water in the ventricles. In the *nostalgia*, which is a kind of melancholy, the vessels of the cerebrum and cerebellum have been surprisingly distended. In *idiotism*, the head has been observed to have an unnatural form, as when the skull has been compressed, the dura mater has been livid, putrid, and inflamed; the brain exceedingly dry, mis-shaped, replete with blood, remarkably soft, or, on the contrary, remarkably hard: a scirrhus tumour has been observed upon the corpus callosum, or, in other parts, compressing the brain; vesicles likewise in the corpus callosum; scirrhus tumours in the plexus choroides; the brain less than natural, inflamed and corroded; a large quantity of water in the brain,—in fact, a dropsy of the brain; a stone in one of the ventricles, and in the falx,—the pineal gland beset with stones, scirrhus, or assuming a bony appearance; tumours of the gland, &c. &c.

There are certain lesions frequently occurring in the heads of insane persons; the bones of the cranium become thickened, and harder than usual,—there is hypertrophy of the bone, increased density of the substance of the bone itself. In some

instances the opposite condition has been observed ; in one case, one hemisphere of the brain was atrophied, the other being entire. Cruvelhier states that this occasioned complete hemiplegia, but the intellectual faculties remained unimpaired. There are several other cases of idiotism, given by him, in which the convolutions of the brain were diminished in size, or absolutely wanting. There are various irregularities or inequalities found in the cranium, besides thickness ; inequality of shape, want of correspondence between the two sides, but these probably owing to changes occurring in the soft parts. In some cases, the pia mater is injected, thickened, and sometimes infiltrated with serum ; the surface of the brain is soft, and adherent to the pia mater ; the cortical substance exhibits changes in colour, being of a yellowish brown tinge ; the medullary portion likewise displays changes of colour, and sometimes there is more or less softening, affecting the whole substance, but more frequently induration. Hardening is more frequently the result of chronic disease, softening (*ramollissement*) of acute. Serum is found in various quantities in the ventricles, portions of them being variously enlarged. The disease chiefly affects the cortical substance ; the medulla oblongata is seldom affected. In cases of recent mania, slight traces of inflammation may be found. Foville states, that the cortical substance of the brain is the chief locality of the lesion in mental disorders, just as the medullary portion is the chief seat of the lesion, where the motor power is disordered. In acute cases the cortical substance is different in colour, or altogether redder, or else it exhibits spots, and patches of redness ; with this there is frequently *ramollissement* of the cortical substance in different degrees in various persons. The cortical substance consists of a series of layers, and in many instances the external layers are hardened, whilst that underneath is softened, so that these different layers can be peeled off one another, in a manner not usual in the common condition of the brain.

There is, for the most part, connected with this condition, in acute cases, dilatation of the vessels ; the arteries are particularly larger than usual, and their coats more resistant. In the more chronic affections, there are found adhesions between the outer layer of the brain and pia mater ; in some cases, in the advanced stage, the external layer is paler than the cortical substance under it ; that underneath being redder and softer, and some-

times granulated, presenting irregularities, instead of a smooth surface. Sometimes the convolutions are less in size, and thinner than usual; sometimes they are rough, and more granulated on the surface, or else pitted with small depressions, containing little cells filled with serum; in some cases there is more softening of the lower layers, and this occasionally extends to the medullary structure. The cortical portion presents various changes that may be ascribed to increased vascular action — a modification of nutrition, atrophy, hypertrophy, &c. The medullary portion also exhibits changes, increased injection, slight violet tints, more than in chronic cases; greater opacity than usual, and an increase of the substance. Foville supposes this to be occasioned from adhesion of the fibres, of which this part of the cerebral matter is composed, while in the healthy subject, these fibres are separable.

In all maniacal subjects, where this induration exists, the fibres are not separable, and therefore, it may be inferred, there is a deposition of new matter, causing the adhesion of these portions together; these changes are connected with *paralysis*. In a few instances there has been discovered disease of the nerves in connexion with hallucination; these changes are, no doubt, owing to various effects of inflammation.

Dr. Greding was indeed the first author who recorded the post-mortem appearances of the brain, in cases of insanity, with any degree of care and minuteness. The following appear to be the most important which he has noted:—

(A) He states, that the *skulls* of almost all insane persons have a shape peculiar to themselves. In 16 cases only of the number examined, viz., 220, the forehead was contracted, the temples compressed, and the occiput large and expanded; in some few instances, however, the head was elongated and compressed at the temples; in others, the head was almost round, or of a square shape; these were epileptic idiots. Two had small heads, quite circular; these were epileptic maniacs. Of 216 cases, including those of madmen, idiots, and epileptics, the skull was unusually thick in 167. This circumstance was observed in 78 out of 100 cases of raving madness, and in 22 among 30 of idiotism or imbecility. Ramollisement of the brain in 51 out of 100. In many instances the cranium was remarkably thin. Holes were observed in the inner table of the skull in 115 out of 216 cases; in others, there were bony projections from the inner surface.

(B) THE MEMBRANES.—The dura mater was firmly adherent to the skull in 107 out of 216 cases; in a few instances of a blueish black colour, thickened and partially ossified. The pia mater thickened and opaque, more or less, in 86 out of 100 cases of mania; being beset with small spongy bodies in 92 out of 100; these bodies were frequently adherent to the surface of the brain, and in some few instances were the seat of ossific deposits.

(C) THE BRAIN.—The cerebrum was softer than natural in 118 out of 216; soft and pulpy in 51 out of 100 of mania; likewise in 19 out of 24 of melancholia; in 8 out of 20 epileptics; and in 16 out of 30 idiots. Those maniacs, who had the cerebrum softened, had the cerebellum much softer and pulpy. Between the dura mater and pia mater, effusions were discovered in 120 out of 216; in 58 out of 100 maniacs. Between the pia mater and the surface of the brain itself, in 28 among 100 maniacs. In 29, the lateral ventricles were distended with serous fluid; being in 23 so full as almost ready to burst; in 10 among 24 melancholics, amazingly distended. The third ventricle was quite full in 57 out of 100 maniacs; and in 16 out of 24 melancholics. The fourth ventricle was ready to burst in 80 out of 100 maniacs; being quite empty only in 3; and completely distended in every one of 24 melancholics. The plexus choroides were nearly in a healthy state in only 16 out of 216; thickened and full of hydatids in 96 out of 100 maniacs.

Dr. Haslam has recorded the histories of 37 cases of madness, with the appearances discovered on dissection, and in not one of them were the brain and its membranes free from morbid appearances; in almost all, either the meninges showed indications of previous inflammation, or their vessels were distended with blood; in 16 there was effusion of serous fluid between the membranes, and in the lateral ventricles in 18; in 9 the consistence of the brain was firmer than natural; in 7 it was softer; but in 20 not perceptibly altered; in 3 the cranium was thicker, and in 3 thinner than usual; in several instances the scalp was observed to be unusually loose.

M. Georget records the following appearances:—Irregular conformations of the cranium, the prominences of which were irregularly developed, those on the right side being generally larger than those of the left; some skulls having the lateral diameter of equal extent with the antero-posterior, and the

cavities of the base irregular in extent; some skulls, 1 in 20, were partially thickened, sometimes generally so; more frequently the bones hard, white, without diploe, resembling ivory, some very light. The dura mater seldom changed, sometimes adherent to the skull, thickened, and containing depositions of ossific matter. The arachnoid displaying in places, additional laminæ of a red or grey colour, sometimes thickened, but smooth. The pia mater injected, or thickened and infiltrated with serum, giving at first the appearance of a gelatinous deposit. The volume of the brain sometimes less than the cavity of the cranium seems to require. Some brains were very hard, being with difficulty cut; more frequently, however, the brain is soft, the grey matter being pale and yellowish in colour, and the white substance discoloured, being of a dirty white. The convolutions separated by accumulations of serum, and the pia mater thickened. The interior cavities of the brain appearing in some instances very large, in others very small, frequently filled with a clear and limpid serous fluid; the plexus choroides bloodless, containing hydatiform vesicles. Partial ramollissement of the brain, ulcerations of the surface of the ventricles. Cerebellum usually softer than the cerebrum, sometimes generally so, at others, partially. Medulla spinalis and medulla oblongata seldom display diseased changes of structure.

M. Esquirol asserts, the inspection of bodies of lunatics offers numerous varieties, as to situation, number, and kind of morbid appearances. The lesions within the cranium are neither in relation to the disorder of the mind, nor to the diseases complicated with it. Some insane persons, whose disease had given an idea of extensive organic lesions, have displayed but slight alterations of structure in the brain; whilst others, with less acute symptoms, have evinced great lesions; frequently, however, no organic changes whatever have been traced, either in the brain itself or its investing membranes. In 199 bodies examined at the Royal Hospital of Charenton, there were discovered 262 organic lesions of the brain and its meninges; 46 alterations in the lungs, the heart, or in their coverings; 113 lesions of the abdominal viscera; thus proving that morbid phenomena are much more frequent in the brain than in other parts of the body.

In short, the most remarkable phenomena observed by him were:—In some instances, the cranium was thick, whilst in

others, thin, frequently injected with blood ; sometimes irregular as regards its different diameters. The membranes were thickened in 11, injected in 19 cases. The basilar arteries ossified in 5, the cerebrum dense in 15, soft in 19. Cerebellum dense in 12, soft in 17. The grey substance abundant in 5, discoloured in 15. The white substance injected in 19, adhesions of the lining membrane of the ventricles in 54. Serous depositions were frequent between the pia mater and the arachnoid, as well as also in the ventricles. The brain presented all the indications of intense inflammation in two cases of acute mania.

M. Foville states, that in acute cases, the morbid appearances discovered in the meninges, were chiefly injection of the pia mater ; and that this injection was greatly proportioned to the degree of inflammation arising, or rather existing in the cortical substance of the convolutions. The small arteries and veins passing from the membrane, and penetrating the grey matter, were distended with blood ; the arachnoid, in these instances, generally retains its natural aspect. The chronic changes are, for the most part, opacity, increased consistence, thickness of the arachnoid, the formation of granulations and false membranes on its surface, and the effusion of serum, into the cellular tissue of the pia mater, and into the ventricles. The arachnoid is often, in patches or more extensively, of a pearly whiteness. The opacity of this membrane is always attended by thickening, and in the place where the arachnoid and pia mater are naturally contiguous, they are found to be adherent. The opaque patches, no doubt, result from the deposition of albumen upon the arachnoid.

M. Foville arranges his observations on the morbid appearances, perceptible in maniacal cases, under the following heads :—

- I.—Morbid changes in the cortical substance.
- II.—Changes in the medullary or white substance.
- III.—Changes in the nerves of sensation.
- IV.—Changes in the membranes.
- V.—Observations on the scalp and skull.
- VI.—Changes observed in fatui (idiots).

The researches of Foville into the condition of the brain, in individuals who have died insane, are of the utmost importance, having been carried on, by him, in the hospital at Salpêtrière,

assisted by Delaye and Grandchamp, and subsequently in the hospital of St. Yon, near Rouen.

First, then, with respect to the morbid appearances, observed by him in the cortical or grey substance of the brain.

In the most acute cases, the cortical substance presents, on the removal of the membranes, intense redness of its surface, approaching to that of erysipelas. This phenomenon is very manifest in the frontal region, much more so than in the temporal lobes; and in the superior regions than in the posterior parts. In the grey matter, uniform and intense redness of colour, with numerous mottled spots, varying from a bright to a violet red, and bloody points, or minute extravasations of blood; diminished consistence in the thickness of this substance, dilatation of its vessels, resistance of their parietes. M. Foville has never observed, in these acute cases, adhesions of the membranes to the cortical substance, which are very frequent indeed in chronic instances, to which circumstance he attributes the curability of recent cases, and the incurability of dementia, and chronic cases.

Among the chronic changes in the cortical substance, the most frequent is a very perceptible increase of firmness and density in the superficial part, extending to no great depth, but uniform, constituting a distinct lamina, smooth externally, but irregular internally; of a lighter colour than usual, admitting of being torn, and leaving the remainder of this grey substance red, soft, and mammillated, somewhat resembling granulations. Something like this pseudo-membrane of the cortical substance has been noticed in wild animals, which have died during confinement, and is imagined by Foville, to denote in them a cerebral disease. The pale and almost bleached hue of the surface of the cortical or grey portion, is always connected with this increased density in its substance. Sometimes the surface is rough and granulated, containing small grains of a yellowish white; at the same time, the convolutions remain natural, or are less than usual. When lessened, there are sometimes linear depressions, or pittings, on the surface of the convolutions, and in the cortical substance itself, there are small yellowish lacunæ, filled with a serosity of the same tinge. These lacunæ are supposed to correspond with the minute extravasations, observed in acute cases. In other instances, the diminution of volume is a real atrophy of the convolutions, which appear thin

and angular, as if pinched up towards their extremities. This morbid alteration corresponds with what Gall and Demoulins have termed atrophy of the convolutions; it is very frequent in the frontal regions of the hemispheres, and often comprises three or four convolutions in each side of the sagittal suture—a chasm filled with serum, occupying the place left by absorption of the cerebral substance, frequently observed with this appearance, is that species of atrophy in the cranium, in which the diploë disappears, and the external lamina approaches the internal, leaving a superficial depression on the head. In such instances of atrophy of the convolutions, the diminution of substance is, in general, confined to the cortical or grey matter; what remains of this is harder than natural, and occasionally presents a really fibrous structure, being of a darker colour, and frequently separable into layers, the exterior being pale, and the interior of a rose colour.

Another condition observable in the cortical substance, in chronic cases of insanity, is that of softening; this is altogether distinct from the external portion, previously narrated. The whole thickness of the grey substance is equally altered in such instances; its colour is somewhat browner than is generally observed, and its consistence almost liquefied. This ramollissement of its substance does not necessarily accompany a similar change in the white or medullary structure, but is sometimes in combination with a hardened state of this structure, and in such the grey may be separated from the white substance by the effusion of water. Foville and Calmeil have met with instances of this description, in which limited portions of the grey substance had disappeared previously to death.

II.—CHANGES IN THE MEDULLARY OR WHITE SUBSTANCE.—This substance is frequently found altered in colour, density, and texture; it is often the seat of vascular injections, and its vessels more or less enlarged, exhibiting numerous bloody points on sections of it; in other instances, a fine injection gives rise to a mottled appearance of a deep red or violet colour, as is shown by the aid of a magnifying glass. These injections of the white structure do not always coincide with similar ones of the grey substance. Sometimes the white structure is of a splendid white, and, generally, at the same time, increased in density. The hardness of such portions of the brain is sometimes almost fibro-cartilaginous. The indura-

tion of the medullary substance is, however, not always connected with this remarkable whiteness; it is sometimes of a yellow tinge, or a grey leaden colour. M. Foville accounts for this induration of structure by imagining that each cerebral fibre has contracted morbid adhesions with the surrounding fibres, so as to render their separation impossible. The fibrous mass of the hemispheres consists, according to his notions, of several distinct layers or planes of fibres applied one upon the other, and connected by very fine cellular tissue; these are easily separated in the healthy state, but in the state of maniacal induration, they are rendered inseparable. The occurrence of tubercles and tumours in the brain is considered by him, as accidental, when met with in cases of insanity. Among lunatics affected with general paralysis, M. Foville has found these adhesions wanting in only two instances, and in them the cerebral nerves and medulla oblongata presented an extreme hardness.

The brains of some insane persons are so full of serous fluids that an abundant serosity flows from the surface of the incisions; sometimes this serous infiltration is so great as to deserve the name of cerebral œdema; a change more rare, which Esquirol has remarked, was the presence in the brain of a number of small cavities, from the size of a millet seed to that of a nut, containing a limpid fluid; the section of the brain, in this condition, has been compared to that of a porous cheese; the cavities are supposed to be the sequelæ of extravasations. The changes in the cerebellum are analogous to those of the cerebrum, but are of much less frequent occurrence.

III.—MORBID CHANGES IN THE NERVES.—Foville is certain, that he has traced morbid alterations in the nerves; in a female, tormented by hallucinations of sight, the optic nerves were found to be hard and semitransparent through a great portion of their thickness.

IV.—MORBID CHANGES IN THE MEMBRANES.—In acute cases the only morbid appearance discovered in the membranes is, for the most part, injection of the pia mater, which is generally, in proportion to the degree of inflammation, observable in the cortical substance of the convolutions. The small arteries were distended with blood; the various morbid phenomena noticed by him have been sketched in a preceding page of this essay.

According to M. Bayle, the proximate cause of insanity is seated not in the brain itself, but in the meninges, and from the inflammation of these membranes, effusions, and the various phenomena, usually dependent upon compression of the brain, ensue. The cessation or diminution of maniacal violence, the great loss of power observed in the intellectual faculties, and the commencement of general paralysis, which occur in the last stage of the malady, depend on compression of the brain, owing to the exhalation of serous fluid into the cavity of the arachnoid, the serous infiltration of the pia mater, and also effusion into the lateral ventricles. According to the same author, the progress of paralysis and of dementia, indicates a corresponding increase of cerebral compression. A state of stupor with obliteration of the faculties and ideas, and the existence of general paralysis in its most aggravated form, are the effects of compression of the brain, resulting from serous effusion, now attaining the greatest degree.

But the opinions expressed by M. Bayle have been directly opposed by M. Calmeil, whose researches into the morbid changes connected with general paralysis, are highly valuable and interesting in their results.

According to M. Calmeil's observations:—

I.—Bones of the skull sometimes very turgid with blood, filling the spongy tissue, reddening it, and exuding from the surfaces of the cranium, when separated from the dura mater. This condition indicates vascular turgescence.

II.—Vegetations or excrescences arising from the pia mater, with absorption of corresponding parts of the inner table of the cranium; these are granulations growing up from the surface of the pia mater, penetrating the dura mater, and occasioning absorption of the inner bony surface.

III.—Effusions of serosity in the great cavity of the arachnoid, in the ventricles of the brain; this phenomenon is particularly observed in persons, who have laboured under, and fallen victims to attacks of general paralysis. The quantity of the effused fluid is variable, six or eight ounces are frequently found in the cavity of the arachnoid. M. Calmeil appears to attach less importance to this characteristic than many have done, for the following reasons:—

(a). He has observed it to be deficient in some strongly marked instances of the disease. (b). He has frequently dis-

covered similar effusions in the heads of those who have died under dementia, without any indication of paralysis, even to the last. (c). In cases in which effusions were found of five or six ounces of serosity, the signs of general paralysis had been not less intense or even more intense than in others, displaying effusions of twice that extent. (d). If the compression of the brain were so considerable, as many have supposed, the structure of its parts would display disorganization of some kind, but the structure of the convolutions, commissures, septum, &c., is uninjured. (e). In cases of chronic hydrocephalus of long standing, the deposition of serosity has been very considerable without loss of locomotive power, till the disorder has arrived at its last stage. (f). If compression from such a cause acted mechanically, we should expect paralysis depending upon it to affect all nerves equally or indifferently; no reason could be perceived why the motive faculty should be impaired first in the tongue, then in the muscular system of the lower extremities, and lastly, in the superior, as the fact is observed to be in general paralysis. (g). We certainly cannot imagine that such a cause acting, the superior, extremities would still retain their nobility unimpaired, after the total paralysis of the lower limbs. For these reasons, therefore, M. Calmeil concludes, that the symptoms of general paralysis are not as M. Bayle supposed, dependent on compression of the brain, the result of effusion, but, on the state of the eucephalon, which gives rise to such effusion, and chiefly to inflammation, of which the thickenings, the adhesions, and vascular turgescence of the pia mater, and the peculiar condition of the cortical substance otherwise afford sufficient proof.

IV.—Other morbid phenomena occurring in general paralysis, with relation to the state of the membranes, are false membranes, sometimes organized, at others unorganized, between the laminæ of the arachnoid; encysted concretions with hæmorrhages, between the same laminæ, all which are in like manner referred to inflammatory action; simple hæmorrhages in the cavity of the arachnoid; serous infiltrations of the pia mater and the cerebral arachnoid; thickenings of the pia mater and the cerebral arachnoid; a high state of vascular injections of the same membranes.

V.—Adhesions either general or local of the internal surface of the pia mater to the cineritious portion of the brain.

VI.—The *grey substance* contiguous to the pia mater is softened and has the consistence of the pulp of a rotten apple. This ramollissement extends to the depth of a quarter or half a line. This is accounted for by M. Lallemand, who remarks that permanent accumulations of blood diminish the cohesion of any parenchyma; even muscular parts can be easily broken down when gorged with blood. In brains of individuals destroyed by intense cerebral congestion, the corpus callosum, the septum lucidum, and other parts are found relaxed, and their consistence gives way to slight pressure; it is to accumulation of blood that the loss of consistence in the superficial grey substance, in general paralysis, is to be ascribed. We conclude, adds Calmeil, that the want of cohesion in the grey substance is the result of inflammation; to this, also, he ascribes the hardening of the convolutions.

Besides the appearances resulting from high vascular injection, there is a discolouration of the grey substance, which is attributed by Calmeil as connected with paralysis, to inflammation of the cortical substance, and which he considers as the proximate cause of the disease.

VII.—This inflammation extends also to the ventricles, as the roughened state of the internal membrane indicates; the inflammatory action is generally more marked in the fourth than in the lateral ventricles.

VIII.—Local and particular lesions in the substance of the brain, such as apoplectic cysts, partial softening, &c. are considered by Calmeil as accidental.

M. Calmeil concludes, that the changes discovered in the heads of persons who have died from general paralysis, viz., injection and absorption of the bony structure, injections of the dura mater, separation of its fibres, effusions of serum into the cavity of the arachnoid, false membranes, organized or unorganized, cysts filled with blood between its two laminæ, simple hæmorrhages in the arachnoid, œdema of the meninges, injections and thickenings of membranes, vegetations of the pia mater, development of their vessels, adhesions between the pia mater and convolutions; disappearance of the grey substance, softening, hardening, and discolouration of the same substance, consistence and injection of the white substance, redness and tumefaction of the ventricular membranes, serosity in the ventricles, apoplectic cysts, ramollissement of the brain or of the

medulla spinalis. These phenomena, M. Calmeil considers to be the result of chronic inflammation.

A remarkable case occurred to Esquirol in 1823, which affords strong evidence in favour of M. Foville; the cerebrum of an idiot displayed the grey substance of both hemispheres in the last stage of atrophy and disorganization, while the white portion of the brain remained perfect on one side; in him the intellect had been entirely defective, but the muscular power on one side only had failed. From this he (*i.e.* M. Foville) concludes:

I. That morbid changes in the cortical substance are directly connected with intellectual derangement.

II. That morbid changes in the white substance are directly connected with disorders in the motive powers.

M. Foville further remarks, that, in some affections of the maniacal class succeeding the action of debilitating causes, as in the puerperal state, nothing has been discovered in the brain more striking than its extreme paleness, and in the small number of cases of this description which he has examined, the disorder in the brain has appeared to him to be sympathetic, and the result of some deep-seated disease of the uterus or abdomen.

The brain, which, in the healthy state, is tolerably soft, and traversed by numerous and attenuated blood-vessels, becomes in *dementia* entirely changed; the vessels disappear, the medullary pulp turns a dead white, it becomes hard, resisting, fibrous. This induration M. Pinel considers a peculiar disease, which alters slowly a part or the whole of the brain, and destroys its functions. In the post mortem examination of a case recorded by that celebrated author, the following symptoms were present:—

The skull was thin, uninjected; the arachnoid healthy, the pia mater so closely adherent to the substance of the brain that they could not be separated: the whole grey substance is pale, solid, and everywhere confounded with the white substance, the latter whiter than natural, and, as if covered with a brilliant varnish, is hard, solid, and resistant throughout the whole cerebral mass; this induration is still more marked at the base of the brain, in the optic tracts, and at the upper part of the ventricles. The brain is so like fibro-cartilage, as to resist the action of the knife; so complete is this alteration that the cerebral fibres allow of being elongated, returning on themselves again by their elasticity, while in the healthy condition, any

attempt of this kind would necessarily break up the brain. In the thorax, the left lung contained a large suppurating cavity, and the intestines presented numerous ulcerations.

In this instance the adhesion of the pia mater with the surface of the brain shows that a high irritation had prevailed there for some months; that this irritation afterwards becoming chronic, and penetrating more deeply into the brain, begins at last to alter the cerebral pulp, which shrinks and becomes discoloured, hard, and fibrous. The effect of this lesion is to annihilate intellect and movement. The affection of the lungs, as well as the intestinal ulcerations, were, no doubt, simply additional complications, depending one on the other, a condition frequently observed in the last stage of *dementia*.

In a second case examined by Pinel, the skull was thin and white, membranes healthy; the brain had a peculiar appearance, instead of the usual furrowed surface it was flat and level; the convolutions, instead of being free, are adherent together, forming, over the whole surface, one compact rounded mass; a thin layer of grey substance appeared to envelope uniformly the central mass, without dipping into any furrows. Internally, the whole white substance was changed into a solid tissue, entirely fibrous, especially towards the base of the brain. As in the preceding case, the cerebral pulp was torn into longitudinal shreds, possessing considerable elasticity. Both lungs were hepatised at their base. In the adhesion of the convolutions to each other, the inflammatory traces of an old-standing cerebral irritation were manifest, being the cause of the first disturbance of the intellect; gradually this irritation descends deeper, and alters the cerebral pulp, converting it into a fibrous tissue. This induration is also frequently found in epileptics, and in such explains the successive extinction of the different faculties of the intellect, the last stage of which is complete dementia.

In those cases where the delirium becomes calm, and passes in the course of time into the chronic and incurable state, the colour and inflammatory process going on in the grey substance undergo a slow modification. Altered, decomposed by the stagnation of the blood, the cortical substance shrinks, loses its natural colour, becomes pale, and at last white, like the medullary substance, and undergoes an equally manifest induration. In this alteration in the brain, the intellect, as well as the other cerebral functions, keeping pace with its progress, from being exalted at

first, become afterwards feeble, disordered, altered, and at length annihilated. The intellect seems to struggle in vain against the disorder, which is undermining it; at length this struggle ceases, and the patient, losing his consciousness, falls into *imbecility*. The induration and atrophy of an entire cerebral lobe can scarcely be imagined as giving rise to consequences less serious than the loss of movement in one side of the body, the almost complete annihilation of the intellectual faculties, and, in all probability, epilepsy. This alteration, which is a frequent one in idiots, shows itself usually less by the paralysis of the limbs than by the distortions it produces in the feet and hands. In some few cases, illustrated by Magendie, there was partial softening of the spinal marrow; this is a rare form of the disease, giving rise to the convulsive shocks observable in the limbs: epilepsy also may result from it.

In the *Medical Times* of September 6th, 1845, a case of insanity is related by Dr. Rüttel, occasioned by water and the formation of hydatids in the brain. The skull was well formed, but the dura mater loose, with water between it and the arachnoid. The brain was covered with a gelatinous mass, its substance was firm and compact, but full of small hydatids. At different places of the brain, from 16 to 18 cells, containing water and small tumours, were found, varying in size from a pea to a bean. At the base of the skull, near the foramen magnum, two ounces of water were discovered. The pineal gland was large, hard, and not globular.

M.M. Leuret and Peliviè have proved that the brain of the insane is heavier than that of persons not so afflicted. M. Couerbè has shown, that one of its healthy constituents (cephalote) abounds greatly more in phosphorus in persons labouring under insanity, than in those of sane mind. Gall imagined that mental alienation depended on disease of the surface of the brain, and that idiocy was the result of defective organization, and that inflammation, at first acute, and subsequently chronic, accompanied the various forms of insanity. M. Guislain considers that the cerebro-meningeal inflammation of the insane depends on engorgement, a condition which passes readily into organic derangement in a tissue so soft as the brain. He supposes that the progression of the phenomena in insanity to be as follows: nervous excitement, congestion, irritation of the tissues, chronic, secondary inflammation, disorganization,

albuminous exudation, opacity of the membrane, and, finally, adhesion of the convolutions. M. Ferrus asserts that the alterations of the brain and nervous system present as great a degree of certainty as the lesions of any other organ.

In the *grey substance*, the afflux of blood necessary to produce an irritation sufficient to cause a permanent delirium, determines, in the course of time, a particular decomposition; the cortical substance, when this has occurred, appears to consist of three distinct layers:—the *first* and most internal layer, preserves its natural grey colour with but slight alteration. The *second* thicker and of a vivid red or violet hue, seems as if entirely formed of sanguineous vessels highly engorged; this layer, when it presents a vivid red appearance, and its consistence is augmented, is considered by Dr. Costello, of the Wyke House Asylum, to be the seat of all maniacal symptoms and of all morbid exaltations of the intellect; in such cases the consistence varies a little according to the more or less advanced state and acuteness of the disease, being more firm in the beginning and less so towards the decline. The *third* layer much thinner, is of a pale whitish hue, arising from the albuminous exudation, which in some instances is very strongly marked. The most remarkable alteration is the deep red colour and inflammatory thickening of the second layer, arising from an active concentration of blood in this vascular tissue; when the acute delirium, which is attendant upon this condition, is mitigated, and has a tendency to become chronic, this red colour also undergoes a change, becoming of a brownish hue; these changes mark a tendency to recovery, and if the irritation, instead of being resolved, pass into the chronic type, then the grey pulp, altered, shrinks, loses its colour, and becomes white; the intellect likewise following these alterations, passes from excitement to a state of debility. The colour of the *white substance* becomes slightly altered, becoming of a livid hue, owing to an injected state of the capillary vessels; when the irritation assumes the chronic type, the white substance undergoes the slow induration which is found to be attendant upon that form termed Dementia.

Dr. Smith, in his Medical Observations, has described a bony concretion; and Plenciz, with several others, represent the brain as bony or calculous in various parts; while Jones, in the Medical Commentaries, found it softer than usual, with a thick-

ening of the membrane, and a turgescence of the ventricles. From their observations nothing precise can be collected, since all such morbid appearances have been traced under other diseases as well as under insanity. M. Pinel appears somewhat decided upon this question, and after a very extensive series of investigations, he asserts, with respect to the cranium, there are no facts yet clearly established which prove the faculties of the mind, except in a case of idiotism, to be in any degree influenced by its size, figure, or density; while with respect to the contents of the cranium, I can testify, he states, that I have never met with any other appearances within the cavity of the skull than are observable on opening the bodies of persons who have died of apoplexy, epilepsy, nervous fevers, and convulsions; and his successors, Esquirol and Georget, concur in the same remarks. The latter person, after having examined 300 lunatics, on their decease, to settle this point, thus concludes:—"toutes les altérations, que nous avons observées sur les aliénées de la salpêtrière sont consecutives au développement de la folie, excepté celles des cerveau d'idiotes, qui sont primitives et liées à l'état intellectuel." The observations made also by Dr. Haslam are nearly to the same effect, for they shew that, except in so considerable a misformation of the skull, or its contents, as to induce idiotism from an early period of life, as in the case of cretinism, nothing decisive can be obtained in reference to insanity from any variations of appearance that have hitherto been detected. From the dissections recorded by Haslam, his own inference is, that madness is always connected with disease of the brain or its membranes; he, indeed, expresses a decided opinion that insanity is not a disease of ideas; and is among the first who, in modern times, have regarded it as connected with disease of the brain or its meninges. A similar opinion had been delivered previously by Dr. Marshall. According to Greiding the pia mater and arachnoid were hardly ever sound. The same fact was also noticed by Haslam in 37 out of 38 dissections; also by Werzel of Mentz, and Chiarugi of Florence. M. Bayle considers chronic meningitis, *i. e.* primarily chronic, as the most frequent pathological cause of mental derangement; and the frequency of disease of the brain in insane persons is confirmed by the researches of M. Calmeil.

Dr. Conolly agrees, in some instances, of ascribing mental disorders to corporeal disease, not, in fact, to any specific

corporeal disease, but to any disease capable of disturbing the functions, or impairing the structure of the nerves; yet he adds, that we do not discover in insanity, as in consumption, such invariable disorganization or impairment as would account for the long continuance of the malady or for the small proportion of cures.

But there are other organs also that betray very prominent symptoms of diseased action in insanity as well as the brain, viz., the epigastrium and the adjoining regions; and hence other physiologists have sought for the cause of the evil, in these, rather than in the *eucephalon*. This was instanced among several; and it is to this quarter that M. Pinel refers the proximate cause. It is here he supposes the disease to commence; and contends that the affection of the brain and of the mental faculties is subsequent to the abdominal symptoms, and altogether dependent upon them; and in attestation of this, he adverts to various dissections which have displayed considerable derangements, not only in the function, but even in the structure of one or more of the abdominal organs, and particularly a displacement of the transverse colon. There can be no doubt whatever, that in most cases of insanity the brain and epigastrium suffer jointly; and that the disease may, and frequently does, commence in some structural or functionary affection of the abdominal viscera, is perfectly manifest from the frequency of this complaint during pregnancy and after parturition; being associated with a peculiar state of the genital organs, and its following upon a sudden suppression of the menstrual or hæmorrhoidal discharge. This is to be attributed to the extensive distribution of the pneumogastric nerve, and more particularly of the intercostal nerve over the abdominal viscera; upon which circumstance a like sympathy is by no means uncommon in various other disorders. According to Sir A. Crichton, insanity arises from a diseased state of the brain or nerves, or both; but that in many instances this diseased state is a primary affection, and in others a secondary, dependent upon a morbid condition of the epigastric or some other abdominal organ; it is very difficult, and in many cases indeed altogether impossible to determine, whether the melancholy or hypochondriacal symptoms have originated in the state of the abdominal viscera or of the cranium. Hypochondriasis is considered by Sauvages, Pinel, Georget, &c., to be in all cases a

primary affection of the brain. Hoffman regarded it as originating in disorders of the stomach and intestinal canal, as are evinced in the first onset by the irregular state of the alvine secretions, &c., and in the end the hypochondriacal condition of mind. M. Villermay asserts that it consists in a morbid condition of the nerves supplying the gastric apparatus, propagated by sympathy to other parts of the animal economy.

M. Guislain concludes in his work on insanity, that, in the greatest number of organic lesions of the brain, a moral origin and functional state of disorder, without change of structure, first exists; and, that when such changes are present, they consist principally of whatever causes pressure on the brain, as effusion of serum, or of blood, lymph, or the formation of a false membrane, &c. &c. He also states that induration of the brain has been frequently observed by him, especially in the walls of the lateral ventricles, and upper portion of the medulla oblongata; epileptic convulsions are frequently attendant upon this condition; the absence of organic alterations in the brain is indicated by the full possession of muscular action and motion, and that the existence of them is evinced by lesion of muscular motion and of sensibility. Dementia, or extinction of the intellectual powers, may depend—1st. Upon sanguineous engorgement of the brain. 2nd. Upon effusion of serum between the membranes, or in the ventricles. 3rd. Upon extravasation of blood between the membranes, or in the substance of the brain. 4th. Upon ramollissement of this organ. 5th. Upon atrophy of it. 6th. Upon induration of it. And, 7th. Upon exhaustion of its vital influence. The brain, which in the healthy state is tolerably soft, and traversed by numerous and attenuated blood-vessels, becomes in demency entirely changed, the vessels disappear, the medullary pulp turns a dead white, and becomes indurated.

In hypochondriacs, the brain has been found harder and drier than natural; the blood has been coagulated in the longitudinal sinus; in the pia mater it has been of a pitchy blackness, the vessels of the brain have been distended, and there has been water in the ventricles.

II.—ALTERATIONS THAT HAVE BEEN DISCOVERED IN THE THORACIC VISCERA.—The lungs are diseased in a very large proportion of the cases of insanity which terminate fatally, and the proportion has been variously stated, according to different

authors. M. Georget declares that he has found organic changes in the lungs, in at least three-fourths of the cases which he has examined, and phthisis to have been the cause of death in more than one half the lunatics in Salpêtrière; the disease, he states, is chronic, and is often so obscure that it is not discovered until after death; in these cases the patient neither coughs nor expectorates, but upon examination the lungs are found to be extensively diseased, and cavernous excavations detected; the constitutional disturbance occasioned by the accumulated matter, as well as by the organic lesion of the part containing it, and still more by the absorption of a part of it into the circulation, will so derange the organic nervous functions, as to create, at first, functional disorder, and afterwards organic lesions of such organs as may be predisposed to disease. The heart has frequently been found changed in structure upon examining the bodies of the insane; in short, all the lesions which are peculiar to this viscus have been discovered, but hypertrophy, dilatation, with softening of its parietes, are the most usual. Romberg believed that five out of seven bodies present lesions of the heart, and M. Foville considered that five out of six display alterations in either that organ or its great vessels. Nasse has cited the following case, in illustration that disorders of the heart exercise a morbid influence on the cerebral function:—An individual with a pulse of 40 beats in a minute, had scarcely any appearance of life; when his pulse rose to 50 he is stated to have been melancholic; when to 70 he was perfectly rational; and, with 80 pulsations, he became maniacal. In some instances, insanity is considered to be the result of inflammation of the heart, as, besides it, no morbid phenomena have been found within the cranium; it must be, however, considered that hypochondriasis, nervous excitement, &c. often induce functional derangements in the heart, which have been mistaken for organic disease; two strongly marked cases of hypochondriasis, accompanied by disordered function of the heart, are described by Dr. Pritchard. M. Foville believes that disorders of the heart, when complicated with mental diseases, are more frequently the results of continued agitation, and of the violent efforts of the patient; such an opinion, beyond a doubt, is most probably the correct one.

Moreover, the heart has been perfectly dry, shrivelled, and resembling a roasted pear; this was noticed in a lady, who,

being in a deep melancholy, hung herself, and whose heart, upon dissection, was found to be dry, and without a drop of blood in the ventricles; it has been immensely large, and of a pale lead colour, and also surrounded with a great quantity of fat. The heart, on being opened, has been observed to pour out a large quantity of black blood; a large vesicle has been found adhering to the right ventricle, containing black blood; two pounds of a black, glandular flesh have been found in the left ventricle; the heart, like the gravid uterus, being distended to adapt itself to the magnitude of its contents; a thin, red, foetid fluid has been observed in the left ventricle; the ventricles, instead of blood, full of a vitreous pituita; an abscess, of the size of an egg, near the left auricle. A large aneurism of the aorta has been discovered; on opening the pericardium it has contained serum, plenty of citron-coloured fluid; on the other hand, it has been consumed, and the pericardium everywhere adhering to the heart.

III.—ALTERATIONS IN THE ABDOMINAL VISCERA.—The most frequent disease discovered in the abdomen of individuals who have died insane, is the appearance of inflammation in the mucous membrane of the alimentary canal. M. Pinel met with inflammatory phenomena in this situation, in 51 out of 269 bodies of lunatics; and of these there were only 13 of disease of the other abdominal viscera; these appearances have also been noticed by Prost, Percival, and Guislain. Displacement of the transverse colon is one of the most remarkable changes yet observed in cases of insanity—this was first noticed by Esquirol, subsequently by Bergman, Müller, Annesley, and Guislain. The transverse colon has been found perpendicularly precipitated behind the os pubis, which has been described by Esquirol, who states that he has discovered it in 33 out of 168 bodies of persons who had laboured under melancholia. This has been attributed by that author to increased weight, either from augmented density, or from repletion of the colon, acting mechanically. Georget thought it was owing to a relaxed condition of the peritoneal folds, which retain the intestines in their position. In most of the instances related by Esquirol, the displaced colon presented none of the consequences of inflammation. In some of the cases noticed by Percival and Bergman, the colon was contracted to a very small calibre through a great part of its length; in others, it was in parts, contracted and

dilated. In combination with this state of the colon, Bergman discovered the following morbid symptoms:—plethora of the abdomen and eucephalon, hæmorrhoidal disease, tumefaction of the spleen, liver and uterus, distension of vessels in the brain. The symptoms during life were, in these instances, peculiar, viz., hardness and tumefaction, and tenderness of the abdomen; slow and difficult progression in a bent forward position, anxiety in the præcordial region; obstinate constipation with vomiting, coldness and a blue colour of the skin, trembling and agitation, convulsion, rigour, diarrhœa, ushering in the fatal catastrophe.

M. Guislain attributes both the contraction and the displacement to inflammatory action; the former may be, perhaps, imagined to arise from a chronic inflammation between the planes of fibres, which form the muscular coat of the intestinal tube; the latter cannot be attributable to this, as the intestines were found, in the instances set forth by Esquirol, to have been perfectly free from any trace of inflammation. Sometimes it is the result of great irritation existing in that situation, also of diarrhœa or dysentery, when occurring at a late period of the mental disorder. Dr. Percival, in the Dublin Hospital Reports, states, that on the dissection of cases of insanity, which have terminated fatally from chronic diarrhœa, the intestines generally exhibit an extensive mass of disease; the mucous membrane is inflamed, thickened, and partially eroded, and the calibre of the canal diminished, often considerably, in the lower intestines. The mesenteric glands are frequently found, more or less, enlarged and indurated. Hæmorrhoidal tumours, and sometimes fistula in ano are met with in dissections.

Great importance was formerly attached to disorders of the liver, in occasioning mental diseases, but the researches of modern times have not demonstrated such to be the case. Esquirol, Pinel, Guislain and Foville found but few instances, as denoted diseases of the liver, or biliary apparatus. Esquirol found only two cases of diseased liver in 168 melancholics, while in the same number there were 65 morbid alterations in the lungs. In 60 cases of dementia, there were only two diseases of the liver, and Pinel relates only five instances of diseased liver in 259 cases of insanity; one case of diseased liver giving rise to an attack of melancholia, is recorded by that author, in that of a man receiving a violent blow in the hypochondriac region, followed by loss of sense, vomiting, and

afterwards by hepatitis; at length the disorder terminated in melancholia, with death of the patient. Upon a *post mortem* examination, the brain was discovered in a healthy state, but the liver itself was extensively diseased. Also, the liver has been found very large and very small; it has been either wholly, or in part, scirrhus; œdematous and full of fissures, and its convex part studded with hydatids.

The spleen has been so large as to weigh four pounds; and on the contrary, so small, as scarcely to weigh an ounce: likewise, it has been found wanting.

The omentum has, on several occasions, been found diseased; it has been remarkably thick, large, and scirrhus—it has not only been scirrhus, but so large as to occupy the whole epigastric region—it has been loaded with three large excrescences, supposed by the patient, when alive, to have been the heads of three living frogs, which she imagined she had swallowed, but which, upon examination, were found to be indurated, and scirrhus glands of the omentum. The mesentery has been scirrhus, and, as it were, stony, and its vessels turgid with black serous blood. A collection of fetid, purulent matter has been met with between its two coats, which has occupied the greatest part of the lower abdominal cavity, and has even contaminated the liver, and its glands have also been found enlarged, indurated, and scirrhus. The mesenteric vessels have been turgid with blood, and the veins varicose; the gastro-epiploic vessels, and the confines of the vena porta, have been in like manner affected. The intestines have been inflated with wind; have been livid, black, and even sphacelated; in some situations, full of concreted, feculent, and very black blood, like pitch, exactly resembling what patients had vomited when alive; their veins have been replete with thick, black blood, and have appeared distended and varicose; and in some instances they have been almost destitute of moisture. The stomach has likewise been much distended with wind; in some parts it has been livid; its coats have been either wholly or in part exceedingly thin, almost like fine paper; it has contained a large quantity of dark-coloured matter; in one case recorded by Dr. Arnold, as black as ink, and in a putrid state. The pylorus has been discovered to have been inflamed, scirrhus, and its passage so closely contracted as scarcely to admit a quill to be thrust through it. The pancreas has been large, black, and

hard. The kidneys have been very large, the size of a child's head, full of calculi, gangrenous; in fact these have been, in all probability, accidental lesions, although they may have had some tendency in causing mental disorders, particularly in those persons predisposed to insanity, chiefly by affecting the organic nervous energy in general.

M. Esquirol states that he has examined the bodies of several women who have fallen victims to that form of insanity termed *puerperal mania*, without being capable, in the least degree, to detect any morbid symptoms that pointed out the locality of the disease; and even Dr. Gooch has given, in the detail of a case, that although the body was examined by a most skilful anatomist, no traces of disease were discovered, either within the cranium or in any other part of the system, although in many other instances recorded by the same author, there were discovered, on dissections, thickenings of the membranes of the brain, the sinuses filled with blood, effusions of serous fluid under the arachnoid membrane; and, upon cutting into the substance of the brain, the vessels were found to be much congested, although the patients had previously suffered from uterine hæmorrhage. The phenomena displayed after death, occasioned by true puerperal insanity, particularly when it occurs soon after delivery or during suckling, consist for the most part of deficiency of blood in the brain and its membranes; and in some instances, of slight effusions of serous fluid between the membranes and in the ventricles. There are no inflammatory symptoms, or even those of congestion, discoverable, excepting in those cases which have assumed the character of phrenitis. The pure cases of this disease present but little beside anæmia of the brain and its membranes, and of the system generally. The morbid condition more immediately occasioning the malady now under consideration, *i. e.* puerperal mania, seems to consist of increased nervous susceptibility, frequently in connexion with deficiency of blood. The balance of the circulating system is frequently disturbed, and irregular determinations of it occur, especially to the brain and to the uterus, for whilst the circulation is active in one locality it is deficient in others, and the functions of the brain are more or less deranged. After delivery the susceptibility of the brain and of the nervous system is in general increased, the susceptibility being great in proportion to the shock sustained upon the system by the tedious process

of labour, and by the loss of blood and exhaustion consequent thereon. The occurrence of the malady during lactation is to be chiefly referred to exhaustion and debility; and its appearance after weaning, to a disturbance in the balance of the circulation, a greater determination of blood taking place to the brain than to other parts upon the cessation of the secretion of milk.

Disease of the heart is not uncommon in cases of insanity. M. Foville asserts that at least five-sixths of the patients at his hospital had diseased hearts. Hypertrophy is more frequently found than disease of the valves, and this is not to be wondered at, when it is considered the obstacles to the circulation which the heart has to surmount in mental diseases.

According to M. Fardel, the adhesions found between the pia mater and brain are of three kinds:—1st, they are produced by a sort of viscosity poured out between them, when no actual liquid is interposed between them, as in cases of compressed brain. 2ndly, the vessels passing from the membranes into the brain. 3rdly, old or recent cellular adhesions. Inflammatory congestion of the brain is anatomically characterised, in the *grey substance*, by uniform pinkish discolouration; in the *white substance*, by punctiform red injection, and sometimes by patches of reddish staining.

Acute delirium is sometimes observed in the establishments for the insane. This affection has hitherto been classed among cerebral diseases or confounded with dementia; the symptoms, however, are very different; one of the most prominent is, the dislike for liquids, sometimes carried to such an extent that the variety has been designated, by some, hydrophobic delirium. In this, pathological anatomy reveals nothing; and when any lesion exists it is owing to the complications and not the primitive disease. No doubt it ought to be regarded as a nervous disorder, similar to that observed in drunkards, and after operations of a serious nature; there is, in all probability, a cerebral modification, but of what description it is impossible to state.

In some cases of insanity, patients will voluntarily starve themselves, in which instance extreme emaciation, without febrile symptoms, absence of fat, throughout the body are present. The gall bladder, also, is invariably found distended, the parts surrounding it being tinged with its contents; the intestinal canal is unusually vascular; in some cases ulceration is observed in the mucous membrane of the tube, thus giving rise to hæmor-

rhage or diarrhœa; this ulceration is the result of congestion, which congestion is the consequence of inanition. It has been asserted that worms have been discovered in the brain, and there appears to be no reason to doubt that they have been evacuated from the nostrils of maniacal cases. Fernelius asserts that a patient who was a soldier, had been for a long period past troubled with a foul discharge from the nostrils, the worms being probably introduced that way, and found in the frontal sinuses; if they were discovered in the cavity of the cranium, they can only be imagined to have penetrated so far in consequence of a carious state of bone. This individual died in about 20 days. Some valuable observations on the subject of worms supposed to be generated in the brain, have been adduced by Morgagni, in his work entitled "*De Sedibus et causis morborum.*" Sauvages has described a species of insanity, termed *mania ab hemicraniâ*, and mentions two instances in which it had been occasioned by worms in the frontal sinuses. Doleus relates the case of a peasant who, after sleeping under a tree, was maniacal for six months, when, on taking an ounce of snuff, which excited a violent sneezing, he discharged from his nose a large, black, hairy maggot, and perfectly recovered his senses.

B.—THE SYMPTOMS IN CONNECTION WITH THE MORBID APPEARANCES DISCOVERED IN THE DISSECTION OF THE BODIES OF THE INSANE.—Under this head, several writers have entered at large into the discussion whether insanity is a disease of the mind, or of the organic structure of the body. With the latter opinion, Franck, Nasse, and Guislain altogether coincide, having arrived at the conclusion that this disease has its seat in the organised body, and that it consists sometimes in the modification of the vital functions, and sometimes in an alteration of the tissues themselves. Cullen, Cox, Haslam, Foville, with many others, regard insanity as an idiopathic disease of the brain; even M. Georget states that it is a disease of the brain, being idiopathic, the nature of the organic alteration being unknown, and likewise considers all the disorders of parts remote from the brain as only connected accidentally with the idiopathic cerebral disease; whilst other writers regard these disorders to be of much greater importance, as they lay the foundation for mental derangement, the disorder of the brain being merely sympathetic.

It appears to have been the opinion of Pinel, that the primary

seat of mental disorders is in the region of the stomach and intestines; thence, as from a centre, the disorder was imagined by that celebrated writer to propagate itself, until, reaching the head, it deranges the intellectual faculties. According to him, the first symptom of an attack of furious delirium is, in some instances, a strong sense of heat in the abdomen, the bowels are confined, and the patient complains of thirst; the sense of heat ascends from the epigastrium to the neck and face, the countenance reddens, the eyes become sparkling, the features are agitated, the temples throb, and the mind is excited into delirium or acute mania.

M. Foville, Calmeil, and others ascribe the morbid appearances observable in cases of insanity, to inflammation, viz., intense, diffused, and general redness; in many cases, tumefaction; the formation of adhesions between the cortical substance, of the convolutions, and the contiguous membrane; as the different traces of the inflammatory process are more constant in the brain than in the membranes, M. Foville concludes that the essential change connected with insanity takes place in the brain, and that alterations of the membranes are only accidentally connected with it. Although Calmeil was inclined to ascribe loss of muscular power to lesions of the grey substance, Foville contends that the facts upon which he has established this inference do not warrant this conclusion, for in all the instances of general paralysis he has examined, there was, besides the change in the grey substance, some alteration, either hardening or softening of the white. Foville infers from various circumstances, that the function of the grey structure of the brain is essentially connected with the intellectual operations, and the office of the white or fibrous part is subservient to muscular action.

Cerebral œdema, as is observed in cases of insanity, produces upon the brain an almost mechanical compress, by reason of which certain faculties begin to be disturbed, the *intellectual* disturbance increasing, according to the serous infiltration, penetrates into the interior of the brain, and notwithstanding the stupor, the patient retains the consciousness of his state without having either the will or the wish to be relieved of it; it appears, therefore, that memory, speech, and even the will are the properties of the peripheral portions of the brain, but of both the grey and white substances, since infiltration of the white

substance renders the stupor still more general; consciousness also belongs to the cerebral part of the brain; œdema produces likewise another peculiar lesion of the sensorium, distinct from that of the intellect and locomotion; the most remarkable phenomena of *insensibility* occur in the cutaneous system, which is sometimes only partial, at others extending considerably. The symptoms as regards *locomotion* are much more obscure and difficult of appreciation; there is numbness of the limbs with sluggishness, slowness of movement, but no paralysis in the strict meaning of the word; lastly, œdema of the brain is an accidental complication of the chronic irritation in this organ in the insane, whose lymphatic temperament naturally predisposes more or less to serous effusions.

In some affections of the maniacal class, succeeding the action of debilitating causes, as during the puerperal condition, nothing has been discovered in the brain more striking than its extreme paleness, which form of malady M. Foville considers to be symptomatic of some deep-seated disease of the uterus or abdomen. M. Esquirol observes, that organic lesions of the brain are declared by symptoms distinct from the mental disorder; that chronic inflammation occasions compression and paralysis, and paralysis results from cerebral hæmorrhage. The maniacal form is rarely fatal, owing to any lesion of the brain, but from fever or other diseases, or from sudden exhaustion of the nervous energy so essential to the life of the individual, for in a case terminated by exhaustion, no lesion whatever after death was discovered in the brain; when a case is watched during life, Esquirol thinks that the period at which the organic lesion of the brain commences may be known by the symptoms; also, when mania has continued for some time, he conceives that the weakness of the last days of life disposes to local inflammations.

After various details, M. Guislain concludes, that in a great number of organic lesions of the brain, a moral origin and functional state of disorder, without change of structure, first exists, and that when such alterations are present, they for the most part consist of whatever causes pressure of the brain. Epileptic convulsions are frequently present in those instances where induration exists, especially in the parietes of the lateral ventricles, or upper portion of the medulla oblongata. *Absence* of organic alterations in the brain is indicated (he states)

by the full possession of muscular action and motion, and, the *existence* of them is distinguished by lesion of muscular motion and of sensibility. Simple disorder or excitement of the mental faculties, without dementia or paralysis, exists independently of softening or compression of the brain, and that dementia, or extinction of the intellectual powers may depend—

1st. Upon sanguineous engorgement of the brain.

2nd. Upon effusion of serum between the meninges, or in the ventricles.

3rd. Upon extravasation of blood between the membranes, or in the substance of the brain.

4th. Upon ramollissement of the brain.

5th. Upon atrophy of the organ.

6th. Upon induration. And,

7th. Upon exhaustion of the nervous system.

In the *Lancet*, Vol. II., No. 19, Nov. 8th, 1845, some cases of puerperal mania are recorded by Dr. F. Bird, in which the disease appeared to be the result of antecedent rheumatism, for, upon the subsidence of the rheumatic symptoms, a metastasis took place to the brain, the cerebral affection gradually disappearing as the joints became again affected.

The brain is known to be composed of different parts, of which the most important are the lobes, the corpora striata, and thalami optici. Sancerotte imagined that the corpora striata, on account of the decussation of their fibres, in an antero-posterior direction, presided over the movements of the inferior extremities, and hence accounted for the paralysis. This opinion was also supported by Foville, Pinel, Grandchamp, and Serres. This crossing of the fibres shews itself on either side; thus, if the corpus striatum on the right side be destroyed, the left inferior extremity ought, in consequence, to be paralysed. The functions of the thalami are still enveloped in doubt; it appears, however, notwithstanding their appellation, they have no influence on the sense of vision, this being situated in the nates; they may however be considered as the centre of locomotion, exercising their powers crossways, rather than presiding over the movements of the superior extremities, in opposition to the functions attributed to the corpora striata.

A case is drawn up by M. Esquirol, under the title of paralytic dementia and stupor, the individual having been deprived of the use of her limbs, and being in a state of complete

stupor; at the autopsy, the skull was found to be thick, with the dura mater strongly adherent; albuminous effusion under the arachnoid, abundant serum between the various sulci of the convolutions; the lining membrane of the ventricles presented lenticular stains of a dirty white colour, depressed, and resembling the depressions which might be made with the thumb. On raising the membrane covering these spots, the white substance displayed brown spots of the same form, and of the depth of two lines. It closely resembled lard in some localities, whilst in others muddy jelly. The surrounding substance was much denser, and resisted the scalpel, although allowing itself to be torn, rather than cut. One of the testes very much altered and thickened. Similar stains were likewise observed in the fourth ventricle, the other viscera were healthy. The symptoms of stupor were no doubt dependent upon the abundant serum which was discovered between the sulci of the convolutions. Cerebral œdema is not, as might be supposed, an isolated disease, developed in the insane; it depends on a lymphatic predisposition in individuals, being complicated for the most part with œdema of other parts of the body. It can be readily conceived in persons of a lymphatic temperament, that a brain, already irritated, which cannot think rightly, and whose faculties are exalted, the affection of the brain may re-act in its turn on the pia mater, rendering its exhalent functions more active, and at length extending to it its own morbid exaltation. The pia mater then becomes red and thickened, its vessels dilate, and secrete a quantity of serum more than natural, and the absorption being no longer equal to the secretion, an accumulation takes place between the membranes and the brain, in the same manner as in the cavities of the body. A new cause of compression of the brain then arises, which changes the maniacal state into one of apparent calm, and at last, by its rapid increase, paralyses the intellect, locomotion, and sensibility. Symptoms of œdema of the brain first show themselves by lesions, gradually affecting the general sensibility, subsequently involving locomotion, and finally the intellect.

(a).—THE LESIONS OF THE SENSIBILITY ought to be examined at two different stages, viz., at the period of the serous exhalation, and 2ndly, after its accumulation has become considerable :—

In the first stage, the skin, in several of its regions, is insen-

sible; in some individuals, the pulp of the fingers is the seat of singular sensations; some feel a peculiar numbness and coldness, either in the limbs, or in certain parts of the back or abdomen; others, that they are not clothed, even when they are thickly clad. When the œdema is established, it has been frequently observed how complete the insensibility becomes, even in parts naturally the most irritable. Not only may the skin be pricked, or burned without creating the slightest indication of pain, but even the most sensitive mucous membranes, as those of the eye, nostrils, and mouth, seem to be totally insensible. Dr. Costello, of the Wyke House Asylum, has seen a patient cured of an accidental stupor that had continued for three months, and during her malady the insensibility was so complete, that several seton needles were introduced into the skin, without giving rise to the slightest pain; and what is still more remarkable, she looked on while this was being performed; in one instance, snuff dropped on the conjunctivæ produced no feeling of pain.

(b).—THE LESIONS OF MOBILITY.—The most characteristic symptom of the attack of cerebral œdema, is the sluggish and numb condition of the limbs, differing from paralysis, inasmuch as the movements, although difficult, are still possible. Some of these cases exhibit examples of a peculiar lesion of mobility, resembling in a great degree catalepsy, being the result of mechanical compression on the brain, from serous effusion on its surface, or into the ventricles.

(c).—THE LESIONS OF THE INTELLECT are much more strongly marked, than those of motion or sensation. When the œdema is far advanced, there is no longer any perception, the whole understanding is suspended, although the patient retains a consciousness of his condition. It commences with symptoms of headache, a sensation of numbness, with pain extending around the cranium; the memory and attention are disturbed, as well as the organs of taste and smell: the skin also loses its proper sensibility. At a later period, the cerebral functions become more deeply impaired, the senses appearing to be paralysed. Out of 320 insane bodies, examined by M. Demazy, only five cases of cerebral œdema, literally speaking, were discovered.

IN RAMOLLISEMENT also of the brain, the intellectual faculties, with motion and sensation, undergo various modifications. In some instances, the intelligence is disturbed to so

great an extent as to give rise to attacks of delirium—in short, to attacks of mental alienation. Of the various disturbances of intelligence, which may accompany softening of the brain, there is not one which can suffice to indicate the nature of the lesion, affecting the encephalon. Simple injections, effusions either around the brain, or within the ventricles, hæmorrhage, which has lacerated its substance, accidental products therein developed, may occasion delirium with all its varieties, or mere weakness of the intellectual faculties.

Motion usually is much affected, the modifications of which, for the most part, consist of paralysis, flexion of the limbs, or convulsions. There are also lesions of sensation, which are situated either in the head itself, or in other parts of the body. The head is frequently the seat of pain, continuing for some time, and according as motion becomes affected, the patient then experiences relief from pain, and for the most part, however, falls into an idiotic state.

I have stated in a preceding part of this essay, that the lungs in insane persons, are frequently the seat of disease; it is of the affection of these organs that persons who are affected with softening of the brain, die. In some, the softening makes its appearance during perfect health, whilst in others it is occasioned during the progress of chronic diseases. Dr. Cullen has asserted that mania consists in some inequality in the excitement of the brain, or of the nervous power, and in most instances, in an increased excitement. This nervous power is a peculiar fluid, secreted in the medullary substance of the brain, or the nerves, and Sir A. Crichton has endeavoured to prove that the cause of insanity is a specific morbid action of the vessels, which secrete the nervous fluid in the sensorium. The brain certainly is an organ, receiving a very abundant supply of blood—that its vessels are large and numerous—that an increased determination of blood to the brain, or a diminution of the quantity conveyed to it, must have great effect upon the cerebral functions—that the vessels secrete from this blood the medullary and cortical substances, the fluid in the ventricles, in fact, every kind of matter composing the various tissues of the brain, and that the perfect and imperfect state of the intellectual powers is dependent upon the condition of the circulation within the head, must be admitted as well established facts. Even a too copious, or a too scanty secretion of nervous fluid, and likewise

torpor as well as fulness of the cerebral vessels, may occasion a weak state of mind. From the quickness of the external senses, the irascibility, flushed countenance, with the frequent pulse, and heat of surface (which are manifest in the insane) it must be evident, that this morbid action is, for the most part, a preternaturally increased phenomenon, and hence enabled to account for the various exacerbations and remissions, which maniacal cases display.

In some instances there is not only an increased secretion of nervous fluid in the head, but also an accumulation of it, from other parts of the body (especially from the surface) is manifest from the patient's diminished sensibility to external impressions, being enabled to endure intense cold, &c., without inconvenience; whilst in others, there is a diminished secretion of it, causing extreme debility throughout the system, as is shown from the great tendency evinced in some lunatics, to gangrene of the extremities. The insensibility from this cause is sometimes so great as to affect the local senses likewise, and hence, some individuals lose their hearing, and others are capable of looking at vivid objects, without any visible alteration taking place in the pupil.

Finally, it is extremely difficult, in some instances, to determine whether the disorder originates in the brain, or in parts remote from it; sometimes, no doubt, it is propagated by sympathy, as is observed in some varieties of puerperal mania, showing how strong is the chain of sympathy that exists between the brain and distant organs, and particularly those subservient to the function of generation. No doubt the morbid condition of the brain (though a sympathetic affection) which is the immediate cause of derangement in the mind, is of the same nature in itself as the morbid condition which arises primarily from causes acting directly on the cerebral and nervous systems.

ON LUCID INTERVALS.

"Sleep after toyle, port after stormy seas,
Ease after warre, death after life, doth greatly please."

SPENCER.

Δελα.

The universal belief entertained in the earlier periods of medico-legal science, that insanity (or lunacy as it was termed) was intimately connected with the phases and changes of the moon, and presented stages of excitement and calmness correspondent with those changes, gives us at once a clue to the origin of the term "lucid interval." The patient became insane, it was supposed, at some particular period of the moon's age; and without further enquiry it was inferred that in the intervening spaces of time he would be rational, or have his lucid intervals. In fact so general was the belief in the existence of such intervals, that their presence was deemed an essential characteristic of the disease.

Without further reference to this long-exploded doctrine, I may observe that by the term, as usually employed in cases of insanity, we are to understand, not merely the absence of all perceptible delusion or absurdity of conduct, but the complete though temporary restoration of the individual's mind to its healthy standard; so that the person in whom such lucid intervals occur, is not only aware of the distinction between "right and wrong," as the lawyers have it, but is capable of controlling every morbid impulse and keeping them under the subjection of his will. Thus Lord Thurlow, in defining its meaning, says, "By a perfect interval I do not mean a cooler moment, an abatement of pain or violence or of a higher state of torture—a mind relieved from excessive pressure, but an interval in which the mind, having thrown off the disease, has recovered its general habit."

If such be the case, there can be no doubt that during the existence of a lucid interval, the individual is morally as well as legally responsible for all his actions, and is as capable of executing all civil contracts as another person who never has been insane.

This definition of the term, however, although received in law, has met with a very different fate from the medical pro-

fession. Whilst many physicians of the highest standing deny the existence of a lucid interval, as defined in the foregoing paragraph by Lord Thurlow, nearly all agree in regarding it as an occurrence of an extremely rare nature. Dr. Haslam in his work on the Medical Jurisprudence of Insanity, states, that after an experience of 25 years in such cases, he was of the former opinion.

More recently, Dr. Ray, in the United States, has endeavoured to prove, on pathological principles, that such a thing as the alternation of reason and madness is impossible. "That the intermissions of mania," says he, "are ever so complete that the mind is restored to its original integrity would seem scarcely probable, from the fact that the very seat of the pathological changes is in the material organ on which the manifestations of mental phenomena depend; for if the mind be restored as sound as before the attack, it necessarily follows that the brain is equally restored, as they stand in the relation of cause and effect to one another."

I cannot, however, entirely concur with Dr. Ray in the views he has taken in the above extract, because, notwithstanding all our efforts, we have hitherto been baffled in discovering the nature of those pathological changes upon the existence of which he so strongly insists. Rather than in comprehending the natural history of insanity under the same rules and arrangement as those of other and more simple corporeal affections, we are authorized in regarding it as one *sui generis*; whereas it is the object of Dr. Ray to show that we cannot understand the subject of insanity, nor treat it satisfactorily, unless we proceed upon the same principles that guide us in the treatment of other disorders. Indeed he is unwilling to consider insanity so much a disease in itself, as a symptom merely of a morbid condition of the brain.

In some diseases, as in affections of the lungs or of the heart, whose operation is to a certain degree understood, we generally find, on making a post-mortem examination, that morbid lesions of the organ exist, whose presence was indicated by the previous symptoms of the disorder. In affections of the mind, however, no such connexion between previous symptoms of disease and morbid appearances discovered on dissection can be traced. It is true that in old standing cases of mental disease, various lesions of the brain and its investing membranes have been

found; but, on the other hand, it is equally certain, that in those cases where the disorder is of recent origin, no variation from the healthy standard can be perceived. This fact would of itself lead us to infer that whatever may be the alterations discovered in these cases, they are to be regarded rather as the effect than as the cause of the disorder, and that the proximate cause of the insanity is of a kind different from any that anatomy reveals. This idea also derives confirmation from the fact, that every morbid appearance which has been deemed characteristic of insanity has been found in other diseases in which no trace of mental unsoundness has ever been discovered.

In practice, we find that many epileptics have intervals of perfect health for months and even years, whose brains when inspected after death are found to have been subject to constant irritation from some disorganization of the brain, or from some morbid alterations of its external coverings. I have now in my possession the superior portion of the skull of a man who, for several years past, had been subject to periodical fits of epileptic mania, which usually recurred about once in every three months, and lasted from ten days to a fortnight. During the intervening time he was so perfectly his own master, that no restraint whatever was put upon his actions; he assisted the attendants in looking after the other patients, and made himself particularly useful in attending to the wants of the sick in the infirmary of the asylum where he was confined. He formerly had been a sailor in the Royal Navy, from which he was discharged in consequence of a very severe blow on the head, and was ultimately sent to the asylum where I saw him as a lunatic from epilepsy. On examining his head after death, I found several small spiculæ of bone in the falx cerebri, and immediately under the place where he had received the blow. I also found a large deposition of bone of a conical shape and about one inch and a half in circumference, extending into the substance of the brain for about three-eighths of an inch. In this case it is but reasonable to suppose that constant irritation must have existed in the brain from the presence of these bony depositions; notwithstanding their presence, however, the patient manifested not the slightest trace of insanity during the period in which he was free from fits, but on the contrary, continued to exercise his mental faculties in their fullest vigour. The cause of his death was peritonitis.

There are (it may be generally stated) but few cases of madness in which intervals of reason, or at least of calmness, do not now and then appear; and these intermissions of violence may be witnessed in every possible degree, from the raving of mania to the most perfect tranquillity. But however calm and rational the patient may appear during these intervals, whilst he is enjoying the quietude of domestic society, or the limited range of an asylum, it cannot be admitted *as a general rule* that he is in the perfect possession of his reason, as if he never had been deranged. Under ordinary excitement his conduct may be perfectly sane, but a degree of mental irritability remains behind, which renders him unable to resist any unusual emotion or violent provocation. Even in those cases where the restoration of the mental health and vigour has been most satisfactory and complete, this irritability remains, so that the most trifling circumstances have sufficient influence to reproduce the mental unsoundness. It would seem also that each attack of disease has rendered the patient more liable than before; and that with each accession of the disorder, do the intervals of sanity become shorter and the reasoning powers enfeebled, so that at length the patient is hardly ever in a sound state.

Esquirol, one of the best and most practical writers of modern days, recognizes different forms of intermittent madness, as the quotidian, tertian, quartan, monthly, and lastly, a form which recurs at the end of years, the intermission being regular or irregular in its duration.

In a large asylum I once had a case pointed out to me, in which this periodical alternation took place within the twenty-four hours. It was the case of a female who had recently been delivered, and was suffering from puerperal mania. In the morning on first awaking she was found to be in an incoherent state—tearing her clothes, and behaving otherwise in the most extravagant manner imaginable; towards the afternoon and evening, however, a great change was usually observed in her, and although never quite rational, she would now express herself sorrowful for her previous misconduct, and conduct herself with quietness and order.

I have at present under my care a female patient, whose disease, as it presents very many points of peculiar interest, I shall insert here.

CASE I.—Mary Susan S., aged 25, formerly a domestic servant

in a gentleman's family, became insane about two years ago, in consequence, it is stated, of disappointment in love. Previously to her becoming insane, she was an industrious and well-conducted girl. Her general health also appears to have been very good, with the exception of occasional irregularities in the menstrual function; a strong hereditary tendency to insanity also existed in her family. During her periodical attacks of mania, her mental disorder is characterised by amatory ideas, with slight incoherency. She is very seldom, however, violent, or outrageous in her conduct, although occasionally disposed to expose her person indecently before strangers; during the night she is noisy and turbulent, and appears to sleep very little. Since her admission here, attention has been particularly directed towards producing and maintaining a regular action in the menstrual function. These periodical attacks of insanity arise suddenly and without any apparent provocation, and generally last for a period varying from six weeks to three months. In her lucid intervals she conducts herself in a very quiet and orderly manner, and is found to be a very useful assistant both in the kitchen and laundry; her conversation also is quite rational. I have noticed, however, that during the two last of these intervals, the mind has not been restored in the same degree of perfection that it had been on former occasions; her temper has been more irritable, and her inclination to employ herself has been less. A certain degree of reserve in conversation also, that was never before noticed, is now very perceptible.

CASE II.—Charles D., a butcher, and formerly a prize-fighter, also, has been insane for several years. Until within the last two years, however, I have been unable to obtain any records of his case; so that I can only state generally, that before that time his insanity had been of an intermittent nature. When I first saw him he was labouring under an attack of general insanity, characterised by great excitement and incoherency, tearing his wearing apparel and bed-clothes, and striking the other patients around him indiscriminately; at this time, also, he had rather a severe wound on his hand, from the bite of another patient with whom he had quarrelled; to this wound he would not permit any dressing to be placed, but persisted in bathing it in his own urine. He used also to anoint himself with his own excrement, and which he voided without any regard to decency or cleanliness.

This state of insanity continued for about four months after I had first seen him, and then gradually subsided into a state of perfect sanity; so that it would have been impossible for any one to recognise in the quiet peaceful old man, making himself useful in the garden, or in the wards, the raving madman whose physiognomy, conduct, and language were, a few months before, so characteristic of the disease.

In this case, the fits of insanity usually were of about four months duration, and were succeeded by lucid intervals of a like period. This, however, was not universally the case, as, during these periods, he was occasionally "out," as the attendants call it, that is, excited and insane in his conduct, without exhibiting any symptoms of incoherency or delusion. These temporary fits seldom lasted more than forty-eight hours, and generally disappeared as suddenly as they arose.

Relapses have been separated from recurrences of insanity, the former term being restricted to all such attacks as occur within three months after recovery; the latter including all those which occur at more distant periods.

This distinction is not, however, of any practical utility, for if, whenever a patient is brought into contact with the world and its rude shocks, an overthrow of reason takes place, it matters little whether the duration of the interval be of three or twelve months. The re-appearance of the disorder in the same form, and from the same cause, can be regarded in no other light than as a relapse.

These remarks are well borne out and illustrated by two cases which I have had under my care, and will now shortly narrate them:—

CASE III.—Mrs. S., the wife of a gentleman engaged in a very lucrative business, became suddenly insane, in consequence, it is supposed, of great pecuniary losses sustained by her husband, and by which he was compelled to retire from business. Her insanity, of a partial kind, was marked by great dejection and despondency on religious topics; her bodily health did not, however, materially suffer. After being confined in different private asylums, she was removed to the small asylum where I saw her, and where all the patients lived *en famille*. No marked improvement took place in her case for some considerable period after her admission; at length, however, her distempered fancies and despondencies gave way one by one, and were succeeded by

a placid and rational frame of mind, which continued for some years whilst she remained there. During this period, however, it was noticed that an unusual depression of spirits always succeeded the visits of her relatives, and continued for some days afterwards. Her friends were now, of course, anxious to have her committed to their care, and she would have been sent home to them, had it not been for the great reluctance she herself expressed, together with the fear that she would find herself unable to the task of again mingling with the world at large, and experiencing the various perplexities inseparable from such communion. During the last few years she was at this asylum, she was in the daily habit of associating with the friends of the family, and of participating in their various occupations and amusements, and this she did with such apparent cordiality and interest, that she would have been frequently committed to the care of her friends had it not been for the great objection she herself expressed to this arrangement.

The great probability that this patient would have again relapsed into insanity had she been sent back into the world, will, I think, fully bear me out in the inference I would draw, that there are many cases where the individuals are quite sane, and consequently fully capable of self-government, so long as they feel themselves protected from the unexpected emergencies that a more responsible situation might call forth. But this feeling of security being once removed (as in the above case), the patient at once feels unable for the task.

The next case which I shall bring before you is that of a young girl who is at present under my care, and which, although it presents many points of resemblance to the last, is still well worthy of notice :—

CASE IV.—Sarah Ann E., a domestic servant, aged 17, was attacked with insanity of a maniacal description about 13 months ago, in consequence, it is said, of having been forsaken by her fellow-servant to whom she was engaged to be married. On first seeing her, I found her to be in good bodily health, and labouring under considerable mental excitement. In the short space of a month, however, a great change was observed in her conduct and general behaviour. She now employed herself, and proved to be a very useful assistant to the servants of the house; she also conversed freely and rationally on the subject of her former delusions. After remaining two months longer under

treatment, that her convalescence might be thoroughly established, she was discharged cured to the care of her mother, and I thought I had done with her case. In about four months after this, however, she was brought back in nearly the same state as upon her first admission. From the particulars stated in the accompanying medical certificate, I learned that upon first going home she conducted herself very steadily, and assisted her mother by taking in needlework. Unfortunately, however, about this time she again fell in with her old lover. The consequence was that she became completely unsettled, and proved a source of great annoyance and uneasiness to her mother, by uttering threats of self-destruction. The immediate cause of her being sent here was an attempt to drown herself in a horse-pond. On her re-admission, I found her labouring under great depression of spirits, with slight incoherency in her discourse. The catamenial discharge also was irregular, and had been so for some time; in other respects her general health did not seem to be materially impaired; by the employment of the usual means the menstrual discharge became speedily restored, and with it likewise the reason and spirits of the patient. She has now been quite well for the last three months, and enters freely into conversation on the subject of her late illness, and on the sin and folly of her attempt upon her life; so that it is a matter of doubt whether she ought to be confined here much longer.

In this case, the influence of asylum regulations and discipline in producing and maintaining a healthy state of mind, is extremely well marked; and yet there can be but little doubt, I am afraid, that were she once more sent back to where she would be exposed to the full effect of old impressions, and to the influence of those causes which, on the two former occasions, produced her disorder, her mind would again become overthrown.

No two cases can, I think, more completely illustrate that sensitiveness and irritability of mind which is so characteristic of the most perfect form of lucid interval.

By the introduction of these two cases, however, I do not mean to assert that the tranquillity and placidity which is frequently to be seen in well-regulated asylums must always be received as revealing the healthy serenity of those minds from whence it springs, since, independently of its arising from the subsidence of the maniacal paroxysm, or from occupation, and the other means of abstraction which are employed, it may have its source

in the inability of the mind to experience other than present or animal enjoyment, and secondly, from the powerful efforts at self-control, which some lunatics are capable of making in order to effect some object they may have in view.

As it is impossible in a moment to judge of the quality of a lucid interval, it is requisite that there should be sufficient length of time for giving a perfect assurance of the temporary restoration of reason, which it is impossible to define in general, and which can only be determined by reiterated and attentive observation. Every action and even gesture of the patient should be sedulously watched, and he should be drawn into conversation at different times that may insensibly lead him to develop the false impressions under which he may labour.

It must also be borne in mind, that if the person who is to examine the state of the patient's intellectual faculties, be unacquainted with his peculiar notions, he may be easily deceived, because wanting this information he will have no clue to direct his enquiries, and madmen do not always nor immediately intrude their incoherent notions. It must also be remembered that those who are insane on particular subjects will reason correctly on ordinary and trivial points, provided they do not become associated with the prevailing notions which constitute their insanity; and this circumstance is very likely to become a source of error, since unobservant persons will be readily deceived by this temporary display of rational discourse, and form a hasty conclusion; hence, the importance of continued examination. At the commencement of an interview it may be all calmness and rationality, yet, when least expected, the disorder breaks forth, and in many instances there seems to be no cause for this conversion from apparent sanity to evident derangement.

Even when placed in the society of other madmen, he is capable of detecting their folly and aberration from reason, and will endeavour to convince them of the absurdity of their prevailing notions. Yet, in a moment his mind launches into the regions of fiction, and its admired clearness becomes obscured, and its seeming regularity exhibits a confused assemblage, or violent distortion.

The subtlety of the patient also should be recollected, and the artful concealment of his real opinions, and these should not be directly commenced with as subjects of discussion, since he

would soon perceive the drift of the enquiries, and endeavour to evade or pretend to disown them.

In exemplification of these several points, I cannot do better than refer to the well known cases narrated by Lord Erskine on the trial of Hadfield for shooting at George III. The first case being of a man who believed himself to be Jesus Christ, and the other that of a man who fancied that he corresponded with a princess in cherry juice. Both of these individuals contrived to triumph for a long time over every artifice that the most consummate forensic skill could bring to bear against them. One of them, indeed, in whose case a second trial was granted (owing to some informality in the former trial) was at length only found to be insane on the admissions he had made in the first one.

There is also another point which may be incidentally noticed here, that a sudden conversion or alteration of the disorder from general to partial insanity may take place, by which means the presence of delusion may escape detection. Such cases, it is true, are of rare occurrence; the possibility of their happening, however, will prove my excuse for having alluded to them.

In a legal point of view it is of the utmost importance that the degree of perfection in which the lucid interval exists, should be ascertained, that is, whether there be a restoration of reason, as during an intermission, or whether there be merely a weak and impaired state of judgment arising more from mental fatigue consequent on the disorder than from any cessation of the disease.

It would obviously be absurd to permit the individual to make any testamentary dispositions, as it is more than probable that under the circumstances these would be very different from what he may have formerly intended, or to what he might have felt it his duty to make on a more complete recovery.

A great distinction should be drawn between a lucid interval in the ordinary acceptation of the term, and that state of mind which may, with propriety, be called "testamentary capacity." The principle of law by which wills are rendered valid, distinctly looks to the character of the act in question, and not to the condition of the patient's mind. Therefore, in such cases the great point to determine is, not whether the individual has been insane, but whether he possessed sufficient capacity at

the time of the execution of the will, as ought to give it effect. The law on this point is thus laid down by Swinburne:—

“If a lunatic,” says he, “or one that is beside himself at sometimes, but not continually, make his testament, and it is not known whether the same were made while he was of sound mind or no, then, in case the testament be so conceived as thereby no argument of frenzy or folly can be drawn, it is to be presumed that the same was made during the time of his calm and clear intermissions, and so the testament shall be adjudged good; *yea, although it cannot be proved that the testator used to have any clear and quiet intermissions at all*: yet, nevertheless, I suppose that if the testament be wisely and orderly framed, the same ought to be accepted as a lawful instrument. So, on the other hand, if there be in it a mixture of wisdom and folly, it is to be presumed that the same was made during the testator’s folly, even if there be but one word sounding to folly.”

I am certainly inclined to think that acts, which in themselves are perfectly reasonable, afford *some* proof that the state of mind was rational when the individual directed them. To take for granted, however, that the mere execution of a rational will or deed, is a direct and convincing proof of a sane state of mind, is about as incorrect as to suppose that a man must be sane because he does not, on every occasion, thrust his dis-tempered fancies upon you.

I cannot, therefore, agree with the opinion given by Sir William Wynne, when deciding as to the validity of a will in the case of Cartwright *versus* Cartwright, when the testatrix was declared to have written her will during a “lucid interval,” the ligatures and straps having actually been removed from her wrists and arms for that purpose, and because her medical attendant thought by so yielding to her wayward caprice to calm her mental excitement. He said, “the strongest and best proof that can arise as to the existence of a lucid interval is, that which arises from the nature of the act itself, which is the thing to be first examined, and if it can be proved and established that it is a rational act, rationally done, that is sufficient.”

Were the nature of the act itself to be taken as a sure and distinct proof of the sanity or insanity of the individual, fully one-half of the inmates of our hospitals and asylums might be set at liberty, because those actions only which have relation to the

particular delusions are found to be irrational. And as the making of a will, or testamentary disposition of property, is an act which is generally contemplated, and which does not require any extraordinary mental exertion, it is obvious that such acts may be perfectly rational, even though made by a madman.

Where the object of a legal enquiry is to establish the fact of a lucid interval, as the term was explained in the former part of this paper, a very different proof is required, and very justly so, for upon the determination of this question depends the liberty and occasionally even the life of the individual.

"The evidence in favour of a lucid interval," says Lord Thurlow, "after derangement at any period has been established, should be as clear and demonstrative of such fact, as where the object of the proof is to establish derangement."

The evidence in such cases ought to go to the state and habit of the person, and not to the accidental interview of any individual, or to the self-possession of any act.

That madmen, who are subject to lucid intervals, are held responsible for all their actions committed during that state, is a well-established point of law, for, says Blackstone, "If a lunatic hath lucid intervals of understanding, he shall answer for what he does during these intervals, as if he had no deficiency. Lord Kenyon also, on the trial of Hadfield, after admitting that insanity was present both before and after the act, and that it was extremely improbable that the person had recovered in the interim, declared that, were they to run into nicety, proof might be demanded of his insanity at the precise moment when the act was committed, thereby inferring the absolute responsibility of the individual in any possible lucid interval.

As a general principle, I think that this disposition of the law is just, although it is one which, in its administration, demands most particular care and watchfulness, since it must always be borne in mind that even in the most perfect intervals of sanity, nay, even in cases of long continued and confirmed cure, a degree of mental irritability remains behind, so that the mind, though capable of withstanding all the excitement of the ordinary events of life, is still extremely liable to be again overthrown by violent emotions and passions, or by the influence of any unusual and unforeseen occurrence.

That crime, in its legitimate sense, may be committed by madmen, is an undeniable fact, and that they are *morally* res-

possible for the same, follows as a necessary consequence. Yet it is a wise provision of the French law, and one that ought to be adopted in the English code, that the mere presence of insanity absolves from crime, because it is impossible to mark out a line where responsibility begins and ends.

In the same way, if an individual be subject to insanity with lucid intervals, and commit a crime in what is supposed to be one of those lucid intervals, the greatest caution ought to be exercised, not only in determining its previous existence, but likewise in determining whether criminality shall attach to such offences, as, from their very nature, they are so likely to be overthrown by the most trivial circumstances.

Even in persons who are in the full possession of their senses, we seldom find that murder, or any other heinous offence, is committed, except on the spur of the moment, when the passions of anger, hatred, or fear, become too powerful for the controul of reason; if such, then, be frequently the case in sane minds, ought we not to regard with leniency the crimes which may be attributed to those individuals whose mental irritability renders them unable to resist such violent assaults.

The great difference between a man in a lucid interval and one who is perfectly sane, is, that whilst in the latter provocations rouse the passions to the highest degree of which they are capable in a state of health, so as to be more or less under the controul of the will, they may in the latter produce a mental change, which at once deprives him of all self-controul, and consequently of responsibility.

Much contrariety of opinion must necessarily exist as to what may be considered "a sufficient capacity," and this must depend upon the merits of the case; no definition, no positive rule, no single opinion, can decide in every case, but each must be sent before a jury to decide this point, since that which might be a sane act in one individual, may indicate decided insanity in another.

Before concluding this short paper on lucid intervals, it will not, I think, be out of place in me to allude to that particular form of impaired mind which occasionally accompanies general paralysis, and in which the mind appears to rally just before death. In this form the mental faculties are so overcast and

dimmed that all intellect appears to be gone for ever, or in the words of Juvenal—

“Omni membrorum damno major dementia quæ nec
Nomina servorum nec vultum agnoscit amici.”

Yet suddenly the mind appears to arouse from a dream, and the world, with all its accompanying relations, again bursts upon it.

These cases are, it is true, of very rare occurrence, yet their possible bearing upon wills and documents which may have been executed in cases of general paralysis, is a point of no mean importance. In such cases, as no delusion exists, the nature of the act in question, I should think, would be sufficient evidence as to the capacity or incapacity of the individual.

AN ESSAY ON THE IMPROVEMENTS MADE BY THE MODERNS IN THE MEDICAL TREATMENT OF MENTAL DISEASES.

" *Cord.*—Alack! 'tis he . . . As mad as the vex'd sea :
. . . . What can man's wisdom do, in the restoring his bereaved sense ?

Phys.—There is means, Madam : our foster-nurse of nature is repose,
the which he lacks ; that to provoke in him, are many simples operative,
whose power will close the eye of anguish."—*King Lear*.

" *Fab.*— Mad
Sir To.—We'll have him in a dark room and bound."—*Twelfth Night*.

INTRODUCTION.—The improvements made by the moderns in the medical treatment of mental diseases, may be summed up in the following proposition, viz., that—

The improvements effected by the moderns in the medical treatment of mental diseases, consist, not in the discovery of any specifics for the cure of those diseases, but in the rational application of the principles of medicine, as based on the pathology of the disease, and guided by practical experience, to the mitigation and cure of the various morbid conditions attending the varieties of mental disease.

As it has been well remarked by Dr. Marshall Hall,* "Medicine is still in the public mind but the empirical discovery of a remedy for a disease. Formerly, the object of some of its visionary professors was the discovery of a universal remedy, that is, a remedy for *all* diseases.

"The real object of medicine, as an art, is the just and rational application in each and every case of all our measures of prevention, mitigation, and cure, whether these be deduced from experimental or scientific considerations. The mere 'practical' physician, as some have boasted themselves to be, is the deluded and deluding alchemist of our profession ; he may pretend to cure diseases, as his prototype pretended to commute the baser metals into gold ; and the world is not less credulous now than it was then. The true physician resembles the scientific chemist in his pursuit of a legitimate science, and in its application to a noble art, and in the prosecution of an honourable profession."

The object of this essay will be the demonstration of the proposition above stated, and thus eloquently elucidated, and that—

* *The Lancet*, October 30, 1847.

1stly. By a summary of the medical treatment adopted by the ancients for mental diseases ; and

2ndly. By a statement of the modern medical treatment of the various varieties of insanity.

Conformably with the apparent wish of the society which has proposed this subject as its prize essay for the current year, all reference to the moral, as contradistinguished from the medical treatment of insanity, will be carefully avoided, indeed the conjoint consideration of both would far exceed the limits of an essay.

PART THE FIRST.

A SUMMARY OF THE MEDICAL TREATMENT ADOPTED BY THE ANCIENTS FOR MENTAL DISEASES.

1.—OF MELANCHOLY AND MANIA.—All the medical writers of antiquity constantly confounded the terms melancholia and mania, indeed they appear to have regarded them but as one disease, and as a general rule they applied the same treatment to both, and in speaking of the symptoms, sometimes gave a prominence to those we would consider as belonging to melancholia, at other times to those of mania.*

It will therefore be a summary of their views and treatment of melancholy and mania which I shall now endeavour to present.

CAUSE.—The cause generally ascribed of this disease was a melancholic humour affecting the brain ; again it might be noxious vapours or aurac, transmitted from the stomach to the brain, or it might be occasioned by yellow bile being by too much heat turned into black, &c. &c.

MEDICAL TREATMENT.—In mild cases the medical treatment recommended was, baths, and a humid diet. Many of these authors recommend oil baths, or the natural hot baths.

In more acute cases they abstracted blood from the arm or temples, from under the tongue, &c., and gave drastic purgatives, as hellebore, scammony, agaric, the wild cucumber, &c.

In the later stages wormwood, and the most acrid vinegar, given before going to sleep, are strongly recommended.

* See in illustration of this remark the chronological summary of the writers of antiquity, on mental disease, in the appendix to this essay.

When flatulence was present, the stomach was to be protected by cataplasms of parsley, anise, or cumin, to which cyprus, iris, and frankincense were to be added. These were to be allowed to remain even during the day, whether the patient eat or fasted, and when taken away, some other protection, as a piece of broad wool, was to be applied.

Bitters and carminatives were to be given internally, in fact they ran the whole gauntlet of the Pharmacopœia, getting more desperate as the disease became chronic, even to the applying of the actual cautery to the scalp, and the trephine to let out the vapours !

See farther, the Appendix for the varied opinions of individual writers, both on this disease, as also on Epilepsy.

2.—OF EPILEPSY.—The ancients entertained very superstitious opinions as to the nature of this disease ; many imagined that the epileptic paroxysms were produced by demoniacal influence ; others that it was caused by humours collected in the ventricles of the brains, which humour might be either of a pituitous or of a melancholic character. Again it is stated to be propagated from the stomach, legs, uterus, &c.

The symptoms are generally well described, and tally with nature.

They used several substances to prove or test epilepsy ; the smell of the gagate stone, or jet, was said to bring on an attack ; also the fumes of bitumen, of goats' horn, or liver, or the roasted liver eaten, &c.

MEDICAL TREATMENT OF EPILEPSY.—During the fit the senses were to be roused by strong-smelling things, as hog's fennel, cyrenaic juice, bitumen, and the pitch of cedar. A feather smeared with the oil of iris was to be introduced into the mouth to bring away the phlegm. Immediately after the paroxysm, blood-letting was to be practised.

PREVENTIVE TREATMENT.—Great faith was placed in the use of amulets, for the preparation of which many minute directions are given. Jasper was regarded as a very efficacious amulet ; a nail taken from the arm of a malefactor who had been crucified, is another, &c.

Besides amulets, persevering for a long time in drinking cold water was advised ; also purging and vomiting with hellebore, white pepper, &c. Also the cupping instrument to the head,

which was afterwards to be covered over with a cataplasm of bread boiled in honied water, and pounded with bitter almonds, wild thyme, mint, &c.; this to be worn for three days; then the head to be shaven, and rubbed with the juice of hog's fennel, dissolved in vinegar, wherein cow parsnip had been boiled, &c.

Others, more venturesome, opened the veins and arteries of the head, bored the bone down to the diploe, and applied the actual cautery.

When, on the other hand, epilepsy was suspected to proceed from the stomach, attention was paid to the diet, and the legs scarified; when from the legs, &c., ligatures were applied round the part during the fit, and caustics afterwards.

3.—OF LYCANTHROPIA.—The majority of the writers of antiquity describe a curious mental malady under the name of lycanthropia.*

The following are the symptoms as described by Paulus Aegin:—Those labouring under lycanthropia go out during the night, imitating wolves in all things, and lingering about sepulchres until morning. You may recognize such persons by these marks: they are pale, their vision feeble, their eyes dry, tongue very dry, and the flow of saliva is stopped. They are thirsty, and their legs have incurable ulcerations from frequent falls; such are the marks of the disease. You must know that lycanthropia is a species of melancholy which you may cure at the time of the attack by opening a vein, and abstracting blood to fainting, and giving the patient a diet of wholesome food. Let him use baths of sweet water, and then milk whey, for three days, and purging with the hiera from colocynth twice or thrice. After the purging use the theriac of vipers, and administer those things mentioned for the cure of melancholy. When the disease is already formed, use soporific embrocations, and rub the nostrils with opium when going to rest.

PART THE SECOND.

A SUMMARY OF THE MEDICAL TREATMENT ADOPTED BY THE MODERNS FOR MENTAL DISEASES.

1. OF MANIA (ACUTE).—Under the term acute mania, I would class, as is usually done, the various forms of unsoundness of mind which are characterised by undue excitement of the

* Consult De Nyand. De la Lycanthropie.—Paris, 1615.

faculties. In the most marked forms, the intellectual and moral powers are alike affected, and the whole mind thrown into a state of mingled excitement and confusion. It is thus well described by Pinel:—"Rapid succession or uninterrupted alternation of insulated ideas, and evanescent and unconnected emotions; continually repeated acts of extravagance; complete forgetfulness of every previous state; diminished sensibility to external impressions; abolition of the faculty of judgment; perpetual activity," &c.

This disorder, viz., acute mania, is generally preceded by what is termed the stage of incubation, and which is generally marked by moral disorder, leading to insane conduct in the exercise of the desires and affections, &c.

CAUSES.—The causes usually assigned for acute mania are very numerous, and may with propriety be classed into moral and physical.

The pathological condition which these causes induce is distinctly two-fold; viz. 1. A congested state of the brain, and probably an inflammatory condition of the blood; and 2. A state of irritation of the nervous substance.

Dr. Combe,* after discussing the treatment of mania depending on increased vascular action, states "there is a state of the nervous system very different from, and in some respects opposed to the preceding; yet attended by the same exaltation of passion, the same aberration of intellect, and the same kind of mental symptoms; and in which depletion and the antiphlogistic regimen, instead of benefitting the patient, add to the violence of the disease. This state is much less frequent than that connected with increased vascular action, and is to be distinguished from it by a careful examination of the constitution of the patient, the nature of the exciting causes, and the absence of the usual signs of vascular activity. Sometimes, however, the diagnostic signs are extremely obscure, and it is only by the cautious trial of remedies that its true nature can be ascertained." (p. 333.)

MEDICAL TREATMENT.—In the stage of incubation, which, however, we are seldom called upon to treat, much may be done

* Observations on Mental Derangement. A work which, while objectionable and unphilosophical, as being written rather to fit insanity into Phrenology than to investigate mental maladies, yet contains much valuable matter.

by a removal of the exciting cause, a regulation of the general health, quiet, &c.

In every case, if possible, the cause should be ascertained and removed, or palliated. Besides this we have, however, a distinct disease, induced by these causes, and characterised by the symptoms above detailed, to treat.

In cases attended by symptoms of increased vascular action, the antiphlogistic treatment is clearly indicated. All experience, however, declares, that the most powerful antiphlogistic is inadmissible, nay, Dr. Sutherland, whose experience in maniacal cases at St. Luke, entitles his opinion to every weight, states, "that he has known death from exhaustion and dementia to follow bleeding." Local blood-letting is, however, frequently attended with the happiest results, combined with free purgation, either by enemas or by calomel and jalap, or croton oil administered cautiously, and followed by a warm bath, with cold applications to the head. In other cases emetics often relieve the stomach of much accumulation of phlegm, bile, &c.; and I have not, in practice, found them to be attended by increase of the head symptoms, but on the contrary, rather, by their exhausting effect, to allay the same. Again, the keeping the patient under the influence of the tartarate of antimony, either alone or in combination with morphia, is frequently very useful, or with henbane (Dr. Sutherland.)

The room during this period ought to be darkened, &c., and the diet light, some arrowroot, &c. There is not often much appetite present. The thirst ought to be allayed by lemonade and other cooling drinks.

When, on the other hand, the symptoms appear to depend upon nervous irritation, besides quiet, small and frequently repeated doses of morphia, either alone or in combination with ether or brandy, will best allay the symptoms. With regard to the use of opiates, the following remarks of Dr. Sutherland's are so valuable, that I shall offer no apology for quoting them:—
 "Prescribed merely because the case is one of insanity, without taking into consideration physical symptoms accompanying it, or not in proper doses, or not given sufficiently often during the day as well as during the night, these remedies disappoint the practitioner; they keep up irritation and add to the excitement instead of allaying it."

"Opiates are, according to my experience, of essential service

in those cases of insanity which border closely upon delirium tremens ; in cases of puerperal mania ; in cases where there is great nervous irritability from poverty of blood ; and in cases combined with cachexia, from starvation and other causes." (Loc. cit.)

After the first excitement of acute mania has been, on those principles above detailed, subdued, there is still room for much medical treatment. The whole system has, by the violence of the attack, been disordered, and the natural action of the various functions must be again brought about. To fulfil this we have only to proceed on the ordinary principles of medicine. The vitiated state of the secretions, and torpidity of the bowels, must be met by alterative doses of the blue pill, saline purgatives, tonic extracts or infusions, &c. The tone of the whole system must be restored by cold baths, air, exercise, &c., mineral tonics, and so on.

In women, both in the commencement of the attack, and for some time afterwards, great attention must be paid to the uterine organs ; in the first instance, leeches applied to the vulvæ, warm hip-baths, &c. &c. In this stage camphor is peculiarly valuable : "Its effects," says Dr. Sutherland, "in allaying uterine irritation, cannot be doubted. The combination of hop, camphor, and henbane is valuable in such cases."

2. OF THE MODERN MEDICAL TREATMENT OF CHRONIC MANIA (INCLUDING THE VARIOUS STAGES OF DEMENTIA).—Under the term of Chronic Mania, I would include the various phases of long-continued (permanent?) insanity ; whether exhibiting itself in a series of fixed false ideas, with its train of false reasoning and absurd conduct ; in a general incoherence of thought—a going off at a tangent from any subject under consideration ; or in the gradual decay of the mental faculties ; in loss of memory ; of the power of association ; of comprehension, &c.

In all these varieties of chronic mania, physical disorder has done its work ; has permanently driven reason from her throne, and the body has again recovered from the shock, and its varied functions resumed their wonted play.

Occasional paroxysms of excitement recur from time to time ; and beyond attention to the general health, the subduing of these paroxysms is our only indication for the medical treatment of chronic mania.

TREATMENT.—I have found in practice, the cold shower-bath (when not contra-indicated by a tendency to phthisis, &c.) to be a most valuable remedy. Next I would rank an emetic at bedtime; the exhaustion (temporary) occasioned by which, as also the determination to the skin, often procures a night of quiet sleep, which is followed by a restoration to the usual quiet condition of the disease. I have had considerable experience in the treatment of chronic mania, and use more frequently than any other remedy to overcome these paroxysms, 3 gr. of the tartarate of antimony, introduced into the food, which acts freely both on the bowels and stomach, and avoids all the irritation of forcing medicine, giving shower-baths to unwilling recipients, &c.

The tincture of the Indian hemp has been strongly recommended; I obtained specimens both from Apothecaries' Hall and from Messrs. Savory and Moore, and although my first trials were successful, I have not on the whole been satisfied with the remedy.

In many instances warm baths with cold to the head are very useful. In some extreme cases the local abstraction of blood, as indicated by the flushing of the face, increased action of the temporal arteries, &c., is followed by good effects.

Often a drop of the croton oil or other brisk cathartic alone suffices.

The principles of the treatment in chronic mania are thus well summed up by Dr. Sutherland (*loc. cit.*):—"When the paroxysm occurs, it must be treated, as that of the acute stage, by shower-baths, hot-baths, with cold applications to the head, morphia, and aperients; due regard being paid to the different state in which the brain may be at the time." And again by Sir Alexander Morison (*loc. cit.*):—"Nauseating medicines are sometimes given to allay excitement, in particular, small doses of tartarate of antimony; also sedatives, as hyoscyamus, morphia, camphor, nitre; cooling lotions are applied to the head; topical bleeding; blisters to the nape of the neck."

3. OF THE MODERN MEDICAL TREATMENT OF MELANCHOLIA.—**SYMPTOMS:**—This disease is characterized by a suspension in a greater or less degree of the manifestations of the mental, moral, and physical powers, sometimes accompanied by a hallucination.

The patient seems dead to all external impressions, seldom

answers questions put to him, is often alike insensible to cold, hunger, and to the calls of nature, and seems as if he had no part beyond his corporeal presence and the space occupied by the same, in the doings of this world. The following description by Esquirol* is drawn from life :—" Les actions du mélancolique sont uniformes et leutes, il se refuse à tout mouvement, passe ses jours dans la solitude et l'oisiveté ; il est habituellement assis, les mains croisées, ou bien debout, inactif, les bras pendant le long du corps ; s'il marche c'est avec lenteur et appréhension, comme s'il avait quelque danger à éviter, ou bien il marche avec précipitation, et toujours dans la même direction comme si l'esprit était profondément occupé. Tourmenté par le chagrin ou la crainte, l'œil et l'oreille incessamment au guet ; pour le lypemaniaque le jour est sans repos, la nuit sans sommeil," &c. (op. cit.)

The bodily functions are much disordered ; the skin is generally dry and hot ; the pulse weak and slow ; the extremities cold. The secretions are for the most part suspended or vitiated, bowels constipated, bile not secreted, urine of a clear limpid colour ; in women the menses generally suspended ; there is sleeplessness likewise present.

The indication we possess for treatment lies in the removal of these physical disorders, which removal is, in very many instances, attended with success in the cure of the melancholy.

TREATMENT.—Experience would tend to prove that repeated local blood-lettings are, in the commencement of this disease, of the highest value. Whether the implied congestion and disorder of the cerebral circulation, which is thereby relieved, existed primary to the manifestation of the symptoms of melancholia, or resulted from these symptoms, is a question as yet unanswered.

Next in importance to local blood-letting, rank warm and cold (shower) baths ; free purgation and relief of the congested state of the liver, in the first instance by emetics,† and afterwards by mild, continued doses of the blue pill, combined with the extracts of gentian, taraxacum, &c.

* What a pity that this talented writer should so bore us with the long-windedness of his countrymen, and have spoilt an excellent octavo by spinning it into two large volumes.

† Dr. Holland in his *Reflections*, &c. has an excellent chapter on the value of emetics as a means of relief to the biliary and respiratory organs.

I have observed the happiest results to follow the occasional administration of an emetic at bed-time in the early stages of this malady. The following remark of Dr. Sutherland's is of great practical value:—"I think that frequently medical treatment is not continued long enough; it is too often abandoned in despair." (Report of Her Majesty's Commissioners in Lunacy.)

The sleeplessness is often beneficially treated by doses of morphia at bed-time; the dose ought to be large, $\frac{1}{2}$ to 1 gr. is a fair average, either of the muriate or acetate.

In women the usual measures, as leeches to the vulvæ, hip-baths, aloetic purgatives and injections, &c., for promoting a free flow of the menses, are of primary importance.

ON THE MEDICAL TREATMENT OF TWO COMPLICATIONS OF MENTAL DISEASE, EPILEPSY AND THE GENERAL PARALYSIS OF THE INSANE.

I.—OF THE MODERN MEDICAL TREATMENT OF EPILEPSY.

—The symptoms of epilepsy vary much in intensity, in every instance the disease is essentially a convulsive one. The following description by Esquirol, conveys a vivid picture of the symptoms:—"L'épilepsie éclate ordinairement par un cri, le malade tombe, les convulsions se manifestent mais avec des nuances infinies entre le plus léger mouvement convulsif et les convulsions les plus violentes et les plus effrayantes; il y a suspension complète de la sensibilité. Les cheveux se hérissent, le front se crispe, les sourcils s'abaissent et se rapprochent, les yeux sont saillans, hagards ou louches; les paupières fermées exécutent quelque fois un mouvement d'élévation et d'abaissement très vif et continu La face devient très rouge, livide, ecchymosée La mâchoire inférieure est serrée contre la supérieure on s'en écarte jusqu'à se luxer. La langue s'allonge, se tuméfie sorte de la bouche, est saisie, et coupée entre les dents. Le grincement des dents est si fort qu'elles se brisent en éclats. La voix n'est que gémissemens et soupirs: quelquefois les épileptiques poussent des hurlemens plus ou moins prolongés Les vaisseaux de la tête sont gonflés, les carotides battent avec de force Les bras, mains, &c. &c., sont dans un état tétanique. La flexion du ponce est si fréquente qu'on l'a regardée comme un signe

d'épilepsie. Les muscles de la vie organique ne sont pas étrangers à cette scène de douleur et d'effroi la sensibilité semble éteinte Aucun epileptique ne conserve le souvenir de ce qu'il vient d'éprouver, &c."—*Des Maladies Mentales, &c., de l'épilepsie*, tome Ier, p. 274. Paris, 1838.

This complication of symptoms has been beautifully analyzed by Dr. Marshall Hall, in a paper on the theory of convulsive diseases, read before the Medical Society of London, Oct. 25, 1847, and published in the *Lancet* for November.

The first symptoms he refers to convulsive contraction of certain muscles of the neck, and especially the platysma myoides. The consequence of this is "a compression of the jugular and other large veins of this important region, with congestion of the venous roots and capillary canals which lead to them, and of the cerebrum and other organs in which these are seated, or take their origin." This is followed by a similar action of the muscles, which close the larynx, inducing the distortion and convulsion of the eyes, face, and general frame; then the spasmodic affection of the sphincters.

CAUSES.—The causes of this set of symptoms are two-fold; first, those which excite the spinal centre, comprising the medulla oblongata and medulla spinalis immediately; and, secondly, those which excite this organ through the medium of its incident nerves. The first of these causes may consist of any disease having its seat within the spinal canal or cranium, so that it may occasion irritation of the spinal centre. The second consists of any disorder or disease which may irritate any part of the class of incident nerves of the spinal system, whether situated in the mucous or serous membranes, or other tissues or organs.

A detailed consideration of these two varieties of causes would be wandering too far from the subject-matter of this essay, suffice it for the present to have discovered the pathology of this disease; nay, having done so, does not the therapeutics, *i.e.* the rational treatment of disease, follow as a matter of course?

I.—OF THE TREATMENT DURING AND IMMEDIATELY AFTER THE FIT.—It need hardly be stated that anything, as a neckcloth, &c., causing compression of the jugular, must be removed. Next, the convulsive action of the muscles of the

larynx and its contraction must be overcome by the dashing of cold water in the face; the larynx being opened by the new excitant (cold water) acting on other nerves and muscles.

As the cause of the epileptic fit is frequently gastric or enteric irritation, the more promptly the stomach and intestines are relieved by emetics and enema the better. As this irritation is frequently combined with acidity, the administration of an alkali is advisable. If uterine irritation be suspected, the usual remedial measures, as warm hip baths, warm water vaginal injections, &c. &c., must be had recourse to.

2.—PREVENTIVE TREATMENT.—“If,” says Dr. Marshall Hall, “I were to fix on one remedy for epilepsy, it would not be valerian, indigo, or zinc, but judiciously administered air and exercise.” The augmented sensibility attendant on all convulsive diseases must be allayed, the great antidote to this condition is air and exercise, and the avoiding of all mental excitement, as heated rooms, late hours, operas, balls, &c. &c. Next, a simple, nutritious, and non-stimulating diet, with a due regulation of the secretions of the bowels, kidneys, skin, &c., must be patiently carried out.

When these, and other rational means conducive to health, have been put in operation, there can be no objection to the employment of any probable remedy suggested by supposed practical benefits. Thus, Dr. Sutherland, in his valuable answers to the enquiries of H.M. Commissioners in Lunacy (see their Report of 1847), while duly estimating the value of these measures just alluded to, states that he has “found setons, the bichloride of mercury, nitrate of silver, sulphate of zinc, citrate and other salts of iron, accompanied with aperients, of great use.” On such excellent authority, therefore, there can, in suitable cases, exist no possible objection to a fair trial of these measures.

Lastly, and this is of consequence, the condition of the patient during sleep must be attended to. During sleep, volition being in abeyance, as does the orbicularis, so do the muscles of the neck contract on the venous system, causing congestion of the brain, &c., as also those of the larynx causing stertor or snoring, audible respiration, &c. From what has already been stated as to the symptoms and causes of epilepsy, it will be seen that sleep actually, in a certain degree, causes the two primary symptoms of epilepsy, compression of the jugular, and constriction of the

larynx. Hence does epilepsy so frequently occur during sleep,* and therefore ought those pre-disposed to this disease, be (particularly at its commencement, when preventive measures may be hoped most to break the periodicity of the attack) carefully watched during that period, and the necessary measures, as the dashing of cold water in the face, &c., immediately be had recourse to, should threatenings of a fit supervene.

II.—OF THE MODERN MEDICAL TREATMENT OF THE GENERAL PARALYSIS OF THE INSANE.—The first symptom observed in cases of general paralysis, supervening on any of the forms of mental disease, is a difficulty in articulation, accompanied by slight impairment of memory, and of the power of locomotion. There is invariably present extreme satisfaction of mind; the patient revels in imaginary wealth, &c., and states, when visited, that he is daily progressing to a recovery. The difficulty in articulation and loss of the power of locomotion gradually but steadily increase; the sphincters lose their power; the constant lying, in conjunction with the low state of the vital powers, produces bedsores, and the patient sinks, all manifestations of mind being lost, and nearly all of life, and his death can only be considered as a happy release to himself as well as to all concerned in his care. A more pitiable sight than a patient in the last stage of general paralysis can hardly be conceived.

As is well observed by Sir Alexander Morison (see Report of H.M. Commissioners in Lunacy, 1847) "organic mischief to a greater or less extent is observed in all cases of this description, in the contents of the cranium."

Modern pathology has not, as yet, progressed beyond this statement of Sir Alexander's, and no more definite seat of the cause of this disorder has, as yet, been discovered.

Nor has practice been more successful in the cure of these maladies. "*Elle resiste,*" says Esquirol, "*à tous les moyens curatifs et ne laisse pas l'espoir d'une longue existence . . . il est rare que les aliénés paralytiques vivent au-delà d'un à trois ans.*"

The only possible indications of treatment we possess, are in the commencement of this disease to endeavour to subdue "the

* In all the cases of epilepsy which I have seen prove fatal, the patient has been found dead in the morning, having died in a fit during sleep.

organic mischief going on in the brain" by local depletion, mild laxatives and counter-irritation. In one case I twice applied the actual cautery to the back of the neck, but without any but the most temporary benefit. The only case I ever saw recover was one I left alone to the care of "open air and exercise." He was able to return home and resume his work as a stonemason. In the later stages the powers of nature must be supported, as Sir Alexander adds, "by generous diet, tonics, especially quinine."

That all accumulation in the paralysed rectum must be carefully guarded against by enemata, &c., as also retention of urine in the bladder obviated, are too self-evident to require further notice.

Dr. Sutherland states (*loc. cit.*) that he has "only seen three recoveries; two were put upon the bi-chloride of mercury, the other was treated with salines and counter-irritation."

I tried strychnia (which has been strongly recommended) in one case, but without any benefit.

SUMMARY.—In the first part of this essay, an attempt has been made briefly to present a view of the medical treatment adopted in former times for the cure of insanity.

Though no one can be more sensible than I am of its great deficiency, and of the meagreness of the sketch, yet I nevertheless hope I have adduced evidence to prove that the medical treatment of insanity, recommended by these writers, was either gross empiricism, or coarse practice at best, founded on an absurdly erroneous pathology. Indeed, remedies for diseases, as hellebore for mania, was all then sought for; found they never can be.

In the second part of this essay I have endeavoured to trace an outline of the principles of the medical treatment of mental diseases by the moderns, and although even more than in the first part, the subject suffers by the faultiness of the execution, yet I would fain hope that I have adduced evidence sufficient to prove that our treatment of insanity consists in the rational application of the principles of medicine, as based on the pathology of the disease, and guided by practical experience, to the mitigation and cure of the various morbid conditions attending the varieties of mental disease.

True it is that even the best informed and most experienced of our brotherhood (*Irrenärzte*) must acknowledge that much is

yet to be learned, many remedies to be tested. Still we are on the high road to knowledge; no longer blinded stumblers in the dark lanes and alleys of empiricism, but onward-journeyers in the light of modern pathology, to the perfect knowledge of disease, which knowledge is not, as has been erroneously stated, half the cure, but the whole; for to know disease as we are learning it, is, as Dr. Marshall Hall has well observed, "all the treatment."

I trust, then, that I have demonstrated the proposition I advanced at the commencement of this essay, viz. :—

That the improvements effected by the moderns, in the medical treatment of mental diseases, consist, not in the discovery of any specifics for the cure of those diseases, but in the rational application of the principles of medicine, as based on the pathology of the disease, and guided by practical experience, to the mitigation and cure of the various morbid conditions attending the varieties of mental disease.

Whether in so doing I have fulfilled the object of the Society which proposed the subject of this essay, is not my part to decide.

APPENDIX :—The following chronological view of the medical diseases in by-gone times was compiled by me principally from the German, and at some little labour, with the view of constituting Part I. of this essay, viz. : "A summary of the medical treatment of mental diseases as adopted by the ancients." When, however, about completing this essay, my attention was directed to a source I had not thought of, viz. : "The Seven Books of Paulus Aegineta," as published for the Sydenham Society. I found the views of the ancients on the medical treatment of insanity contained in that treatise, and in the commentary subjoined by Mr. Adams, (though differing in some points from the one I had compiled,) to be so much clearer and intelligible, that I resolved to condense these chapters, and substitute them in place of the following papers in Part I.

Still, unwilling to commit the labours of many hours to the flames, I bethought me of subjoining them as an appendix, in evidence of my endeavours to render this essay worthy of being presented to the Society for Improving the Condition of the Insane, as also in the hope that a contrast, and that a chronological one, with what is now Part I., might be found of interest, particularly as it extends to the 18th century.

A CHRONOLOGICAL VIEW OF THE MEDICAL TREATMENT OF
MENTAL DISEASES AS ADOPTED BY THE ANCIENTS.

The earliest record we have of medical treatment having been adopted for the cure of mental diseases, is in the record of the cure by Melampus of the three daughters of Proteus, who are said to have lived about 200 years before the Argonautic expedition, *i.e.*, about 1400 years before Christ.

It would appear that in consequence of an attack of leprosy (the connection of mental disease with which has been often observed*), the three daughters of the King Proteus became insane, imagining that they were transformed into cows and wandering about the country.

"Prætidēs implerunt falsis mugitibus agros."—VIRGIL.

Melampus induced them to take hellebore, and to drink the milk of goats which had been fed on that plant. The disease yielded, and the physician was rewarded by receiving the hand of one of his fair patients in marriage. Nor was he after death forgotten, a memorial feast having been yearly held in a temple consecrated to him.†

The next glimpse we obtain in the far antiquity of the application of medicine to the treatment of insanity, is that adopted by the Scythians to the cure of that strange malady which affected first the priesthood and then the people, *viz.*, the belief that they were transmuted into women.‡ On the appearance of the disease, Hippocrates tells us that they opened a vein behind the ears, and, when necessary, repeated this remedy several times. Those who, by this treatment, were not cured, were supposed to have sinned against their gods, were dressed in women's clothes, and thereby, according to the ideas of that period, degraded.

For a detailed account of this disease, see Heyne, *De Maribus inter Scythos Morbo Effeminatis*. Comment. Societat. Götting., 1778, class Philolog. vol. i., p. 28.

* See Hensler—*Vom Abendländischen Aussatze im Mittelalter*—(on the Eastern Leprosy in the Middle Ages). p. 142. Hamburg: 1790.

† Herodotus, lib. ii., chap. 18; also lib. ix., chap. 33.

‡ Individual cases of this monomania still recur. The Jesuits found several such instances at the Court of the Emperor of China. Kircher, *China Illustrata*, Amsterdam, 1767. Schaefer mentions having seen a case at the Bicetre. *Archiv für die Geschichte der Arzneikunde*, vol. i., p. 217. I have a case under my care of a woman who imagines herself a man; but these solitary instances are quite distinct from the epidemic belief in such a transmutation affecting a whole priesthood and then a people.

Leaving these and other half fabulous stories behind, I propose briefly considering chronologically the medical treatment of insanity advocated by the various writers of antiquity, omitting alike a reference either to their theoretical views or moral treatment, each of which would furnish ample subject for a separate thesis.

1. In the writings of Hippocrates, who died 361 years before Christ, are found a few disjointed notices of the medical treatment of insanity. The general term which he employs to indicate insanity is *παθαινοια*, which includes his *φρενιτις*, *μελαγχολια*, and *μανια*, which subdivisions, however, he constantly confounds one with the other.

The principal remedy on which he relies in the medical treatment of these diseases is the hellebore. When a speedy effect is desired, he orders that exercise be conjoined with it; when a milder, that the patient be allowed to sleep.

2. Diocles, who lived a few years after Hippocrates, wrote a few fragments on mental diseases, which have been preserved to us by Galen, Aurelianus, and Oribasius, and collected together by Gruner. (Bibliothek der Alter Aerzte. Halle, 1782.)

He recommends principally baths and blood-letting, and suggests the opening of a vessel below the tongue, but does not attempt to discriminate the varieties of insanity.

3. Asclepiades, who practised in Rome about 100 years before Christ, must have written a good deal on the medical treatment of insanity. His works are lost, but he is frequently quoted both by Celsus and Aurelianus, who, I suspect, borrowed from him most of their ideas on the subject.

4. Celsus, who flourished about the time of the Christian era, is so well known to every tyro in medicine, that it will be unnecessary to dwell long on his writings.

He uses the term *insania* as equivalent to the *παθαινοια* of Hippocrates. This he subdivides to a certain extent. His "Phrenesis" includes our mania and monomania. He states that blood-letting is most dangerous in this disease, and recommends the application of cold to the shaven scalp.

His second variety answers to our melancholia, which he regards as caused by the presence of bile in the fluids. He here recommends blood-letting when practicable, otherwise the induction of vomiting by means of the hellebore.

For the general medical treatment of mental diseases, he recommends exercise, frictions, and spare diet.

5. Aurelianus lived 96 years after Christ. His writings are contained in a work entitled "*De Morbis acutis et chronicis*, lib. viii." (Amsterdam, 1755.)

He regards insanity as essentially a bodily disorder. In recent cases he recommends, and is the first author who does so, the use of leeches, and the procuring of sleep by frictions, baths, &c.

General blood-letting and hellebore he condemns.

In the stage of convalescence he advises the employment of a decoction of aloes and wormwood (*absinthium*).

6. Aretaeus, who lived about the same period as Aurelianus, has, in his treatise "*De Causis et Signis Diuturn. Morb.*," the best ancient descriptions of mania and melancholia.

He confined his treatment to general and local blood-letting (by the cupping-glasses), and the production of vomiting and purging by means of the hellebore. The cupping-glasses he would have applied over the region of the liver, "*ut a jecore opportuna fiat effusio: et enim hoc viscus sanguinis fons est et bilem generat, quorum utrumque melancholiam alit.*"

7. Galen, who was born in the year 131, endeavours in his remarks on insanity,* principally to afford means of diagnosis between what he regards as the two pathological conditions of insanity, first, disease of the whole mass of the blood, and secondly, disease of that portion of it belonging to the cranium. In the first set of cases he regards general blood-letting as essential, in the second as not advisable.

On the whole he looks more to moral than to medical means for the cure of insanity, and he seems to have been well read in the metaphysics of his age.

8. Oribasius, who lived 360 years after Christ, was the friend and physician of the Emperor Julian. He compiled from his large work, in 70 books, on medicine (of which only fragments now exist), a "*Synopsis*." In this he treats of insanity under the two heads of melancholia and insania, the treatment however of which he says are alike, viz., baths, aloes, wormwood, colocynth, and hellebore; he likewise recommends a liberal diet.

In his synopsis, H. V. Chap. 14, he has some excellent remarks on the propriety of educating the bodies of children

* D. Halbach von der Porten. *De cognoscendis et curandis animi morbis ex Galeni sententia*. Date 1615.

before their minds, and not hurrying on education to the injury of the general health, which practice he regards as a cause of insanity.

9. Aetius,* lived in the middle of the sixth century. He recommends, in recent cases of insanity, low diet, purgatives, and blood-letting, and points out the propriety of procuring sleep after the latter—"Sanguine enim evacuato, si successerint vigiliæ, acriores et feriores ipsos faciunt."—A very true remark.

When the disease has not yielded to these remedies, he recommends what he regards (from his unacquaintance with our English discovery, the circulation) as local blood-letting, viz., from the vein in the middle of the forehead, as also cold applications to the head, baths, frictions, and the old story, hellebore.

10. Alexander of Tralles, a cotemporary of Aetius, employs in his work, "*De Arte Medica*,"† the word *melancholia*, to designate every variety of mental disease.

In cases accompanied by much excitement, he regards blood-letting as the best remedy, and suggests that in women it should be drawn from the feet, in order to promote the menstrual discharge. Where on the contrary the affections are chiefly disordered, he recommends purgatives and warm baths, in order to evacuate the bile, which he imagines is the exciting cause.

Although we have now reached the limits usually assigned by historians to the ancients, we are still as distant as ever from the boundaries of modern medicine. Indeed the medical chronicler must proceed nearly to the 19th century, ere he finds the light of modern pathology illumining the medical treatment of mental diseases. Not till then will he discover the improvements effected by the moderns in the medical treatment of these diseases, by the rational application of the principles of medicine, as based on the pathology of the disease, and guided by practical experience to their alleviation and cure.

In, therefore, continuing the first division of this essay, "*A Summary of the Medical Treatment adopted by the Ancients for Mental Diseases*," I shall, as above, state briefly the medical treatment adopted by the principal writers on the subject, arranging them, as hitherto, chronologically.

11. Constantius Africanus, was born in Carthage about the

* His writings are edited and translated by Janus Cornarius, in a folio published at Basil, 1542.

† Andernachs edit. Basil, 1556.

year 1010, and studied medicine in the Arabian schools of learning. He published a work, *De Melancholia*, in two books. His principal indication for medical treatment is the getting rid of the black bile by means of emetics.

12. Ebn Sina, or Avicenna as he was also called, died about 1036. He wrote a work on mental diseases,* in which, while chiefly speaking of the moral treatment, he is the first to recommend a machine resembling the swing (I should be unwilling to term it the modern) as a means of procuring quiet.

13. Avenzour was born in Seville, and died 1179.† He is the earliest writer who notices the application of the actual cautery to the treatment of mental diseases.

14. Arnoldus Villanovanus, taught in the University of Paris, and died in 1313, while on his road to visit Pope Clement the 5th. His views are unintelligible. He divides medicines suitable for the cure of mental diseases into two classes, those which take effect from their "*proprietas actualis*," and are specifics, and those which owe their efficacy to their "*complexio potentialis*." He thinks that loss of memory is to be cured by the "*complexionata*," which act by altering the substance of the brain.

15. Antonius Guainerius, a professor in the University of Padua, and who died 1440, recommends strongly the actual cautery for the treatment of mania.‡

16. Michael Savonarola, a professor in the University of Ferrara, and who died in 1461, in his "*Practica Major*," when treating of melancholia, speaks highly of the value of warm baths, tonics, and stimulants; but, as usual, without observing any just indications for their employment.

In turning to the writings of the sixteenth century, we find the same gross empiricism we have hitherto observed, to prevail as regards the medical treatment of insanity, only the two varieties of mania and melancholia are distinguished, and they treated either by specifics, or on some vague idea of melancholic humours to be altered or removed.

17. Theophrastus Paracelsus, was attached to the hospital

* Avicenna, *De Morbis Mentis Tractatus*, a Petro Vatterio versus. Paris, 1619.

† Oegg, *Über die Anwendung des Glüheisens bei Psychischen Krankheiten* (on the Employment of the Actual Cautery in Mental Diseases.) —HUFELAND'S JOURNAL, Sept. 1828.

‡ Opus præclarum ad praxin. Lugd. 1534.

at Salzburgh, and died 1541. He regards salt, sulphur, and mercury (particularly the latter) as the exciting causes of insanity; the sublimation of mercury by the heat of the body being the direct cause of mania.

He regards the actual cautery as the best remedy.*

18. Victorius, a professor in Padua, died 1551, recognized only melancholia, and treats it, firstly, by purgative syrups, and afterwards by leeches applied to the anus, laying at the same time great stress on the application of scented bandages to the region of the heart.†

19. Wilhelm Rondelet, a professor at Montpellier, died 1566. The following is his diagnosis between mania and melancholia:—"Melancholia enim ab humore frigido, mania vero ob tenuium et biliosorum humorum evenit malignitatem."‡

He recommends for the treatment of melancholia, enemas, blood-letting, and purgatives in the first stage; afterwards the application of the actual cautery to the scalp. In obstinate cases he recommends the application of the trephine, in order to let out the dark vapours and other matters causing the melancholia; and states that he has employed this remedy with success.

His treatment of mania is very similar, excepting the trephine; and he gives for both those diseases a mass of complicated specifics.

20. Hieronymus Capivacius, professor in Padua, died 1589. His writings represent very well the ideas of his age. He thus describes mania and melancholia. § "Delirium maniacum est functio corrupta principalis cerebri, dependens ab affectione ignea. Causa efficiens est affectio ignea, per quam mania distinguitur a delirio melancholic in quo affectio est tenebricosa. Sicut enim spiritus animalis tenebricosus producit phantasma tenebricosum, ut cerebrum afficiatur affectione tenebricosa. Ita spiritus animalis igneus producit phantasma igneum et hinc affectionem igneam."

He employs blisters and blood-letting in the treatment of melancholia, but states that the blood ought to be drawn, not

* Paracelsus. Schreiben von den Krankheiten, die der Vernunft berauben (Treatises on those Diseases which cause Loss of Reason), edited by A. V. Bodenstein, 1567.

† Medicinalia Consilia ad Varia Morborum Genera. Venet. 1551.

‡ Methodus Curandorum omnium Morborum Corporis Humani, lib. i. cap. 43.

§ Practica Medicina, lib. i. De affect. capit. cap. xi.

from the arm, but from the lower extremities, in order that the melancholic blood may be drawn downwards.

Naturally, besides medicine, witches and devils play a prominent part in the cure of the insane, both in this century and in the next.

The writings of the seventeenth century are, as regards the medical treatment of the insane, nearly as absurdly empirical as those of the last.

21. Georgius Horst, professor in Wittenberg, died 1636. He regards the causes of melancholia, of which alone he treats, to be a melancholic humour, thick black blood, and a dry, rigid state of the brain. He thinks that in monks the melancholic humour is generated by means of their fasts and fish. He proposes to get rid of this humour in the usual way, by blood-letting, purgatives, emetics, &c.

22. Daniel Sennert, another Wittenberg professor, died 1637. He likewise recognises and defines but two varieties, mania and melancholia. Of the latter, he says (*Practica Medicina*), "*Cor-dis enim temperies corrupta corrumpit temperiem cerebri.*" This is to be treated by remedies acting alike on the head and heart! "*Medicamenta quæ simul et cordi et capiti amica sunt.*" These he regards to be the following, "*borrago, cort. citri, grana kermes, lignum aloes, crocus, moschus, ambra, &c.*"* As the "*humor melancholicus*" generally sets itself in motion in the evening, mild purgatives are to be administered then.

23. J. B. v. Helmont, who died 1644, is chiefly worth notice as the first who recommended the bath of surprise in the treatment of insanity.†

24. Arnold Weikard, a physician in Frankfort, died 1645. He says mania may arise either from natural or supernatural causes.‡ Besides the usual remedies of his age, he advises, in doubtful cases, the trephine and castration! His prescriptions are most complex; one enema contains 21 ingredients.

25. Michael Ettmüller, a professor in Leipzig, has written pretty fully regarding mania and melancholia.§

For the treatment of mania he recommends principally the hellebore and nitre. He says that the latter heals by artificially castrating, even as others have healed maniacs by actually

* *Dissertatio de Mania, &c.* Wittemb. 1620.

† *Helmonti oper. omn.* Ed. Valentini. Hafn. 1707.

‡ *Thesaurus Pharmaceuticus.* Francof. 1626.

§ *Ettmüller. Opera omnia.* Genev. 1736. Lib. ii. section iii.

castrating. He classes the blood of asses among the specifics for this disease. He gives the following recipe for its use:—

R Lint. sangu. asinino tinct. manus longitudinem et latitut. acquans; infund. in s. q. aq. hyperic. colat. $\bar{3}$ ii. adde essen. anagall. $\bar{3}$ β laud. opiat. ferm gr. i.

M. S. Singularis potio cephalica pro una vice.

The following is another of his specifics:—

R catellos adhuc lactentes actatis 7 vel 8 dierum; exhis capiunt cerebrum, istud distillant per se; aquam destillatam spirituosam imbibunt cum vitriolo, et ita per retortam destillant et postmodum rectificant. Dosis est \mathfrak{D} j. “Quo quatuor maniaci curati dicuntur.”

26. George Wolfgang Wedel, professor in Jena, died 1721. He entertains some curious chemical theories with regard to the treatment of the insane.* These he states thus:—“Seorsim enim in mania efferati sunt (spiritus animales) æqualiter, ob particulas sulphureas excedentes sed efferetas simul, a sale acido volatili, quale in formicis occurrit, incoctas vero vel acriores lymphaticas demulcentes, unde furor et alia phænomena. Oppositum hujus visitur in melancholia, ubi depressi sunt et concentrati, ob acidum austerum obscurans lucem animalem, serumque ad demulcentum ineptum reddens. In mania, flamma ignea, spirituum animalium deprimenda est, ad moderationis decentis terminos, unde humectantia et temperatiora magis prosunt,” &c.†

The value of the writings of the eighteenth century vary. Many, as for example, Haslam and Crichton, approach so nearly to the views entertained by the moderns on the medical treatment of mental disease, that their ideas will be reflected in the second part of this essay; where an endeavour will be made to continue the demonstration of the proposition‡ laid down in the introduction to this essay, by a statement of the modern medical treatment of the various varieties of insanity.

Again the pathological researches of Morgagni (*De Sedibus*

* *Exercitationes Pathologico-therapeuticæ.* Jena, 1697.

† *Op. cit.* Exercitat. ix. cap. i. p. 140.

‡ “The improvements effected by the moderns in the medical treatment of mental diseases, consist, not in the discovery of any specifics for the cure of those diseases, but in the rational application of the principles of medicine, as based on the pathology of the disease, and guided by practical experience, to the mitigation and cure of the various morbid conditions attending the varieties of mental disease.”—Introduction, p. 1.

et Causis Morborum per Anatomen Idicatis. Neapol. 1762) and of Haller (*Elementa Physiologica*. Lausann. 1763) laid the basis for one more enlightened treatment of the disease. Yet Haller even entertained some vague notions of the action of specifics. Thus he writes,* "wonderful effects of camphyr in a lunatic." And after detailing a case in which he had successfully administered this medicine, states, "From the premises, it is plain that the inward virtues of camphyr have not been thoroughly understood by our physicians, who in imitation of the ancients, have held its supposed great heat to be improper for internal cases. . . . camphyr will become a celebrated article."

Farther, the classification adopted by writers of this century, as Arnold in his *Observations on the Nature, &c. of Insanity*, is most absurd and most minute. A detailed notice of it would be foreign to the subject of this essay.

They used most of the remedies we use, and have faithfully recorded their effects; but they used them, as it were, in the dark, not understanding the indications their own measures fulfilled.

* Medical Cases, &c., communicated by Dr. Haller to the Royal Academy of Science at Stockholm, p. 28. London, 1758.

AN ESSAY ON THE MORAL MANAGEMENT OF INSANITY.

"If the moderns have any claim to pre-eminence in the cure of insanity, it is certainly from studying those means which have been denominated moral, with more attention, and applying them with most effect."—COMMENTARIES ON INSANITY. DR BURROWS.

"Des preceptes, des guides, s'ils existent pour vous, ils sont en vous, ne les cherchez pas ailleurs . . . La pharmacie morale du medecin, qu'on me pardonne cette expression, est dans sa tête et dans son cœur; il prend en lui même ce qu'il donne à son malade S'il est ainsi pourquoi écrire sur le traitement moral de la folie? Pour prouver que dans certains cas ou le traitement physique ne peut rien, le traitement moral peut beaucoup; pour faire comprendre quelle variété il convient de mettre dans le choix des moyens moraux quand il y a une véritable indication à l'emploi de ces moyens."—LEURET. DES INDICATIONS A SUIVRE DANS LE TRAITEMENT MORAL DE LA FOLIE. 8vo. Paris, 1846.

PREFACE.—It has been my endeavour in the following essay, to present a concise view of the modern system of the moral management of insanity.

I have throughout this attempt sought to develop those principles on which the moral treatment of insanity ought to be based, rather than to amplify the details of practice; looking upon the first as permanent, and as the basis on which those details (which must vary with so many circumstances) should be grounded. Indeed I have not hesitated, though fully aware of the extreme difficulty attending the same, to trace those principles up to their source, and to forge a connecting link, even though it be a weak one, between the laws which regulate the action of the healthy mind, and those principles which ought to regulate the moral management of the deranged mind; and after the attempt has been made, short as it comes from the realization of my views, I feel more and more satisfied that it is to this relationship and analogy that we are to look for future advances in the moral management of mental disease; and that it is still reserved for a stronger hand to trace in brighter lights those truths whose shadows may, perchance, be found to have fallen on my pages.

In working out the practical details, I have endeavoured throughout to strengthen the opinions advanced, by quotations from the writings of those whose reputation and position entitle them to sit in judgment on the question.

INTRODUCTION.—Under the term "moral management of insanity" are included those moral influences (as contra-distinguished from medicinal agents) which may be brought to

bear on the restoration to their normal condition of the various powers of the mind, intellectual and moral, which in a state of mental derangement are perverted, suspended, or obliterated, whether these influences produce a cure, or only an alleviation of the symptoms.

An inquiry into the moral management of insanity clearly pre-supposes a knowledge of mental pathology, *i.e.* of the various morbid conditions which insanity may produce in the human mind, be it disease of the intellectual or of the moral powers, and the successful application of any principles of moral treatment which such an inquiry may establish, will bear an intimate relation to the correct diagnosis formed of existing intellectual and moral disease in any case under consideration.

Many, strange and varied, are the symptoms of intellectual and moral disorders exhibited in the insane state. For example, in acute mania we find a general perturbation of all the powers of the mind; consciousness, and even the power of external perception being very frequently suspended. Again, and most markedly in cases of simple monomania as alone evinced in the existence of an intellectual delusion, judgment is entirely perverted, and its decisions remain uninfluenced by the clearest logical reasoning. Such cases are often attended with disease of the power of external perception, the patient imagining himself the object of bodily torture, &c. &c. In other instances of mental disease the power of the association of ideas is lost, the person so afflicted being unable to carry on any consecutive discourse. Again, the imagination in the insane exhibits itself in a thousand phantastic shapes, perhaps, owing to a diseased condition of the powers of conception and abstraction, those faculties by which we are enabled to summon before the mind former associations, and when so summoned to arrange and classify them. Further, the power of attention is, in many cases of mental derangement, most markedly suspended. In more chronic cases the memory appears unable to retain any recent impression, while long past scenes can still at will be recalled. And through the later stages of the malady, we can trace the gradual annihilation of every mental power.

On the other hand, we find that, either concomitant with intellectual disease, or even singly*, the moral powers of the mind may be perverted or entirely obliterated, exhibiting itself

* The Moral Insanity of Systematic Writers.

in entire moral perversion; in an inability to control conduct; in total suspension of the natural affections, &c. &c. In other instances the propensities appear peculiarly to be the seat of the disease, as in an insane desire for intoxicating drinks, of acquiring by theft useless property, and so on. Under this diseased condition of the propensities, certain authors would include insane impulses to murder, arson, &c.* a dangerous and unsound doctrine, which, however, it is not the object of this present essay to examine.

It might, at first sight, appear that a disease thus strange and varied in its symptoms, as insanity in the above slight sketch, has been shown to be, would, in its moral management, require equally strange and varied means to be had recourse to.

Philosophy and experience, however, alike teach us that the moral means required in the treatment of mental diseases, are few and simple, and that their operation is based upon and explained by those laws which govern the action of the healthy mind, and that mental disease is to be cured, not by any strange or violent remedies, but (in so far as concerns its moral management), by a patient continuance in intellectual and moral discipline.

In order to develop the subject of this essay, the moral management of insanity, I purpose in three separate chapters to consider seriatim—

1st.—The question of the removal of the insane from home, and the propriety of placing them in establishments devoted to the reception and treatment of cases of mental derangement.

2ndly.—To consider the moral management of intellectual disorders, and

3rdly.—The moral management of insane conduct; adding in an appendix a few remarks on “the non-restraint system,” which some regard as the basis, nay, necessary element of a correct system of moral management.

* While admitting that the propensities may thus acquire a power over the conduct, amounting eventually to disease, it is to be observed that the early history of such cases is a record of wilful yielding to sinful desires, and that, therefore, they who have thus gradually assigned to their propensities the control over their conduct, until unable again to resume the same, are, being thus guilty of the cause, by the law of sequence guilty of the consequent also, and have in every deed themselves woven the chains that then bind them. Ought they, therefore, to receive from the law, protection against the consequences of crimes, the result of these enthroned propensities, and to which they have willingly and against knowledge, yielded reason's and conscience's seats?

CHAPTER I.

OF THE REMOVAL OF THE INSANE FROM HOME IN ITS RELATION TO THE MORAL MANAGEMENT OF INSANITY.

"C'est le moyen le plus énergique et ordinairement,
"le plus utile pour combattre les maladies mentales."—ESQUIROL.

The question of removing the insane from home, thereby depriving them of their liberty, of their social and political rights, is evidently one of the highest importance, demanding from those whom the law has entrusted with its execution, the most careful consideration.

There are two prominent points of view, from which the question may be regarded, viz. the medical, and, secondly, the legal;—the influence which seclusion from the world exerts on the progress of mental disease; and, secondly, the relation in which the act of removal stands to the liberty of the subject, the rights of property, &c. &c.

It is in its first relation, in its influence on the cure of mental derangement, that the question of the removal of the insane from home demands, in an essay like the present, consideration.

Every writer who has treated of the moral management of insanity, asserts the frequent necessity of the removal of the insane from home, and also lauds the beneficial influence of the measure on the progress of the curative process in the majority of instances. Thus, Esquirol writes, * "Tous les medecins anglais, allemands et français qui se livrent a l'étude des maladies mentales, conseillent l'isolement des alienes et sont unanimes sur l'utilité de ce moyen de guerison." "The immediate separation of the insane," says Sir Alexander Morison,† "from persons and objects to which they have been daily accustomed, is, in most cases, necessary."

"The isolation of the patient," says Baron Feuchtersleben,‡ "with a change of his situation, is the first condition, and the first step to every cure of mental diseases."

The manner in which the removal of the insane from the scenes and associations of home, acts on their mental powers, so as to produce this favourable influence on the progress of the

* Des Maladies Mentales, tom II., p. 745.

† Outlines of Lectures on the Nature, &c., of Insanity. Edited by T. C. Morison, Esq., p. 376. London, 1848.

‡ The Principles of Medical Psychology. Translated for the Lydenham Society. 1847.

malady, will be best ascertained by analysing the manner in which such scenes and associations, as also removal from the same, influence the trains of thought which pass through the healthy mind; that standard on which all our inductions regarding the action of the insane mind should be based.

The various thoughts which pass through the healthy mind, are regulated and influenced by that intellectual power termed the association of ideas, *i.e.*, the tendency which our thoughts have to succeed each other in a current regulated by various circumstances* as resemblance, contiguity in time and place, cause and effect, &c. &c. "This principle of association," says Dr. Abercrombie,† "is founded upon a remarkable tendency, by which two or more facts or conceptions, which have been contemplated together, or in immediate succession, become so connected in the mind that one of them at a future time, recalls the others or introduces a train of thoughts, which, without any mental effort, follow each other in the order in which they were originally associated. This is called the association of ideas." "By means of the association of ideas," says Dugald Stewart,‡ "a constant current of thoughts, if I may use the expression, is made to pass through the mind while we are awake. Sometimes the current is interrupted and the thoughts diverted into a new channel, in consequence of the ideas suggested by other men, or of the objects of perception with which we are surrounded. So completely, however, is the mind in this particular, subjected to physical laws, that it has been justly observed,§ we cannot by an effort of our will, call up any one thought, and that the train of our ideas depends on causes which operate in a manner inexplicable by us."||

We discover then, that the trains of thought which occur in the healthy mind are, in a measure (Mr. Stewart, in the above extract would consider completely), influenced by the material relations, by the scenes and associations in which we are placed, and therefore that removal from the influence of these material relations must necessarily divert the mind from the thoughts which they, by the power of association, suggested, into new and different channels.

* See note A, at the end of this chapter.

† Inquiries concerning the Intellectual Powers.

‡ Elements of the Philosophy of the Human Mind.

§ By Lord Kaines, and others.

|| See note B, at the end of this chapter.

Now, in the moral management of insanity, we, by removing the patient from home, act through this power of association of ideas, and by the withdrawal of existing material relations, of the scenes and associations of home, arrest the morbid currents of thought suggested by the same, and by the influence of new objects of perception, of new scenery, new domestic arrangements, new faces—we suggest (on this same law of association) healthy trains of thought, and thereby directly tend to restore to reason its lost dominion.

While, however, theory and practice thus concur in demonstrating and establishing the beneficial results, which follow the removal of the insane from home, it is at the same time to be observed that this measure is not equally applicable nor equally beneficial in all cases of mental derangement, and that the traditional system of moral management which would remove every case of insanity immediately to an establishment for the insane, is alike cruel and unjust to its victim, and also in some instances aggravates the very symptoms it would relieve. The brand which public opinion attaches to those who been confined in an asylum, ought not lightly to be marked; the tearing asunder of the domestic ties which this measure necessitates, is in itself a matter of no mean importance, and one which only stern necessity can justify; and yet, to adopt the words of Dr. Seymour,* “I have seen many cases myself which would have been sent from home unless further medical assistance had been sought and whose health was restored without such a measure in a few weeks. I do not (he adds) in the least doubt the necessity in many cases. What I dispute is the general rule and its application.” So also has it been well observed by Sir A. Morison,† “that there can be no doubt that removal from home may be too indiscriminately adopted.‡ Persons in febrile delirium have been sent to a mad-house, and, to prove that we ought not to be in haste in recommending this measure when there is any reason to doubt its instant propriety, I may mention the case of a young lady who became delirious, and whom I was called in to see; removal from home was proposed, but I objected to it. The result shewed that I was right, for in the course of a week

* Thoughts on the nature and treatment of several severe diseases of the human body. Vol. 1, p. 218. London, 1847.

† Op. cit. p. 376.

‡ See also Esquirol, Op. cit. tom. II. p. 775.

she got well. We ought to keep in mind that this measure, removal from home, is not absolutely required for many insane persons."

Seeing then that removal from home is a most valuable remedy in the moral management of insanity, but that, like most other valuable remedial agents, it is liable to be injudiciously and injuriously employed, it becomes necessary to establish the principles on which its application to individual cases should be based. This object will in the first instances be best attained by considering the practical benefits which result from this removal, as we shall therefrom be enabled to deduce the general features of those cases to which the remedy is applicable, and hence also those to which it is inapplicable and likely to prove injurious.

The practical objects attained by the removal of the insane from home may be thus briefly stated.

1.—The entire change of material relations with the corresponding influence on the association of ideas in the mind of the patient. (See above).

2.—The removal of many exciting causes of the disease, as poverty, dissipation, domestic broils, &c. &c.

3.—The tranquillising and soothing influence which a well ordered establishment exerts as compared with the weary turmoil of a life of poverty, dissipation, &c. &c.

4.—The facility which such institutions afford of placing the patient under the moral and medical treatment required by his case, and to which if at large he would probably refuse to submit.

5.—The direct influence which this step exerts often on recovery by leading the patient to think that he may be insane and by inducing him to exert his will,* to control insane thought and conduct, in the hope of procuring his discharge.†

* See Chapter III. p.

† In insanity, which appears to paralyse every valuable energy of the human mind, the extent to which the patient contributes to his own recovery, has not been sufficiently recognised. As the mist of delirium becomes less thick, he begins to recognise his state as one of separation and banishment; he does not indeed admit the reasonableness of this banishment, but he is desirous of terminating it. He now gradually discovers that certain trains of thought and forms of expression are objected to by his medical attendants; he endeavours to avoid those trains and thought and those expressions, for on his so doing he is led to understand that his liberation depends."—Dr. Mayo, *Elements of the Pathology of the Human Mind*, p. 99. London, 1838.

6.—The safety of the public and of the patient are alike secured where violence is to be dreaded.

Such being the practical objects attained by the removal of the insane from home, it follows that the remedy is applicable to and called for in—

(a). Cases of acute and violent mania in which treatment at home has failed in arresting the progress of the disease, and where danger both to the patient and to his friends is to be feared from his violence. In such instances also it is only in an establishment for the insane (provided with the various appliances, as padded rooms, well-trained attendants, humane means of personal coercion if called for, &c.) that the necessary medical and moral treatment can be adopted.

(b). In cases of confirmed mania (chronic mania, dementia, &c.) where all the mental powers are more or less perverted and obliterated, and where the patient is unable to control either his ideas or his conduct, it is apparent that he must be placed under such control as shall counteract this generally incurable deficiency, and prevent the dangerous consequences which would attend the frequent attacks of excitement to which such persons are liable.

(c). In cases of intellectual delusion, where concomitant with the same, feelings of anger and revenge are cherished against relatives and friends; where all the bonds of natural affections are by insanity broken asunder, the lunatic standing in heart and feelings isolated from his family, it is clear that their safety alone demands his immediate removal from home. In these instances the further benefit (according to the operation of the law of association, see above) will result of placing the patient in relationships of curability, which, while at large, it was impossible he could have attained. Indeed all the six objects which I have above stated to result from the act of removal from home, will in these instances be attained, and hence by this remedy alone the cure much facilitated.

(d). In the various cases of insane, moral perversion (moral insanity) as also in those who have resigned the guiding of their conduct to the impulses of their propensities until this wilful resignation has produced diseased action (see foot note above) the safety of the public and the interests of society require the application of this remedy, removal from home, while the withdrawal of the power of indulging morbid feelings and propensities will gradually pave the way for those of a healthier tone.

From this brief summary of the cases in which the remedy of removal from home is, in carrying out the moral management of insanity, necessary, it would a priori follow that its employment is contraindicated in cases not partaking of these features.

In the following instances, the mere act of removal from home (while uncalled for) sometimes even aggravates the symptoms.

(a). In cases of temporary excitement of thought and conduct, the result of hard-living, &c. &c., removal from home is not only unnecessary, but even aggravates the symptoms; while on the other hand, medical treatment at home and a quiet country residence, will in a short time effect a cure. So also—

(b). In slight and recent cases of melancholia, and—

(c). In cases of puerperal insanity.

It is, I think, self-evident that the mere act of removal from home to that strange scene, a lunatic asylum, must necessarily aggravate the nervous excitement of one who has but just gone through the perils and pains of child-birth, and but increase the gloom of one whose mind is for a time overwhelmed by a dark sea of troubled thoughts and weary misgivings. Removal from home, may, particularly with the poorer classes, be necessary in such instances. What I would now insist upon is the utter impossibility of such a step being (particularly in cases of puerperal insanity) in itself, one towards the cure of the disease.

Again, the period at which the seclusion from the world—the result of the removal from home should terminate, is a question of much importance as regards the moral management of insanity. No definite rules, however, can be laid down on this head; experience and a knowledge of the case are our best guides.

It is to be borne in mind that too long confinement may undermine a progressing convalescence and cause a relapse, but also that too early a discharge with its consequent excitement may be, and sometimes is, more than the weakened mind can bear, and that herefrom therefore a relapse also follows.

Esquirol, whose practical opinion is entitled to every consideration, appears to regard too long a seclusion as the least dangerous of the two extremes. "*Je puis affirmer,*" he says* "*que j'ai, vu beau comp moins d'accidens, beaucoup moins de retours de delire, en prolongeant l'isolement, qu'en le faisant cesser trop-trot.*"

* Op. cit., tom. II. p. 778.

In carrying out the removal of the insane from the associations of home into practice, the three following are the means by which this step may be accomplished.

1.—We may simply seclude the patient in apartments in his own house. In recent and more slight cases this practice may with advantage be employed, provided always trained attendants be hired to wait on the patient. Otherwise, there is a constant risk of danger.

2.—We may seclude the patient singly in a house under the care of a qualified person. This practice may in the same instances as the first method, be had recourse to ; as also with more chronic cases. The attendant expense, however, precludes its general employment, even were it otherwise advisable. The advantages and disadvantages of these two methods are thus well stated by Sir Alexander Morison, whose extensive private practice in cases of mental disease, gives weight to his opinion on the subject. "The advantages are, that scenes which might be injurious, are avoided, and the medical attendant has it in his power to give his undivided attention to the case. This mode is to be preferred in recent cases, where circumstances permit, and especially where the mental disease is in but a slight degree. The disadvantages which attend it seem to be the unavoidable expense. Some relation also generally chooses to remain near the invalid, or else the latter soon perceives that everything by which he is surrounded is destined for his service ; in either case the objects of seclusion are imperfectly attained. Lastly, many things are often required which are only to be found in public establishments."

3. We may seclude the patient in a lunatic asylum, *i.e.*, in an establishment (either private or public property) devoted to the reception and cure of deranged persons, and this method is to the general run of cases the most applicable, whether we regard the necessary expense to be incurred, or even the cure of the patient, as in such establishments, and there alone, the various appliances necessary to that purpose are to be found.

Several able essays and treatises and chapters in systematic works have been devoted to the consideration of the general government and conduct of such establishments, among which*

* Falret's *visite à Illenau* (Paris, 1845), contains a good summary of the subject.

those by Dr. Jacobi and Dr. Conolly have in England attracted the greatest attention.

While a detailed survey of this matter is evidently not included in the subject under consideration, it may, nevertheless, not be out of place briefly to state the principles on which such institutions should be conducted.

1. It is important that the site should be healthy, rather elevated, and commanding a view of the surrounding country.

2. The general appearance of the buildings, rooms, &c., should be as far removed as possible from that of a place of confinement, and approximated to that of a hospital.

3. The means of classification (including seclusion) both by night and by day, should be attended to, and a sufficient amount of single sleeping-rooms provided, as the dormitories (now so fashionable) are inapplicable to very many cases of mental disease.

4. The internal arrangements with regard to baths, ventilation, warming, water-closets, &c., &c., must be based on the general principles established with regard to the arrangement of these points in all public buildings for the reception of sick persons.

5. Ample airing-grounds with terraces commanding a view of the country are indispensable.

6. As to the internal economy and direction of the establishment, it is self-evident that in a place devoted to the reception of sick in mind and body, these arrangements must be guided by the opinion of the medical officer in charge of these sick persons, and that all detail as to servants, diet, hours, &c., &c., should depend on his views as to their expediency in promoting the object of the institution and of his residence in the same, viz., the cure of the inmates.

The details of these principles must naturally vary with the nature of the cases intended to be treated, whether recent or chronic, or of the higher classes or parish paupers, &c., &c., &c.

Intimately connected with the question of removal from home, and therefore requiring in this place a few remarks, is the propriety of intercourse personally or by writing, with friends.

Intercourse with friends is a means of cure, which, in the moral management of insanity, has been hitherto too much neglected.*

* This neglect of this means was evidently a direct result of the treatment till so lately adopted, particularly in private establishments. It is apparent that no encouragement would be given to visit those whom avarice and penury doomed to want, neglect, and filth, if not to ill-treatment.

It is, however, a means of cure, which would, under judicious management, be attended with the happiest results in the moral management of many cases of mental derangement. I have in many cases had reason to be satisfied with the beneficial results both of judicious letters and visits from friends, and I lately had reason to attribute the consolidation, if not the origin, of a cure in a case of mania of two years' standing, to my permitting the patient to return at first occasionally, then daily, to his family circle for an hour or two.

It is evident that in recent cases of mania attended with excitement, and in cases where there is great perversion of the moral powers, that intercourse with friends must be most carefully limited, if not temporarily suspended altogether.

On the other hand, however, no one, I think, who has day by day and year by year heard the weary longings expressed by those suffering under continued mental derangement for a sight of their friends and families, and seen how even the shortest and coldest letter—and many a short cold letter does the outcast lunatic receive from those whose duty it is to watch over him in sickness and to share his sorrows—has been prized, and has been the oft-recurring theme of conversation, can doubt the beneficial effects often influenced by intercourse with friends.

"Regarding the propriety of the visits of friends," says Dr. Seymour,* "I have a still greater opinion. When first a patient is placed in a lunatic asylum, the friends are solicitous to see him—at the period, in fact, when these visits are least likely to be useful; a few weeks elapse, he is no better; the visits discontinue, after a time disappear altogether. Then time takes the affair into his own hand, the early affectionate and solicitous die—a new generation succeeds And thus after some years in extreme cases I have known persons who had never seen friends or relations for many, many years And yet is it not more than necessary for some one to watch the condition of the lunatic? It changes; in the worst cases it is susceptible of relief, of comfort, even of joy; remembrance is called up on occasion of those once loved; the moment of returning affection may influence returning reason. It has done so in more than a few cases."

And, setting aside the curative influence of this measure,

* Thoughts on the Nature and Treatment of several severe Diseases, &c., &c. London, 1847.

nothing could so strengthen the hands of H.M. Commissioners in Lunacy, more particularly in their visitation of asylums devoted to the reception of private patients, as the frequent and systematic visitation by friends.*

* Dr. Seymour has the following observations with reference to this subject:—"When the late Sir Henry Hallford was asked upon the committee of the House of Commons in 1814, whether he could suggest any great improvement in the treatment of lunatics, he replied—"The greatest advantage would be derived in obliging the friends of the lunatics to visit." Perhaps this influenced the opinion of those who brought in the new lunatic act in the reign of George IV. (1828). By this act, any one who authorised the confinement of a lunatic was obliged to visit him either personally or by any other person appointed under his hand and seal once in every three months, no great hardship it would seem; but such is the superstition of this country, that to be allied to a lunatic is a disgrace—the alliance not a disgrace, but the discovery of it—that on the renewal of this act, this clause, so trifling an approach in its effect to real good, was expunged in the House of Lords."—*Op. cit.*

Note A, above referred to.

OF THE LAWS WHICH REGULATE THE ASSOCIATION OF OUR IDEAS.

"The tendency which our thoughts have to succeed each other in a current, regulated by various circumstances, as resemblance," &c.

The following observations by Dugald Stewart will, I think, tend further to develop the laws (hinted at in the above extract from my text,) which regulate the association of our ideas.

"The tendency of a perception, or of an idea, to suggest ideas related to it, is so obvious as to be matter of common remark. But the relations which connect all our thoughts together, and the laws which regulate their succession, were but little attended to before the publication of Mr. Hume's writings.

"It is well known to those who are in the least conversant with the present state of metaphysical science, that this eminent writer has attempted to reduce all the principles of association among our ideas to three:—resemblance, contiguity in time and place, and cause and effect. The attempt was great, and worthy of his genius; but it has been shown by several writers* since his time, that his enumeration is not only incomplete, but that it is even indistinct, so far as it goes.

"It is not necessary for my present purpose, that I should enter into a critical examination of this part of Mr. Hume's system; or that I should attempt to specify those principles of association which he has omitted. Indeed it does not seem to me that the problem admits of a satisfactory solution; for there is no possible relation among the objects of our knowledge which may not serve to connect them together in the mind; and, therefore, although one enumeration may be more

* See in particular Lord Kaime's *Elements of Criticism*, and Dr. Gerard's *Essay on Genius*. See also Dr. Campbell's *Philosophy of Rhetoric*.

It is observed by Dr. Beattie (*Dissertations Moral and Critical*), that something like an attempt to enumerate the laws of association is to be found in Aristotle; who, in speaking of recollection, insinuates with his usual brevity, "that the relations by which we are led from one thought to another in tracing out, or hunting after (as he calls it,) any particular thought, which does not immediately occur, are chiefly three: resemblance, contrariety, and contiguity.

comprehensive than another, a perfectly complete enumeration is scarcely to be expected.

"There is, however, an important distinction among them, which, as far as I know, has not hitherto attracted the attention of philosophers. The relations upon which some of our principles of association are founded, are perfectly obvious to the mind; those which are the foundation of others, are discovered only in consequence of particular efforts of attention. Of the former kind are the relations of resemblance and analogy, of contrariety, of vicinity in time and place, and those which arise from accidental coincidences in the sound of different words. These in general connect our thoughts together when they are suffered to take their natural course, and when we are conscious of little or no active exertion. Of the latter kind are the relations of cause and effect, of means and end, of premises and conclusion; and those others which regulate the train of thought in the mind of the philosopher when he is engaged in a particular investigation."—*Elements of the Philosophy of the Human Mind*.

Note B.

OF THE INFLUENCE OF PHYSICAL LAWS ON THE OPERATIONS OF THE MIND.

In the quotation which I have made from Dugald Stewart, he says, "So completely is the mind in this particular (the association of ideas) subjected to physical laws, that it has been justly observed, we cannot, at will, call up any one thought," &c.

Now, as this quotation standing singly would both be unsound in philosophy and in ethics, apparently denying, as it does, man's power to control, by an effort of the will, those thoughts for which he is nevertheless responsible; and would also fail in conveying Mr. Stewart's own opinion on the subject, I think it advisable to subjoin an extract from the same chapter of his *Elements*, as also an eloquent passage by Dr. Chalmers in reference to the same subject.

"Notwithstanding, however, the immediate dependence of our thoughts on the laws of association, it must not be imagined that the will possesses no influence over it. This influence indeed is not exercised directly and immediately, as we are apt to suppose on a superficial view of the subject, but it is, nevertheless, very extensive in its effects." *Op. cit.* p. 224.

The manner in which this indirect influence of the will is exerted, is thus well stated by Dr. Chalmers:—

"It is true, that once the idea of an object is in the mind, its counterpart emotion may, by an organic or pathological law, have come unbidden into the heart. The emotion may have come unbidden, but the idea may not have come unbidden

"The will is not in contact with the emotion, but it is in contact with the idea of that object which awakens the emotion; and, therefore, although not in contact with the emotion, it may be vested with an effectual controul over it. It cannot bid into the breast the naked and unaccompanied feeling of gratitude, but it can call to recollection, and keep in recollection the kindness which prompts it, and the emotion follows in faithful attendance on its counterpart object. It is thus that we can will the right emotions into being, not immediately but mediately. It is thus too that we bid away the wrong emotions, not separately and in disjunction from their objects, for the pathological law which unites objects with emotions, we cannot break asunder; but we rid our heart of the emotions, by ridding our mind of their exciting and originating thoughts; of anger, for example, by forgetting the injury, or of a licentious instigation, by dismissing from our fancy the licentious image, or turning our sight and our eyes from viewing vanity."—*On the Adaptation of external Nature to the Moral and Intellectual Constitution of Man; being one of the Bridgewater Treatises*.

CHAPTER II.

OF THE MORAL MANAGEMENT OF INTELLECTUAL DISORDERS.

" *Doctor.* She is troubled with thick-coming fancies.

" *Macbeth.*

Cure her of that :

Canst thou not minister to a mind diseased ?"

Macbeth.

Under the term intellectual disorder, I would include the various morbid affections of the intellectual powers, be it their general perturbation or suspension, as in mania and in some forms of melancholia ; or their partial perversion, as in monomania (the presence of an intellectual delusion.)

The latter form, viz., the presence of intellectual delusions, is one of the most striking forms of intellectual disorder which, in the moral management of insanity, we are called on to deal with ; and which it may, therefore, be well, in the first instance, to examine.

Now, the first principle which, in the moral management of intellectual delusions, we learn from practical experience is, that they are not to be combated or removed by argument, as might, a priori, have been supposed. Indeed it is one of the most marked diagnostics between real and feigned* monomania, that a real monomaniac cannot be reasoned out of his false ideas, and that in the maintaining of them he will set all the principles of logic at defiance, which an impostor, from fear of discovery, would not venture to do.

All writers on mental disease concur on this point. Thus Dr. Mayo† says, " Those advisers who laboriously confute the patient's erroneous assertions, or deny the reality of perceptions which are real to him, in other words impute them to his imagination, strengthen his disease by destroying his confidence in their judgment. To tell him that his perceptions will sooner or later become different, is to give him comfort, as this gives him reason to hope a change in his circumstances : to deny their existence, is to assure him that you do not understand his case." " It is a general rule," says Dr. Prichard,‡ " long since established as a maxim among physicians who have made in-

* See Ray's Treatise on the Medical Jurisprudence of Insanity. Also Notes on Feigned Insanity, Journal of Psychological Medicine, No. 2, April, 1848.

† Op. cit.

‡ A Treatise on Insanity, &c., p. 301.

sanity their particular study, not to direct the attention of patients to the subjects in which their illusions turn, or to oppose their unreasonable prejudices by argument, discussion, or contradiction, in order to bring them to a correct way of thinking. Such attempts are found to be worse than vain and useless; they irritate the temper of the deranged person, whom it is impossible, under ordinary circumstances, to convince by the most evident proofs."*

Seeing then that intellectual delusions are not to be combated by argument, it is apparent that other and more indirect means must be sought for enabling the judgment to form just conclusions regarding matters of fact or belief, thereby tending to the removal of insane delusions.

Following out the principles of investigation applied in the preceding chapter, I shall proceed to analyse the steps by which just conclusions are, in the sound mind, arrived at—the influences which tend to bias the judgment on any given subject, and endeavour therefrom to deduce some principle on which the moral management of intellectual disorders may be based.

It is a principle sufficiently ascertained by common experience, that there is a certain act or exertion of the mind necessary to fix in the memory the thoughts and perceptions of which we are conscious. This act is termed the power of attention; and it is a fact, which each one by his own experience can test, that, owing to the power of attention being suspended, a train of thought may be carried on by the mind, or impressions made on our organs of sense, and yet next moment be forgotten. "When we are deeply engaged in conversation, or occupied with any speculation that is interesting to the mind, the surrounding objects either do not produce in us the perceptions they are fitted to excite, or these perceptions are instantly forgotten. A clock, for example, may strike in the same room with us without our being able next moment to recollect whether we heard it or not."†

Farther, there exists an intellectual power termed by metaphysicians the power of abstraction, whereby the mind is enabled to direct the attention to certain qualities or circum-

* There are some cases on record in which a striking and palpable proof, suddenly and unexpectedly displayed, has succeeded in dispelling the illusions of insane persons; but they are rare, and form exceptions to a very general and almost universal rule.

† Dugald Stewart, *op. cit.*

stances of objects and events and to withdraw it from others; and whereby, therefore, the reason or judgment is enabled to form just conclusions (comparisons), and by the same to regulate the conduct. "The power," says Mr. Stewart, "which the understanding has of separating the combinations which are presented to it, is distinguished by logicians by the name of abstraction. That it is one of the most important of all our faculties, and very intimately connected with the exercise of our reasoning powers, is beyond dispute; and I flatter myself that it will appear from the sequel of this chapter, how much the proper management of it conduces to the success of our philosophical pursuits, and of our general conduct in life."*

It is, therefore, through the agency of these two mental powers, attention and abstraction, that the judgment directs itself to the consideration of any subject, and draws comparisons and forms conclusions regarding the same; and it follows from this, that the value of these conclusions will bear a relation to the extent to which these powers of attention and abstraction are regulated and exercised; and further, that false conclusions and erroneous judgments and opinions are to be corrected by calling into operation these powers of attention and abstraction, or as Mr. Stewart, in the passage I have last quoted, expresses it, of the power of abstraction, "by their proper management."

In order, however, that the judgment in the sound mind should arrive at just conclusions, it is farther necessary (besides that the powers of abstraction and attention be properly managed) that the mind should be entirely unbiassed by any personal feeling or excited emotion; that there should likewise be present a sound state of the moral feelings. "Hence," says Dr. Abercrombie,† in speaking of this influence of the moral powers over the judgment, "the difficulty we feel in deciding on a subject in which we are deeply interested, especially if our inclination, and the facts and motives presented by the case, be in any degree opposed to each other Any particular emotion which has been deeply indulged and fostered, comes in this manner to influence the judgment in a most extraordinary degree. It is thus that a vitiated and depraved state of the moral feelings at last misleads the judgment in regard to the great principles of moral rectitude, and terminates in a state of

* Op. cit.

† Inquiries concerning the Intellectual Powers, p. 181.

mind emphatically described in the sacred writings, in which a man puts evil for good and good for evil, and is left to the influence of strong delusion, so that 'he believes a lie.' "

From these and like considerations, we discover that in the healthy mind three conditions are necessary to enable the reason to judge aright, viz., that the power of attention, and, secondly, that of abstraction, be properly managed; and, thirdly, that the moral feelings be duly ordered; hence we deduce, that in order to rectify any false or erroneous conclusions which the judgment, in the healthy mind, may, on any given subject arrive at, these three powers must be duly exercised; that attention must be excited to the subject; that the power of abstraction must be exercised so as to enable the judgment to draw just comparisons; that the moral feelings must be in a sound condition, so as not to bias the result of these comparisons to erroneous conclusions.

Returning (having thus established this principle) to the consideration of the mind in which insane delusions are present, we are immediately struck by the fact that these three conditions necessary to the forming of just comparisons, are in monomania, as also in melancholia, wanting. Thus in melancholia, the power of attention is markedly weakened, in many instances suspended, even to the neglect of the calls of nature.* In other instances it appears to be strongly and entirely concentrated on one particular object, and cannot be fixed on any subject under consideration.

Farther, in the various cases of intellectual delusions (monomania) the power of abstraction is entirely obliterated or suspended, as is evinced in the inability of the patient to form any just comparison or conclusion on matters connected with his delusion, and frequently on any subject (see above) "Neither the delusion of sense," says Dr. Conolly,† in commenting on a case of insane delusion, "nor the weakness of attention and memory, nor the irregularity of his imagination, could alone have produced insanity. These might have accounted for imbecility of mind, the insanity arose from their being accompanied by a loss of the power of comparing one thing with another (the power of abstraction), or things imagined with things real.

* In general mania, we likewise observe how entirely the power of attention is obliterated; the patient being often unable to fix his thoughts for any period consecutively, even for a few minutes.

† An enquiry concerning the indications of insanity.

3. We observe that in cases of intellectual delusion, the moral feelings are frequently vitiated and obliterated, and hence, from the analogy of this state in the healthy mind, we infer that the judgment is thereby also hindered from arriving at just comparisons and conclusions.

"An individual," says Dr. Prichard,* "labouring under intellectual delusions, is, under ordinary circumstances, calm, and exhibits no symptom of that perturbation and constant excitement which are observed in raving madness. But, on careful inquiry, it will be found that his mind is in many respects in a different condition from that of perfect health. The habits and disposition have, perhaps, been long, in a greater or less degree, in the state which characterises moral insanity. If we advert to the order and connection of morbid phenomena, we often learn that on a settled and habitual melancholy, or on a morose and sullen misanthropy long growing and indulged, or on some other disordered and perverted state of the feelings and affections, a particular illusion has more recently supervened."

There is, therefore, observed in cases of intellectual delusion, an absence or perversion of the three requisites (to the healthy mind) in forming just opinions, viz. : attention, which is suspended or fixed on some one subject; abstraction, which is perverted (the power of comparison being lost); and the moral feelings, which are disordered and perverted; and hence, by a fair inference, we arrive at the conclusion, that in order to remove and obliterate intellectual delusions, and restore thus the mind to reason, such moral means must be employed as shall call into operation the suspended powers of attention and abstraction, and farther restore to their healthy state the perverted moral powers; means which thereby shall place the judgment in that position which an analysis of its operations in the healthy mind proves to be necessary to enable the mind to arrive at just conclusions regarding any subject under consideration. And from experience we learn that means adapted to these ends are successful in the removal of intellectual delusions, as also of melancholia (where the attention is entirely suspended), and of mania (where all the mental powers are more or less perverted or suspended), after the violence and excitement have been by physical remedies removed, and the patient placed in a position and state of health to which the principles of the moral management of insanity can be applied.

* Op. cit. p. 28.

These means I shall now proceed under two heads to consider :

I. Of the means necessary to restore the action of the powers of attention and abstraction.

II. Of the means necessary to rectify perverted moral powers.

I.—OF THE MEANS NECESSARY, IN THE MORAL MANAGEMENT OF INTELLECTUAL DISORDERS, TO RESTORE THE ACTION OF THE POWERS OF ATTENTION AND ABSTRACTION TO A HEALTHY STATE.

(a). **REGULARITY AND ORDER.**—The beneficial influence of regularity and order on the suspended power of attention in cases of monomania, melancholia, &c., is very great. The habits of regularity which pervade the daily routine of life in an establishment for the insane ; the fixed hours for rising, eating, walking, &c. ; nay, the ringing at fixed hours of the asylum-bell ; all appeal directly and on each occasion to the patient's power of attention, and stimulate the same into action ; and we frequently have occasion to observe the rapid influence thus exerted by these habits of regularity and order in cases recently admitted into an asylum.

(b.) **OCCUPATION AND AMUSEMENT.**—The various means of occupation and amusement now universally had recourse to in the moral management of insanity (besides appealing, as they evidently directly do, to the power of attention), likewise compel the patient to exercise the power of abstraction, by leading his mind to form comparisons and conclusions regarding the subjects brought before it in the various occupations and amusements in which he may be engaged, and thus prepare the way for the exercise of this power of abstraction in the formation of just comparisons in matters of greater moment to his intellectual health, in the various relations in which his insane delusions stand, and may have been formed. “ The advantages of bodily labour (occupation) as a powerful means of moral discipline, are generally admitted. The attention of the monomaniac, hitherto concentrated on certain ideas, begins to be diverted from them ; and the wanderings of the maniac to become more fixed. The body thus exercised is at the same time strengthened, and the mind begins, as in health, to form intellectual combinations, and to regain the power of changing the train of ideas.”*

* Sir Alexander Morison, *op. cit.*, p. 401.

The means of occupation will evidently vary with the rank and sex of the patient; with his former mode of life; with the means at the command of the institution in which he may be placed; with the nature of his malady; with the state of his bodily health, &c., &c., &c. The following observations, therefore, on the means of occupation, have reference only to general principles, the individual application of which must entirely be influenced by the nature of the case.

With all means of occupation, it is, however, to be borne in mind, that the object of them is remedial, not remunerative, and that the extent of their employment is therefore to be regulated not by the wants of the establishment, but by the condition of the patient, bodily and mental. It is self-evident that only the physician can determine this question.* Without in any way undervaluing the benefit which has resulted in innumerable instances of mental derangement from the employment of this remedial measure, occupation, it may, nevertheless, be observed, that it may be employed injuriously† as well as beneficially, either in the general amount of work exacted, or in its application to some individual case, in which the attendant excitement may but increase the physical and mental disease. Insanity is essentially a disease of debility, mental and bodily, and hence the amount of work to be expected from those labouring under this malady is not to be estimated on the healthy standard. Again, while true that there are certain indolent lunatics who ought not to be indulged in their idleness, on the other hand, as a rule, the patient ought not to be forced to work, but rather induced to apply to some occupation congenial to his tastes, which in general will not be difficult of accomplishment.

Farther, too great a uniformity in the means of employment, and in the daily routine of life, is to be avoided, tending, as it does, to sap the energies of the mind.

* This observation may appear superfluous. Still we too often in practice find others, as members of visiting committees, stewards, matrons, &c., &c., deciding as to the propriety of this or that patient being employed.

† "As regards county asylums, there is now a great disposition in the officers to set every patient to work as soon as admitted; sometimes very improperly, and when, perhaps, work has made the poor creature mad. A man just admitted is, perhaps, sent off to the shoemaker's shop before his case can have been considered by the physician; and a poor melancholy woman, or a frightened agitated girl, is set to work immediately with a needle and thread, to pursue, as if in a mere workhouse, the same sedentary occupation which has already destroyed her health."—Dr. Conolly. *The Construction and Government of Lunatic Asylums*.—p. 78.

Sedentary occupations also must, as a rule, be avoided, or, at least, their use most carefully regulated, as will be apparent even from a consideration of the physical symptoms attending insanity. Hence workshop and workroom occupations, however profitable to the establishment, are less beneficial to the patient than garden, farm, and household occupations—that is to say, to such as are in a fit condition to be thus employed. Here, however, the former habits of the patient are to be considered, his inclinations, &c., attention being had that those thus employed devote a portion of the day to exercise in the open air.

For the male patients, agricultural and gardening pursuits offer the most advantages, and, when a due discretion is used, the extent to which the insane may be entrusted with the various necessary implements is very surprising, and every public asylum ought to be provided with several acres of garden and farm ground, on which the patients can be employed. With female patients, the various household duties of cooking, washing, cleaning, &c., are to be preferred to the more sedentary one of constant needle-work, which would with greater propriety be left for afternoon hours, than made, as it generally is, the daily and only occupation of some useful patients.

The means of occupation for persons of the higher classes, come more aptly under the term of amusements, which, therefore, I shall proceed now to consider.

In asylums for the insane, and particularly in such as are devoted to the reception of persons of the higher classes, it is farther necessary that means of amusement should be provided, which (as do the means of occupation), by appealing to the powers of attention and abstraction, tend to the removal and cure of morbid mental symptoms.

In practice, great difficulty is experienced in breaking the weary monotony of time spent day by day and year by year in a circumscribed round of few and ever-recurring events—a monotony which, if unbroken, will even prove detrimental to those intellectual powers which disease may have left intact.

The first principle to be laid down in applying this moral agent, amusement, to the management of cases of insanity, is, that it must be a daily system of treatment, steadily carried on. No single ball or concert can accomplish the curatory and preservative results required of amusements, as applied to the moral management of insanity; it is only constantly recurring

objects of attention, and the ideas thereby suggested, which can attain the objects thus in view. "It is difficult," says Dr. Conolly, "for the physician to an asylum to make others comprehend how important many influences, in themselves apparently trifling, become when the aggregate of their operation is continually applied to disordered minds. Vulgar approbation is easily obtained by occasional display, although the general character of an asylum may be that of a mere workhouse or place of safety, in which nothing is habitually done beyond employing the patients, and keeping them quiet for their recovery. The faults of commission may be few, and of omission many. . . . The patients may pass a very large portion of their time unoccupied, unamused; their hourly comforts little cared for, their recreations quite disregarded; so that many of them become more and more listless, and even at length incurable, from neglect. No reflecting and experienced physician can walk through the wards of any large asylum without seeing proofs of this; and for the effectual counteraction of such an evil, and the calling forth of daily and hourly resources yet unemployed, there seems to be required an energy and ingenuity on the part of superintendents, seconded by proper authority over a sufficient number of officers and assistants, such as cannot yet be freely exercised in any asylum. Much therefore remains to be done, which cannot be done at present."

The second principle to be laid down in applying amusement to the moral management of insanity, is to assimilate the daily life of the patient, as much as possible, to his former habits when sane.

Thus, with persons of literary habits, the morning may be spent in reading in the library, the afternoon in walks and drives into the country, the evening at cards or some other round game. Others, again, may advantageously spend a portion of the day in the billiard-room, in drawing, in writing, either to absent friends, or in composition, or in copying by request of the medical officer, &c., &c. Again, occasional extra amusements, as concerts, lectures, and so on, tend to diversify the evenings; so also attendance at the parish church on Sundays, when admissible, is a useful variation; visits to celebrated places with pic-nicks are, in summer, something to look forward to.

It is, however, apparent that all this detail must be influenced by the nature of the cases, the means at the disposal of the medical superintendent, &c., &c.

I cannot, I think, conclude this section, and thereby farther develope my views on this subject, better than by the following extract from Dr. Browne's Sixth Annual Report of the Crichton Royal Institution for Lunatics:—

AMUSEMENTS.—“While it is wise and prudent to impart to an asylum the air and aspect and domestic relations of a large family, and to assimilate the economy to that of a sane community, it is absolutely necessary to devise means which shall take the place, although they neither possess the dignity nor the attractions of the great interests and duties of life. But it is impossible to give scope to the genius of the architect, or even the art of the mason; the ministrations of the altar, the court of law, and the hospital must cease, the merchant cannot engage in speculations, the fox-hunter lacks the excitement of the chase, and the great majority of the affluent, and many of the middle classes, are thrown, as much by the nature of their confinement as by the ravages of their disease, upon the resources of minds that may not have been naturally contemplative, or the dull and daily monotony of a newspaper and incessant reading. Amusements, and active amusements, which draw their participants from their usual residences, and from their accustomed and cherished train of thought, assemble various parties together, and place them in new and pleasing circumstances, are, or ought to be, incorporated as an essential and recognised part of the system of treatment. They should form a part of the business of the establishment, and if it be recollected how largely they enter into the ordinary habits of the sane, and of the free, how much of human life is allotted to their pursuit, this estimate of their importance will not be regarded as exaggerated.

“They afford in an asylum an agreeable mode of exhibiting medicine, which, under a less fascinating form, would be rejected. They are epochs to which the imagination may look forward; they create a future in minds which dwell on present misery, and they clothe particular days, and periods, and rooms, and parts of the environs, with peaceful and happy recollections, which deprive confinement of much of its pain and horror, if they do not actually accelerate the progress of the mind towards a healthy condition. The accumulating mass of incurable cases which inevitably takes place in every large asylum, renders such provisions essentially incumbent. For individuals compelled by their misfortunes to live apart for ever from the world, and to yield up almost all the ties, and sympathies, and objects, which

constitute rational happiness, it is the highest exercise of humanity to create a new sphere of pleasure, if not of usefulness, in keeping with their altered condition, and to surround them with new sources of gratification, adapted to their powers of enjoyment.

Great difficulty is found in varying these recreations. To dance always, a patient has remarked, would emulate the movements and drudgery of the treadmill. It is further dangerous to present what is frivolous to the insane. They regard such an act as an adaptation to their infirmities, and as an insult to their infirmities; and in the infancy of such an experiment, and in this particular locality, and where the minds to be acted upon are so variable, incongruous, and inflammable, the highest order of attractions cannot be procured. How far the attempt has succeeded, or, rather, how far it has been carried, will be seen in the following table:—

Date.	Nature of Amusement.	Numbers Present.		
		Males	Females	Total
Nov. 13	Concert in Asylum	38	22	60
30	Musical and card soirée, St. Andrew's Day	5	8	13
Dec. 2	Concert in Dumfries	2	2	4
17	Concert (glee singers) in asylum	41	24	65
24	Christmas-eve—log-burning, ball, &c....	31	29	60
27	Concert in Dumfries	3	3	6
Jan. 7	Lecture on Phonography, Dumfries	5	5	10
9	Concert in Asylum	33	21	54
22	Lecture on Phonography in asylum	47	27	74
24	Soirée in drawing-room	2	9	11
Feb. 21	Ball	26	14	40
Mar. 14	Concert in asylum	40	24	64
21	Exhibition of deaf and dumb	46	27	73
28	Ball	38	25	63
Apl 8&9	Concerts in Dumfries	4	5	9
23	Theatre in Asylum	41	22	63
May 2	Lecture on Mnemonics	3	2	5
5 & 7	Theatres in Dumfries	6	4	10
20	Excursion to Carlaverock	3	9	12
22	Theatre in asylum	49	38	87
23	Concert in Dumfries	6	4	10
30	Excursion to Carlaverock	9		9

This Table is thus continued throughout the year, including fairs, flower shows, cattle shows, the races, a musard concert, &c.

The average numbers under treatment was 130; the total 173.

(c.) INSTRUCTION.—As occupations and amusements (which have just been considered) directly appeal to the powers of attention and abstraction, and thereby tend to the removal of

insane delusions, so also does the moral agent now to be considered, viz., instruction. It farther tends to develope latent powers, or such as have been weakened by disease, and thereby also places the judgment in a position from which it can, with greater prospect of success, judge of the unreality of the various intellectual or sensual delusions presented before it.

In the application of so powerful an agent to an insane mind, much caution is required, and all tendency to delirium or incoherence of thought is, as a rule, a contra-indication.*

The faculty of observation is that which may be earliest, and with least danger, and hence, most generally cultivated. As Dr. Mayo has well observed, it does not imply the continuity of action, which easily runs on into incoherent thought in the insane intellect; and it tends gradually to wean such an intellect from false perceptions.

Hence, the advantage to be derived from tame animals, pictures, flowers, &c., in the moral management, particularly of cases of convalescence from mental disease.

Again, in cases of the slighter forms of melancholia (as also in monomania) the engaging in some fixed study as a course of history, is a remedy, which has, from the time of the ancients, been extolled as a valuable cure.

More recently attempts have been made to introduce schools into our pauper establishments, and it can hardly be doubted that were this system more fully carried out, that much benefit would accrue from the same. Latent powers would be brought out, the attention steadily and necessarily fixed, while, farther, much of that moral as well as intellectual ignorance, which so often beclouds the mind of the pauper lunatic, might be removed, and his period of convalescence made a precious seed time, the fruits of which would enrich his after years here; nay, perhaps, render him fitter for his final account.

* "Reading is rarely to be advised in recent cases, until convalescence has made some progress, and then great judgment is required in selecting books. All reading which disposes to strong emotions ought to be avoided, as well as that which exhibits opinions or scenes capable of distressing the patient, or of confirming or increasing the delusions he has entertained."—Sir Alexander Morison, *op. cit.*

II.—OF THE MEANS NECESSARY IN THE MORAL MANAGEMENT OF INTELLECTUAL DISORDERS, TO RESTORE THE PERVERTED MORAL POWERS TO A HEALTHY STATE.

The mere act of removal from home (see Chap. I.) by withdrawing many of the exciting causes of perverted moral powers (viz., the emotions resulting from anger, jealousy, &c.) will, in itself, tend directly to fulfil the above indication), and to restore these powers to a healthy condition. So, also, will the various means to be treated of in Chap. III. by enforcing sane conduct, tend gradually to bring about a sane condition of those moral powers which so influence conduct. Such, also, will be the indirect influence* of the various means of occupation and amusement treated of in the preceding section.

It is, however, more particularly of the direct means of restoring perverted moral powers in cases of insane delusion, by religious instruction, that I would in this place offer a few remarks on.

I assume that in the healthy mind, where moral perversion is present, religious instruction, by appealing to higher motives of conduct, and by pointing out the injurious influence which the indulgence of depraved propensities exerts alike on the present and on the future fate of their victim, is powerful to the restoration of these perverted moral powers to a healthy condition.

This truth being admitted, we would, from analogy, argue that this agent, religious instruction, would (with such modifications as experience might suggest) be in the insane state also, a useful means of moral treatment in cases of insanity, attended by moral perversion. That such really is the result, has already been testified by the practical experience of nearly all who have made use of this remedy. That in so great a disease it is not always successful, I am free to admit, nay, even that it is only in the more favourable cases that it can effect a cure. In the

* "There is no greater error than to suppose that thinking about a propensity which ought not to be gratified, will conquer it; on the contrary, every hour of lonely thought gives it fresh force; but let the man plunge into business that must be attended to, or even a lighter occupation, so it be an engrossing one, and do this resolutely, however irksome it may at first appear, and the very repose thus given to the diseased part, if there be disease, by throwing the whole stress on other portions of the brain, will assist in effecting a cure."—Barlow, *op. cit.*

majority of such cases, however, it certainly exerts a soothing influence on the perverted moral feelings, and on the emotions resulting from the same, and hence it is a most valuable remedial agent in the moral management of cases of insane delusion, attended by moral perversion. Of its general beneficial influence on mental disease, I shall, in the sequel of this section, speak. At present I would adduce one or two quotations in support of my position, that religious instruction does tend to restore perverted moral feelings to a healthy state. "I believe," says Dr. Conolly,* "that many insane persons are capable of deriving much satisfaction from being permitted to attend the services of their church, and that a good and prudent clergyman may become a useful auxiliary to a physician, by correcting fanatical delusions, moderating spiritual conceit, vindicating God from the unjust views of his creatures, and reviving every hope that is permitted to the imperfect and the penitent. Of course, it is only in the character of a physician to the insane that I presume to speak of this serious subject at all."

"I must not omit to mention," says Sir William Ellis,† "that not only have many patients been comforted by the salutary lessons of religion, whilst they have been in the asylum, but have retained the benefit after they have been discharged. The lessons of instruction have been carried home to their families; drunkenness and licentiousness have been forsaken, and temperance, decorum, and piety, substituted in their place." "Where it seems expedient," says Dr. Browne,‡ "that religious instruction should consolidate moral training, the assistance of the chaplain is obtained Attempts to cultivate the sentiment of devotion, and to inspire hope for remedial purposes, are not confined to the stated meetings for worship; the communion has been administered to patients and their relatives, re-uniting in a high and holy bond, individuals who had been dissevered by total incompatibility of condition."

Besides thus tending to restore the moral powers to a healthy state in those cases of partial insanity in which they have been perverted, religious services (except in cases of delusions bearing on the subject, and attended by excitement, and in which a blameable enthusiasm appears to have been the exciting cause of the disease), exercise a very soothing and beneficial influence on

* On the Construction and Government of Lunatic Asylums.

† A Treatise on the Nature, &c., of Insanity.

‡ Seventh Annual Report of the Crichton Royal Institution.

the inmates generally of an insane establishment. They recall in those whose intellect may have been ravaged by disease, emotions of piety and fervour, and arouse in those who may have lost all tie and sympathy with the present, the long lost feelings and associations of the past, and tend generally to diffuse feelings of confidence and satisfaction.

They further induce many to exert a temporary control over their thoughts and conduct, and by directing the former into new channels may alike tend to restore the powers of attention and abstraction, and aid in enabling the will again to resume the control over the current of thought.

The propriety, therefore, of having the regular services of the church performed in an asylum for the insane, cannot be doubted.

CHAPTER III.

OF THE MORAL MANAGEMENT OF INSANE CONDUCT, AND OF THE MEANS OF RESTORING THE WILL TO A HEALTHY STATE.

"Patients soon learn to put themselves under that discipline, which will exempt them from uncomfortable consequences."

—Sir W. Ellis.

Insane conduct is the most apparent test of mental derangement, and one which is more or less observed in every case of insanity. Indeed it is most frequently owing to some act accountable only on the ground of insanity, that medical advice is sought and the person so affected removed to an establishment for the insane.

In the moral management of insanity therefore, besides endeavouring to remove intellectual delusions (a subject, which, in Chap. II, has been just examined), we have farther to adopt measures to restore to those, who are thus unable to observe the line of conduct indicative of rationality, that control over their acts, of which they have been by disease deprived, and thereby enable the will again to resume the guidance of the various impulses, which through disease have obtained the mastery.

In the healthy mind, thought and conduct are alike directed by volition, or the will, that mental power by which the mind chooses anything. "The faculty of the will, is that faculty, power, or principle of the mind by which it is capable of choos-

ing ; an act of the will is the same as an act of choosing or of choice.*

This faculty of the will has by metaphysicians been divided into two parts† viz., the mental act, the will ; and secondly, the exercise of the same, volition. "The will," says Dr. Chalmers, "may express both the faculty and the act of willing. But the act of willing has been further expressed by a term appropriated wholly to itself, and that is volition."

Now the insane are unable to control thought or conduct, and hence, a posteriori, we argue that the will and volition are in them suspended or weakened, an induction fully borne out by a consideration of the smpytoms presented under mental derangement. For example, the gradual suspension of the power of the will in regulating the trains of thought in incipient mental disease, has been thus noticed by Dr. Mayo,‡ in detailing the progress of mental disease in cases where "the exciting cause is to be attributed to regretfulness." "The order of phenomena," he says, "in such cases will be as follows. At first we shall observe a certain dwelling upon and clinging to the painful emotion, which state is for some time voluntarily indulged in.§ But pain soon predominates over pleasure, and then there takes place a series of intense efforts to shake off the influence. Meanwhile, these efforts are resisted by powerful antagonists, the tendency to regret maintaining the vividness of the morbid feeling, and after a time the force of habit conspiring. . . . Under these conjoint influences the will seems gradually to lose its efficiency in combating the trains of painful thought, and finally sinks overpowered."

On the other hand, the weakened or suspended state of volition,|| as evinced by the various insane acts of those deranged

* On the Freedom of the Will, by the Rev. J. Edwards.

† See Note A, at the end of this chapter. So also writes the Inspired Apostle—"For to will is present with me, but how to perform that which is good, I find not."—Rom. VII. 18.

‡ Op. cit.

§ This is beautifully exhibited and reasoned upon by Lady Constance.

"K. Phil.—You are as fond of grief as of your child.

Const.—Grief fills the room up of my absent child,
Lies in his bed, walks up and down with me,
Puts on his pretty looks, repeats his words,
Remembers me of all his gracious parts,
Stuffs out his vacant garments with his form ;
Then have I reason to be fond of grief."—*King John*.

|| See Note B at the end of this chapter.

in mind ; by their inability to control morbid impulses, &c. &c. are matters of daily experience with every one who has the charge of such persons.

The object therefore to be had in view in the moral management of cases of insane conduct, must necessarily be to discover the principles on which the will, when thus suspended or weakened by mental disease, may again be called into healthy action, and enabled to exercise a control over thought and conduct. In this investigation I shall continue to pursue the course I have in the two former chapters adopted, and from an analysis of the operations of the healthy will endeavour to deduce some principle applicable to the treatment of this faculty when suspended by disease.

Now, in the healthy mind the will is influenced and volition determined by that motive which, with reference to the case under consideration, is the strongest. With respect to that grand inquiry, " what determines the will ? " it would be very tedious and unnecessary at present to enumerate and examine all the various opinions which have been advanced concerning this matter. . . . It is sufficient to my present purpose to say it is that motive which, as it stands in the view of the mind, is the strongest that determines the will.

By motive, I mean the whole of that which moves, excites, or invites the mind to volition, whether that be one thing singly, or many things conjointly. Many particular things may concur and unite their strength, to induce the mind, and when it is so, altogether are, as it were, one complex motive. And when I speak of the strongest motive, I have respect to the strength of the whole that operates to induce to a particular act of volition, whether that be the strength of one thing alone, or of many things together.*

The will then in the healthy mind, being always determined by the strongest motive, we would from theory infer that by strengthening the motives to correct conduct, and weakening or removing those to insane conduct, we should eventually impart again a healthy tone to the will, and render the conduct sane ; provided always, that the will in the insane state continued subject to the same laws and open to the same influences as the healthy will. Now one of the greatest practical triumphs of the moral management of insanity is the establishment of the principle

* Edwards, op. cit.

that the will, in cases of mental derangement, is in a certain degree to be influenced by those motives which determine the healthy will; and that in every case where the intellectual powers are not entirely annihilated, insane impulses may, under moral management, be in a greater or less degree controlled, and the conduct assimilated to the healthy standard.*

"In insanity, the same kind of motives which influence a man in common life are still available, though they may require to be somewhat heightened. It is on this principle that the treatment of lunatics has been generally conducted. Fear, one of the lowest, but also one of the most general of instinctive emotions, has been called in to balance the delusions of sense; and excepting in cases where the structural disease is so extensive as to deprive the man of all power of connecting cause and effect, it has been found sufficient to curb violence, and enforce a certain degree of peaceable demeanour towards the attendants."†

"It is," says Dr. Prichard, "a great error to suppose that lunatics are not susceptible of moral discipline, or capable of being brought under the controul of motives similar to those which govern the actions of other persons. It is very possible to subject them to such a rule, and this constitutes indeed a very important and essential part of the means of cure."

We may therefore regard it as a principle established both on theory and on practice, that in the moral management of insanity the will may be determined to sane conduct by those motives (though in a stronger degree) which lead in the healthy mind to volition.

Hence, in the moral management of insane conduct, our object is to render the motives to sane conduct the strongest in the mind, and thus by their influence to overcome those im-

* Mr. Barlow assigns even a higher place to the power of the will in cases of insanity. "Nothing," he says, "but an extent of disease which destroys at once all possibility of reasoning, by annihilating or entirely changing the structure of the brain, can make a man necessarily mad. In all other cases the being sane or otherwise, notwithstanding considerable disease of brain, depends on the individual himself. He who has given a proper direction to the intellectual force, and thus obtained an early command over the bodily organ by habituating it to processes of calm reasoning, remains sane amid all the vagaries of sense; while he who has been the slave, rather than the master of his animal nature, listens to its dictates without question, even when distorted by disease, and is mad. A fearful result of an uncultivated childhood."—On Man's power over himself to prevent or control Insanity.

† Barlow, *op. cit.*

pulses which, through disease, have obtained the guidance of the conduct, and restore to the will the power of controul over the same.

It will, therefore, be my object in the concluding portion of this chapter, to state the various moral means which may thus be brought to bear on the controul of insane conduct, and on the restoring of the will to a healthy state.

It is, in the first place, to be observed that the sympathies and feelings of the patient (which exercise so great an influence* over thought and conduct,) are the most important agents through which we endeavour to restore the suspended power of the will, and again render thought and conduct subservient to the same.

"A very valuable influence," says Dr. Mayo, "may be obtained over the insane mind through the medium of its sympathies. By means of this powerful machinery the associating process may be arrested in its rapidity, and displaced from the irregular tracks in which it has been proceeding. In proportion as men sympathise they are disposed to imitate; and it has occurred to me in many instances to observe the effect of a well-regulated mind upon the convalescent insane, when that mind is furnished with the curious tenacula of sympathy, which seize and hold under influence the minds of others." *Op. cit.*

To be enabled to wield this power of the sympathies, it is necessary both that the entire confidence of the patient be gained, and also that his character in health, and the nature of the morbid mental symptoms present be carefully studied.

In endeavouring to gain the confidence of our patient, the great rule is perfect openness and candour, both as to the cause of his detention and the nature of the treatment he is subjected to; indeed (although involving an apparent contradiction,) he must be treated as a sane responsible being labouring under physical symptoms which have brought about a state of partial mental aberration, for which he is under treatment. Further, a considerate and kind manner is necessary. Equally to the insane may the poet's words be applied:

" Mightier far
Than strength of nerve or sinew, or the sway
Of magic, potent over sun and star,
Is love." — *Wordsworth.*

* Thus Dr. Abercrombie writes: "They lead us to our relations to other men, and to a certain line of conduct which arises out of these relations." *Op. cit.*

And only experience could have demonstrated the often unbounded influence which the physician who thus gains the confidence of his patient, may exert over his intellectual and moral systems.

Now in endeavouring thus, in the first instance, to restore to the will the power of controul over thought (as in the moral management of recent cases of mania), it is to be borne in mind that this power of the will to controul thought, sometimes returns very suddenly,* and that much judicious management is required to enable the patient to retain the newly re-acquired power. One train of thought must be discountenanced, another encouraged; the still weakened will steadily and uniformly stimulated to the necessary exertion to retain this controul. And now, whatever trains of thought receive the sanction of the physician, are by this circumstance in some degree recommended to the attention of the patient, provided his sympathies have been secured. Thus his recovery becomes valid in his own eyes, when countersigned as it were by the opinion of his friend.

On the other hand, in cases of melancholia, future hope is the object towards which the sympathies of the patient must be induced to tend. "He," said Coleridge, himself a sufferer, "in the treatment of nervous cases, is the best physician who is the most ingenious inspirer of hope," and the highest hope is the Christian one, which suggests to the weary sufferer from melancholy delusions, the prospect of a future state of peace, when his present probationary sojourn may be ended. The peace which hope thus diffuses evidently tends directly to calm troubled thought, and in the calm the will is enabled again to resume the controul over thought, which in the storm of distracting ideas and fancies had been lost.

In the second place, in thus endeavouring to controul insane conduct, by restoring to volition the power over the same, it should be a rule always to appeal in the first instance to the higher motives of our nature, and endeavour to render them stronger in degree than the motives to insane conduct, furnished by uncontrolled impulses, delusions, &c., and should these higher motives fail, we must, in endeavouring after this object, have recourse to the lower motives of fear, &c.†

* An instance of this in a case of recent mania (convalescing) occurred to me to-day.—Jan. 16th, 1849.

† Hence the dangerous tendency of the theory which would absolve the partially insane from criminal responsibility, or, in other words, by

We may to this end frequently in practice successfully appeal to the patient's knowledge of right and wrong, to his self-esteem, to his sense of the ridiculous, and so on ; and it is in the employment of these moral agents that that nameless power* of reading the thoughts and enlisting the sympathies of others, and which every physician who attempts to treat mental disease should possess, is brought into successful action.

Next in importance rank the motives to sane conduct, which a well ordered system of rewards and punishments exert. In the carrying into practice of such a system, we must be careful that it be one of moral discipline, *i. e.* of definite results regularly attending good or bad conduct, and that it do not degenerate into that mere system of drilling, which is applicable only to the moral management of confirmed mental disease. The patient must be made to appreciate the justice of the system, as also its curative object. Hence, impartial justice and calm action, in carrying out the punishments of the system, must invariably be observed, and, wherever practicable, contrite promises of amendment should be received in their stead, and we must be more prompt and liberal in rewarding than in punishing, in order constantly to remind the patient that his cure and well-being are the only objects sought for.

The means by which this moral discipline may be carried out, must necessarily vary much. The anticipation of the various amusements treated of in a former chapter, will often lead the insane to controul impulses which they know will, if gratified, result in the deprivation of those sources of pleasure. Again, when necessary, the uneasiness of temporary seclusion or restraint, of a cold shower bath, of the deprivation of some luxury, as tobacco, wine, &c., act all on the weakened will, and induce the patient to controul morbid conduct. Indeed, as Baron Feuchtersleben well observes, " the means for the purpose are as various as the individuals and relative circumstances; and to discover and employ them must be left for the most part removing the fear of punishment for their crimes, would leave the motives to the same which their impulses or delusions may suggest, stronger than the motives to sane conduct, which the fear of punishment would have suggested.

* "The psychological physician must be able, by his personal demeanour, to obtain influence over the minds of other men, which, though in fact an essential part of the psychical mode of cure, is a gift which nature often refuses to the most distinguished men, and yet without which, mental diseases, however thoroughly understood, cannot be successfully treated."—Baron Ernst von Feuchtersleben.

to the tact of the psychopathic physician. He must often be able to devise all the various measures at the moment, and he must not be actuated therein either by convenient harshness or by false philanthropy.*

* So also wrote Georget, in 1820. "Si on doit employer le douceur pour calmer, contenir les aliénés, cependant, lors q'ils ne veulent point obéir, il faut les y contraindre par quelques moyens de répression; s'ils commettent des actes reprehensibles ou les en punira sur-le-champ. Il en est de turbulens, qui agissent ainsi avec connoissance de cause, méchamment; ou devra être plus rigoureux à leur égard."—*De la Folie*. Paris, 1820.

Note A.

THE DISTINCTION BETWEEN THE WILL AND VOLITION.

This distinction between the will and volition which I have noticed in the text, is thus pointed out by Mr. Locke in his *Essay concerning the Human Understanding*: "This I think evident, that we find in ourselves a power to begin and forbear, continue or end several actions of our mind and motions of our bodies, barely by a thought or preference of the mind ordering, or as it were commanding the doing or not doing such or such a particular action. This power which the mind thus has to order the consideration of any idea, or the forbearing to consider it; or to prefer the motion of any part of the body to its rest, and *vice versa* in any particular instance, is that which we call the will. The actual exercise of that power, by directing any particular action or its forbearance, is that which we call volition or willing. The forbearance of that action, consequent to such order or command of the mind, is called voluntary. And whatsoever action is performed without such a thought of the mind, is called involuntary."

Note B.

ON THE STATE OF THE WILL IN A STATE OF MENTAL DERANGEMENT.

The following observations* tend further to elucidate the condition of the will as altered by mental disease, and to which reference is made in the text.

"In cases of insanity, where there is disease of volition, the senses convey impressions faithfully; the judgment compares, contrasts, concludes; the feelings suggest certain acts; but there is a want of harmony and consentaneous action in the mind; and the individual thinks or acts in opposition to what he knows he ought to do, or refrains from thinking or acting what he is impelled to do. This conflict or contrariety of purposes is exhibited in three distinct varieties:—

1. The will appears lethargic. When roused by the appropriate stimulus, when provoked by anger, tempted by pleasure, or urged by discipline, the mental powers act in union; the object desired, the course required, resentment, gratification, or performance of duty, is determined upon, pursued, and accomplished by the will, and the spontaneous effort of the individual; but if abandoned to his own resources, if the will be left unstimulated, unsupported, wants are unexpressed, matters of interest or pressing importance unattended to, and acts are unperformed, not because the powers are incompetent to do so, but because energy is wanting to resolve, or sustained activity to obey the resolution.

2. The will is enfeebled or impaired. The conduct in this instance is in direct opposition to the deliberate convictions of the patient—the judgment or conscientiousness issuing one mandate, the propensities

* Extracted from Dr. Browne's Sixth Annual Report.

another; the intellect condemning or deploring a particular course, or the predominance of a particular impulse, which it cannot, however, alter or arrest. The patient is often perfectly conscious of the morbid nature of this conflict, or his own instability and infirmity of purpose, anticipates the result, and seeks assistance from healthier minds and artificial expedients.

3. A third mode in which the will is influenced by disease, is where there is a divided volition. The individual is urged by two impulses of equal strength; he is tossed between two opposing motives; in judging he is unable to adopt an opinion, &c. Such men are often panic-stricken, not because they despair, but because they doubt. The difficulty descends to the most trivial transactions; there will exist the same hesitation and perplexity and dilemma in selecting the colour of a coat, in determining the direction of a walk, and in deciding the grand questions in moral science or personal conduct; wherever there is a choice there will be presented irresolution and inanity."

[I have made the above extract, as containing the observations of a careful and able observer of morbid mental manifestations. In doing so, I would, however, in no way commit myself to the sanction of the latent phrenology, with its materialist tendency, contained in the extract.]

APPENDIX.

THE NON-RESTRAINT SYSTEM.

"In the question, now so warmly disputed in England, about the system of restraint and non-restraint, the truth does not lie in the middle, but in a judicious application of both to individual cases.—Baron Feuchtersleben, *Medical Psychology*.

The pertinacity with which the admirers of the so-called non-restraint system, endeavour to commingle* its profession with all and every moral remedial agent which may be applied to the cure of mental disease, and to confine even the possible efficacy of these agents to their employment by the professors of their creed, renders it necessary, in an essay on the moral management of insanity, to examine this would-be groundwork of the moral treatment of insanity. This, therefore, I shall endeavour, as briefly as possible, in this place to do.

I would, in the first place, observe that the observations I am about to make have no reference whatsoever to that indiscriminate system of mechanical restraint, often imposed by non-professional persons, which even so late as 1844, was found to exist in so many of the private asylums throughout the country, but only regard the question, still in dispute, whether in the treatment of the insane, it is or is not advisable in every instance to dispense with mechanical† means of restraint, and substitute,

* "Again, and for the last time in the course of these pages, I must observe, that neither religious services have their due effect, nor tranquil feelings exist, in an asylum, without frequent and severe interruption, if mechanical restraints are permitted," &c.—Dr. Conolly, *On the Government, &c. of Lunatic Asylums*.

† A padded wrist-belt is probably the most simple means; I never find any other necessary. Gloves may be attached to it with destructive patients.

in the cases supposed to require it, the hands of the keepers, padded rooms, and sundry devised articles of clothing; covers for blisters, &c.

In considering this question, we find that on the one hand certain medical and also non-medical authorities, at various county asylums, and who appear to be represented by Dr. Conolly in his writings, most strenuously opposing the employment of restraint in any shape or form, and loudly condemning all who venture to differ with this opinion.*

On the other hand, however, we find persons of as high an authority, and as distinguished a philanthropy, as, for example, Her Majesty's Commissioners in Lunacy,† Sir Alexander Morison,‡ Dr. Thurnan,§ Dr. Jacobi,|| Dr. Browne,¶ &c. While freely admitting that the use of mechanical restraint requires the most careful medical supervision, and is as unfit an agent to intrust to superintendents or other servants as even opium would be; still, asserting that instances of furious or suicidal mania do occur from time to time, in which the employment of mechanical restraint is attended with less injurious effects than are the struggles which, without such means of prevention, do occur between the attendants and their patients—struggles sometimes terminating fatally.*

In this opinion I concur; and I believe that cases do occur in which mechanical restraint is the moral agent which ought to be employed for the time being. I shall, therefore, in confirmation and further elucidation of this opinion, subjoin, and conclude these observations with one or two extracts from writers (such as I have above referred to,) who are qualified to judge in the matter.

"In some asylums, both public and private," say Her Majesty's Commissioners in Lunacy, "the superintendents and proprietors state, that they manage their patients without recourse to any kind of restraint whatsoever. In other asylums it is affirmed that the disuse of restraint is their rule and system, and that its use in cases of necessity or expediency, forms the

* See the various Reports of the Middlesex Lunatic Asylum; Dr. Conolly's Clinical Lectures, *Lancet*, 1845-6; Construction, &c. of Lunatic Asylums; Appendix; &c.

† Report to the Lord Chancellor, 1844.

‡ Op. cit.

§ Statistics of Insanity; also, Reports of the Retreat.

|| Allgemeine Zeitschrift für Psychiatrie.

¶ Reports of the Crichton Royal Institution.

* See Report on the inquest of John Cottingham, *Times*, Oct. 25, 1847; also the leader next day, &c.

exception to the rule. Those who profess the entire disuse of restraint, employ manual force and seclusion as parts of their method of management, maintaining that such measures are consistent with a system of non-restraint.

It is said by these persons, that when any of the limbs, as the legs or hands of a patient, are confined by the strait-jacket, the belt, or by straps or gloves, he is under restraint. But in cases where he is held by the hands of the attendants, or when he is for any excitement or violence forced by manual strength into a small chamber or cell and left there, it is said that restraint is not employed, and the method adopted in these cases is called the "non-restraint system." In those cases where the patient is overpowered by a number of keepers holding his hands or arms during a paroxysm of violence, it is said that there is no mechanical restraint. Here restraint of some sort or other is manifest; and even in those cases where the patient is forced into a cell by manual strength, and prevented from leaving it until his fit of excitement shall have passed, it is difficult to understand how this also can be reconciled with the profession of abstaining from all restraint whatever, so as to be correctly termed "non-restraint." It seems to us that these measures are only particular modes of restraint, the relative advantages of which must depend altogether on the results.—Report, 1844.

"Restraint, by mechanical means," says Sir Alexander Morison, "I consider to be far preferable to permitting a patient to struggle with a number of the keepers, even supposing it were possible so to controul and regulate the passions and temper of the attendants, that no unnecessary violence should be used, and no 'paying off old scores' indulged in, because, by such means, the patient's rage and excitement is continually kept up; he is perpetually renewing his struggles, in the hopes of suddenly surprising those who hold him, and of finding them off their guard, whilst they in a moment perceive the inutility of struggling against mechanical restraint, and, by being left to themselves, speedily become quieted and tranquillized."—Op. cit.—Again, the following remarks extracted from the 5th Report of the Friends' Retreat, contain a clear exposition of the question :—

"We have no doubt that if the early managers of the Retreat had lived to witness the result (of the non-restraint experiments at Lincoln and Hanwell), they would have diminished still

further than they did the use of straps, and some other means of restraining the violent action of the insane. But we incline to think that they would not have proscribed its use in every case. It would be a very great and dangerous mistake to suppose that the measure of real liberty and comfort prevailing in hospitals for the insane, is at once to be estimated by their having entirely abandoned, or otherwise, the use of mechanical restraint. Those who are acquainted with the interior economy of these establishments, must know how rare it is to meet with attendants who really possess the admirable power of moral suasion; we fear also it must be admitted that brute force is the means by which, in one form or another, a large majority of mankind seek to accomplish their purposes, in their intercourse with the weak, and it cannot be conceded that the exclusion of straps and strait-waistcoats necessarily banishes every form in which that vulgar power can be exercised. Few indeed are the cases, if there be any, which can be said to be entirely without the range of moral influence, or to be wholly unaffected by the manner in which whatever is required to be done is accomplished; but there doubtless are cases in which full liberty of action cannot be allowed with safety to the patient, or to others; cases of violence, which no charm of thought, or eye, or voice or manner can sufficiently controul, to which physical power in one form or another must be temporarily applied. The question is not between moral suasion and vulgar force, but between different modes of outward constraint, and there are certainly other means than ligatures for the prevention of dangerous action, by which the unhappy maniac may be at least equally tormented and degraded."

From these and similar considerations, it would therefore appear, with reference to the question of the employment of mechanical means of restraint in the moral management of insanity—

1. That in by far the largest proportion of cases, its use may and ought to be dispensed with.

2. But that in certain cases of extreme violence, &c. &c. (cases which the discretion of the prescribing medical officer can alone decide on), the temporary employment of mechanical means of restraint is preferable in every point of view to the various expedients had recourse to, to supersede the same, by the professors of the non-restraint system.

