

**Observations on the deranged manifestations of the mind; or, insanity / By
J.G. Spurzheim.**

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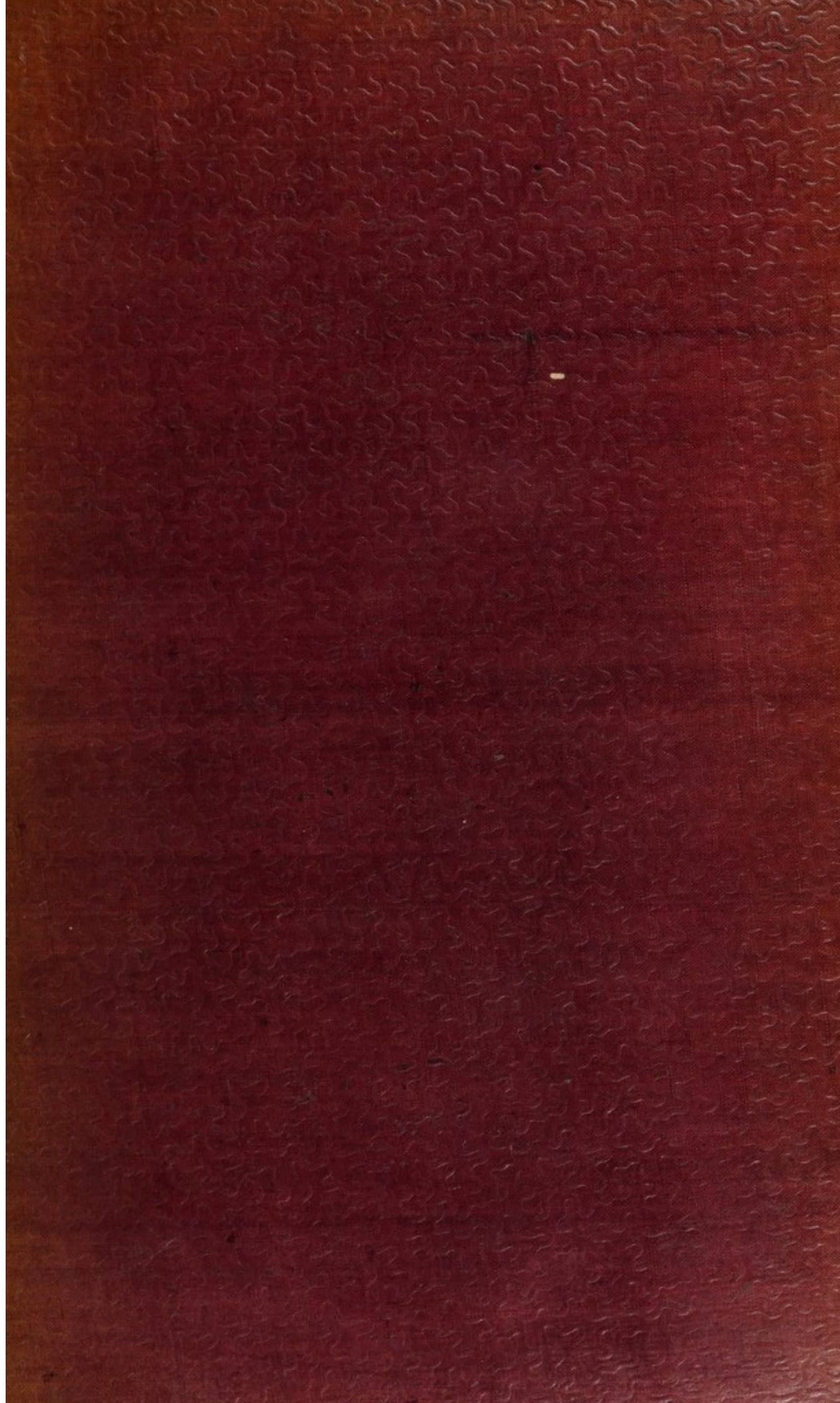
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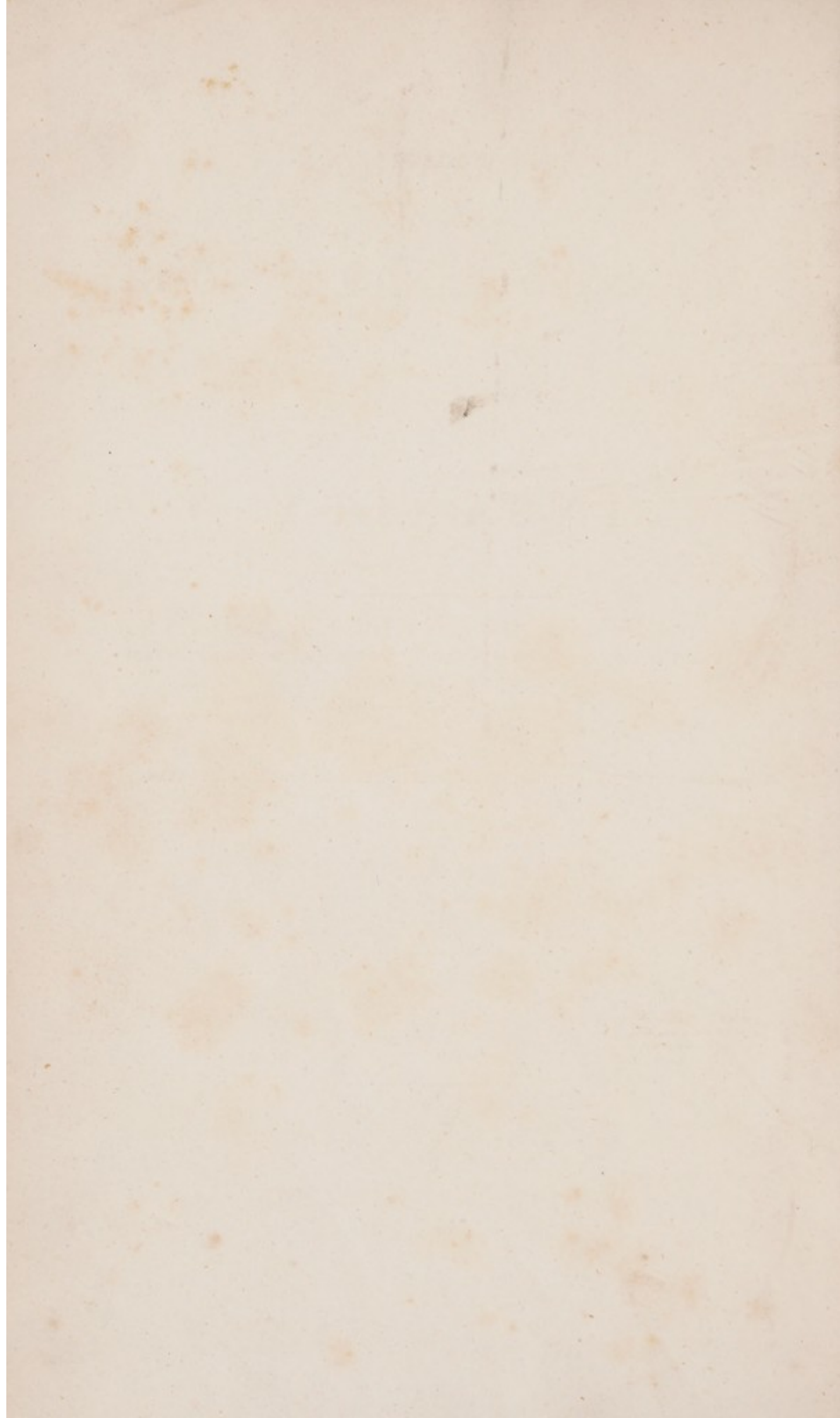
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OBSERVATIONS
ON THE
DERANGED MANIFESTATIONS
OF
THE MIND;
OR,
INSANITY.

BY J. G. SPURZHEIM, M. D.

LICENTIATE OF THE COLLEGE OF PHYSICIANS OF LONDON, AND OF THE UNIVERSITIES
OF VIENNA AND PARIS.

THIRD AMERICAN EDITION, WITH NOTES, IMPROVEMENTS AND PLATES.

WITH AN APPENDIX,
BY A. BRIGHAM, M.D.

AUTHOR OF 'REMARKS ON THE INFLUENCE OF MENTAL CULTIVATION ON HEALTH.'

' Nothing tends more to the corruption of Science, than to suffer it to stagnate.'

BOSTON:
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PREFACE.

ANATOMY, Physiology, and Pathology, are most intimately connected with each other; and must be brought in harmony to complete the medical knowledge. But Pathology cannot be cultivated in the same way as anatomy and physiology. In the two latter branches, divisions may be established according to the structure and functions of similar organs, as of bones, muscles, blood-vessels, nerves—or of single and individual parts, as of the eye, teeth, liver, &c., whilst in Pathology it is to be observed that the same disease or morbid state may affect every system of the body. Here then we must be too often satisfied with mere nosological divisions, according to the deranged functions of the different parts, and we have no true and satisfactory pathogeny, that is, a doctrine of the nature of diseases, which ought to be founded on the whole of the human frame, and not on the disturbed functions or morbid appearances of single parts, which, being affected by the same disease, on account of their different structure and functions, must produce different symptoms.

The vegetative functions evidently depend on the nervous system, and in nosology a class of nervous complaints are commonly mentioned, such as Dysphagia, Asthma, Cardialgia, Dyspnœa, Colica, &c., but these disorders of the vegetative functions, even when they result from diseases in the nervous system, do

not enter into the considerations of this work. On account of the mutual influence of the vegetative and mental functions ; however, their derangements can never be entirely separated. In the general pathology it is necessary to attend to the influence of the affective and intellectual powers on the body ; and, in examining insanity, the diseases of the vegetative functions cannot be overlooked. The principal object of this volume, however, concerns the derangements of the affective and intellectual manifestations of the Mind, particularly that state called Insanity.

This branch, like pathology in general, must be founded on Anatomy and Physiology ; that is, the anatomy and physiology of the brain enable us to understand the seat of the deranged functions of the mind ; but anatomy and physiology of the brain do not teach how to treat its disordered functions, any more than the anatomy and physiology of other parts suffice to cure their diseases. Pathology, as a science and art, is founded on a new series of observations and inductions. Knowing the functions of the lungs, stomach, or of any other viscus, we know the proximate seat of difficult respiration, bad digestion, &c.; but those who do not know the functions of the brain, will not think of its organization, when its functions are deranged. This defect of knowledge, concerning the brain, will be supplied by Phrenology, but the causes of the disorders of the cerebral functions must be removed, and their regular state restored according to the general principles of pathology. Only in this limited sense I admit a *physiological* Medicine, and apply it to Insanity.

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INTRODUCTION.

OBSERVATIONS ON INSANITY.

INQUIRIES into the deranged manifestations of the mind, interest mankind in general, and ought to engage the attention of physicians in particular. Every one who has observed the deplorable condition of insane people ; — who has witnessed the disorders which take place in their feelings and intellectual manifestations ; — who, for instance, has seen that some individuals feel the most distressing anxiety, and fancy themselves objects of human persecution, or victims of Divine vengeance ; — who has remarked that “often all the best principles of the human mind are perverted, and a pious Christian changed into a drunkard and abandoned felon ;” * — that others, naturally of mild and pacific dispositions, appear, during their attacks, to be inspired by the demon of mischief ; — that some of known probity feel a blind propensity to steal ; — that others feel a ferocious inclination to commit to the flames every thing of a combustible nature, or to imbrue their hands in human blood ; — that modest females are seized with the feelings of a loose libertine ; — that wretched persons think themselves bishops, popes, lords, ministers, kings, emperors ; — in short, every one who has observed

* Dr Parry. Elements of Pathology, vol. i. p. 331.

that insane people often lose, not only bodily health, but also their moral and intellectual character, and, in consequence, their personal liberty; and that sometimes the figure of the human species is all that remains, — must wish for the improvement of that branch of medicine. Moreover, if we reflect that no one is secure from it; that rich and poor, the laborious and sober laborer, and his master who indulges in scenes of luxury, are all equally liable to this affliction, humanity renders it a point of duty to contribute to the elucidation of this subject.

It is generally admitted that insanity, and the method of curing it, are not sufficiently understood. This study, indeed, has been too much neglected. Physicians constantly make improvements in the treatment of other diseases, but they have done till lately very little with respect to insanity. There exists no work of Hippocrates on this complaint. It is uncertain whether he has written one, or whether the work has been lost. In his treatise on Epilepsy, he considers the bile mixed with the blood and carried to the brain, as the cause of mental derangement. — The black bile, for instance, was the cause of dark passions, such as suspicion, jealousy, hatred, and revenge; while the yellow bile produced great irritability, high spirits and extravagance. — He supposed pituita to operate as a sedative principle to diminish the operations of the mind, and to produce great depression of spirits, fear, anxiety, and despair. Aretæus, Celsus, Aurelianus, and Trallianus, may be considered as the principal ancient writers on insanity. The Arabian physicians adopted the speculations of their Greek and Roman predecessors, modifying them according to circumstances and their own prejudices.

“Medical writers of more recent dates,” says Dr Davis, the translator of the work of Pinel, “neglected the study of individual disorders of the mind. The unhappy lunatic was permitted to subsist on his bread and water, to lie on his bed of straw, chained to the wall of a dark and solitary cell, a being unworthy of solicitude in his fate, and a victim of our idle and interested maxim, that insanity is an incurable malady. Of all the disorders to

which the human frame is unfortunately subject, it is remarkable that this interesting malady has been most neglected. The treatises which have been professedly written upon it, since the revival of literature in Europe, are all of late publication, and, with a few exceptions, are mere advertisements of lunatic establishments under the superintendence of their respective authors. These essays, without being contemptible, have not contributed in a great measure towards the elucidation of the theory, nor towards the successful treatment of mental indispositions. They have seldom exhibited those nice delineations of the peculiar varieties of insanity, depending on diversities of temperament, habits, intellectual abilities, the faculties principally affected, and other causes, the knowledge of which would be highly advantageous in practice;—without clear views of the nosology of the disease on which to establish their indication, the professors of this department of the healing art have generally indulged in a blind routine of treatment, which has been more cultivated to throw discredit upon its pretensions, than to advance our knowledge upon certain and unquestionable principles.”

In the time of Locke, madness was spoken of as an ungrateful imputation. Until very lately, lunatics were not considered in several countries as beings worthy of the public care; they were and still are permitted to wander about the streets, to the terror of the timid, and to the horror of the charitable.* Even intelligent practitioners either wholly neglect the victims of insanity, or hastily consign them, as loathsome or terrific objects, to confinement; which was and still often is, the only object of institutions for insane persons, whether of a public or private description. Every other treatment was, and mostly still is, overlooked.

The causes of our ignorance in insanity are numerous. First, the examination of this subject is extremely difficult, and often

* This neglect of the insane is a reproach to humanity—and although America may justly claim great credit for her benevolent institutions, yet, in this respect, her citizens have been too often regardless of their duty.

considered as beyond the medical profession. Instead of multiplying the observations, and making use of every opportunity, medical people are, in a great measure, excluded from this branch of practice; and in general they make the treatment of insanity not a leading part of their professional acquirements. Those who have opportunity are often engaged in another line, and from want of time do not pay the due attention to this object. It is, indeed, to be lamented, that from public institutions and from private establishments, where opportunity of inquiring into this disease occurs, no more medical communications are made. I think, with Pinel, that "he who cultivates medicine ought to pursue a frank and open system of conduct, and not seek to conceal the obstacles which he meets with in his course. He ought to feel no reluctance to show what he discovers." The contrary, however, often happens. Indeed I have met with several medical men, who prevent others from inspecting their establishments, and who, as Pinel says, "under the veil of secrecy intend to give a sanction to pretensions to which they have no just nor exclusive claims."

Moreover, nothing is done to teach medical pupils that which is known. The notion of insanity, which any one acquires, depends on his own application. There are no lectures on this important branch of medical knowledge, while, at certain universities, medical students are obliged to attend lectures on the diseases of animals and on the veterinary art. I think, however, with Dr Rush,* that the knowledge of the human mind is so important even in the general practice of medicine, that it should be the *Vade-Mecum* of every physician. Finally, it was quite impossible to improve the doctrine of the deranged manifestations of the mind, because the healthy state was not understood.

The history of insanity is necessarily connected with that of the human mind. Hence the different opinions of it are always conformable to the prevailing doctrines of philosophy. Those

* Sixteen Introduct. Lectures, Philadel. 1811, p. 266. Lecture on the Utility of a Knowledge of the Faculties of the Human Mind.

of the ancient philosophers, who believed in the soul of the world and considered the soul of man as an emanation, the matter as inert, and every activity as the effect of some spirit;—those who ascribe the efficient cause of all operations of man to the mixture of the elements of his body;—others who admitted two principles, a good and an evil one;—or who maintained the existence of spirits of different orders, and an intercourse between the spiritual and material worlds, and who supposed invisible spirits to molest the human soul;—or who considered the soul as essentially pure, incorruptible, and the grossness of matter as the cause of the disturbances of the soul;—naturally, according to their theoretical opinions, contended for different causes of the deranged manifestations of the mind, and modified their curative plan accordingly.

The earliest metaphysicians detached the history of the mind from the pursuits of natural philosophers, and ascribed its deranged manifestations to the agent as independent of organization. This opinion has been propagated to future centuries.—During the period when the derangements of the mind were considered as the effect of malignant spirits, the priests pretended to have more influence on such diseases, and more power over the invisible cause, than the rest of mankind. They maintained that they were able to drive out the evil spirits. Accordingly, the treatment of mental alienations has been associated with the other duties of the sacerdotal office.

In our days, the influence of the organization on the manifestations of the mind has been examined with more attention, and the brain and nerves have acquired a degree of importance which they did not possess in the estimation of former physiologists. — Indeed, it cannot be doubted that a perfect knowledge of the mental phenomena, and of the conditions under which they are manifested, must lead to a better knowledge of their deranged appearances. Thus we flatter ourselves that our anatomical and physiological investigations will become the basis of a new doctrine on insanity. Every one must agree with

Haslam,* that, "whenever the functions of the brain shall be fully understood, and the use of its different parts ascertained, we may then be enabled to judge how far disease, attacking any of these parts, may increase, diminish, or otherwise alter its functions."

There are general considerations of pathology, which must be attended to, in the treatment of the deranged manifestation of the mind; and as the diseased state of animal life, in many respects, is to be treated in the same way as that of automatic life, and as medical practitioners never ought to lose sight of these considerations, I shall mention them succinctly.†

In medicine the first notion to be acquired is that of the difference between symptoms and disease. If the functions of the body or its parts be disturbed, not the disturbance of any functions, but the cause of this disturbance, is the disease. Hence by far the greater number of the pretended diseases are mere symptoms.

In every patient, a peculiar attention is to be paid to his bodily constitution. Its influence on the susceptibility of diseases, and on their curability, may be observed in whole nations, and in different individuals of the same nation. Civilized people suffer many complaints which are quite unknown to savages; and these overcome injuries and diseases, the tenth part of which would kill delicate citizens. The greatest practitioners consider it as a maxim, that weak and cachetic persons are easily and often affected, and that their functions suffer the greatest disorders by insignificant causes, which have not the least influence on strong and robust individuals.

Moreover, not only general but also local weakness, is to be

* Observations on Madness, 2d edit. p. 237.

† Dr Gall has examined this important subject of medical knowledge, in a work entitled, *Philosophisch Medicinische Untersuchungen ueber Natur und Kunst im gesunden und kranken Zustande des Menschen*: Wien, 1791. Those who have perused with attention the two chapters which have been published, must regret that the work was not continued.

considered. There are few persons who have not one part of the body weaker than the rest. In many families the weakness of various parts is even hereditary. On this account, the same disease often produces different symptoms in different individuals, and affects in one patient the head, in another the thorax, in a third the abdomen, &c.; so that sometimes physicians are mistaken, and declare the different symptoms to be different diseases.

Another consideration to be made in any disease is the relation of the bodily constitution to the disease. It is known that epidemic diseases sometimes attack one species of animals rather than another; and, in mankind, robust persons sooner than weak. Inflammatory diseases, for instance, are more dangerous to certain individuals than to others.

The susceptibility of diseases appears different according to the sex, temperament, and age of the patient; to climate, season, weather, the nature of the disease, and its periods. The same disease, indeed, affects one system rather than another, or in its different stages appears in different systems.

Even in the same individual, during the state of health or disease, his excitability differs, and no exact inference can be drawn from either of these states with respect to the other.

In the attempt to cure, it is necessary to distinguish the healing power of nature and that of art; to be acquainted with the conditions which are indispensably necessary to nature; with her proceeding, and the means she employs; with her efficacy or impotence. It is only when provided with such a knowledge, that we can imitate, support, weaken or direct her proceeding. It is nature which preserves the healthy state, and nature is the principal agent in curing derangements of the system. There are, indeed, an infinite number of cases where nature alone cures. Her strong healing power is obvious, because health is restored under quite different, nay, opposite treatments. It is for that reason, that the greatest physicians do not agree with respect to the most efficacious remedies. Every one attributes to his

proceeding the good success which he observes, while the patient owes his recovery to nature alone. Van Helmont, therefore, said, "*Omnes academiarum potestates connexæ tantum non possunt quam natura absque illis sua sponte potest atque facit.*" It is certain, that in many cases, we rather should let nature be the chief physician.

The means of cure which nature employs are various. In this respect, the symptoms, particularly the periods of diseases and the crisis, are to be considered. Moreover, the affected parts, their irritability, their sympathy with other parts, the habit, and, in a certain degree, the instinct of the patient, are to be examined.

There are, however, cases where the power of nature is not sufficient, and where a rational proceeding will restore health, while impotent nature would sink under dissolution. Hippocrates, who observed nature, found many diseases mortal which are cured in our days. For that very reason, Asclepiades was authorized to call the proceeding of Hippocrates a contemplation of death.—Nature, for instance, is for the most part insufficient in cachexy, scurvy, scrofula, obstructions, indurations, dropsies, inveterate diarrhœa, dysentery, &c. Yet we must admit that sometimes nature cures even some of these diseases; but if supported by art she will produce the same effect in a shorter time, for which, if let alone, she will require years.

In the medical treatment of any disease, it is of the highest importance to consider the bodily strength, or, as it is commonly termed, the vital power. Its influence is perceptible not only in the origin, but also in the progress and issue of any disease, in its convalescence and relapse. Without vital power, medical art is at a loss. Weak patients, then, are not only subject to a great number of disorders, but their diseases are also more dangerous. In exhausted or worn-out patients, diseases easily degenerate, and show a less regular course. For the same reason, if in less dangerous diseases the bodily power be too much diminished by art, dreadful symptoms and incurable conse-

quences take place. The convalescence also entirely depends on the preservation or restoration of bodily strength, and the relapses are more or less frequent according to the state of convalescence. Hippocrates, who neglected to support the vital power, observed a great number of relapses.

As bodily strength is of such importance, it is a pity that its formation is so difficult. Every disease and every individual, present particularities. The same symptoms, indifferent in one disease, indicate imminent danger in another, and in other mortal diseases they are not at all observed. Hence it is necessary to be acquainted with the whole course of any disease, and the appearances which happen under all circumstances.

The state of weakness deserves a particular attention of practitioners. It seems to me that the division which Gall has established in the above-mentioned work is the most practical. He shows the importance of distinguishing suppression, fatigue, and exhaustion of the vital power. Sanguine and robust persons, for instance, at the beginning of an inflammatory disease, feel very weak; even the pulse is sometimes suppressed.—Bleeding, however, and the debilitating apparatus take away the sensation of weakness. A feeling of weakness from suppression may be produced from blood, saburra in the intestines, from contagious diseases; and it may always be suspected, if neither chronic diseases nor any debilitating causes have preceded, if the bodily strength sink suddenly, and if stimulating remedies increase the symptoms. It may also be suspected, and often exists, if symptoms of excessive weakness and great strength alternate or suddenly change.

In other cases, the feeling of weakness is the result only of fatigue, and rest is the principal indication. This happens after convulsive, hysteric, and hypochondriac fits, after a long continuation of the same function, as of walking, standing, swimming, speaking, watching, thinking. This sort of weakness is often illusory, since it presents the same symptoms as exhaustion does. The face, for instance, is sometimes pale, the eyes

are staring, the pulse weak and intermittent, and the patient seems almost dead ; but this weakness soon disappears. Only if the cause of fatigue continue too long, and act with excessive violence, real exhaustion succeeds, and then the plan to cure must be modified.

The third sort of weakness is founded on exhaustion, and admits various degrees. The causes are numerous ; such as violent diseases, chronic complaints, copious evacuations of blood, of semen, continued vomiting and purging, want of food, protracted watching, painful affections, internal diseases, which prevent nutrition, &c.

All these considerations are applicable to the diseases of animal life, and it is my intention to show that the doctrine of its deranged functions must be reduced to the general principles of pathology.

As the nerves of the external senses, and voluntary motion, and the cerebral masses are not only in relation to, and dependent on, each other, it is impossible to separate entirely their derangements. Yet, since the functions of the brain are not yet sufficiently known, pathologists continue to consider separately the diseases of the external senses, and insanity. The former are examined in general Pathology, while insanity is considered as a particular branch of the healing art. Only to show that there is an analogy between the diseases of the external and internal senses, I shall make some general remarks on the former in the first section. In the second section, I shall treat in a general way of what is styled diseases of the brain ; and in the third, I shall examine in detail the deranged state of the mental functions, called insanity.

CHAPTER I.

GENERAL VIEW OF THE DERANGEMENTS OF THE EXTERNAL SENSES AND VOLUNTARY MOTION.

THE derangements of these functions, as to their definition, are easily understood. Wherever voluntary motion, or the functions of the five senses, deviate from their healthy state; if, for instance, the will has no influence on the muscles, or if the sensations of the five senses be too acute, too weak, or irregular, they are said to be diseased, just as any other part of the body. These diseases are treated, in pathology, under the class of neuroses,* and are arranged together with the nervous affections of the thorax and abdomen, such as tussis convulsiva, asthma, dispnœa, cardialgia, &c. I shall give only outlines of them, since they are a secondary object of this work, and they are examined in many nosological works, though I think that our knowledge of them still admits great improvement. I shall not pass them over in silence, partly for the sake of connexion, but particularly because the derangements of the internal functions of the mind must be explained in the same manner as those of the external senses. With this view, only, I wish my considerations on the external senses to be read.

* Cullen's Nosology.

SECTION I.

DISORDERS OF VOLUNTARY MOTION.

In my opinion there are no peculiar diseases of the muscles. Their functions are deranged by causes which affect also other systems, such as inflammation, intermittent fever, syphilis, &c.; and their derangements must appear differently from those of other parts, on account of their peculiar structure and function. Convulsions, therefore, as chorea, tetanus, trismus, epilepsy, &c. cannot be considered as diseases of the muscles, but as symptoms which are produced by different causes. This idea is the more plausible, that the same cause produces in one individual convulsions in general, in another chorea, in a third epilepsy, or tetanus, or trismus, &c.

CONVULSION AND SPASM.

Every involuntary contraction and relaxation of muscular fibres is called convulsion, while the mere contraction is termed spasm. Convulsions are not necessarily accompanied with pain, and they admit various modifications; they may affect single parts, or the whole body; they may be of short or long duration, continual or intermittent, periodical, or of irregular appearance; they are accompanied with fever, or are not.

Different names are given to the spasmodic and convulsive affections, according to the affected parts and their external appearances. Chorea means involuntary motions and gesticulations over the whole body, or on one side, or in single parts,

continual or intermittent, particularly during sleep, without pain, and with preservation of consciousness. Tetanus is a continual cramp of muscles, with immobility and rigidity of any part. That name, however, is mostly applied to such a state of the whole body, that is, if the whole body be extended and rigid like a statue. It is called *emprostotonos*, if the head be drawn forward and downward; in *opisthotonos* the head is drawn backward and downward; and in *pleurostotonos* it is drawn to one side. *Trismus* designates the mouth shut, and the jaw-bone immoveable; in *antitrismus* the mouth is open, and the jaw-bone stiff; in *risus sardonicus* the muscles of the face are drawn as in laughter.

With several other writers, I consider these affections, not only in acute, but also in chronic cases, are mere symptoms or consequences, and not as the disease or cause. They are produced by various causes, and these are the diseases. The proximate cause must remain unknown, as long as we do not understand that which really happens in involuntary and voluntary motion. We can only endeavor to point out the remote causes, and modify the curative process accordingly. The cause may be idiopathic, that is, affect immediately the muscular apparatus itself; or sympathetic, viz., it may reside elsewhere, and influence the muscles by sympathy. Moreover, it may be local, that is, reside in one particular part; or general, viz., extended over the whole body. Local causes, for instance, are meconium, saburra, worms, poisons in the intestines, difficult detention; wounds, particularly of the soles of the feet, in the palms of the hand, and under the nails; painful surgical operations, such as amputations, extirpation of a schirrus, extraction of a tooth, castration, cutting a nail too closely; injuring a toe by stumbling in walking; calculi, bony excrescences which injure the nervous system, repulsion of cutaneous affections, parturition, strong painful emotions of the mind, &c. General causes are, too great irritation of exanthemata, a too great loss of blood or semen, general weakness, a sudden refrigeration.

Tetanus is easily produced by sudden application of cold to the body, which was exposed to intense heat, as by sleeping on the ground after a warm day, in the same way as exposure to a stream of cold air produces a stiff neck. Now, according to the remote cause, the treatment must be modified; and the more easily the former can be discovered and removed, the better is the prognosis and the more easy the cure.

EPILEPSY.

The name epilepsy is given to convulsive motions of the whole body, or of several parts, accompanied mostly with suppression of the external senses, and the internal faculties. I say mostly, because sometimes in slight fits, epileptic persons do preserve some kind of consciousness, and the iris is contracted by the impression of light. In strong fits, however, all sensation is lost, and the iris immoveable. Sometimes the fits take place suddenly; sometimes, they are preceded by various symptoms, such as lassitude, anxiety, difficulty of breathing, bad digestion, cardialgia, excretion of copious pale urine, tinkling in the ears, deranged sensibility of the five senses, overflowing of tears, giddiness, red face, *aura epileptica*, &c.

The fits themselves are accompanied with various symptoms. Sometimes the epileptic person falls where he is; sometimes he walks without consciousness several steps, and sinks down, or he is drawn by a rotary motion; sometimes he continues to walk, but without consciousness, till the fit ceases; sometimes he is silent, sometimes noisy and vociferous. He commonly, but not always, contracts the fingers, particularly the thumb, suffers various contractions and contortions; there are often evacuations of saliva, urine, or semen; many gnash their teeth: the pulse is commonly irregular, small, contracted, sometimes scarcely perceptible; sometimes, however, it is large and full; sometimes there is a violent hiccough, &c.

The number of fits and their duration vary extremely. Some

individuals are attacked once in a year, others once a month, a fortnight, a week, a day, or many times a day. After strong fits they feel very weak, fall asleep, and sometimes lie down for several hours, like apoplectic persons; but the frequent pulse, the soft and perspiring skin, and the less deep and more natural respiration, remove such an apprehension. When they awake they have not the least consciousness of any thing that happened to them during the fit.

Epilepsy, as I have mentioned, is a symptom: the remote causes are local or general. The former are often in the brain, and often in the abdomen. Wounds of the head, fractures and depression of the skull, bony excrescences, induration or ossifications of the blood-vessels or of the membranes, tumors, hydatids, or a collection of any fluid in the head, may produce epilepsy. The influence of the peculiar irritability of the patient is evident, because all these morbid phenomena have been detected after death without previous epilepsy. Many persons subject to epilepsy have small foreheads, and the upper posterior part of the head across the summit, or across the midst of both parietal bones, elevated. This configuration, however, is not observed in all who are subject to this complaint, and it often exists without epilepsy; hence it cannot be considered as a cause. The local affection of the brain, in many cases, is obvious by the observation, that idiotism, insanity, and epilepsy, often accompany or succeed each other. I think, with Dr Parry,* that it is scarcely necessary to advert to the theory of the brothers Wenzel, who attribute idiopathic epilepsy to a change produced on the pituitary gland. I have seen several times that part disorganized by suppuration, without preceding epilepsy. Also at Bath, I opened, in presence of Mr Norman and Mr Kitson, the head of a man who had been observed for a long time by Mr Norman. He had never suffered from epilepsy; the pituitary gland, however, and the neighboring parts, were destroyed by suppuration.

* Elements of Pathology, vol. i. p. 312.

Local affections of the abdomen, which sometimes produce epilepsy, are sordes, acids, worms, poisons, calculi, pregnancy, obstructions of the abdominal viscera; other local causes are those which I have quoted as producing convulsions. Epilepsy is sometimes the result of a general cause. It is, however, seldom a symptom of plethora; it is more commonly the effect of general debilitating causes, such as great and continual evacuations of all sorts, onania, diarrhœa, hemorrhages; of continual night-watching; studying; of disagreeable affections of the mind, as terror, anger, hatred; drunkards are subject to this malady. Finally, this disease is notoriously hereditary, like various convulsive complaints and many other disorders. For that reason, in families where it prevails, it is carefully concealed; whilst others feel justly disinclined to be allied by marriage to such families.

In ancient times, epilepsy was considered as the effect of evil spirits, or as a punishment of angry divinities. It is known that, among the Romans, epilepsy produced such a consternation, that the popular assemblies were dissolved, and the afflicted relinquished to their misery by their friends, as if they were objects of guilt. They were considered as having offended divinities, and being punished by them.

From the examination of the cause of epilepsy, it results that there cannot be a general anti-epileptical remedy, or a general and always uniform method of proceeding. If I am simply asked by medical men, for a remedy against any symptom termed disease, I do not know whether I shall pity more the patient or the physician. Does not daily experience prove that there is not one general remedy against any symptom? The observation, that the same remedies used against the same symptoms, are praised and blamed, can be explained only because the symptoms were either produced by different causes, or the individual irritability and strength of the patients were different. And in case of cure, are we always certain whether nature or art has cured?

Epilepsy is curable or incurable according to the cause and the possibility of removing it. If the cause reside in a bad configuration of the brain, or in an internal tumor, or in a collection of any fluid, in a hydatid, or in any organic cause of that kind, no remedy can be thought of. From ancient times it has been observed that epilepsy often disappears at the climacteric years, and that after puberty, if it be chronic, it is rarely or difficultly cured. In these cases the cause is evidently constitutional; and at these periods of development a greater natural change takes place in the organization, or is more easily produced by art than at other periods of life. Hereditary epilepsy, as to cure, is of the most difficult kind. Noxious things in the stomach or intestines must be evacuated. Dr Prichard has successfully treated several epileptics with evacuants: in other cases he has not succeeded. Every practitioner will find, by a sound judgment in his observations, how far cathartic remedies are serviceable, viz. by removing sordes, by determining the fluids from the head, by setting up a new action in the intestinal canal, by stimulating the absorbent system, and invigorating the digestive organs.* Sometimes zinc, or nitrate of silver, or carbonate of iron has produced the desired effect, though at other times these remedies have done harm or remained ineffectual. Epileptic fits have been relieved by washing the head with, or plunging it into cold water, or by introducing salt into the mouth of the patient. If pregnancy is the cause of epileptic symptoms the disease cannot disappear before the cause be removed. If plethora produce epilepsy, bleeding will cure; but what shall we think of those symptomatical physicians, who attack with bleeding every epilepsy, even those which positively succeed debilitating causes? In short, the remedies and plan of cure are indicated by the cause: before this is discovered, our proceedings are merely experimental.

* Edin. Medical and Surgical Journal, Oct. 1815.

CATALEPSY.

Catalepsy is that state of the muscular system, in which the patients, without fever, lose voluntary motion, and commonly the functions of the five senses, but preserve the mobility of the muscles, and keep every position wherein they are attacked or arbitrarily placed by other persons. The duration of the fits varies; sometimes they last several minutes, sometimes several hours.

The causes of catalepsy seem to be seldom local, but mostly general. There have been examples where plethora has produced this singular disorder, and where it has been cured by a spontaneous hemorrhage. This may be the case in suppressed catamenia, though the suppression of the catamenia and catalepsy, may result from the same cause. Dr Parry, of Bath,* in a violent case with total insensibility, by pressure on both carotids, uniformly suspended the symptoms, and restored the patient's senses, while pressure on one carotid only had no perceptible effect. Mostly, the causes are of a moral nature, and painful emotions of the mind, as unfortunate love, terror, grief, anger, &c. These affections certainly will produce a greater determination of blood to the head, while the bodily strength is diminished. The plan of cure must be modified accordingly.

PALSY.

Palsy is the deprivation of the power to move. It is partial, such as of the lower or upper extremities, or of one limb or muscle necessary to respiration, to mastication, deglutition, to language; or of internal parts, as of the stomach, intestines, anus, bladder, uterus; or it is general over the whole body, or on one side. This latter case is termed hemiplegia. Palsy may take place suddenly, or by degrees.

* Lib. cit, p. 349.

The observation that sometimes both voluntary motion and the sense of feeling are destroyed, and sometimes only one, while the other continues, is very ancient; and from it the inference was drawn that there must be two sorts of nerves, those of motion and those of feeling. In my work on the Anatomy of the Brain, and in that on Phrenology, I have mentioned the reasons, which convinced me, long ago, of these two sorts of nerves, which are now established.

In palsy, as in any other disorder, the first examination to be made concerns the parts which are affected, and the functions which are disturbed. Then the cause of the disturbance is to be discovered. In palsy, the disorder may reside in the brain, in the abdominal half of the nervous cord of the spine, in the abdominal viscera, or in the paralytic parts themselves. Anatomy shows why the injuries of the brain on one side of the head produce frequently morbid symptoms on the other side of the body. The pyramidal bundles of the medulla oblongata form a decussation, the fibres of each bundle arising from the opposite side and crossing each other. Hence all cerebral parts, which are in connexion with these pyramidal bundles, are in communication with the nerves of the opposite side. Thus, if the cerebral parts connected with the pyramids be injured, their influence is propagated on the opposite side. Moreover, the observation that the parts of the face provided with the facialis, are affected on the same side of the body, finds also its explanation in the anatomical structure; that is, the cerebral nerves of voluntary motion communicate with the nervous apparatus of that side of the body which is affected by hemiplegia. Finally, anatomy explains not only some cases in which the eye of the opposite side to the injury of the brain, but sometimes the eye of the injured side is morbidly affected; that is, only a part of the optic nerve forms a decussation; and an injury which affects that part of the optic nerve anterior to its decussation, or the upper external ridge of the optic nerve, from the decussation to the corpus geniculatum externum, will disturb the sense of vision on the same side of the injury.

The cause of almost every hemiplegia exists in the brain, and this may be particularly supposed, if any functions of the head be diseased at the same time. The causes of hemiplegia residing in the brain are various. Besides violent injuries from without, such as blows, fractures, depression of the skull, violent concussion, there may be a collection of fluid matter, as of blood or of serum, tumors, suppuration, or other morbid affections, such as congestion of blood, indurations, ossifications of the blood-vessels, &c. Other causes which may produce palsy are violent affections of the mind, as terror, grief, anger, abuse of physical love, general weakness, and exhaustion from any debilitating cause, such as too large and continued evacuations, refrigeration in bathing, suppression of habitual evacuations, and repulsion of cutaneous eruptions. Sometimes palsy is a symptom of the ague or of tooth-ache; it may be also the effect of mercury, lead, or arsenic, as it often attacks those who work in mines and factories. That it may be the result of lead, we learn by the history of the colica pictonum, and because it sometimes originates from the use of wine adulterated with lead.

Palsy of the whole body or of one whole side, is less common than that of the upper and lower extremities or of single parts. I doubt whether palsy of the lower extremities, alone, or of one single part, has so often its cause in the brain as it is said. Formerly such an idea could have been adopted and supported by the erroneous opinion that all nerves originate in the brain. But as the contrary is anatomically proved, I think that, in many cases, the cause may also reside either in the nervous cord of the spine, or in the abdominal viscera, or in the affected limbs themselves.

Dr Parry judiciously remarks,* "The effect of a blow on the ulnar nerve in the elbow, which produces a tingling in the little finger, shows that a disorder may be almost equally perceived in that part of a nerve, which is considerably more distant from its origin than the spot on which the irritation was

* Lib. cit. p. 362.

made. This is indeed an illustration of the symptoms of paraplegia, which, though usually situated in the spinal marrow, is chiefly perceived in the limbs." He adds,* "In sciatica the pain is, by the patient, often referred chiefly to the ramifications of that nerve on the outside of the knee, leg and ankle. One may, however, often discover the origin of the complaint, by pressure behind the great trochanter, in which case the patient will not only feel that part tender, but the pain of the knee and ankle will be much aggravated.

The spinal cord is composed of a nervous mass, and has the same membranes as the brain; hence it may be affected by the same diseases as the brain, such as inflammation, suppuration, induration, tumors, congestion, or ossification of the blood-vessels, collection of any fluid, by irritation, weakness, or exhaustion of the nervous mass. The spinal cord may also be injured or compressed by the deviation of the vertebræ.

Pott,† however, has proved that, in the disease termed incurvation of the spine, there is no unnatural pressure, though the use of the limbs are lost. He therefore separates entirely this distemper from palsy. "In true palsy," says he, "from whatever cause, the muscles of the affected limb are soft, flabby, unresisting; the limb may be placed in any position or posture. If it be lifted up and then let go, it falls down; and it is not in the power of the patient to prevent or to retard its fall. The joints are easily and perfectly moveable in any direction. In the other disease the muscles are rigid; knees and ankles acquire a stiffness not very easy to overcome." He shows that there is never a real dislocation of the vertebræ, but always caries; that without erosion and destruction of the substance of vertebræ, there is no curvature, and therefore the curve is from within outward; that the curvature accompanies the caries of the substance of the cervical and dorsal vertebræ, while the same

* Lib. cit. p. 364.

† Pott's Chirurgical Works, by Sir James Earle, vol. iii. Art. on Palsy of the lower Limbs.

diseases of the lumbar vertebræ commonly exists without curve. Moreover, he proves that the curvature is not the cause of the useless state of the limbs, since it remains, though the patient recovers health and the use of the limbs. He ascertains that many complaints of the thorax and abdomen are the consequence of the same disease which causes the curvature of the spine; that a morbid state of health is previous to the deformity, such as pain and tightness about the stomach, indigestion, want of appetite, disturbed sleep. Pott considers this disease as the same scrofulous disorder, which occasions the thick upper lip, the ophthalmia, the indurated glands on the neck and under the chin, the obstructed mesentery, the glairy swellings of the wrists and ankles, and the enlargement and caries of other bones. Sometimes the vertebræ are attacked in various degrees; the substance, for instance, is sometimes eroded. Finally, in the same way as the general complaints exist previous to the deformity, the general complaints disappear gradually before the limbs recover the smallest degree of their power of moving.

Paralytic affections of the lower limbs are often an effect of disorder of the digestive organs. Mr Abernethy quotes several facts which he has observed.* Finally, in partial palsy the muscles themselves may be idiopathically affected by compression of the nerves in their course, or by ossified blood-vessels in the limbs, where the ossified arteries prevent the blood from going to the parts, and the ossified veins oppose its reflux. Refrigeration seems to be not an unfrequent cause of this partial palsy. By the kindness of Baron Larrey, at Paris, I have seen several soldiers, who, during night, were exposed to cold and wet weather, and who in the morning felt stiffness in one or the other lower limb, which by degrees diminished, attacked the whole body, and was succeeded by death.

According to all these different causes, the plan of cure must be modified.—If a local disorganization of the brain, or a collection of any fluid in the brain, be the cause, the disease is in-

* Surgical Observ. on local Diseases.

curable.—If it originate from a depression of the skull by violence, the operation of trepanning must be performed, and the broken portions removed.—If it be a symptom of a general disease, as of gout, fever, inanition, the plan must be adapted to the general disease.—If it result from repulsion of cutaneous eruptions, or from drying up habitual drains, then issues, blisters, setons, artificial eruptions of the skin, and remedies acting on the skin, are to be administered. If it have been produced by lead, the remedies against the colica pictonum in general are also indicated against this symptom.

If the cause reside in the spine, it may be in the nervous substance, in the membranes, or in the vertebræ injuring the nervous mass. I have already mentioned that Pott has ascertained that, in the disease called curvature of the spine, the deformity alone does not create palsy, but that the general disease affects particularly the spine. Nobody, however, will object that, at the same time, the body may be brought into a suitable horizontal position, and supported by convenient machines, as is done with a broken limb. But after the considerations of Pott, it is by no means reasonable to consider every palsy of the lower extremities as the result of weakness, and softness of the spinal vertebræ, even where there is no external appearance. Indeed, it seems unpardonable to condemn every patient with palsy of the lower extremities for months, nay years, to a horizontal position, because there are a few cases where such a treatment is indicated. Such a proceeding must be injurious to the general state of health, and I know positively that the cases where it has succeeded are less numerous than those where it has failed. It is beyond doubt that Pott's, or the Arabian method of treating palsy of the lower limbs, even where there is no curvature, has cured a greater number of patients than the horizontal position without issues.

If weakness of the abdominal viscera produce palsy, the object of the plan of cure is to restore the digestive power by means

adapted to the irritability of the patient, such as evacuants in small doses, bitters, bark, iron, and tonics in general.

From the preceding considerations it results that, in the state of involuntary motions of the muscles, or in the state of impossibility to move them by the will, the cause may be idiopathic or sympathetic, and that the latter case is the most common; that the deranged manifestations are mere symptoms, and that, as to the method of cure, the remote cause must be discovered and removed.

SECTION II.

DERANGEMENTS OF THE FIVE SENSES.

The organs of the five senses are subject to various disorders, which form the object of the peculiar study of certain individuals. There are, for instance, oculists, while others investigate particularly the disorders of the skin, and still others treat ear complaints. The disturbances of these parts, however, are not always local: hence those who examine the diseases of the eyes or skin, ears or teeth, must possess a knowledge of the functions and disturbances of the body in general, and of the mutual influence of the different parts on each other. It is known, for instance, that tooth-ache is sometimes merely a symptom of pregnancy, or of a general nervous irritation. Its treatment then must be conformable to the general state of the body, and not merely confined to the teeth. Blindness is sometimes merely a symptom of another disease, and will be cured along with the other disease, if no part of the organization have been destroyed. The operative part of oculists, like operative surgery in general, may be learned by itself; but the dynamic laws of physiology and pathology are essentially the same throughout the whole organization, and their study is necessary to every one who practises the healing art.

The sense of feeling may be increased, diminished, or perverted. Sometimes the least touch is painful to gouty patients. In plica Polonica, patients sometimes feel great pain from their hair being cut. On the other hand, there occur individuals who are

quite insensible to pinching or piercing the skin with a needle. Other patients feel cold or heat in opposition to the indication of the thermometer. Some feel a burning heat when nothing is to be seen on the skin. These and various other morbid affections of the nerves of feeling are mostly symptomatical, and are to be treated in connexion with the general complaint. External applications to the skin, however, such as bathing, anointing, blistering, fomenting, rubbing, setons, moxa, issues, often greatly assist the internal treatment.

The same observations may be made with respect to smell, taste, hearing, and seeing. Their sensibility is increased, diminished, or perverted. Some patients distinguish odors and savors with greater accuracy than in the state of health. Too strong impressions from without, or often general diseases, blunt their power. Sometimes patients like the taste of things which would be disgusting to them in health. Sometimes hearing is extremely acute; sometimes the irritability of the eyes is so great that they cannot bear day-light, and see at night. In others, hearing and seeing are weakened, or quite destroyed. Others smell odors, see colors, hear voices, in short, perceive impressions, which do not come from without; others see single objects double, hear music half a tone too low, &c. These and various other disorders exist with or without pain.

As to the causes of the deranged functions of the external senses, the same general considerations prevail. The individual nerves may be affected for themselves; they may, for instance, be inflamed or affected by a greater vascular action, or diminished in size, disorganized, or morbidly affected by general diseases, like every organic part; or their functions may be deranged on account of a diseased brain, or on account of disorders of the abdominal viscera. Worms in the intestines, for instance, may affect all the senses; they may produce pain in the limbs, tickling in the nose, cough, grinding of the teeth, disagreeable smell, blindness, deafness, and other symptoms. Derangements of the five senses are often precursory symptoms of apoplexy.

Thus, the disorders of the five senses are to be considered

according to the general principles of pathology. The nature of the disease or its cause require our principal attention. Amaurosis, or deafness from rheumatism, or from repelled cutaneous affections, must be treated differently from the same morbid appearance when it is the result of spasmodic affections. In general diseases, the functions of the five senses are mostly disturbed, but in curing the general disease all individual symptoms disappear.

After the nature of the disease, the individualities of the patient are to be considered. In scrofulous subjects, or in persons of robust constitution and sanguine temperament, the disorders of the eyes and ears require a modified, though essentially similar treatment. The farther details belong to general pathology.

CHAPTER. II.

DISEASES OF THE BRAIN.

FROM the preceding considerations it results that voluntary motion and the five senses, are disturbed, and cured according to the general principles of pathology. They are sympathetically affected in various diseases, and suffer often idiopathically.—Moreover, sometimes a morbid appearance is perceptible in the organization, and sometimes no organic change can be detected. We shall find that all these observations may be made with respect to the brain.

Every one admits that delirium, stupor, vertigo, lethargic affections, even apoplexy, depend on the brain. But, by our ignorance with respect to its functions, far the greater number of the deranged manifestations of the mind have not yet been generally considered as disorders of its organization. I hope, however, that, as in the disorders of any other organic part, we always consider at the same time its deranged functions, and in observing the deranged functions, we think of its disturbed organization, the proceeding of physicians will be somewhat the same in regard to the brain. Meanwhile I am obliged, in a certain degree, to render my considerations conformable to the general division of nosography; but if Phrenology be generally known, the derangements of the mental operations, and the disorders of the brain, will be classed together, and only the different disorders of the brain will be spoken of, as is actually the case with the five senses and their organs; it will then be admitted that the deranged functions of the mind are sympathetic or idiopathic af-

fections of the cerebral organs ; finally, it will be believed that what happens in all other bodily parts, occurs in the brain, viz., that every perceptible derangement of the organization does not visibly affect the function, and that every disturbance of function is not accompanied with a visible alternation in the organization, and that accelerated circulation of blood does not always derange the function of the stomach, nor that of the brain, &c.

I shall first treat of those disorders which are generally admitted as diseases of the brain, and then examine the principal object of this work, viz. Insanity.

CEPHALALGIA, VERTIGO, AND LETHARGIC AFFECTIONS.

There are various affections of the head, which received different names according to the symptoms, which are often considered as peculiar diseases, but which may depend on the same disease, or originate individually or all from different causes.—Headache or *Cephalalgia*, for instance, is a symptom and may result from fatigue of the brain after continued study, or from indigestible aliments in the stomach, or it may accompany various other diseases which carry the blood to the head, &c. With the same view must be considered *Vertigo*, or giddiness, that is an illusory rotation of all objects around us, and of ourselves with a fear of falling ;—*Lethargy*, coma or drowsiness, with its different degrees ;—*Cataphora*, when the patient sleeps much and is roused with difficulty, when he looks up or answers and again relapses into profound sleep ; and *Carus*, when the patient is not to be excited by noise, shaking, nor even by pinching the skin ; *Lypothymy*, or fainting, that is, a less or greater degree of suppression of animal life, while respiration and circulation continue ;—finally, *Syncope*, when all powers of the mind are suppressed, and pulse and respiration diminished.

The proximate cause of these morbid appearances is not known ; it affects particularly the senses and the brain. The remote causes are multifarious, such as injuries of the head ;—pres-

sure on the brain by a congestion of blood, by a collection of water or serous matter, by exostoses ;—inflammation ;—strong mental affections, as love, fear, grief, joy, anger ;—complaints of the intestinal canal, as indigestion, flatulency, worms ;—intemperance, or abuse of spirituous liquors ;—protracted studies ;—busy days and restless nights ;—diseases of the heart ;—pregnancy ;—hysteric and hypochondriac disorders ;—inanition from fasting, too violent exercise, evacuations of blood, of semen, or sweat ;—epidemic and all debilitating diseases ;—erect position in weakness ;—repelled cutaneous eruptions ;—syphilis ;—vitiating atmosphere in playhouses or in crowds ;—the smoke of various poisonous objects, as of sulphur, arsenic, &c. ;—various idiosyncracies, if, for instance, a person cannot bear the smell of flowers, of a cat, the sight of a frog, &c. ;—sometimes merely old age.

The prognosis and cure vary according to the remote cause, which can be removed or not. In mechanical injuries, surgical operations are often required ; in saburra, an emetic ; in plethora, phlebotomy ; in spasmodic affections, nervina ; in weakness, tonics. Every thing that stimulates the brain is to be avoided ; the scalp may be washed with spirits. The nature of the disease and the whole constitution, and not the individual symptoms, are to be kept in view. If rheumatismus vagus or the gout, be the cause, or a congestion from inflammation or from weakness, the treatment must be different. Bleeding in one case will do harm, while in the other it will relieve. In short, in the brain, as in any other organic part, all general principles of pathology are to be considered and applied.

APOPLEXY.

The name has arisen from the particular appearance of instantaneous death. It is, however, to be remarked that the apoplectic attack is not always instantaneous or general, but often gradual and partial. The symptoms therefore are much modified. Sometimes a person seems to be in good health, cheer-

ful in society, and instantaneously sinks dead on the ground, without a sigh or a groan. Often there are precursory symptoms, such as tinnitus aurium, *muscæ volitantes*, temporary fits of blindness, heaviness of the eyes, head-ache, tightness across the forehead, confusion of ideas, drowsiness, vertigo, loss of clear consciousness, of speech, of voluntary motion, of the five senses; inactivity of the mind; convulsions, epilepsy, flushed or livid countenance, restless nights, anxiety, palpitations of the heart, forgetfulness; slow, difficult and interrupted respiration; slow and full pulse; inactive secretions, relaxation of the sphincters, inaptitude to swallow; partial palsy, or even hemiplegia, is a frequent symptom of apoplexy.

Apoplexia belongs to the complaints which are hereditary; and certain constitutions, such as plethoric temperaments, with a short neck and large head, or pituitary temperaments, with a dropsical state of the cellular membrane, and subject to hemorrhages, are the most liable to it.

The proximate cause of apoplexy is connected with changes of the brain, which may go on for a considerable time. This opinion is founded on the previous disorders of its functions, and on the various organic changes detected on dissection. Undoubtedly the scalpel in the hand, or dissection after death, is the best way of investigating the seat of the proximate cause of diseases. In dividing the scalp of those struck with apoplexy, there is often a great flow of blood from the frontal and occipital veins; the membranes of the brain are often thickened, the arachnoidea is sometimes opaque, the veins turgid with dark blood; in general a great congestion or determination of blood to the head is observed. The consistency of the brain is different, as is the case in other individuals who do not die apoplectic. Three appearances are particularly remarked, viz., there is an extravasation of blood in the ventricles, or at the basis of the brain and cerebellum;—or there is a serous effusion, sometimes accompanied with suppuration or tumors; or there is no extravasation at all. Accordingly, long ago, apoplexy has been divided into sanguineous, serous, and nervous.

With respect to sanguineous apoplexy, it may be asked, on what sort of laceration the effusion of blood depends, whether on dilatation and weakness, or on erosion and suppuration; whether on the large or small vessels; and in what part of the brain? All these causes exist in individual cases, and the blood-vessels may break at all parts of the brain and cerebellum, in the cavities and at the surface, in the same way as in other parts, on the legs, for instance, in the abdomen or thorax. An effusion, however, at the basis, towards the medulla oblongata, produces the most certain and sudden death.

It seems to me that anatomists, in dissecting the brain, are not sufficiently attentive to the different degrees of density of the blood-vessels. In the inflammatory state of the brain, I have found them very firm; in chronic dropsical affections, in flaccid and pituitary temperaments, weak and fragile. Dr Cheyne, in his *Treatise on Apoplexy*,* relates the history of a man who, by beating his wife, killed her while she was in a state of intoxication. A ruptured vessel and effusion of blood was the cause of her death. Mr Charles Bell, who made the dissection, declared that there was a state of the blood-vessels in which an external injury or shock is more apt to produce rupture, and that drunkenness may be supposed the artificial excitement which produced this state of the vessels. When I was at Liverpool, in 1816, a sailor received from another man a blow on the head, and fell dead to the ground. A large effusion of blood at the basis of the brain was the cause of his death. The substance of his brain was soft, and the blood-vessels extremely delicate. Intoxication, indeed, predisposes to such an event for two reasons; it increases the determination of blood to the head, and also weakens the texture of the blood-vessels, so that a less violent blow may produce rupture than what in other circumstances would have proved fatal.

Among the remote or occasional causes of sanguineous apoplexy, the first to be considered is the hereditary and constitu-

* P. 218.

tional disposition. Other such causes are intoxication, repletion of the stomach,* intemperance, and a luxurious life, violent exercise in hot weather, a great muscular effort after a full inspiration, violent exertion during child-bed, stooping, tight constriction of the blood-vessels of the neck by cravats, costiveness, vomiting, and every thing that produces an accumulation of blood in the head, and weakness of the blood-vessels.

A serous apoplexy is observed in adults under circumstances which in children produce hydrocephalus acutus; that is, in individuals with an inflammatory diathesis of the brain, where the great determination of blood to the head produces a serous effusion. In strong individuals it may appear as phrenitis. In weak persons its progress is slow, and the modified appearances induce those physicians, who consider merely symptoms and not the nature of the diseases, to speak of different diseases. There are, however, acute and chronic inflammation in the brain as in any other part of the body, and every where the same morbid changes may be observed.

Serous effusion is not so unusual in adults as is believed. It is often found in those who die of chronic mania, or who had become idiotic from that disease. This view coincides with that of Dr Rush,† and with the observations of Dr Cheyne,‡ when he says, "I have in my possession two dissections of very young subjects, whose brains presented the appearances which belong to ethargy. Before death they were both comatose. In both children the surface of the brain was hid by a large

* Much, and perhaps justly, is said with respect to *intemperance*; but the term seems to be fixed, by usage, only with reference to an imprudent use of ardent spirit. It should be remembered by those who are active in the cause of temperance—that *intemperate eating* is an evil of no small magnitude in society, and often quite as fatal in its consequences as that of excessive drinking. We see it at the private table, at the public feast, and even in the nursery of children. There is no consistency in refusing a glass of wine, for the cause of temperance, and at the same time loading the stomach to excess with food. To be truly temperate, is to be so in all things.

† Medical Inquiries, vol. ii. p. 206. ‡ On Apoplexy, p. 200.

deposition of serum between the tunica arachnoidea and pia-mater. The substance of the brain was soft and moist, and in the ventricles there was scarcely any fluid." If such patients suddenly die they are said to die apoplectic, a mere name to express the mode of dying. It is, however, very common that lethargic and other symptoms observed in hydrocephalus acutus, precede death.

In nervous apoplexy no effusion at all is detected on dissection. This will be the case if persons die of strong mental affections, of extreme and sudden joy, fear, anger; *quidam sub coitu periire*. Asphyxia in carbonic gas is a kind of apoplexy. The nervous apoplexy sometimes occurs in delicate, hysteric, and hypochondriac subjects, but it is not to be confounded with asphyxia, or apparent death, where all the powers are only suppressed, while their excitability remains, and where putrefaction alone is a positive sign of dissolution.

It is to be remarked that in apoplectic persons, sometimes various parts, such as the liver, the intestines or other viscera, are found diseased. Now it may be, that the disease has begun in the abdomen, and has been propagated to the brain; on the other hand, the liver or bowel complaint may be the effect of the diseased brain, or the liver complaint, and all morbid appearances of apoplectic patients may be the result of the same cause; but I am far from thinking that all affections of the head, primitively originate in the intestinal canal. Sometimes apoplexy is a mere symptom of epidemic diseases, sometimes of the ague.

M. Serres divides apoplexy into that of the meninges and into that of the cerebral substance. He considers the cerebral mass affected each time when there is palsy. He subdivides the *apoplexia meningæ* into that without or with extravasation, and into that with a rupture of the arteries or of the veins. The prognosis naturally varies according to the cause and relapses. The danger is greater if the disposition is hereditary, or if the cause cannot be removed, as tumors or suppuration. The more the

functions of animal and automatic life are deranged, and the greater the disorders are, the more dangerous is the event.

The treatment depends on the cause. Some practitioners recommend emetics. But wherever there is a determination of blood to the head, emetics are contra-indicated. Vomiting is admissible only where apoplexy is connected with an overloaded state of the stomach, and then we ought to have recourse only to tickling of the fauces. If the patient is insensible and cannot swallow, there is danger of suffocating him by introducing any liquid into the mouth. Vomiting always increases the vascular action; the face becomes turgid and suffused; it gives headache, which can be explained only by the congestion of blood in the vessels. Indeed, there is every reason to think that vomiting will rather bring on apoplexy, and convert a slight attack into a hopeless case, than cure it.

If the individual be not subject to spasmodic fits, to rheumatismus vagus, or the gout, or if there be no reason to suspect any strong emotion of the mind, as an extreme anger, or fear, I think with the best practitioners, that blood-letting is more effectual than all the other remedies in use. I say with Dr Cheyne,* "If the display of the brain destroyed by apoplexy does not prove how indispensable V. S. is, every other argument in favor of it must be accounted weak." If the sanguineous and serous apoplexy be not cured by V. S. the patient at least, may be kept alive for a longer period.

Besides a large blood-letting on the head, every thing that determinates the blood to the brain, or prevents its free circulation, must be avoided. If a congestion of blood by an inflammatory diathesis be suspected, or in congestion from mere weakness, the patient is to be brought into an airy place, the head to be shaved, and exposed without covering to cool air; the application of cold water or ice will be of advantage. But if rheumatismus vagus or the gout be the cause of apoplectic symptoms, cold applications on the head will rather do harm than be useful.

* On Apoplexy, p. 52.

Sinapisms on the feet and the general treatment of rheumatism are indicated.

It is easy to mention these differences, but it is sometimes extremely difficult to distinguish them in practice. The symptoms are often so tumultuous, the situation of the patient so urgent, that there is scarcely time for deliberation; and, as it is said, *periculum in morâ*. In nervous temperaments with spasmodic fits, there is less danger, and antispasmodics are indicated. The same remedies are to be employed in strong emotions of the mind. In the gout of the head, opium, wine and diaphoretics have been found useful; if apoplexy is a symptom of the ague, bark in a large dose or sulphate of quinine is required. Small effusions, particularly at the external surface of the brain, may be absorbed, and the life saved.

PHRENITIS.

Inflammation of the brain was formerly seldom spoken of; but long ago I was convinced that it has been often overlooked on account of the erroneous idea, that it takes place only when accompanied with violent delirium. Dr Cheyne, in his first essay on hydrocephalus acutus,* says that phrenitis is a disease scarcely seen in Scotland. Repeated observations and dissections after death, induce me to think with Dr Powell,† that “inflammation of the brain is by no means unfrequent, while we rarely find it accompanied by the symptoms which” (according to the theoretical opinions of the schools) “should designate phrenitis. The symptoms are referable rather to oppression of nervous power than to increased activity of the blood-vessels.” I have dissected several young individuals, who by their physicians were treated as affected with a typhus, or nervous, or brain fever, who appeared comatose, and whose cerebral functions were entirely suppressed, but whose brains, on dissection, offered

* P. 69.

† Some cases illustrative of the Pathology of the Brain, read at the College of Physicians. London Med. Transactions, vol. v. p. 198.

the most unequivocal appearances of true inflammation. Another not uncommon error was, that phrenitis takes place only in adults. Children, however, are liable to it, and perhaps still more than adults; and it is often the cause of hydrocephalus acutus. Medical men are better informed with this disease now than in former times.

The causes of phrenitis are multifarious, such as violent blows;—INSOLATION;—dentition;—intense application of the mind;—sudden refrigeration;—abuse of spirituous liquors;—and all the causes which produce inflammation of other parts. The treatment must be debilitating or lowering, and consists in bleeding, cold applications to the head;—in certain cases, tepid bathing of the body;—low diet, opening medicines; and in all, anti-inflammatory remedies.—All other details must be understood by the general principles of pathology.

HYDROCEPHALUS ACUTUS.

This name ought not to be considered as indicating a peculiar disease, but the effect of various diseases; for it designates only a collection of water, formed and becoming destructive in a short period. This morbid appearance had been too long neglected, and, notwithstanding the careful attention of great and very intelligent practitioners, our knowledge of it is not yet perfect. According to the notion founded on symptoms, it is sometimes impossible to decide whether this disorder exists. Sometimes all appearances which accompany a serous effusion in the cerebral cavities take place, and no effusion is found after death. Such cases are mentioned by Quin, Rush, Cheyne, Abernethy, and others. I have witnessed several examples.—On account of the importance of this complaint, I shall first mention the different sorts of hydrocephalus, consider the individuals liable to them, then the symptoms which occur, afterwards the causes, and finally the curative proceeding.

The first consideration to be made is to distinguish hydrocephalus, or dropsy of the brain, from hydrocephalus acutus.

The former is of a slow character ;—it may originate from accidental causes, such as violent blows ; but generally it takes place in scrofulous and weak children, who sometimes are born with it, and sometimes have scrofulous tumors in the brain. The quantity of water collected in the cavities of the brain, or between the brain and the dura mater, may be very considerable ; it sometimes amounts to fourteen pounds or more. The ossification of the skull is generally slow ; but those are wrong, who think that the fontanel remains always open in such cases. I have seen many that show the contrary. The too great size of the head is a more characteristic sign. Sometimes it is distinguished by the configuration of the orbits, and the appearance of the eyeballs, which are pushed out and downward by the water collected in the anterior part of the lateral cavities. At other times the size of the forehead and the situation of the eyes are as usual ; but the parietal bones protrude extremely by the water which has distended the middle and posterior lobes of the brain. The limbs of such patients are weak and meagre ; the functions of the alimentary canal mostly tardy ; the gait is wavering and uncertain ; the functions of the five senses and of the brain are more or less deranged, sometimes, however, intact ; these unhappy beings often complain of headache, vertigo, drowsiness, or watchfulness, convulsions, even epilepsy. In rainy, stormy, and changeable weather, they generally suffer most. The scalp is often covered with a scaly or brawny eruption.—It seems that more girls than boys suffer from this complaint.—Other considerations, relative to this disease, may be looked for in my work on Phrenology, where I answer the objection founded on hydrocephalus against the assertion that the brain is the organ of the mind. With respect to the medical art, it is incurable, and it is wrong to torment such children with blisters, fonticuli, or issues, with mercury, digitalis, and so on. The danger is still greater, if an aperture be made to form an outlet for the water. The patient sometimes dies some hours or days afterwards. There are, however, several cases on record, where the same operation has

been made with success. But the extension of the cranium must not be considerable.

In hydrocephalus acutus the quantity of secreted serum is never considerable. It is mostly observed during the time from birth to the perfect development of the brain, and is the most frequent in children from two to ten years of age. A serous effusion, however, may also occur in adults, "who have been accustomed to headache, especially to the sick headache of authors."* As in any other part, so in the brain, the frequency of its diseases coincides with the greatest energy of its development.

Scrofulous, weak, delicate, and also stout and strong children, of a fair complexion, are subject to this disorder. Those whose brain is developed early and rapidly, and whose mental powers show a great and premature energy, are most liable to be affected with it. In such children, the activity of the brain is greater, and a larger quantity of blood is determined to it. Those who think that round heads are more subject to this complaint are mistaken. The most beautiful configurations of head are no security against this evil. The children of families, where other individuals have been carried off by the same affection, are exposed to the greatest danger.

The progress of the complaint is sometimes more or less slow, sometimes extremely rapid. It is generally slower in scrofulous and sickly children with smaller heads, and in those who have been debilitated by other diseases, such as intermittent fever, scarlet fever, copious and repeated bleeding, measles, hooping-cough, cutaneous sores, or other chronic complaints. Children of general weakness are often for days, or weeks, feverish, without appetite, and complaining of deranged functions of the abdomen, and of headache. At the beginning the symptoms are not at all alarming; but gradually they increase; the headache, chiefly about the forehead, becomes severe; dulness, frequent sighs and deep inspirations, vomiting, white tongue, and quick pulse,

* Dr Parry, lib. cit. p. 352.

are observed. Such children scarcely show any acute symptoms; they are apparently healthy, but suffer for months from headache, which comes and disappears from time to time, and is often accompanied with vomiting. In the intervals the children run about and attend their lessons. Their morbid symptoms are overlooked, because their parents do not know that, in children, a chronic and superficial inflammatory state of the brain often takes place which too frequently terminates in a fatal manner. Relief is scarcely looked for till organic changes are already produced, and the disease is become incurable.

In stout and irritable children, with large heads and premature dispositions of the mind, the progress of the disease is commonly rapid. A sudden change, increased sensibility, fever, a flushed face, brilliancy of the eyes, severe headache, stupor, retching, vomiting, dejection in the countenance, rapidly succeed. The diseased state sometimes begins directly with convulsions, and the first stage is scarcely distinguishable from the second.

In proportion as the disease increases, the child cannot longer sit up, is subject to fits of starting, or crying, and sighing; the headache is less felt, the stupor increases, the pupil of one or both eyes becomes dilated; copious alvine evacuations of fœtid greenish matter, and vomiting, often continue.

In the third stage, the child rolls the head on the pillow, or throws it back; the hands are involuntarily carried to the eyes or face, and moved before them, as if some object were to be removed; the eyelids are half closed, the pupil is dilated, and the iris has sometimes lost all irritability; there are commonly long sighs, fits of convulsions, frequent grinding of the teeth, and a complete insensibility. Where the progress is rapid, the skin is often burning, or an extreme perspiration, particularly on the head, occurs.

The proximate cause of this morbid appearance affects the brain, and consists in a greater determination of blood to the head,

combined with an inflammatory state. Dr Rush* calls it phrenicula. Dr Cheyne† and others consider the irritation of the abdominal viscera as the principal occasional cause. There is no doubt that often the first disorders take place in the abdomen, and the greater determination of blood to the brain is the result. Yet anatomical dissections have convinced me that, in many cases, the morbid appearances of the abdomen are secondary symptoms of the affection of the head. Every cause which produces an inflammation of the brain, may become a cause of hydrocephalus acutus, such as abuse of spirituous drinks; insolation, that is, when the child with his naked head is exposed to the heat of the sun; running and playing in hot weather, sudden refrigeration, and particularly dentition. I have seen examples of every sort. I shall copy the description of one case related by Dr Cheyne, in his work on Apoplexy,‡ and communicated to him by Dr Kellie. "Thomas Clarke's child, a boy about two or three years of age. On visiting this child, (October 5th, 1807,) I found him torpid and drowsy, his face flushed and tumid, his body hot, and the feet cold, and the pulse frequent. I was told that, on the preceding evening, he had inadvertently been given by a careless neighbor, a quantity of whisky, estimated from a glass to half a gill, and that he had been brought home in a state of torpor, and had vomited almost incessantly during the night, and even now whatever he swallows is almost instantly rejected by vomiting; he retched, also, when raised from bed. The belly was not swollen, nor did he express pain when the abdomen was pressed. An emetic was prescribed; and in the evening, after administering a clyster, a blister was applied over the epigastrium.—October 6th, the drowsiness, vomiting, and moaning, continued; the bowels costive, skin hot, pulse very frequent, but softer; the eyes looked watery and suffused. Leeches were

* Medical Inquiries, vol. ii. p. 193.

† On Hydrocephalus Acutus. First Essay, Edin. 1808. Second Essay, Dublin, 1815.

‡ P. 123.

applied to the temples, and four grains of calomel were ordered to be given every three hours, till the belly should be freely opened.—October 7th, the pulse was much reduced in frequency; several greenish slimy stools had been passed, the stomach was less irritable, and the inclination to vomit less frequent. He continued oppressed, moaned much, and the pupils seemed dilated. In the evening he had severe convulsive fits; a blister was applied to the head, and the calomel continued. The pulse was again very frequent, the vomiting had ceased, there had been two returns of the convulsions. Leeches were again applied to the temples, and a blister on the back. On the 9th, the child died. In the brain the veins of the pia mater were turgid and black. A very small quantity of serous fluid, not exceeding six or eight drachms, was effused into the lateral ventricles. The thorax was natural, the liver of a florid vermillion color, stomach and intestines perfectly sound.”

In speaking of phrenitis, I have mentioned that the inflammatory state of the brain is not so rare as it is commonly believed, particularly in children and in young persons. In them it is even the most dangerous, because the structure of the brain is still very delicate. It is known, that in children the brain increases rapidly; hence there is naturally a great determination of blood to the head, and any febrile affection will increase that determination. This is very often the case by dentition, the irritation of which is propagated to the bowels and to the brain. The fifth pair of nerves takes its origin at the same spot with the vagus, and is in communication with the cerebral parts.

The symptoms of this disease, in general, are treacherous; the pulse is sometimes small and contracted; the bodily strength seems to be suddenly diminished, or even exhausted; this apparent weakness is sometimes accompanied with numbness, coldness, paleness, and convulsions. On dissection, however, the effects of inflammation abundantly appear. The tissue of minute or florid vessels indicates the increased arterial action; the veins of the brain, or particularly of the membranes, are gorged with

dark-colored blood; there are sometimes considerable adhesions between the membranes; the membranes are often thickened, and serous effusions exist in the cavities, and in a small quantity under the tunica arachnoidea; innumerable little yellowish spots are spread over the arachnoidea, &c. In short, it happens with the inflammation of the brain as with that of the liver, or any other part. If it be not resolved, or mortal in a short time, serous secretions commonly take place. In the brain the serosity is sometimes clear and transparent, sometimes thick and yellowish, and sometimes flakes of coagulated lymph swim in it.

In sickly children, with small heads, the disease lasts longer before any effusion takes place, and the symptoms of its appearance are less deceitful. But in stout children, particularly in children with large heads, irritable temperament, and premature capacities, the progress of the disease is often so rapid, that it produces all the symptoms of effusion, but kills the patient before an effusion takes place.

There are physicians who flatter themselves to have cured hydrocephalus acutus; others deny its possibility. I have already mentioned that, often, all the symptoms which accompany an effusion in the brain are observed, and no serosity is detected on dissection. This is the case in children who die in a few days under perfect insensibility, strabismus, dilatation of the pupil, deep sighing, grinding the teeth, convulsions. Such cases may be treated with success, and the effusion prevented. Cures of that kind happen in the first days, while the morbid action of the blood-vessels produces the alarming appearances. I do not know any case of cure, when the progress of the disease was slow, and all symptoms of the third stage had appeared.

The treatment of hydrocephalus acutus depends on the causes which produce that effect. Dr Cheyne* says, "The chance of cure is nearly in proportion to the duration of the symptoms. The disease yields to different methods of treatment." He adds,† "I know no disease which is so much influenced by the

* First Essay, p. 29.

† Ibid, p. 93.

age, constitution, and temperament of the patient." Undoubtedly the organic state of the brain is different according to age and temperament; the treatment, in consequence, must be proportionate; but it seems to me that the treatment ought to be essentially different only when the nature of the cerebral affection is different. If in the same appearances different methods succeed, either nature cures, or the disease was not the same, but only the symptoms.

Many practitioners in this disease direct their first attention to the state of the abdomen, and prescribe purgatives. Mild evacuations certainly are of use; but a great irritation of the intestinal canal will rather increase than diminish the affection of the head.* Particularly emetics produce a greater determination of blood to the brain; and the disease, which at the first period might be cured, soon becomes incurable. As some physicians are deceived by greenish evacuations, nausea, and vomiting, and prescribe purgatives or emetics, so others are mistaken by the apparent weakness, and employ blisters and stimulating medicines. In children, however, every thing that irritates will increase their naturally great determination of blood to the head.—Drastics seldom re-establish the natural secretions, and no liver complaint is cured by drastics alone; hence, even in cases where the first irritation begins in the abdomen, they ought to be carefully administered.

The most inconsistent treatment certainly is when, as it is said, every thing is done; that is, they draw blood, and at the same time excite the circulation by blisters, emetics, drastic purges, or stimulating medicines. In the case mentioned by Dr Cheyne, the child suffered from having taken too much spirits, and vomited notwithstanding they applied a blister. In a healthy,

* This is an important truth, and should be generally known—for the reason that some physicians make it an invariable rule to prescribe purgatives for almost every species of insanity. This may appear strange to some—but such is the fact.

and little irritable child, treated by blisters and emetics, fever and headache will be produced. Notwithstanding, some physicians continue to prescribe blisters, emetics, and drastics; and if the patient die, they declare the disease incurable. I say, here, with Dr Cheyne,* "Every disease, whose natural tendency is to destroy a vital organ, becomes in unskilful hands an incurable disease."

The most successful treatment seems to consist in tepid bathing of the temperature of the child's skin, repeated every second hour for ten or fifteen minutes; in wrapping him up in tepid linen, when a large perspiration succeeds we should not interrupt it by the bath; in putting leeches at the temples and behind the ears, or in V. S.; in mild opening clysters; in mild diaphoretics; and particularly in avoiding every stimulus, as blisters, emetics, drastics. The good effect of such a treatment will be the most obvious in strong or in premature delicate children with large heads, where the disease is of the most rapid character. Such children, if nature be supported from the beginning, sometimes in a few days play again and run about. I have saved children who were considered as lost. In children of general weakness, or of chronic complaints, where the progress of the diseased state is slow, the treatment must be modified; every irritation of the brain must be avoided, but the body, in general, is to be strengthened, while in the other the whole proceeding is rather debilitating. If in such children, after long sufferings, we observe symptoms of extravasation, such as stupor, dejection in countenance, dilatation of the pupils, grinding of the teeth, complete insensibility, strabismus, rolling the head on the pillow, or drawing it back, there is scarcely any hope of recovery. Sometimes friction, with mercurial ointment, and a large blister on the head, have been successfully employed.

It happens that, in children, the inflammatory state of the brain is not mortal; the patients escape the first accidents, but lose

* Second Essay on Hydrocephalus Acutus p. 12. Dublin, 1815.

the promising dispositions which they manifested before the disease, and become idiotic. Sometimes, in such patients, the bodily strength seems to improve, but in a slow and incomplete manner; the intellectual faculties continue their manifestations, but in a weak degree, while in others they are entirely blunted or deranged. If the state of apathy or alteration be accompanied with palsy of the tongue, or of other single parts, it is a sign that the improvement is only apparent, that the danger still exists, and that in a shorter or longer interval the disease will terminate in a fatal way. Indeed, such patients are miserable; they are languishing, sorrowful, morose, and indifferent to all external impressions. After a long while, commonly, head-ache and a slow fever take place. This slow fever then is often confounded with a worm fever, but, at last, convulsions arise, and the whole position becomes insupportable; the patients commonly lie on the back, and throw the head backwards, even when asleep. A long series of distressing accidents, and of more or less painful symptoms, is terminated by death, sometimes after several years.

DELIRIUM.

This expression has different meanings. It is commonly employed to indicate, in acute diseases, the derangements of mental functions, of erroneous sensations, disorderly ideas, false judgment, and involuntary exertions. Todeer uses it as synonymous with insanity. Medically speaking, there is no essential difference as to the appearance of these two disorders. In both states the mental derangements may be the same; it is only usual to call them delirium, if they accompany general illness with fever in acute cases, whilst the chronic state of similar disorders is styled insanity. The former is commonly ascribed to the brain affected by the disease, whilst insanity is not yet generally considered as dependent on the cerebral organization. But when the manifestations of the mind will be better understood, delirium and insanity will be treated as a morbid state of the brain,

whilst the different causes alone, which produce the disorders, will be looked for. The symptoms observed in delirium, are as different as in insanity for the vegetative as well as effective and intellectual functions. At the same time the circulation of blood and the heat of the skin may be increased or not ; that is, delirium is accompanied with fever or free from it. The essential point to be remembered, is, that delirium is no disease, but deranged functions of the brain, which result from various causes. Delirium itself, therefore, cannot be divided into species, according to the symptoms which accompany it, but is as different as the causes from which it originates. It is a common symptom of phrenitis, but delirium may exist without phrenitis, and this latter without the former. It may depend on causes which idiopathically affect the brain, or on others which reside in distant parts, and act sympathetically on the brain, as in inflammation of the lungs, heart, stomach, &c., in intoxication, parturition, &c.

"Quant au siège du délire," says Esquirol, in his article on *Délire* dans le Dictionnaire des Sciences Médicales, "il nous sera inconnu aussi long-temps que nous ignorerons le siège de la faculté pensante, et la manière dont son action se produit au dehors. L'ouverture des cadavres n'ayant rien appris à cet égard, nous n'avons aucune donnée positive sur les conditions matérielles ou organiques du délire." He continues immediately : "Tous les physiologistes, tous les psychologues conviennent que c'est dans le cerveau que s'exercent tous les phénomènes de la pensée, mais tous ne sont pas d'accord sur la manière dont le cerveau agit dans la manifestation des facultés de l'entendement."

It seems to me that the seat of thought may be determined and assigned to the brain, without knowing how the brain acts, in the same way as we admit that the stomach digests without knowing how digestion is going on. Mr Esquirol will avoid such a confusion of ideas, as may be remarked in his article on delirium, if he will make himself acquainted with Phrenology. He, however, seems to be unwilling to give up the ancient ideas of the school to which he is accustomed.

SOFTNESS AND HARDNESS OF THE BRAIN.

In later years, several French authors, particularly Messrs Portau and Lallemand, have written on a new disease of the brain under the name of *ramollissement*. There is no doubt that the brain, in general, or more frequently individual parts of it, after chronic sufferings, become soft, in the same way as every other system. It is also evident that chronic inflammation may produce softness of the brain and its parts, but inflammation cannot be the only cause, though a very common one, of cerebral *ramollissement*, except if tumors in the brain, scrofulous and scirrhus affections of the glands and moral sufferings be placed together with inflammation. On the other hand, acute inflammation hardens the bones, muscles, blood-vessels and cerebral fibres. The hardness of the blood-vessels and of the cerebral mass is frequently observed in hydrocephalus acutus of stout and healthy children. I cannot insist too much on the necessity of considering the brain in the same way as every other organic part, being submitted to the same conditions and changes of health and disease. The brains are naturally softer or harder in different individuals as well as other organs. I found those which I got for dissection from the hospitals in London, harder than those from the hospitals in Dublin. I found the cerebral fibres flaccid but dense in several persons who had been affected by syphilis, and had undergone a long treatment of mercury. The organic constitution or temperament is modified in the brain as in the rest of the body, according to nutrition, exercise and general treatment during health and disease.

Softness and hardness of the brain, therefore, are more special diseases than softness and hardness of the bones. Large brains in delicate children are weak, and require, besides quietude and rest, the same physical treatment which is found useful in general weakness, viz., dry country air, bodily exercise, sleep and sim-

ple nourishing aliments. Partial weakness, however, and idiopathic affection deserve a particular attention in the brain as in other organs, and the brain or its parts may become soft when they are affected for a considerable length of time by moral causes.

CHAPTER III.

INSANITY.

SECTION I.

DEFINITION.

AN exact definition of Insanity is of the highest importance, not only for the art of medicine, but also for medical jurisprudence. Insanity deprives an individual of the rights of society, and often involves property, conjugal and other relations; it is subject to various inconveniences of the greatest consequence, which certainly are sufficient motives to examine it with more accuracy than hitherto has been done. Artificial signs and ideas, definition and knowledge are in the most intimate relation. Where information is deficient, nomenclature will be vague; where there is no exact knowledge of the nature and properties of any thing to be described, an exact definition is impossible. Now it is certain that the mental functions are not sufficiently understood, and that the study of insanity must undergo an entire change; and it may be added that actually its definition must be given with reference to jurisprudence, rather than according to the principles of the healing art.

In the Introduction of this work I mentioned that no branch of medicine is so intimately connected with philosophy of the human mind as insanity. "The difficulty of proposing a

satisfactory theory of the human mind," says Mr Haslam,* "must have been felt by every person who has touched this delicate string since the days of Aristotle." It is therefore not astonishing that the knowledge of the derangement of the mind is so little understood. Various definitions of insanity have been given ; all are founded on the opinions of the schools with respect to the mind, its properties and the condition of its manifestations. I pass over in silence the Jewish doctrine, that insane people are possessed with evil spirits.

As, in the prevailing philosophical opinions of the schools, the activity of the mind was looked for in the intellectual powers ; as, according to an axiom of Aristotle, its whole activity began with sensation, so that there was nothing in the mind which did not come into it by the senses,—it was very natural to think always of the intellectual powers, if insanity was spoken of. Moreover, the intellectual derangements are the most obvious. It is, for instance, easily observed, if any one reject what is excellent, hate what is useful, fear where there is no reason to fear, suppose perceptions of external impressions which do not exist, &c.

Among the derangements of the mind, memory, judgment and imagination then were particularly attended to, and for a long time it was believed that deranged judgment is the basis of insanity. It is true, as long as judgment exists and corrects erroneous perceptions, the morbid affections of the five senses are not considered as insanity. The mind, for instance, may be deprived of voluntary motion, or of any other sense ; the senses may be morbidly affected ; we may feel burning heat on the skin ; may see flames, the external objects double, reversed, or red-colored ; we may hear noise, perceive various odors or savors ; as long as we know the incorrectness of our perceptions, such diseases are not called insanity : but a patient is styled insane, if he believe in such perceptions from external impressions which do not exist. He, for instance, who thinks he has a frog in his

* Observations on Madness, 2d edit. p. 6.

stomach, or that he has feet of glass or straw, will be called insane.

In common language, the meaning of insanity is very relative ; it depends on the manner of thinking and feeling of each individual. Common people consider every thing that is above their conception either as foolish or as marvellous.

At the present time, it is well ascertained that, in insanity, the power of judging is not always deranged. Many insane persons, if we grant their premises, reason with perfect consistency ; nay, in many that power is increased. For that reason, one sort of insanity is designated by the name reasoning foolishness (*folie raisonnante*). This truth might be illustrated by many cases, but it is superfluous to mention them, since every one who takes care of insane persons must have had occasion to make observations of that kind. I shall only extract from Dr Cox's work on Insanity* that passage where he refers to a part of the speech of Lord Erskine, when at the bar, in defence of Hadfield. "I remember," said the advocate, "the case of a man who indicted another for imprisoning him ; and in the course of the trial, though I endeavored by every means in my power, by every question I could put, to draw from him some proof of the real state of his mind, yet such was his subtlety, and such his caution, that he baffled me at every point ; and it was only by Dr Sims' appearing in court that he discovered himself ; for he no sooner saw the doctor than he addressed him as the Lord and Saviour of mankind. The person indicted was therefore acquitted. But such was the subtlety and perseverance of this man, that, recollecting the doctor had one day confined him in his house in town, he indicted him for the same offence, and so well did he remember what it was that lost his cause in Middlesex, that nothing could extort from him the same behavior ; and yet there was not the smallest doubt in the mind of any one who knew him, that he was really and truly a lunatic.

* Third edition, p. 195.

Sometimes it happens that the manifestations of all intellectual powers, as perception, memory, judgment and imagination, are perfect, nay, improved, while, however, the patients are decidedly insane. At Vienna, a melancholy person having seen the execution of a criminal, the spectacle produced in him so violent an emotion, that he was suddenly seized with a propensity to kill. At the same time he had clear consciousness of his situation, and preserved the strongest aversion to such a crime. Weeping bitterly, he described his deplorable situation with an extreme confusion ; he struck his head, wrung his hands, exhorted himself, and cried to his friends to take care, and to fly, and he thanked them if they resisted and menaced him. Pinel speaks of a madman who did not show any mark of alienation in respect to memory, imagination, and judgment, but who confessed that, in his narrow seclusion, his propensity to murder was quite involuntary, and that his wife, notwithstanding his tenderness for her, was near being immolated, he having time only to warn her to fly. In his lucid intervals he made the same melancholy reflections, he expressed the same remorse, and he was disgusted with life to such a degree, that he several times attempted to put an end to its existence. I have quoted more examples in my work on Phrenology. Hence there can be no doubt that insanity embraces more than the derangement of intellectual powers.

I have divided the functions of the mind into affective and intellectual powers. Now, from what I have said, it follows that the derangements of the five senses only, do not constitute insanity, and that there may be insanity without derangement of the intellectual faculties, as they are commonly spoken of. It is also certain that the diseased functions of the feelings are not always insanity. Our appetite may be deranged, and we may be fond of unusual savors, as of coals, chalk, &c. ; physical love may be subject to various aberrations, as in unnatural desires ; various idiosyncrasies may occur in other feelings ; the individuals, how-

ever, as long as they preserve a power over their actions, are not considered as insane, just as memory, judgment, and imagination, may be extremely weak and incorrect, and may commit continual errors without being considered as insanity. Yet there is insanity with respect to the feelings and intellectual faculties. *In what then does insanity consist?*

With respect to the morbid affections of the senses, and the errors of the intellectual powers, we are insane, if we cannot distinguish the diseased functions, and do consider them as regular; and in the derangement of any feeling we are insane, either if we cannot distinguish the disordered feeling—if, for instance, we really think we are an emperor, king, minister, general, &c. or if we distinguish the deranged feeling, but have lost the influence of the will on our actions; for instance, in a morbid activity of the propensity to destroy. Thus, *insanity*, in my opinion, *is an aberration of any sensation or intellectual power from the healthy state, without being able to distinguish the diseased state; and the aberration of any feeling from the state of health, without being able to distinguish it, or without the influence of the will on the actions of the voluntary instruments. In other words, the incapacity of distinguishing the diseased functions of the mind, and the irresistibility of our actions—in short, the loss of moral liberty* constitutes insanity.*

As medical jurisprudence is particularly interested in a clear idea of insanity—nay, as insanity is defined in reference to jurisprudence, I will make a few remarks to this purpose. The greatest error is committed in considering the mind as one single power, or in deriving the feelings from the intellectual faculties. The mind is an aggregation of powers, which may act and be disturbed individually, as is the case with the external senses and involuntary motion. Every disturbance, then, of any affective or intellectual faculty, whilst free will or liberty is wanting, is insan-

* With respect to my considerations on liberty, I refer the reader to my work on the philosophical principles of Phrenology.

ity. Now, in medical jurisprudence, with respect to this state, two considerations are of the highest importance, viz., insanity is partial and intermittent. Numerous facts prove the existence of both kinds. Persons may lose their intelligence with respect to any sensation, idea, or feeling, or they may lose the influence of the will with respect to the action of any special feeling, while they preserve intelligence and will with respect to all other fundamental faculties. Hence there are as many sorts of partial insanities as individual powers of the mind. Now it is the duty of the legislator, or of those who interpret the laws, to be acquainted with those special powers and their individual derangements, in order to conform their judgment to nature. The intermittent nature of insanity presents still greater difficulties: that state is commonly designated by lucid intervals. This term, however, is of great latitude, and ought to be explained in a more accurate manner. Every one admits that insanity is liable to intervals, but not every one understands the true meaning of that proposition.

Every part of our body may be morbidly affected from time to time, and free at intervals. The eyes, for instance, may be inflamed at certain periods, and healthy at others. Many other complaints, such as gout, rheumatism, catarrhal affections, may from time to time disturb our health, and cease. Why should the organization of the brain not be liable to undergo, at certain periods, morbid changes which disappear and return again? Why should the brain, once affected, not be disposed to relapses as well as any other part of the body? Diseases in general are liable to exacerbations and remissions, and the same may happen in insanity or during the loss of liberty.

Now, as insanity is partial or intermittent, or partial and intermittent at the same time, what shall we call interval? The answer is obvious, that the interruption or intermittence is the interval. But what are lucid intervals? The expression *lucid* is not sufficiently determined. It cannot mean understanding, and judgment, as Locke thought, because experience shows that

in insanity, the intellectual powers may increase. Van Sweiten, in point, relates that a female, whose understanding had not been cultivated, and who before was employed only in manual labor, during her fits of insanity, displayed a rare facility of versification. Pinel speaks of a madman who, during his long intervals, was a man of very ordinary gifts, but who, during his fits, reasoned on the events of the revolution with dignity, purity of language, and all the strength of reason which could have been expected from the most learned and most intelligent man in a state of health. Correct judgment, indeed, is not a sign of lucidity with respect to insanity of the feelings. It is only applicable to insanity of the senses and internal intellectual faculties : even in their partial insanity there may be lucidity with respect to the other senses and intellectual faculties. Some persons cannot distinguish colors, and take red for green ; but they see perfectly well the size, form, and distance of the external objects : hence their judgment, at the same time, is defective and lucid, or, if I may so speak, insane and sane. Thus, lucidity is characterized by clear intelligence with respect to sensations and ideas, and by the free will with respect to the actions ; and it may be partial or general. Let us now examine the question whether, in partial insanity or in intervals, the patients are to be considered as incapable of transacting their own concerns, and as free from all responsibility for their actions ? Shall we say that the loss of one faculty makes us incapable to manifest any other power ? Can a blind man not witness what he has heard ? When old persons lose their memory, and preserve a weak judgment, are they unfit to make a lawful will ? As the manifestations of the different faculties of the mind depend on the different parts of the brain, any organ may be disturbed, while the others perform their functions in a healthy state ; and the patient may be deceived in one respect by the impressions of the organ, and manifest all other powers in perfect health. If a man be insane by a feeling, but calm and perfectly composed ; if he can reason on other subjects with strict propriety, and think like the majority of man-

kind ; if he can converse with philosophic coolness and correctness on the nature and effects of his disease, have we the right to condemn such a patient to continual incapacity of transacting his own concerns ? It seems to me that it ought to be still less the case, when insanity is intermittent. In certain febrile diseases the faculties of the mind are extremely weakened, or even suppressed ; but at certain moments the patient distinguishes those around him, and recollects certain facts : is he therefore entitled to legal indulgence ? If a poet be insane, but, during intervals, his imagination be unclouded, and he compose beautiful verses, shall we reject them ? Habitual intoxication frequently debilitates the faculties of the mind ; shall we therefore not allow an interval in which the ordinary business of common life can be performed with certainty and propriety ? In many instances, persons with a large portion of intellect, and a highly cultivated mind would pass whole months without betraying any symptom of insanity, their mental derangement being confined to one particular subject, and being only detected, if that object be touched upon, whilst on all other occasions they are capable of thinking, reflecting, reasoning, comparing, judging and acting like men in general. Now, ought they to have no moral and legal freedom in all points to which their insanity has no relation ? In the same way as some insane persons enjoy distinct intervals of sobriety and steadiness ; have their intellect perfectly clear ; mind capable of estimating the morality of actions as they subject their actions to the will : should such persons during their lucid intervals be incapable of giving evidence in a court of justice, of making contracts, disposing of property and performing all the legal functions of a sound mind. "I have known," says Dr Rush, "a clergyman whose sermons and prayers discovered every mark of a sound mind, but who was constantly deranged when out of the pulpit." He also speaks of a judge who was deranged in a high degree in his family and in company, but who astonished the court of which he was a member by the cor-

rectness of his opinions, and conduct when he took his seat upon the bench.

From all considerations on the complicated nature of the human mind, the various conditions of its manifestations and our imperfect knowledge of its operations, it follows that the examination of its deranged manifestations and the possibility of ascertaining insanity is extremely difficult. The decision upon certain cases required in courts of justice is sometimes almost impossible. In other cases it is as difficult to say where it is not as where it is. Indeed it is sometimes counterfeited by criminals, in order to escape punishment. In such cases, then the individual disease which is imitated, as mania, melancholia, or idiotism, must be well understood; and all phenomena which occur in automatic and animal life must be compared together, in order to distinguish whether there is a concordance in the whole or not. In mania furibunda, for instance, the sleep is deranged. If a criminal imitate it, let him be observed day and night, and he will soon betray himself. Impostors in the streets, who imitate epilepsy or convulsion, sometimes are detected by proposing painful operations, such as actual cautery, trepanning, &c. as curative means. It is understood, that the examination of such cases requires the greatest caution.

A practical reflection is obvious, and must have been felt by all those who are somewhat acquainted with insanity; I mean, the abolition of a regulation which invests every member of the medical profession with the power of depriving any individual of his liberty, and of exposing him to all the inconveniences and disadvantages to which insanity is subject. Few medical men pay attention to that branch of the art. Now, as sometimes the most experienced and most able men are at a loss, and find it impossible to decide whether there is insanity or not, it must be obvious that not every one who knows how to compose some prescriptions ought to be trusted with the privilege to dispose of the liberty of his fellow-citizens.

From the preceding considerations, it follows that insanity is

merely the peculiar state of the mind, where its liberty is lost ; but from this definition nothing can be inferred with respect to the art of medicine : insanity may be produced by various causes which require their particular treatment. To the elucidation of this matter, as far as medicine is concerned, several considerations are made in the following chapter. Before I finish this, I shall examine what name is preferable to designate the deranged state of mental manifestations in point. Various appellations are used, such as madness, lunacy, mental derangement, or insanity. Madness indicates mania, or a wild and furious state of the mind, and not its deranged manifestations in general. Lunacy is quite improper, because the moon does not at all produce such complaints. Mental derangements designate a diseased state of the mind. I prefer that of insanity as a quite general expression, and repeat, that either the incapacity of distinguishing the diseased functions of the mind, or the irresistibility of our actions, or both together, viz., the loss of free will or liberty, in general characterizes insanity.

SECTION II.

SYMPTOMS.

A description of morbid phenomena which are observed in insanity will guide our power of distinguishing the diseases which produce it. The majority of medical men have a too great tendency to consider symptoms as disease itself, and it is particularly the case in insanity. Symptoms, however, are only deranged functions. Now the same function can be deranged by various causes, and the same cause may derange various functions, and hence produce various symptoms. Fever alone is not the disease, but merely a morbid phenomenon in the circulation of blood, which may be accelerated by different morbid causes. In the same way, inflammation will produce various symptoms according to the functions of the parts which are affected. Refrigeration may produce headache, sore eyes, sore throat, tooth-ache, cough, vomiting, diarrhœa, &c. Dr Parry, in speaking of the relation of the diseases, asserts well,* that "various maladies are apt in one set of persons to extend in different forms, and therefore often under different names, to different parts nearly at the same time; in another set, to affect one part in one form at one time, and, having ceased, to affect another part in another form at a subsequent time; and lastly, in a third set, to leave one part or texture and

* Lib. cit. p. 370.

at the same time, or nearly the same time, to appear in the same or some other form in another part or texture." As in pathology in general, so in insanity in particular, this consideration is of the highest importance. Hence the enarration of symptoms is not the essential point in considering insanity; it is only of secondary use, and conducive to the distinction of its nature.

In insane people, that is, in those who have lost their free will, the functions of vegetative life, such as digestion, circulation, respiration, nutrition, secretions and excretions, may or may not be disturbed; their disorders may take place in various degrees; and on account of the absence or existence of such symptoms, the elucidation of insanity will only become more simple or complex. Their detailed consideration belongs to the pathology of vegetative life. I here intend to relate only the disorders of animal life.

The operations of animal life are the external senses, propensities, sentiments, perceptive and reflective faculties. Let us see what morbid appearances take place in those functions. The muscular power bears the greatest changes; sometimes it loses all activity, and sometimes it shows inconceivable strength, so that it is difficult to find means of coercion. Pinel states that he has seen some instances of muscular energy that impressed him with the idea of a strength almost supernatural. The strongest hands yielded to the efforts of the maniac. I know similar instances. Pinel adds, "But this muscular power is far from being common to every form of insanity. In many instances there is a considerable degree of muscular debility." The skin is sometimes, as it were, benumbed, the patients feel every thing like cotton; or it is quite insensible, so that the patients do not feel punctures, blisters, or setons; at other times it is extremely sensible. A sensation of general or partial formication, burning heat, or shivering cold, over the whole body, or at certain parts, are observed. Haslam says,* "In some an appearance takes place which has not hitherto been noticed by authors. This is relaxation of the integuments of the cranium, by which they

* Observations on Madness, 2d edit. p. 82.

may be wrinkled or rather gathered up by the hand to a considerable degree. It is generally most remarkable on the posterior part of the scalp." This however, is not characteristic in insanity; it may occur like other symptoms.

Taste and smell suffer various disorders. Sometimes they are quite blunted, often much excited. It is a common observation that insane people are fond of snuff. Vision is often molested with transient clouds, floating insects, flashes of light, weakness; but often it is very acute. The look varies according to the internal feelings, is staring and wild, or calm and grieved, &c.; the iris is contracted or dilated; the eyes are red and sparkling, or yellowish, or of lead color and tarnished. Insane people often hear various noises, extraordinary voices, the song of angels, blasphemies, obscenities. I think with Haslam,* that "of the organs of sense which become affected in those laboring under insanity, the ear more particularly suffers." There are also more deaf than blind among insane people.

The derangements of the feelings are numerous. Hunger and thirst may be diminished to inactivity, or increased to insatiableness. Some are indeed voracious, and languish even to fainting from want or deficiency of nourishment. The most modest young females are sometimes seized with the feeling, countenance, and language of a loose libertine.—I have seen several who fancied themselves to be pregnant. Pinel says, "I have no where met, except in romances, with fonder husbands, more affectionate parents, more impassionate lovers, more pure and exalted patriots, than in the lunatic asylum."

Some are prone to controversy, show excessive irascibility, blind and savage ferocity, ungovernable fury. Pinel speaks of a young man, who was attached to his father, but who committed acts of outrage, and even attempted to strike at his father, when under the influence of the disease. Pinel mentions another maniac, who was naturally of a mild and pacific disposition, but appeared to be inspired by a demon of malice and mischief during

* Lib. cit. p. 67.

the whole period of attack. There are insane persons who feel an aversion against anything they see ; they are fond of kicking, biting, and throwing the head against others who come near ; who never forget or forgive an offence ; who consume the whole of the day, and the greatest part of the night, in pouring forth abuses and blasphemies, and roaring out the most horrid imprecations.

Murderous impulse, however unaccountable it may appear to others, is not always obedient to will. Pinel says, there are some who feel a blind and ferocious propensity to imbrue their hands in human blood. Some are actuated by an instinct to commit to the flames everything of a combustible nature. Dr Longworthy, of Bath, had a patient who with her naked hands carried burning coals to straw in order to put it in flame. Mr Hill relates the following example :—" At the Norwich Assizes, in the summer of 1805, Thomas Callaby was tried for the murder of his grandchild. A witness found the prisoner sitting at the side of his bed one morning in March, about four o'clock. He had dreadfully wounded his wife in various parts of her body.

The prisoner's daughter brought down the child with its throat cut ; the bloody knife lay in the room. He was charged with and confessed these acts, but said he did not care any thing about it. His wife had heard him say a short time before, that he should certainly murder some one, and he had begged to be confined. It further appeared that he knew when his fits of madness were coming on him, and that at those times he has been known to tie himself with ropes down to the floor."* More examples of this and of other propensities may be read in my work on Phrenology, where I have treated of the primitive faculties of the mind, and their respective organs.

"I could mention," says Pinel, "several instances of insane persons, of known integrity and honesty during the intervals of calmness, who had an irresistible propensity to cheat or to steal, upon the accession of their maniacal paroxysms." Gall possess-

* P. 93.

es in his collection two skulls of such individuals, who were confined in the lunatic asylum at Vienna. I have one of a man who died at Prague in Bohemia, which Professor Mican, Jun. was so kind as to give me.—Many insane play the hypocrite, are cunning in the highest degree, and most dexterously conceal their disease. Sometimes violent patients, being confined, become tranquil and orderly, urge the correctness of their conduct as an argument for their liberation, and manage themselves with admirable address. When brought home, their derangement, or mischievous disposition, appears again.

The examples are not rare that insane people think themselves emperors, kings, ministers, generals, high-priests, bishops, dukes, lords, prophets, God Almighty, or God the Son, &c. Pinel relates that, at the same time, four madmen of Bicêtre believed themselves in possession of the Supreme power in the state, and assumed the title of Louis XVI. The hospital was not less richly endowed with divine personages, so that some of the maniacs were called after the provinces, as the God of Brittany, the God of the Low Countries, &c.—Many are ambitious, wish to be approved of by others, and to appear as persons of fashion and distinction. They seldom forget to decorate themselves with any thing which they consider to be an ornament.—They are conceited and ostentatious, singular in gait and phraseology.

Others are thoughtful, gloomy, taciturn, austere, morose, and like to be alone. Some are anxious, fearful, and terrified by the most alarming apprehensions. Some express their affliction by tears, others sink without a tear into distressing anxiety. Some fear external prosecutions, and the most ridiculous and imaginary things; others think themselves lost to all the comforts of this life, and desire to be buried. Some are also alarmed for the salvation of their souls, or even think themselves abandoned forever by God, and condemned to hell and eternal sufferings.—Others are remarkable for good humor and merriment; they are cheerful, sing from morning till evening, and sometimes express

their joy by fits of loud and immoderate laughter. There are others who feel an extraordinary liberality and unbounded generosity. Some are very pious. Dr Hallaran * says, "I have often known maniacs of the worst class, in whom the faculty of thinking correctly on all other subjects had been entirely suspended, still retain the power of addressing the Deity in a consistent and fervent manner, and to attend the call for devotion with the most regular demeanor." Some show the most invincible obstinacy, and nothing could shake their intention, though sometimes they blame the keepers for not securing them sufficiently.

The derangements of the intellectual faculties are not less numerous or singular. Some fancy themselves dead, or to be changed into animals of particular kinds ; to be made of glass or wax ; to be infected by syphilis, the itch, or other diseases ; to be a prey of spirits or devils, or under the influence of magic spells and vows. Sometimes the intellectual faculties are much excited, sometimes diminished or almost suppressed. Sometimes only one intellectual power seems to be under the morbid influence, while the others appear with natural strength. In greater activity sleeplessness is a common symptom ; some see external objects in erroneous forms and colors. A maniac took for a legion of devils every assemblage of people whom he saw.

There are many examples of the surprising strength of intellectual power during the fits of insanity. They sometimes show the most brilliant and ingenious thoughts, the most proper and luminous comparisons. The recollection of the past often unrolls with great rapidity, and what had been unthought of or forgotten is presented to the mind with animated colors. Insane people, like those of sound minds, recollect the scenes of youth and former times better than the transactions of later dates.— Many know, in the intervals, all circumstances during the fits, all their extravagances and inconsistent actions, all the absurdities they have maintained, and all the violence in which they have

* On Insanity, p. 21.

indulged. Many even are penetrated with remorse. Persons, who in their sound state of mind labored under an invincible impediment of speech, have in insanity expressed themselves without the least hesitation. Some are quick in repartee, and exceedingly acute in their remarks; others feel an extraordinary poetic inspiration. Willis cured a madman, who expected with impatience the accession of the paroxysms, since he enjoyed during their presence a high degree of pleasure; they lasted ten or twelve hours. Then every thing appeared easy to him: no obstacles presented themselves, either in theory or practice. His memory acquired, all of a sudden, a singular degree of perfection; long passages of Latin authors recurred to his mind. In general he had great difficulty in finding rhythmical terminations, but on these occasions, he could write in verse with as much facility as in prose.

Dr Rush * says, "Talents for elocution, poetry, music, and painting, and uncommon ingenuity in several of the mechanical arts, are often evolved in madness. A gentleman whom I attended in our hospital, in the year 1810, often delighted and astonished the patients and officers of our hospital, by his displays of oratory, in preaching from a table in the hospital yard every Sunday. A female patient of mine, who became insane after parturition, in the year 1807, sang hymns and songs of her own composition during the latter stage of her illness, with a tone of voice so soft and pleasant, that I hung upon it with delight every time I visited her. She had never discovered a talent for poetry, nor music, in any previous part of her life. Two instances of a talent for drawing, evolved by madness, have occurred within my knowledge; and where is the hospital for mad people, in which elegant and completely-rigged ships, and curious pieces of machinery, have not been exhibited by persons who never discovered the least turn for mechanical art previously to their derangement? Sometimes we observe in mad people an unex-

* Medical Inquiries and Observations on the Diseases of the Mind. Philad. 1812. p. 153.

pected resuscitation of knowledge ; hence we hear them describe past events, and speak in ancient or modern languages, or repeat long and interesting passages from books, none of which, we are sure, they were capable of recollecting in the natural and healthy state of their minds."

In the greater number of insane people, the reflecting faculties of the mind are much diminished, but in some they are surprisingly improved. Some patients reply with an air of calmness and reflection, and often with the greatest accuracy ; some indicate with great exactness the happy time when it is no longer necessary to restrain them, while others will solicit permission to go to the airing grounds at unseasonable hours, and in improper states of mind.

In the preceding narration of the symptoms of insanity, I have, in a certain degree, followed the order in which I am accustomed to treat of the faculties of the mind. The derangements of those faculties, however, present an infinite number of modifications and combinations. These will be understood in the same way as the modifications and combinations of the functions of the mind in its state of health ; but these symptoms, as I have already mentioned, are only the disturbed functions of the different faculties, and not at all the disease. The same disease may, in different individuals, or in the same individual at different times, according to his natural condition, derange the functions of quite different faculties, in the same way as the same object or event will suggest very different reflections to different persons, or to the same person at different times. For that reason we may conceive why the life of a madman may be divided between furious paroxysms and melancholic languor ; why sometimes the external appearance is entirely changed, so that a fearful patient becomes exalted and proud ; why the same patient, at different times, may exhibit the appearance both of high and depressed passions ; why at one time he may be furious, at another placid ; talking for several days, then dumb as if he had lost his voice ; at one time lamenting in the most plaintive accents, and at another laughing from morning till evening ; finally, why, in

other patients, the same state of mind may last several years without any change in the object of derangement, just as is the case in other parts of the body. The latter case happens if the morbid cause always acts on the same organic parts.

The mutual influence of the cerebral parts, and of the faculties of the mind on each other, explains why one deranged idea may lay the foundation of an innumerable number of erroneous combinations, in the same way as the disorder of one eye often disturbs the function of the other, and as an affection of the larynx is easily propagated to the lungs. By the same reason it is understood why, sometimes, a partial insanity degenerates into a general one; in the same way as a single liver complaint sometimes affects the whole vegetative life.

SECTION III.

DIVISION AND FORMS OF INSANITY.

I have enumerated a great number of symptoms, and many more might be related : the question now arises, whether they belong to the same disease, or whether insanity may be divided into several species.

The oldest division, which is known and mentioned by Hippocrates, is that into melancholia and mania. The characteristics of the former were fear and permanent distress, while the latter was insanity with violence. Galen followed his predecessors, particularly Hippocrates. He was attentive to the difference of insanity with or without fever, and called insanity with fever, frenzy ; and insanity without fever, when accompanied with violence, mania ; and when with fear and distress, melancholia. That distinction of Galen, into derangement of the mind with or without fever, and of the latter into mania and melancholia, has been adopted by many ancient and modern authors.

The distinction, however, of insanity into mania and melancholia is very imperfect, and it has been observed by Aretæus, Alexander Trallianus, Boerhaave, and many modern writers, that one is frequently changed into the other. Sometimes mania begins, and melancholia succeeds, or melancholia begins and mania is its offspring ; and often in the same patient, both forms alternate with each other, or are several times interchanged.

Aretæus maintained, that in melancholia the distress is confined to one subject. Pinel, in our days, also called every partial insanity melancholia. The latter author divides insanity according to the intellectual powers, such as perception, memory, judgment and imagination, and speaks of melancholia or partial hallucinations and idiotism. Notwithstanding, he says, "My experience

authorizes me to affirm, that there is no necessary connexion between the specific character of insanity, and the nature of the exciting cause." He is right, if the derangement of the attention, memory, judgment, or imagination, or melancholy or fury, are considered as specific characters. All these derangements may be produced by the same cause; but these symptoms do not constitute different species of insanity, and cannot be considered as the basis of a practical division, as I shall elucidate in the chapter on the Causes of Insanity.

Cullen, with many ancient writers, considered melancholia and mania as degrees of the same disease. Also Haslam says,* "As the terms mania and melancholia are in general use, and serve to distinguish the forms under which insanity is exhibited, there can be no objection to retain them; but I would strongly oppose their being considered as opposite diseases. In both, the associations of ideas are equally incorrect, and they appear to differ only from the different passions which accompany them. On dissection, the state of the brain does not show any appearances peculiar to melancholy, nor is the treatment, which I have observed most successful, different from that which is employed in mania. We every day see the most furious maniacs suddenly sink into a profound melancholy, and the most depressed and miserable objects become violent and raving." In another passage he adds,† "Distinctions have been created rather from the peculiar turn of the patient's propensities and discourse, than from any marked difference in the varieties and species of the disorder."

Undoubtedly in the same disease, or in the same patient diseased by the same cause at different periods, the symptoms may be very different and in different degrees. The same hysterical person, for instance, may tremble at one moment, and become blind, or deaf, or lose the use of a limb at another, and then blindness and palsy may cease, and a sneezing and retching of the most excessive violence may supervene: now she may be mo-

* Lib. cit. p. 35.

† Lib. cit. p. 39.

lested with painful acuteness of hearing, then with deafness ; afterwards a fit of laughing or crying may follow, or other infinitely diversified symptoms.

Arnold,* according to the philosophy of Locke, who admitted two sources of consciousness, *sensation* and *reflection*, divides insanity into the derangements of the functions of the five senses, and terms them *ideal insanities*, and into derangements of the internal conceptions, which he calls *notional insanities*. He then divides these genera of insanities into species, and each species into varieties. The division of notional insanities, for instance, contains nine species, and one single species, that of pathetic insanity, is subdivided into sixteen varieties, such as amorous, jealous, avaricious, misanthropic, arrogant, irascible, abhorrent, suspicious, bashful, timid, sorrowful, distressful, nostalgic, superstitious, enthusiastic, and desponding. Beddoes† considers such divisions, as if a physiologist might divide the human appetite into the appetite for animal and vegetable food, and the former into the appetite for mutton, veal, pork, venison, &c. ; and the latter into appetite for potatoes, peas, beans, carrots, turnips, cauliflower, &c. Every practical physician must think, with Pinel, that such divisions are more calculated to retard than to accelerate the progress of science. They are of no practical use, and I shall no longer intrude on the time of my readers with their considerations.

It is known that, in the system of Brown, health was considered as the result of equable, and disease as that of excessive or defective, stimulation. Mr Hill, in his publication on Insanity, also derives this complaint from stheny or astheny. He admits one species of Insanity under the two mentioned forms. There cannot be any doubt, and it is too much overlooked by common practitioners, that the congenital bodily strength, the natural pow-

* Observations on the Nature, Kinds, Causes and Prevention of Insanity. Two vols.

† Essay on Insanity.

ers, and individual conditions of the patients, have the greatest influence on re-establishing health. Great physicians of all times paid the greatest attention to such considerations. Experience, however, shows also, that asthenia and hypersthenia are not sufficient to explain all morbid phenomena, and are still less satisfactory in treating every disease according to such conceptions.

Mr Hill, for instance, admits sthenia, in observing torpor of the skin and insensibility ; if the patient is capable of bearing great extremes of heat and cold, of hunger and thirst ; if he is less selfish ; speaks in a quick and snappish manner ; has a train of thoughts extremely vivid, versatile and accompanied with rapid utterance, forming new and endless associations ; if his attention is arrested sooner and more forcibly by pleasurable objects ; if he now is angry, now pleased ; at one time generous, at another parsimonious. According to Mr Hill, in asthenia, on the contrary, the patient is more selfish and cowardly, may shrink like a sensitive plant on the approach of a blister, cannot bear hunger and thirst, has a deep, grave voice, a measured solemn order of oral delivery ; his cogitations are more pertinaciously employed in one train, or wholly confined to one subject ; has painful thoughts ; the feelings are more connected with, and dependent on, associations of past than of present ideas ; and he likes silence and solitude.

Practitioners, however, may know that such symptoms do not enable them to establish a curative plan. I have often seen rigid adherence to the same errors, painful thoughts, fondness of solitude, a measured order of oral delivery ; and Brownians ought to reckon them in the class of sthenia. On the other hand, I have many times found torpor and insensibility of the skin, great versatility of thoughts, and endless associations, continual change of feelings ; and the patients evidently belonged to the class of asthenia. Mr Hill himself felt the insufficiency of those symptoms, and observes,* "Some apparently low asthenic cases will,

* Lib. cit. p. 274.

upon close examination, be discovered to belong to the mild sthenic class. Just discrimination usually follows the due consideration of the age, sex, previous health, and former diseases, natural temperament, together with the situation of life of the sufferer. Males are commonly found suffering under the high and impetuous degree; and under the mild sthenic insanity, females from the age of twenty to forty or fifty, of muscular form, having dark hair and eyes, brunette skin, unmarried, irregular as to menstrual and alvine discharges, of sedentary lives, appertaining to the middle and lower classes of society."

I have often observed that females of such a description suffered under the high degree of sthenia, according to the language of Mr Hill. What shall we then do, if the detailed symptoms of sthenia and asthenia are mutually interchanged? Shall we adopt to-day an asthenic plan of cure, to-morrow that of sthenia, and the following day stimulate again? With that view we should sometimes be obliged to change our curative proceeding in the same day. In general, any division founded on the deranged manifestations of the mind is of no medical use. It disguises truth, and perplexes all just distinction.

Dr Hallaran, of Cork, who, in his treatise on Insanity, shows practical attention and talent for observation, admits two distinct species of that disorder. He founds his division on causes, which is undoubtedly the only reasonable way of proceeding. He expressly states that "the due observance of the causes connected with the origin of this malady is the first step towards establishing a basis upon which a hope of recovery may be founded." He refers one species to mental causes, and denominates it mental insanity; the other species owes its origin to organic injury, either idiopathically affecting the brain itself, or arising from a specific action of the liver, lungs, or mesentery. In consequence he adopts a different treatment in each species.

That is certainly the proceeding of a philosophical mind. I cannot, however, adopt this division, since I reject a mere mental insanity, and consider the cause of every derangement of the

manifestations of the mind as belonging to organic parts. My reasons will be stated in the chapter on the causes of insanity. In order to become acquainted with the different symptoms, or various derangements of the manifestations of the mind, it is useful to study the different divisions which have been made; but the only practical division of insanity, I repeat, is that which is founded on the causes. The most useless, though the most common, is that according to the symptoms, such as into mania and melancholia.

Another division might be established according to the extent and degree of insanity, viz., the faculties of the mind may be entirely prohibited from manifesting themselves; or their activity may be too great; or their natural manifestations may be altered or alienated. The state of inactivity, where the faculties cannot manifest themselves, is imbecility or idiotism. It is to be remarked that this expression is commonly applied to the intellectual faculties, because understanding was considered as the basis of the mind. According to phrenological principles, however, it may happen with the feelings as well as the intellectual faculties. Such complete inactivity may exist in every primitive faculty of the mind, or in several, or in all together. It may be from birth or from a later event. Experience shows that it is so; but Phrenology alone can explain such facts. Different names therefore, ought to be pointed out. *Idiotism*, for instance, might be called the diseased inactivity of any faculty of the mind from birth; and *fatuity*, if the patients have manifested the power of the mind, but have lost their activity by any eventual cause. There is then a partial and general idiotism, and a partial and general fatuity.

A second sort of derangements of the manifestations of the mind is, when its faculties are too active, and beyond the influence of the will. This is, perhaps, never the case with all faculties; but it happens often, partially, with the propensities, sentiments, and intellectual powers, as may be understood by the symptoms which I have related in the preceding chapter. Such

hallucinations may be continual or intermittent, and the latter regular or irregular. Moreover, in succeeding fits, the too powerful activity may take place in the same faculty, or in different mental powers ; so that, for instance, in one fit the patient despairs, and in another commands the world. Volumes of facts illustrate this truth.

Such partial and intermittent hallucinations are often pointed out with difficulty. The patients carry on any conversation so much in the usual manner, that it may be suspected whether they be actually insane. But let the hallucination be touched upon, then the truth will appear. A man whose lunacy was tried to be proved at Chester before Lord Mansfield, had absolutely eluded by his coolness and subtlety every question which tended to effect this purpose, and appeared as perfectly rational and collected as possible till Dr Battie came into court, who asked him what had become of the Princess he had corresponded with in cherry-juice ? He immediately forgot himself ; replied it was very true he had been confined in a castle with a very high tower, and denied the use of ink, on which he wrote to the Princess in cherry-juice, threw the letter into the river, and it went down the stream.

The manifestations of the faculties of the mind may also be altered or alienated in their specific appearance ; that is, they may be morbid in quality. The eyes, for instance, sometimes see every object red ; the taste is pleased with chalk ; a patient fancies himself affected with the itch, or that his body is made of butter, and avoids carefully coming near the fire. Dr Cox * speaks of a professor of music, whose talents for music seemed even improved ; his ideas executed on the violin were wonderfully striking, singular, and original, but on other subjects he reasoned absurdly. I doubt whether this sort of insanity be ever quite general in the mind ; it is mostly partial, and then permanent or intermittent. It may happen with every primitive faculty of the mind, and the phenomena can be understood only by the

* Lib. cit. p. 94.

plurality and independence of the organs by which the single powers of the mind are manifested. These modes of derangements might be properly called alienation.

With respect to duration, the derangements of the mind may be divided into acute and chronic, and both again into continual or intermittent. Several writers on insanity consider it as always chronic. This, however, is not the case. I have seen it cured in a short time ; and I hope the time will come when we shall better understand the nature of insanity, and cure it as well as other disturbances. The brain is an organic part, and must be curable. Its organization is only more delicate, and requires more attention from the beginning of its deranged functions, in order to prevent its organic changes. Proper means at the commencement of the disease are certainly more efficacious than at a later period.

Another division of insanity, as to the event, is into curable and incurable ; that is, the cause can or cannot be removed. Idiotism, anger and fury, or melancholy and despondency, are the most striking appearances ; and for that reason insanity, probably, has been divided accordingly. But those who keep up that symptomatical division into idiotism, mania, and melancholia may adopt with the same reason the multifarious forms established by Dr Arnold ; for there are many insane people who are not furious nor despondent, but quite cheerful and continually laughing. They may also, with Sauvage,* subdivide melancholia into fourteen species ; as, vulgaris, amatoria, religiosa, saltans, &c.

The more we examine insanity, the less can we be satisfied with the common knowledge of the mind. Crichton † says, "It is very intricate to develope why melancholy in one case terminates in furious delirium, and in another is succeeded by a very mild aberration of reason." Pinel, who quite arbitrarily gives the name melancholia to every partial insanity, must natu-

* Nosol. Method. tom. ii.

† On Insanity, vol. ii. p. 220.

rally complain that "nothing appears more inexplicable, at the same time nothing can be more certain, than the various and opposite forms of melancholy. Sometimes it is distinguished by an exalted sentiment of self-importance, associated with chimerical pretensions to unbounded power, or inexhaustible riches. At other times it is characterised by great depression of spirits, pusillanimous apprehensions, and even absolute despair." Those who consider the manifestations of the mind as independent of the body, must find inexplicable an infinite number of insane appearances. How will they account for the cases of idiots from birth? How can they understand why in others the independent mind, endowed with reflection and will, is mischievous beyond measure; or that others think themselves the vilest of the vile, without any previous fault? Where is the mind in those who sit whole days with their eyes immoveably fixed on one object, and seem wholly absorbed in their own contemplation, and refuse all kind of nourishment? How will they account by the mind, that some are given up to the most brutal instincts, and others disposed to devotional melancholy, and continually engaged in penetrating the hidden mysteries, combating the various opinions of different sects, and in propagating their own? The doctrine of temperaments is not more fit to explain such disorders of the mind. There is no temperament of idiotism, of mania, or melancholia. Many melancholic patients have the external characters of a sanguine temperament, such as a fair complexion, a fine skin, clear colored hair, and blue eyes; or the signs of a bilious temperament, as a lean dry frame, sallow skin, a complexion of a brownish yellow color, dark black stiff hair, and dark sunk eyes. Finally, the diseases of the abdominal viscera are not sufficient to explain insanity. In many idiots the viscera are in perfect health, and in many cases the viscera are greatly diseased, but there is not the slightest derangement of the mind. The physiology and pathology of the brain alone can explain the manifestations of the mind in the state of health or disease.

Four general forms of insanity may be mentioned, viz., *idiot-*

ism, which is partial or general ; *fatuity*, also partial or general ; *irresistibility*, if any power be so active that the will has no influence on its actions ; and *alienation*, if the manifestations of the faculties are deranged in their quality, and the intellect is incapable of distinguishing the derangement. These four forms designate different states of insanity ; but let it be remembered that they are merely appearances and that, the nature of the causes is the essential point to be considered in the art of medicine. I however think it interesting to examine with some details the form called melancholia.

MELANCHOLIA.

This name originates from the supposed cause *atra bilis*, hence *morbus niger*, of which the most striking symptom is despondency. Pinel, with Aretæus, gave this name to all partial insanities or hallucinations. According to Phrenology, there is a peculiar sentiment in the mind, termed cautiousness, and the manifestations of this sentiment depend on a peculiar part of the brain. Now, the influence of this sentiment may be extremely powerful by means of the internal activity of the organ, whilst two other fundamental feelings, combativeness and hope, particularly the latter, may be very weak. Individuals under such an influence are naturally timid, fearful, anxious, hesitating and subject to sorrow and low spirits. Cautiousness then may be excited by various causes, which affect the respective organs. This organ, however, is seldom attacked alone, but in most cases other parts of the brain and body suffer at the same time. Sometimes the disease first results from the organ of cautiousness, and its too great activity deranges the other functions of the brain and body, especially those of the digestive organs. At other times, disorders begin in the digestive organs, and influence the organ of cautiousness, as well as other parts of the brain. It is generally known that sorrow and grief easily disturb the digestion, and bad digestion gives uneasiness to the mind, certainly through the medium of the organization. No one, I suppose, will main-

tain that the mind resides in the digestive organs ; but the variety of deranged functions of vegetative life, and the diversity of deranged manifestations of the mind, are easily explained by the various parts of the body, and the different organs of the mind.

In this way it may be understood why different morbid appearances are often closely connected with melancholia, such as dyspepsia, hysteria, and hypochondria, with all their innumerable appearances. In this way only, it is clear why the same causes may produce melancholy with its modified symptoms, from seriousness to suicide ; and all sorts of nervous complaints, such as convulsions, epilepsy, catalepsy, palsy, all symptoms of insanity, and even death. In this way alone we can explain why sometimes there are various precursory symptoms which evince a deranged state of health, before melancholia or mania, or any other symptom of insanity, take place.

Thus, when melancholy appears, it is necessary to consider, at the same time, all other morbid symptoms of vegetative and animal life, in order to form a just idea of the state of disease which produces all the disorders. In vegetative life, the viscera of the abdomen and thorax, and their functions, such as stomach, liver, intestines, mesenteric glands, uterus, lungs, heart, deserve our attention. There is often want of appetite, flatulency, acidity, rancid eructations, borborigmi, irregularity in the alvine discharge, constant costiveness, sudden diarrhœa, distension of the stomach, colic pains, tightness in the region of the stomach, a sensation of heat in the bowels ; the urine is sometimes milky, white-colored, or copious and pale ; the complexion is often pale and yellowish, and the white of the eye of a lead color.

In animal life there are also various symptoms which indicate the morbid state of the brain and nerves. Such patients often complain of external pains, seated immediately under the skin, at various parts, as at the leg, thigh, arm, back, or in the head. The pains commonly shift from one part to another. Other symptoms in the head are head-ache, giddiness, tingling of the ears, a kind of indescribable uneasiness, little disposition or ab-

solute incapacity to sleep, incoherence, or confusion of ideas, unusual gestures, and an altered countenance; thoughtfulness, fondness for solitude, taciturnity. The patients often lament, weep and sigh heavily without any apparent cause, are low-spirited, have sometimes indescribable anxiety, and abandon themselves to tears and affections of grief. They are subject to impressions of fear, distress, and many imaginary objects of terror.

Sometimes the most extravagant ideas enter into their mind; some think that they are persecuted, or that they must die of hunger, that they are damned, or have no soul, &c. Sometimes, at the beginning of the affection of the brain, they preserve understanding enough to acknowledge their unhappy and deranged state; there is a struggle between reason and madness, but they finish too often in believing in their absurdities.

In hysteria, and hypochondria, many of the related symptoms of vegetative and animal life are observed; hysteric patients are liable to frequent mental delusions, groundless apprehensions, and disorders of the reflecting powers. Hypochondriacs also suffer from various nervous complaints, exhibit gloom with groundless fear, and are inclined to see all objects on the darkest side; so that their anxiety and great attention to their sensations, and the minuteness of their descriptions, frequently exhaust the patience of their physicians.

I have already mentioned that deranged functions of the viscera may exist and continue for years without deranging the functions of the brain, and *vice versa*; but sometimes the mutual influence is observed from the beginning: sometimes the functions of the different parts of the body are disordered slowly, and by degrees; but sometimes insanity bursts out suddenly, just as sometimes the affections of other parts: often all morbid symptoms of vegetative and animal life subside and return again.

In the same way as in melancholic patients, cautiousness and religious feelings are too much excited, so the lower feelings may become too active, and constitute the prevailing features. The patients then become restless, walk with a quick and precipitated

step, are more loquacious or suspicious, captious, haughty, or malicious and mischievous; they halloo, swear, talk lasciviously, lose all bashfulness; their hearing is quick, the eyes red, the look fixed, and the whole aspect furious. These symptoms often interchange or alternate. It is, however, more common that melancholia, particularly chronic melancholia, is changed into mania, than the latter into the former; chronic mania mostly terminates in incurable fatuity. If, in individuals who from infancy had a serious, quiet, gloomy, timorous character, insanity take place, at the beginning the symptoms are in most cases of a melancholic nature, and far the greatest number of such individuals have the organ of cautiousness proportionately large.

SUICIDE.

The morbid inclination to suicide is the same disease which is commonly called melancholy, only producing that singular effect. That many people feel a strong propensity to terminate their own existence, is a fact too notorious to be denied. It is also intelligible, that a man who is miserable in all respects, who has to contend with poverty, all sorts of disappointment, continual misfortunes, should desire to put an end to his mortal existence; but it seems curious to observe, that persons who are fortunately placed in society, excel by talents and rank, and have money at command, despair and feel the greatest inclination to destroy themselves. Moreover, disappointed love, jealousy, the loss of a beloved friend, bodily infirmities, incurable maladies and all miseries of corporeal existence, are plausible reasons for suicide. They, however, rarely produce that effect. Suicide may be the effect of momentary decision and of violent affections, but very often it is produced by disease.

This propensity to suicide appears under three modifications. The patients destroy themselves; or they kill first their relations, and then themselves; or they kill others in order to be put to death. I shall first mention several examples of suicide, and then show

that, in many cases, suicide must be considered as the effect of corporeal disease. Simple suicides are so common, that it is quite unnecessary to quote any case. Examples of the two other modifications are not so numerous, and not always sufficiently understood. A shoemaker at Strasburg killed his wife and three of his children, then he wounded his stomach, and, as the wound was not mortal, he pierced his heart with a knife. This man had a good reputation, was mild, just, a good husband, and good father. At Lemberg, in Gallicia, one K * * * killed his wife, whom he loved tenderly ; then he tried to blow out his brains with a pistol ; the first shot failed, but a second killed him. His behavior was always blameless ; it was found that he was merely dissatisfied with his place, and thought he deserved a better. In the year 1804, at Hamburg, a respectable schoolmaster, R * * *, killed his wife and his five children in a single night, and spared the lives of two other children who were entrusted to his care. He bore a good character, lived happily with his family ; he had been unsuccessful in a trifling law-suit, which he feared would involve his family in distress. He expiated his disease upon the rack. We saw at Manheim a baker, who from his infancy had manifested a timorous character, and who had been melancholy for ten years. He complained of a general weakness, and fancied he was ruined for having bought a house. He considered his situation as the most unfortunate, and incessantly wished to be dead, and would have destroyed himself, if, according to his expressions, it were not a sin. He often spoke to his wife of a French smith, who had killed his wife and himself. He loved his wife, and often repeated to her, " You are unhappy ; I shall be obliged to do what the French emigrant has done." At Paris we met with a woman, twenty-six years of age, who, principally at the period of her menses, felt extreme anxiety, and the horrible propensity to kill herself, her husband, and her children, whom she loved tenderly. She trembled in describing the struggle of her mind between moral and religious principles, and the internal impulse to commit such an odious action. She was

accustomed to bathe her child in a small river ; but for a long time she did not dare to do so, because an internal voice told her incessantly, "Let him sink, let him sink." Sometimes she had scarcely time to throw away a knife she was inclined to plunge into the bosom of her children, or her husband. When she went into the room where her husband and children slept, she felt immediately the propensity to kill them. Sometimes she was obliged to run out ; she hastily shut the door, and threw away the key, in order not to be able to return during the night, if she was troubled with this horrible feeling.

Sometimes this disease is hidden under a peculiar mask. Such patients are sometimes disgusted with life, but they have not courage enough to kill themselves ; hence they contrive means of being destroyed by others. To this end they commonly commit a murder on another innocent person, most often on a child. Then they accuse themselves, and require to be punished with death. Sometimes they consider it less criminal to destroy another than to commit suicide. Crichton relates several facts, mentioned in the *Psychologisches Magazin*.

"Daniel Voelkner, born in Friedland, lost his father when fourteen years of age, about which time he was put an apprentice to a shoemaker. Afterwards he enlisted himself for sixteen years in the service of his Danish Majesty. After this time he returned to his native country, and enlisted himself once more a soldier in the cavalry.

"From this period his ideas of the happiness of a future life were of the most vivid kind, since they terminated in weariness of life, and in the desire of throwing off his mortal burthen. The only way which presented itself to his mind, to obtain this desirable end, was to forfeit his life by murder. After the accomplishment of this act he imagined he should have time enough to make his peace with God.

"According to the testimony of his comrade and bed-fellow this man lived a pious life, singing religious hymns and reading godly books, one of which he offered to his companion for his

edification. He often admonished him to become devout, adding, that he himself had been very wild in his youth, but that he was now in the right way.

"One night, when in bed, the idea of teasing Voelkner a little, on account of his extravagant piety, occurred to his bed-fellow. He said, he looked upon it to be a thing unreasonable in some people to act so uncommonly devout a part, as if with a view of making it appear that they alone merited happiness hereafter. Upon which Voelkner answered, it was extremely unjust in him to think so, and immediately began to cry out, 'I must, I will be happy hereafter.' These words he repeatedly uttered with a loud and harsh voice, tossing his legs and arms about in a violent manner and starting from one part of the bed to another. After this he broke forth in sorrowful complaints about his past life, and began to exclaim, 'I am come to this at last, I am come to this at last,' which words he repeated three or four times. Upon his companion asking him to what he was come, he answered the same thing.

"According to Voelkner's own testimony, he had long entertained the idea of murdering a child, because he thought that, after having confessed and made his peace with God, he would soon reach that place, and that happy life for which he sighed. Three weeks previous to the act he suffered indescribable anxiety and uneasiness. It appeared to him as if he was obliged to kill some one. On some nights he slept well, on others not at all; but the idea of murdering some one always returned with the light of the day.

"Three days before he committed the crime, he went to the church-yard, and played with the children who were there, intending, if he had an opportunity, to kill one of them. At last, in one evening, he accomplished his horrid purpose. A little girl, who had a companion in the house where Voelkner was quartered, came that evening to pay her a visit. The landlord of the house and his comrade were both gone out about an hour before. Voelkner invited the two little girls into his room, and

divided between them his supper. Immediately after which, placing his hand on the forehead of one of them, he bent her head back, and with a knife, which he had sharpened on purpose a day or two before, he cut her throat. He then went to the guard-house, surrendered himself, told what he had done, and acknowledged that it now caused him much regret. He was immediately taken to prison, where he slept calmly the whole night; for he acknowledged, that the uncommon uneasiness he had experienced for three weeks before ceased upon his committing the act.

"During his examination he answered like a reasonable man, and expressed himself with precision, behaving himself decently both in word and deed. He narrated the principal circumstances of his life, and said, he knew perfectly well what consequences were to be expected from such an action, and that he would be obliged to answer with his blood. But this thought was at that time by no means disagreeable to him."

"Seybell a shoemaker at Potsdam, from infancy quiet and pious, simple and timorous, and more inclined to grief than to joy. Even in his early years he fell into a state of melancholy. He was exceedingly platonic, unfortunate, and his mind was filled with displeasure on account of his own inferiority and want of talents. From 1772 to 1781, he lived in a state of great poverty, supporting himself by sewing, the profits of which were hardly sufficient to supply his most urgent wants. He had a few debts; tortured by constant anxiety and distress, and fearful to be arrested on account of his debts, he thought that his afflictions would not terminate but by his death. The unlucky thought sprung up in his mind, of accelerating that wished-for event by murdering a child. The child whom he selected, as the instrument by which he was to attain heaven, he loved to excess, as he himself avowed, and as the parents testified, who said that he had taught the child many prayers and several passages of the Bible. This love prevented him once from killing this little object; but one day, being suddenly seized with delirium, he

quickly murdered the child. He tried to conceal the body, and yet, a moment after, he went out of the house and told what he had done."

Haslam * relates the history of a woman aged 36, who, under the impression that she ought to be hanged, destroyed her infant with the view of meeting with that punishment. When she came into the house, she was very sensible of the crime she had committed, and felt the most poignant affliction for the act. For about a month she continued to amend, after which time she became more thoughtful, and frequently spoke about the child; great anxiety and restlessness succeeded. In this state she remained from February until April, when her tongue became thickly furred, the skin parched, her eyes inflamed and glassy, and her pulse quick. She now talked incoherently, and toward the evening merely muttered to herself. She died on the following day comatose.

Circumstances which accompany suicide evidently show that it is a corporeal disease. There are countries and districts where suicide is endemical. In Germany, about Hamburg, Potsdam, Halle, Jena, it is much more common than in Austria; and at certain periods it is more frequent than at others; sometimes epidemic, so that in a short time there are a great number of instances, and then much fewer during a long interval. Like other forms of insanity, the inclination of self-destruction is hereditary. Gall was the physician to a family at Vienna, in which two brothers killed themselves; and the sisters have the same propensity, especially at the period of their menses.

The morbid symptoms, which are commonly observed in such unfortunate beings, resemble those of melancholy in general. There is a great disorder in the viscera of the abdomen; inordinate appetite, eructations, flatulencies, irregular evacuations, derangement of the menses; a yellowish sallow complexion of an earthy color, especially about the nose and mouth; the eyes

* Lib. cit. p. 102.

are dim and weak ; the white of the eyes is of bluish lead-color. Some grow lean, others preserve their plumpness, have the face high-colored and animated. The patients often complain that their hands and feet are stiff and benumbed ; more frequently the sensibility of the skin is increased ; they feel, either in the whole body or in certain parts, principally in the intestines, or in the thighs and feet, an ardent heat, as if it were produced by burning coals. The greatest number of these patients are timorous and pusillanimous, so that sometimes very tall men tremble like children, feel a strong and permanent pain above the root of the nose, and in the midst of the inferior part of the forehead, sometimes at the top of the head. Others complain of an insupportable tension in the forehead, and of tightness in the region of the stomach. Some vex themselves and others around them, about trifles, feel suffocating anxieties, a sentiment of despair, and see nothing but misfortune and wickedness, though sometimes their situation is extremely fortunate. All external circumstances often indicate prosperity, when they despair, and fancy that they and their family will die of hunger and misery. Certain individuals imagine they are despised or persecuted by every body. Some have inspirations and visions. They see and hear angels, who excite them to put an end to their days.

Sometimes the various symptoms disappear, but return. The visionaries, at the beginning, often judge exactly their situation ; they consider their sensations and ideas as illusions, but when the disease increases they think they are real. They sometimes feel the impulse to self-destruction for years. They sometimes keep a note-book, and manifest evidently, by the sentences they write down, that their mind is deranged. They often note, *I am mad ; I am distracted ;* and in thinking of self-destruction, *I, however, shall do it.* Such persons sometimes bear about them a knife, or other destructive weapon, for several years, uncertain and unresolved as to manner, place, and time, when they will destroy themselves or others. Several who attempted to break

the ties which keep them from a better life, have not succeeded. After a few days they often seem to repent of their actions, but commonly new fits take place, and they repeat their attempts till they succeed. Those who begin with destroying their relations or others, do not always give the mortal blow to themselves, but they surrender themselves to justice, and request to be punished with death.

Another proof, that the chronic impulse to suicide is disease, results from the appearance of the skulls of such patients. They are often dense like ivory, and often thick. It is, however, necessary to distinguish those who destroy themselves in a fit of momentary despair, or from a chronic melancholy. It is impossible that the state of the ossification should be changed in a very short time.

A great number of persons consider suicide, especially the actions of those who kill others, and sometimes their beloved relations, as the most horrible crimes, because such individuals destroy the lives of others, on account of being tired with their own; but the judgment of a philosophic physician is quite different. He perceives in these deplorable actions only the signs of a terrible disease, most deserving our pity. The contrast of such actions with nature ought to have excited the attention and reflection of every one who studies mankind. It is inconceivable that a wife, who loves her husband, and *vice versa*; and that parents who love their children, will assassinate them, as long as their mind is not at all deranged. The judgment of the wise Solomon ought to have been thought of. Add to this that murderers of this kind have neither terrestrial advantage nor revenge in view; that after such actions they either kill themselves, or surrender to the magistrate and ask for death. How is it possible not to observe a derangement of the mind, especially if a true picture of all preceding symptoms be taken into consideration?

Similar patients are commonly considered as turbulent and fractious men; they often are ill-treated, reproached, or derided;

they are even accused as impious, instead of being treated with cheerfulness and patience, and trusted to the care of a philosophic physician. Such persons are censured as if their excitement and depraved imagination were the result of their own will; and, when the catastrophe happens, different external and accidental circumstances are considered as a sufficient cause of such an event. The unfortunate person was overburthened with debts; her hope had been disappointed; or her partner was faithless, &c. We must, however, be aware, that similar incidents happen daily without producing such effects; hence the predisposition of such patients is not to be overlooked.

FITS OF INSANITY.

It is generally known, and I have already repeated, that insanity is often intermittent, like many nervous complaints, and has exacerbations and remissions. In all these affections the cause of disease may be permanent, but does not continually produce morbid appearances, nor in every fit the same symptoms. I have mentioned, that the melancholy attacks subside, and return again. It is the same with the inclination to suicide, with mania, epilepsy, catalepsy, convulsions, &c.

Much has been said with respect to the cause of the fits. The ancient opinion, that the moon regulates the nervous complaints, and other phenomena, is entirely destitute of foundation. If a greater determination of blood to the brain be considered as the effectual cause of various nervous symptoms, and the lesions of the brain from exostoses or violent depression of the skull, &c. as the predisposing cause, this question remains unanswered: how comes it that the same predisposing cause may exist continually, and only at certain periods the blood is carried in larger quantity to the brain, and various morbid symptoms take place?

The functions of the nervous system become exhausted, and its powers require rest to be repaired. They are excited, and

even deranged, by various stimuli, as light, caloric, galvanic fluid, and especially by blood. But the greater irritability of the nervous system at certain periods is unexplained. The fact, that at certain times the irritability of the nervous system (nerves and brain) is greater than at others is indubitable, and, as it seems, dependent on determinate laws and on other phenomena of nature which are not yet ascertained. These periods of irritability are of the highest importance in the state of health and disease, with respect both to vegetative and animal life.

It seems to be a law of nature, that all phenomena happen with a certain periodicity. Plants at two periods in the spring, and about the end of July and the beginning of August, grow particularly in extent; at the other time of the summer and autumn the young shoots become solid, and the plants perform other functions, especially those of fructification. Animals are born and increase according to periods. The climacteric years are known, and then the body increases more than at other times. Moreover, it is a fact, that the different parts of the body, such as teeth, cerebral organs, sexual parts, are developed at different periods. During the whole life the change of matter of our body is greater at certain times than at others, and the alvine evacuations are more abundant, the urine turbid, the exhalation of the skin and lungs more considerable; in short, the functions of every part more or less active at different periods. In animal life it is the same; sleep is necessary; and the instincts of animals, all feelings of man, even the intellectual faculties, are more energetic at one time than at another.

Many diseases require a certain lapse of time before the natural state can be re-established, and they are subject to certain periodicity. A philosophical treatise on the periodicity of the phenomena of nature in general, and of man in particular, in his state of health and disease, would be at the same time very interesting for anthropology, and very useful for practical medicine. The periods of nervous irritability have an influence on man in general, but particularly on the manifestations of the mind.

Gall first made the observation, that at certain periods more women menstruate than at others, and that in a lunar month there are two such periods. This periodicity with respect to menstruation must be understood as follows. There are many females, who have their menses within eight days; they, independently of bodily size and temperament, form a class, and without a violent cause, such as strong affections, they belong always together, with this difference only, that several overcome that inconvenience in a greater or smaller number of days; but within eight days all individuals of that class menstruate. There is another class of females, who also, independently of bodily size or temperament, have their menses at another period, with the same modifications as those of the former. Both periods happen within a lunar month. It must, however, be observed, that the season and weather have an influence on the periods; in the spring and in hot weather they commonly anticipate, and their effect is greater. At other times they postpone, but always the whole class anticipate or postpone, which indicates that the cause is general. In a small number of females, menstruation is sporadic. Extremely weak and delicate women feel the influence of both periods; for that reason some females are unwell every fortnight. Many women think that it happens always at the same date of the month, but they are mistaken, and were not attentive enough.

This observation is very curious, and may become useful in many cases. It is, for instance, a fact, that pregnant women are delivered at the tenth period of menstruation. Accoucheurs may now explain why, during a few days sometimes, they cannot do and run enough, and then for eight days they are not called for. If an accoucher be acquainted with females who menstruate together, and any one is with child, he can know before, when she will be delivered. He knows it by the other women of her class who are not pregnant. It is known, that women are often mistaken in their calculation, the reason is because the conception can take place immediately before or after the time of men-

struation, and the delivery always happens at the tenth period. If, for instance, an accoucheur be called at the term of five or eight days after the others of her class are regulated, he can be sure that there will be no delivery, till the next period of the class. If he be attentive, he will find, that he can often be free of unnecessary anxiety.

On the other hand, if during pregnancy some *conamina* of parturition happen, and he knows that it is the period of menstruation, which he may learn from the others, abortion easily occurs, he then will take greater care. If a pregnant women be subject to hæmoptisis, at such a period, it is less dangerous as to its consequences.

These periods, when women menstruate, have an influence on the whole of mankind, on the state of health and disease; they affect men and women at the same time over Europe. Almost every one feels, from time to time, during a few days a greater irritability; he is easily displeased with any impressions of the senses; his mind is not disposed to any application and is easily fatigued; his thoughts are not consecutive; he may be offended by things which, at other times, would be indifferent; he is morose, and more inclined to quarrel or to dispute; his appetite is lessened, and all his excretions are more copious. This state comes and goes away without our being able to account for it.

These periods are extremely important in medicine; all chronic diseases have at these times exacerbations; those who suffer by piles are more tormented; many morbid causes, which are permanent, produce greater derangement. They have also their influence on nervous complaints, and all sorts of periodical fits, on visionaries, and on all madmen. They explain why suicide is more frequent at one time than at another; why sometimes their melancholy seems to be cured, but returns; why such individuals, being saved or prevented from destroying themselves, after a few days are glad to be alive; why, yet a short time after, they make new attempts to finish their existence; and why they repeat them three, four, five, and more times, till at last they

succeed. This periodicity exists and is general, but it is unknown. Yet it must be considered if even in criminal legislation. At these periods crimes of revenge and duels are more frequent than at other times.

Beside this period of irritability, there are still other causes which have an influence on nervous complaints and insanity, and which are also only known, but no more understood than the periods of irritability. Light and caloric have a great influence on the functions of every system. We see, therefore, the changes of various general diseases, of nervous complaints, and of insanity, according to season, weather, day and night. The question is, whether insanity has its exacerbations in the evening or in the morning? Both sorts of cases have been observed, but they are not detailed. As insanity is not the disease, but merely the morbid appearance of the same causes, which may also affect other parts and derange their functions, it seems to me, that insanity is subject to the periods of the real diseases. It is known, that inflammatory diseases have their exacerbations in the evening; hence such a state of the brain may undergo the same modifications. On the other hand, hysteric and hypochondriac persons are little refreshed by sleep, and complain more in the morning than in the evening; hence melancholy, and even mania, which sometimes is a symptom of the same diseased state, called hysteria and hypochondria, may be worse in the morning. The object is highly interesting, and deserves the attention of philosophical observers. Our ignorance of insanity is too lamentable not to excite our mental faculties to farther investigations. In pathology in general, and in insanity in particular, as long as we have no clear idea of the diseased state of the organization, and of the nature of morbid appearances, our proceeding must be that of mere empiricism.

From the preceding considerations, it results that the different forms, under which insanity appears or the symptoms which accompany it, are not the disease, which particularly interests

the healing art. Medical men, indeed, must direct their peculiar attention to the causes which produce the symptoms, since these causes are the diseases. Hence, the most important and the only practical division of insanity is that founded on the causes examined hereafter.

SECTION IV.

CAUSES OF INSANITY.

This investigation is the basis of all curative proceeding. In insanity as in any other disease a reasonable mode of treatment must be adapted to the cause and its nature, and modified according to the individual constitution, age, and peculiar circumstances of the patient; if this be impossible, the whole treatment must be vague, and merely experimental. I shall bring these individual considerations under three heads. First, I shall examine whether there are diseases of the mind, or whether the proximate cause of insanity is only corporeal: then I shall consider the seat of this proximate cause: finally, I shall endeavor to elucidate the nature of the causes of insanity.

I. THE PROXIMATE CAUSE OF INSANITY IS CORPOREAL.

Many physicians speak of diseases of the mind; but they may speak with the same reason of diseases of the vital principle in liver complaints or in disturbed digestion, or confine their plan of cure to a moral treatment of the archæus in cases of indigestion; others admit both mental and corporeal causes of insanity; a few acknowledged only corporeal diseases, and with the latter I decidedly agree. The idea of the derangements of mental functions must not be confounded with mental disease. Certainly the manifestations of the mind may be deranged; but I have no idea of any disease, or of any derangement of an immaterial being itself, such as the mind or soul is. The soul can-

not fall sick, any more than it can die. As this point is so important in practice, when it is necessary to act and to cure, or when institutions for such unfortunate creatures as are insane persons, are to be established, I shall enter into more details. I consider the mind in this life confined to the body, of which it makes use: that is, the powers of the mind want instruments for their manifestations; or, these manifestations are dependent on the instruments; cannot appear without them; and are modified, diminished, increased, or deranged, according to the condition of the instruments or organs. I think it a very dangerous doctrine of the mind, to admit that it can fall sick. If so, it can die, that is, become improper to its functions; because death never annihilates the elements of beings, but only dissolves and disposes them to new composition. It seems, therefore, more reasonable to consider the mind as always intact and only disturbed in its manifestations by disorder of its organs. Now that the proximate cause of insanity is always corporeal, I infer from the following observations.

1. *Insanity is connate and hereditary.*

This fact is of the utmost importance, both in a legal and moral point of view. Considerable diversity of opinion has prevailed, whether insanity be hereditary or not; and much is said on both sides. With Darwin, Crichton, Cox, Haslam, Hallaran, Esquirol and many others, I consider insanity as hereditary. It is indubitable that children inherit from their parents the constitution of body and the dispositions of mind. There are family faces, and family likenesses. Children often possess the make and fashion of the body peculiar to one or the other of their parents. Haslam quotes an example where the son had the gait, voice, and hand-writing of his father, though the father died before the son had been taught the use of the pen, and who probably never saw the hand-writing of his father. I know similar facts.

Personal deformities and many bodily diseases are transmitted from generation to generation ; such as gout, stone, dropsy, scrofula, pthysis, deafness, blindness, struma and apoplexy. The internal viscera, such as lungs, stomach, intestines, kidneys, bladder, uterus, &c., with their various dispositions, participate of inheritance ; why should it not be the case with the brain ? Numerous facts, indeed, are unfortunately too well ascertained, that the offspring of insane parents are more liable to insanity than those whose parents have never shown any deranged manifestations of the mind. I have observed several examples. Haslam mentions ten ; * I shall copy only one. " R. G. his grandfather was mad, but there was no insanity in his grandmother's family. His father was occasionally melancholic, and once had a raving paroxysm ; his mother's family was sane. R. G. has a brother and five sisters ; his brother has been confined in St Luke's ; all his sisters have been insane ; with the three youngest the disease came on after delivery." Mr Esquirol considers inheritance as the most frequent cause of insanity.

Those who deny hereditary diseases must at least admit hereditary predisposition to diseases. As weakness of certain parts runs through whole families, so at least a predisposition to insanity is propagated from parents to children. Now, as the exciting causes occur so easily, and the susceptibility of being affected is so great, such individuals escape with the greatest difficulty. In many cases we must admit even hereditary diseases, as in deafness, blindness, idiotism, from birth.

This object is involved in deep obscurity, and I do not intend to hazard an explanation ; but the fact is indubitable. On the other hand, it must be admitted that children born from insane parents may escape, as is the case in other hereditary complaints ; and that insanity may be produced in every person, born from the strongest and most healthy parents. Many scrofulous children are confined to their chamber half the time anterior to their

* Lib. cit. p. 231.

puberty, and their progenitors are strong and healthy. The probability of hereditary insanity is the same as of other transmissions ; it may begin in any one. The longer it has existed in a family, and the greater the number of generations which have been affected, the greater is the danger. Fodéré* has observed that, among Cretins, children of the first generation are less disposed to that disease ; that, if such children intermarry with other Cretins, the propagation of the disease is more certain ; and that, if during three generations consecutively they intermix, the disease is a certain event. In the same proportion, the probability of hereditary transmission lessens in intermarrying successively with healthy persons. In general, the hereditary disposition to diseases is proportionate to the change which has taken place in the organization. It is, however, to be remarked, that any defect produced by nature is more easily propagated than if it be the result of art. It is, for instance, more probable that an animal born without a tail will propagate young ones with the same defect, than another which has been mutilated by art. Several natural philosophers even doubt that art has such an influence on the change of beings. At least a long series of experiments, repeated from generation to generation, is necessary before the artificial change is transmitted. With respect to this object I refer to Fodéré on Cretinism, and to Dr Prichard's work on the Natural History of Man.

The hereditary dispositions cannot be explained by the mind itself, which we consider as a free agent. If it could, it certainly would escape such miserable situations. Nobody, I suppose, will maintain that there are peculiar minds of Cretins, any more than that there are specific minds of musical genius, or of any other talent, which is propagated from parents to children. I think it more natural to explain hereditary insanity like all other hereditary dispositions, by the corporeal conditions by which the powers of the mind are manifested. Sight and hearing are

* On Goitre and Cretinism.

endowments of the mind ; but there is hereditary blindness and deafness, on account of the material conditions on which the power of seeing and hearing depend. In the same way I consider hereditary idiotism, and every hereditary predisposition to insanity as the result of the bodily apparatus by which the faculties of the mind are manifested. The natural inference is, that parents and guardians, in the disposal or direction of the choice of their children in marriage, ought to be aware of the danger of forming an alliance with a family in which insanity is prevailing. Indeed, the subject must rouse dreadful apprehensions in the minds of those whose views are directed to the future health of their progeny.*

* 'It is of little real importance,' says Burrows, 'whether it be a predisposition or the malady itself which descends and becomes hereditary; but no fact is more incontrovertibly established, than that insanity is susceptible of being propagated; or, in other words, that a specific morbid condition sometimes exists in the human constitution, which by intermarriage, or according to the vulgar but expressive language of cattle-breeders, by *breeding in and in*, may be perpetuated *ad infinitum*.'

Hereditary predisposition, therefore, is a prominent cause of mental derangement.

Mania and melancholia do not propagate their respective types : a maniac may beget a melancholic, and *vice versa*.

Esquirol assigns one hundred and fifty out of two hundred and sixty-four cases in his own practice, to *hérédité*.

Dr Burrows says 'he has clearly ascertained that an hereditary predisposition existed in six-sevenths of the whole of his patients.'

Hereditary insanity is more prevalent among the higher ranks of society than among the lower, and for the reason that the 'former most frequently contract marriages with their own rank, or even with their own family.'

There are numerous instances in ancient Scottish families, proving this position. It is a truth well worthy the consideration of those who isolate themselves from the *middling classes of society*, on account of the great *respectability* of their own family connexions. *Respectability* is a word that is daily losing its meaning; e. g. a rogue is called respectable if he has but wealth?

The Jews, probably less than any other people, have intermarried with strangers, and it is supposed that they are most liable to insanity.

'Insanity among the society of Friends,' says Dr Burrows, 'who usually intermarry in their own fraternity, is very prevalent.'

As it may be interesting and useful to some to know more definitely the nature

2. *Age has an influence on Insanity.*

It is not probable that the immortal mind changes with age, and is different in the same person, when a child, adult or decrepid. Insanity, however, is connected with certain periods of life. It has been observed, that insanity, idiotism from birth excepted, is the most frequent in England between 30 and 40 years of age, in France, between 20 and 30; less between 40 and 50; still less between 50 and 60; in a smaller number between 10 and 20; and very rare after 60. Very young and very old people are hardly known to become insane, properly speaking. Thus the manifestations of the mind are the most liable to derangements when they are most energetic, and this is the case when the cerebral organization is the most active.

In children, idiotism from birth is often observed. There are also numerous cases where, in children, by accidental causes, the manifestations of the mind are altered or suppressed. But it may

of insanity so far as marriage is concerned, we add the opinion of Dr Burrows, which follows:

'My opinion upon two points relating to this interesting question, has been sometimes professionally required by those contemplating marriage, and who were conscious that insanity had existed in one or the other of their progenitors; First, whether a person born of parents in whom insanity has never been developed, but who, one or the other, were descended from a family so afflicted, was capable of propagating it in his own children? Secondly, whether a child, born before insanity had been developed in either parent was as liable to become insane as one born after it had been developed?

'To the *first* question I have answered in the affirmative; because I have met with many insane persons neither of whose parents had themselves been insane, but the progenitor's brother, or sister, of one or the other of those parents, were so.

'To the *second*, I have replied, that a child born either before, or after the accession of insanity in a parent, provided that parents, progenitors or relations in blood had been insane, was liable to hereditary insanity.

'But, if the insanity of the parent were adventitious, and not hereditary, the child born before the mental disorder had occurred, of course could not have it by inheritance; but how far a child born after the occurrence of the adventitious insanity was liable, I could not decide.'

be asked whether children suffer from insanity. Mr Haslam* describes several cases of insane children. These cases, however, belong to one of the two already noticed sorts of idiotism. I have seen several examples of that kind in different countries. They are mostly partial idiots, from birth, and I shall detail their history when I treat of the nature of the causes of insanity. The cause that children do not appear as insane, strictly speaking, in my opinion is, because their cerebral organization is too delicate, and does not bear a strong morbid affection without entirely losing its fitness for the mind and endangering life. The disturbances of the organization appear merely as organic diseases, because the functions are entirely suppressed. Later, in proportion as the brain becomes firmer, it bears morbid changes longer without becoming entirely unfit for its functions or causing death. Its functions then are only disturbed, and appear under the symptoms called insanity.

In old age, the manifestations of the internal operations of the mind diminish like those of the external senses, and the complaints consist more in weakness and inaptitude, than in too great or disordered activity. In the middle age the powers of the mind show the greatest activity, and the cerebral organization is the strongest; hence, disorders in the functions are more distinct and less apt to destroy life. If love does not yet exist, or if it becomes inactive by age, the other faculties will not be disturbed by it, as is so often the case during the period of life, when it is one of the prevailing passions. Thus, the deranged functions of the mind bear a close relation to their degrees of activity, and to the perfection of the organization of the brain, just as happens with the bodily functions; and as the mind cannot suffer by age, I infer that insanity, which depends on age, is the result of corporeal causes.

* Lib. cit. p. 185.

3. *Insanity varies in both Sexes.*

The female sex is the weakest. Among monstrous fœtuses there are more females than males. More girls than boys are affected by dropsy of the brain, and, generally speaking, there are more women than men liable to insanity. At the period of puberty, young females suffer from various complaints more than males. Many delicate, premature girls, of lively dispositions, at the period of menstruation, or soon after, by imperceptible degrees, lose the energy of the mind, become inactive, and neglect those objects and pursuits which formerly were to them sources of delight. They do not show the same attachment to their parents and friends; they are careless of reproof, and unfeeling to kindness; they are negligent in their dress, inattentive to personal cleanliness, and finish with a general apathy and idiotism.

Women are exposed to all connate and occasional causes of insanity to which men are liable. Besides, they undergo the natural processes of menstruation, pregnancy, parturition and of preparing nutriment for the infant which are frequent causes of insanity. Moreover, women in general have the feelings stronger than men, in proportion to the intellectual faculties. On account of the manners of society, they are exposed to more disappointments and have fewer resources; they become oftener the victims of circumstances, while a man is more favored by nature and society to choose his situation. But a disease which varies, according to both sexes, must depend on a corporeal cause.

4. *Insanity depends on Climate, Season, and Weather.*

It is an old opinion, which still continues to prevail, that the influence of the celestial bodies, such as stars, comets and planets is connected with the mind, and especially that the periodical returns of insanity are regulated by the moon. For that reason

this complaint was designated by the name lunacy. I am not inclined to deny all influence of the celestial bodies on the animal economy, if it be true that the moon produces the stupendous phenomenon of the tide. It is, however, certain that the periodical fits of insanity are not regulated by the moon, and that the name lunacy ought to be abolished. I here copy from Mr Haslam's work, a passage which confirms how prevalent this erroneous opinion still is. He says,* "such has been the prevalence of this opinion, that, when patients have been brought to Bethlem Hospital, especially those from the country, their friends have generally stated them to be worse at some particular changes of the moon, and of the necessity they were under, at those times, to have recourse to a severe coercion. Indeed I have understood from such of these lunatics who have recovered, that the overseer or master of the work-house himself has frequently been so much under the dominion of this planet, and keeping steadily in mind the old maxim, *Venienti occurrere morbo*, that without waiting for any display of increased turbulence on the part of the patient, he has bound, chained, flogged and deprived these miserable people of food, according as he discovered the moon's age by the almanack. To ascertain how far this opinion was founded in fact, I kept, during more than two years, an exact register ; but without finding, in any instance, that the aberrations of the human intellect corresponded with, or were influenced by, the vicissitudes of this luminary."

I have already mentioned that melancholy and suicide from disease, are more frequent in certain districts than in others, and so to say endemic in certain provinces where the air is damp and cold. Moreover, it is certain, that season and weather have an influence on the manifestations of the mind, as well as on the functions of the body. In certain years more boys, in others, more girls are born ; and there are years when abortions are more frequent, as it has been long ago observed by Plutarch. In one

* Lib. cit. p. 215.

season the alimentary canal, in another the organs of respiration, now the eyes, then the larynx, are more affected. The diseases are not only more common, according to the season, but also more intense, and of longer duration : it is the same with the manifestations of the mind and insanity. The vernal sun gives most activity to plants and animals, and exhilarates the human mind. The different instincts of animals appear and disappear at certain seasons : also in man the mental faculties do not always act with the same energy. Constant fogs and rains render the mind gloomy. Melancholy, with the propensity to suicide, is at certain periods more powerful than at others. Every one of a sensitive temperament, and endowed with a serious, gloomy train of thoughts, will recollect that at certain periods his gloomy feelings are increased ; that he is displeased with almost every impression from without, and unfit for society. Suicide is more common in one climate, in one year, and in one season than in others. In Vienna suicide is rare ; but in one year there were in one week seven suicides, so that the government became attentive, and ordered that the causes should be investigated. No moral event, which might explain it, could be pointed out. Pinel observed maniacal paroxysms which were dependent on the season and weather, and remarked that they were most easily excited by high temperature of the atmosphere. He mentions cases where the remissions and exacerbations corresponded with the changes of the temperature of the atmosphere from mildness to severe cold. Thus, as climate, season and weather influence insanity, it must depend on corporeal causes.

5. *Causes which evidently injure the body alone, produce Insanity.*

All that disturbs, excites, or weakens the organization, chiefly the nervous system, has an influence on the manifestations of the mind. It is a common observation, that the powers of the mind are less energetic, when the body increases too rapidly, and that a

too great activity is often too soon exhausted, so that early genius frequently sinks under the level of mediocrity. Early dissipation, habitual luxury, sickly sensibility are frequent causes of insanity. Pregnancy produces insanity. Aliments, particularly drinks, in quantity and quality have an influence on the feelings. Fermented liquor in excess rouses, if I may be allowed the expression, every latent disposition to vice and to virtue. Moreover, who can deny the influence of the digestive functions, of excretions, continued fasting, and of all that exhausts the body, on the mental functions? Dr Parry* treats in details of the influence of circulation and of the excessive determination of blood to the brain in the diseases commonly called nervous, and in insanity. Now all these circumstances act on the organization alone, and as they produce insanity, this must depend on organization.

6. *Insanity is periodical, and has exacerbations.*

It is superfluous to mention the periodical appearances and exacerbations of bodily diseases; they are generally known. Daily experience also shows that insanity is periodical, and has exacerbations and remissions. Women frequently become suicides at the period of menstruation. We find insane people on certain days worse, as is the case with other diseases. Now there is no reason to think that the mind suffers such repeated changes; but it seems natural to infer, that the changes of insanity, like those of other diseases, depend on similar causes.

7. *Insanity is often accompanied, or alternates, with other corporeal diseases.*

In many well-ascertained cases, insanity evidently originates from bodily causes; such as worms in the intestines, spasmodic or inflammatory complaints of the viscera, suppression of hæm-

* Elements of Pathology and Therapeutics.

orrhoides, lochia, old sores or drains dried up, concussion and injuries done to the head, great determination of blood to the brain. Moreover, in insanity there are often other morbid appearances, such as noise in the ears, dilatation or contraction of the pupil, habitual headache, pain over the eyes, dizziness, a sense of weight, stricture and numbness across the forehead, palsy; many nervous complaints, such as dyspepsia, hysteria, hypochondria. It even happens that the same cause produces in one individual hysteria or hypochondria, in another epilepsy, in a third melancholy, in a fourth mania. Sometimes all these symptoms exist in the same patient, and are occasionally converted into each other. Hypochondria and irregular conduct sometimes advance in proportion as some organic lesion increases. Insanity sometimes alternates with intermittent fever, with epilepsy, and other bodily complaints. Now, as so many bodily diseases, in their progress and effects, bear the closest resemblance to insanity, it seems to me that to consider insanity as independent of organic disease, or vital lesion, is a doctrine as unfounded in nature as it is highly prejudicial to the interests of mankind.

8. *Sleep is often disturbed in Insanity.*

It is well known that the functions of the mind cannot continue with equal energy, but want rest. Only corporeal organs, however, can be fatigued and exhausted, and this inactive state is sleep; hence sleep is dependent on corporeal causes. Now, uneasy and disturbed sleep, or entire sleeplessness is, as well as of some other diseases, a precursory symptom of insanity; and many insane persons are destitute of this means of recovering strength. Moreover, there is the greatest analogy between dreams and various symptoms of insanity. Dreams are conformable to the age and organic constitution of the body. Individuals endowed with a very irritable nervous system find in their dreams impediments without end, and suffer pain and anxiety; bad

digestion gives uneasy dreams ; finally, in dreams we think that we receive external impressions by the senses ; we fancy we see or hear, and keep up different trains of singular thoughts. All these appearances take place in insanity. Now, as disturbed sleep, sleeplessness, and dreams in common life and in other diseases, are considered as the effect of corporeal causes, why should we, in insanity, admit another cause for the same symptoms ?

9. *Temperaments.*

It might be asked whether the various temperaments are more or less disposed to insanity ? It must be answered that the brains of all temperaments are liable to insanity in the same way as bodies of all temperaments may be affected by diseases. One thing, however, occurs—it is, that certain brains are more easily affected than others, and more by such a cause than by another. It is also natural, that persons of greater nervous sensibility, in whom one sort of mental functions is extremely active, are more subject to insanity, than dull, insensible and unthinking people. But such individuals of both descriptions will be found among persons of serious temperaments. It is less the temperament than other circumstances which predispose to insanity.

Thus, from observation and reasoning, it results that the proximate cause of the deranged manifestations of the mind must be considered as corporeal. The soul, in its deranged manifestations of feelings, and intellectual powers, is no more diseased than in the disturbances of the five senses, and voluntary motion. And insanity is no more a disgrace to a family than any other disease. In palsy, the cause is not looked for in the mind, but in the instruments by which will is propagated, or voluntary motion performed. In the derangements of hunger and thirst, of hearing and seeing, smelling, tasting and feeling, the seat of the proximate cause is admitted in the respective organs by which

these powers are manifested. It ought to be the same with the internal operations of the mind. Indeed, a too assiduous attention has hitherto been paid to the development of moral or metaphysical causes, while the corporeal, indisputably more within the sphere of human understanding, have been greatly neglected. If the mind were diseased, it ought to be cured by reasoning. I think, however, with Haslam,* "the good effects which have resulted from exhibiting logic as a remedy for madness must be sufficiently known to every one who has conversed with insane persons, and must be considered as time lost." I say also, with Drs Hallaran and Cox, "that to talk *at* rather than talk *to* insane persons with a view to convince, is the surest mode of exciting the train of natural ideas, to which the most labored and methodical contrivance, when directly applied, will be found altogether incompetent." I cannot conceive for what reason the mind, being endowed with *reflection* and *will*, should be pleased to appear sometimes below the nature of a brute. And if it be not its will, what has overpowered the will? Is it a supernatural being? A good or bad spirit? Then let us expect every salutary event from prayers alone, and let us again have recourse to exorcism!!

II. THE PROXIMATE CAUSE OF INSANITY IS IN THE BRAIN.

After having shown, in a general way, that the cause of insanity must be considered as corporeal, I shall examine where its seat is, and I shall endeavor to prove that it resides in the brain. For that purpose it is necessary to consider the functions of the brain, and its morbid appearances in insanity.

* Lib. cit. p. 241.

1. *The brain is the organ of the mind, and the cerebral parts the organs of its primitive faculties.*

With respect to these points, I refer the reader to the details mentioned in my work on Phrenology for and against them. If it be proved that the brain is the organ of the mind, and that the manifestations of every primitive faculty of the mind depend on a peculiar part of the brain ; and if all primitive powers of the mind and their respective organs be once ascertained, it is evident that the cause of insanity will be looked for in the brain, and the cause of the deranged manifestations of every special faculty in a peculiar part of the brain. I do not say that this knowledge is advanced as far as I wish it to be ; but from daily observations, and the most positive facts, I am convinced that the basis of the above-mentioned doctrine is founded in nature. Thus, instead of ascribing insanity, or the disturbed reflecting powers and feelings, to what is called moral causes, the deranged manifestations of these faculties will always be considered as morbid affections of the cerebral organization.

2. *Morbid phenomena of the brain in Insanity.*

Also, with respect to this point I have given many details in my work on Phrenology. I have spoken of idiots from birth, and shown that a defective cerebral organization is the most frequent cause of it. I have also answered the objection, that there is not always a perceptible change of organization. I add, the brain is an organic part, and we must not expect to find more in it than in any other part of the body. Nay, as its organization is the most delicate of the whole frame, organic changes may occur which are imperceptible on dissection ; since this is also the case in other parts, which may be affected by various diseases, without offering the least morbid appearance after death. The stomach, for instance, and intestines, have often suffered for a

long time, and the most skilful anatomists cannot detect any thing different in their structure after death. On the other hand, neither vomiting nor want of appetite have taken place in persons in whose stomach mortification was found after death. Abscesses have been observed in the livers of persons who have died without any one of the common symptoms of hepatitis.

I know that anatomists and surgeons of celebrity relate that they could not find any morbid appearance in the examination of insane persons after death. I reply, that various obvious differences, as to size and form, of the brains of different sexes or individuals, have also been overlooked, while they may be easily observed. I really think that all morbid effects which are observed in other parts may also be distinguished in the brain, such as a too defective or too large development of its substance, distension of blood-vessels, inflammation, suppuration, serous effusion, dropsy, rupture, or ossification of blood-vessels. I even maintain that morbid changes of the physical appearances of color and texture might be pointed out in the brains of many who died insane; if those who examine them were better acquainted with the appearances of the brains of individuals who had no particular determination of blood to the head, and preserved their manifestations of the mind intact to the last moment of life. In fever with delirium, in phrenitis, in chronic insanity with too powerful manifestations of the faculties, in children who from birth were able to manifest their mental powers, but lost them by accidental disease, and in those who after violent mania became fatuous, I was always able to detect some morbid appearance or organic alterations, either in the substance of the brain, or in the blood-vessels or membranes, or even in the skull, which sometimes is uncommonly thick or dense, like ivory.

The morbid anatomy of the brain must be considered in the same way as that of the body in general, and according to the same principles. First, the cerebral organization may be altered without being detected. Moreover, one portion may suffer and the rest be intact. Farther, its organic lesions must be ex-

amined in relation to the cause and nature of the disease rather than with respect to the symptoms. Different diseases produce sooner or later organic alterations. Dynamical causes, for instance, may act for years without producing a visible change; while other causes which productively affect the organization, and consequently derange its functions leave soon morbid alterations. The brain being frequently diseased by dynamical causes, this principle in point deserves a peculiar attention, and in many particularly acute cases, where insanity results from sympathy, no organic change is observed in the brain after death.

The pathological alterations also take place sooner or later, according to the organic constitutions of the patients and according to their age. Some individuals resist all sorts of noxious influence, others are affected by the slightest impressions. The inflammatory state is rapid in some persons and slow in others; the blood-vessels break easily in scurvy and dropsy. Hence the same cause can produce apoplexy in one, and have no effect on another. This even accounts for the different reports of dissections made in various hospitals. Indeed the difference of constitution, dependent on age, climate, food, and the manner of living in general, deserves the same attention in the examination of insanity as in that of other diseases, and it is evident that the reports from different establishments must vary. In a hospital where only violent patients are taken in and kept, and in another destined for all sorts of insane, without distinction of age and duration, the organic changes observed after death in the head, cannot be equal. In the former the skull will be oftener found dense and hard like ivory, than in the latter.

Pathological anatomy examines the organic changes in isolated parts, as in the liver, stomach, lungs, heart, brain, &c., or it extends its researches over all systems of the body at the same time. In this case it distinguishes between primary and secondary alterations. The parts of the body being in communication exercise a mutual influence on each other: the cerebral functions and those of the digestive organs, for instance, are in the most

intimate connexion, and one part may disturb another. Yet the law of sympathy is very modified in different individuals; the same cause which disturbs in one all functions of the body, scarcely affects the health of another. The same slight wound may bring forth tetanus in one, or not at all affect the constitution of another. The neglect of this distinction in the morbid anatomy of the brain has provoked many discussions about the seat of insanity. Since the viscera of the abdomen and thorax have been found diseased in insanity, they have been declared the seat of that disorder. Yet they present various pathological alterations in patients, who never suffered from insanity, and idiots from birth often enjoy the functions of the abdominal and thoracic viscera in perfection.

Another general consideration is that morbid anatomy is not sufficient to prove physiology. The different parts of the body may undergo great alterations without losing their functions. The brain may be distended like a bladder and continue to perform its functions. Morbid anatomy therefore does not deserve an unbounded confidence; but it must be brought in harmony with physiology.

Finally, morbid anatomy does not always indicate the nature of the disease. The same morbid appearances may be found in diseases which are different and require a different treatment. Inflamed eyes are not always cured by the same means. Practitioners who divided inflammation into an active and into a passive state, were certainly aware from experience that the different treatment is necessary in both states. A friend of mine suffered from a determination of blood to the head: he was bled and confined to lowering diet; but repeated experience has shown, that the debilitating plan increased, whilst wine and strengthening diet took away the flushing of his face, and the irritability of his brain. Yet these cases will be rare in proportion to those where heating things augment the determination of blood to the head. Thus, morbid anatomy is no more for therapeutics than common anatomy for physiology, and those are wrong who make it the only

basis of the healing art. It rectifies pathology in many cases, but is still liable to deceptions.

Thus, the brain may suffer from acute or chronic diseases, idiopathically or sympathetically; the organic alterations are visible or they are not, and the organic changes are confined to the brain and its parts, or they extend over its membranes and skull.

Acute alterations are sudden congestions without extravasation, inflammation marked by vascular injection, density of blood-vessels, vesicles, gelatinous granulations on the surface of the arachnoid coat, serous or gelatinous exudations, pseudo-membranes, adhesions of parts which are naturally separated from each other, partial softness, more or less perceptible, partial suppuration commencing or complete; acute hydrocephalus, or extravasation of blood.

Acute organic changes of the brain seldom affect the skull in a visible manner, the vascular turgescency excepted. This is perceived in the skull as well as in the membranes and in the substance of the brain.

Organic changes which result from chronic affections of the brain resemble in many respects those of acute diseases. They present, however, some modifications and commonly extend over the skull. They concern the brain itself and its cavities, or its coats; or the texture and thickness, or the form and size of the skull.

The brain, after chronic sufferings in insanity and moral affections, is frequently soft, and the individual soft portions of brownish, greenish, reddish or yellowish color. In many insane the brain is extremely firm; in many it is diminished in size. The changes of color, softness and diminished size, are commonly partial, but often more or less extended. They are perceptible in the convolutions, in the pretended optic thalami, and corpora striata, generally at the places where the cineritious substance exists. The soft spots are sometimes reduced, to putrescence and the diminished portions are sometimes very hard. It happens that in the same brain some parts are hard and others soft.

There are also serous exudations, extravasation of blood, encysted abscesses, hydatids, and scrofulous tumors, particularly in the region of the fissura Sylvii, between the two hemispheres and between the brain and the cerebellum. The choroid plexuses, are often intermingled with vesicles filled with serum, and the cavities contain a smaller or greater quantity of serous exudation.

The cerebellum and the medulla oblongata, present the same organic alterations observed in the brain.

The pia mater and arachnoid coat often show marks of chronic inflammation, particularly at the upper mesial part of the head. They are frequently thickened, and have lost their transparency. Their blood-vessels are often injected, and sometimes ossified; their surface is intermingled with granulations. Similar appearances happen at the basis of the brain from the junction of the optic nerves to the decussation of the pyramids. The dura mater is often thicker and sometimes thinner than usual, its blood-vessels are frequently turgent, and in rare cases whole portions of the falx or tentorium are ossified.

The skull often participates in the chronic diseases of the brain. Its density and thickness undergo various changes in single spots, or over the whole. It sometimes becomes spongy, and oftener very hard like ivory, and in both cases thinner or thicker, or keeps up the usual thickness. I possess a skull which is almost generally one inch thick, and measures at one spot one inch and a half in thickness. It belonged to a female who died at the age of sixty-four, who during the last ten years of her life was fatuous, and who during the last three years could not leave her bed. It is at the same time very heavy.

It is certain that the skulls of many insane, even in hospitals, where every sort of insanity is taken in, are dense and heavy. It seems to me that this state of the bone is the result of inflammation, since the fractures and violent injuries of the bones in general, evidently accompanied by inflammation, present the same appearance. Moreover, the membranes of the brain in

insane whose skulls are dense, evidently show traces of inflammation.

It is probable that the inflammatory state of the brain and its membranes precedes that of the skull, since the circulatory systems are sooner disturbed in the soft than in the solid parts, and since morbid alterations of the skull are almost always accompanied with organic changes of the brain, particularly of the membranous coats. It is also conceivable that the inflammation mostly begins in the membranes, and sometimes in the skull and subsequently extends over the brain. The last kind of organic disorders concerns the form and size of the skull. It may be examined separately, and I shall do it in treating of the nature of the causes.

Before I finish this chapter, I shall answer the question whether there are external signs denoting the organic alterations observed after various affections of the brain. It has been said that the membranes suffer in convulsions, and the cerebral substance in palsy; others explain palsy by a slighter affection of the brain, and the loss of sensibility by a stronger disorder. Experience does not confirm these and similar affections. Our pathological judgment must be guided according to the general principles of pathology, by the constitution and age of the patient, by the nature and duration of the disease, and by the whole of the symptoms. It is also evident that the diagnosis of the organic alterations in insanity must be combined with the knowledge of the functions of the brain, though the symptoms indicate solely the parts which suffer, but not the nature of the disease. This explains why similar organic changes may be found in all sorts of insanity and in chronic diseases of the brain, which do not produce insanity, as in chronic cephalalgia, sleepiness, giddiness, drowsiness, particularly in chronic moral sufferings.

III. NATURE OF THE CAUSES OF INSANITY.

From the preceding considerations it results, that I always look for the *proximate* cause of insanity, or the loss of free will, in

the organization of the brain, and that the symptoms which accompany insanity are merely the deranged functions of the cerebral organs. The organ of the feeling of self-esteem being deranged, must naturally produce symptoms different from the disorders of the organ of the propensity to destroy or to conceal, or of cautiousness or benevolence, &c.; and there are as many sorts of symptoms as primitive faculties of the mind, and their combinations. In this manner alone can we understand why melancholia and mania are often the same disease, may interchange with each other, and why the same treatment may be successful in both, and why in other cases they are different. In the phrenological language I would say, in melancholia the organ of cautiousness suffers more, and in mania that of combativeness or destructiveness, or both; now in these cases the morbid cause may be the same or different. Moreover, as the same disease, gout for instance, or rheumatism, may affect different parts of the body, so the same morbid cause may attack successively different parts of the brain, and in this way alone can we explain why the same insane person in one fit may be pious and say prayers, in another may curse and endeavor to kick, bite and destroy every thing that falls within his reach; may in one fit weep, in another laugh. Do we not see that the cause of hysteria now affects the lungs, then the stomach, the head, the teeth, the ears, eyes, and the different cerebral parts? The cause of the ague may produce the common symptoms of cold, heat, and perspiration, or an intermission of head-ache, of tooth-ache, coma, or intermittent symptoms of inflamed lungs, &c.

I have also spoken of the modified symptoms of the same disturbed function in different persons, because the organs are modified in every one, and form different combinations with other organs. For more details I refer the reader to the respective chapter in my work on the philosophical principles of Phrenology. The same remarks may be made in the healthy and diseased state.

There are writers, Johnston* for instance, who consider the proximate cause of insanity as corporeal, but the nature of the disease always the same, whatever the hallucination may be. They consider the disease only different as to its degrees. It is true the hallucinations do not indicate the different nature of the disease, but the same symptom may be the result of different causes; diarrhœa, for instance, may be produced by fright, by cold and wet feet, by crudities in the stomach, by dentition in a child: hence diarrhœa is merely a symptom, but its cause constitutes the disease. On the other hand, as I have also repeated, the same disease or cause, such as suppressed perspiration or refrigeration, produces in one person symptoms or effects of ophthalmia, in another of tooth-ache, or sore throat, and cough, or diarrhœa, &c. All these considerations must be applied to insanity.

The occasional causes of insanity may be idiopathic, that is, originating in the head; or sympathetic, viz. residing in other parts and influencing the brain by sympathy.

I. IDIOPATHIC CAUSES OF INSANITY.

The idiopathic causes of insanity, in its most extensive signification, either exist from birth, or originate from later events. These latter are mechanical, that is, the effect of a violent cause; or dynamic, the result of the deranged functions of vitality, viz. of the vital powers.

1. *Idiopathic connate Idiotism.*

Insanity from birth is always idiotism, complete or partial. There can be no doubt that, from birth, the cerebral organization may be too defective, and unfit to perform its functions. A

* Medical Jurisprudence, art. Madness: Birmingham, 1800.

brain too small is always accompanied with imbecility. Willis describes the brain of an idiot from birth, which was not larger than half the ordinary size. Professor Bonn, of Amsterdam, possesses two such skulls, and the brain of one; Pinel one; Gall two such skulls; myself one. I have seen thousands of such unfortunate beings, idiotic in different degrees; and it is a certain fact that in the greatest number of idiots from birth, the heads, particularly the foreheads are too small; in a small number the heads are too large, that is, distended by an accumulation of water in the cavity of the brain. In others, the size and form of the heads do not offer any thing particular.

The Cretins whom we meet among the high mountains of Tyrol and Switzerland, are of the same nature. It is, however, an error to think that such stunted beings, and Albinos, are only found in the valleys of the Alps, or in other mountainous parts of Europe. We have seen them in low and flat countries. In Dublin there is a family of Albinos. I have found one of them in the institution for blind boys in the same city. His irides were reddish, and his hair, eye-brows, and eye-lashes were white. We have made the same observation which Henry Reeve speaks of,* viz., that the enlargement of the thyroid gland is a striking feature, but not a constant attendant of Cretinism. Cretinism is often observed without any affection of the thyroid gland, and that gland is often much enlarged without any affection of the intellectual faculties. The head of Cretins is deformed, the stature diminutive, the complexion sickly, the countenance vacant and destitute of meaning, the lips and eyelids coarse, the skin and muscles flabby. The qualities of the mind correspond to the deranged state of the body, and there are various degrees of stupidity.

Cretinism, then, does not form a peculiar kind of disease. If this were the case we could believe, with as much reason, that idiots in

* Some account of Cretinism. *Edinburgh Medical and Surgical Journal*, 1809, vol. v. p. 31.

towns form a peculiar species different from those in the country. Their cerebral organization is defective, and therefore the manifestations of the mind are more or less impeded, suppressed, or partially active, just as is the case with other idiots. This opinion is supported by the observation, that Cretinism originates from the same causes as idiotism, such as neglect of body and mind, bad quality of air and food, various nuisances from without, and from hereditary predisposition. Cretins as well as other idiots, have the head differently formed: hence the descriptions of such skulls given by various writers as Prochaska, Mallacarne, Ackermann, are and must be different; for every author described the skull he observed. All are right, and if others will describe other skulls which they may observe, we shall read still different descriptions. There is no peculiar form of Cretinism, any more than of idiotism in general.

Sometimes in children the brain is sufficiently large, sometimes even larger than the usual size, and without water in the cavities, but there is no internal organic activity; the mind is quite indolent, and parents often despair of their rationality. Such children learn to speak but late, are weak of body, and show evident marks of a rickety constitution.

In Cretins, and in idiots in general, the manifestations of the mind are more distinct, the inclinations more subordinate to the will, the ideas clearer, and the natural language more significant, in the same proportion as the organization of the brain is more perfect. Moreover, idiotism is not always complete, but very often only partial; so that the parents, and sometimes even physicians, cannot conceive why a child should be deemed an idiot, though he shows the manifestations of certain powers of the mind. Gall and I, saw at Hamburgh a young man, sixteen years of age, the inferior parts of whose brain were favorably developed, but whose forehead was scarcely one inch in height, and in whom consequently the improvement of the superior parts of the brain was impeded: he had only the functions of the inferior parts; he recollected names, numbers and historical facts,

and repeated them in a mechanical manner ; but the functions of the superior parts of the brain, such as comparison, reflection, penetration, and induction were utterly wanting in him. I saw in the poor-house at Cork, in Ireland, a boy who excels in verbal memory, but as to judgment he is an idiot. At Inverness, in Scotland, Drs Robertson and Nichol showed me a blind idiot, who repeats passages of the Bible, merely from hearing them repeated.

Such partial idiots sometimes cannot speak, though they do many things like reasonable persons, and sometimes they show a great deal of cunning. Rush * has remarked that great feebleness of mind may be accompanied with cunning, and sometimes with mimicry. Many of the idiots who cannot speak are not deaf ; they can pronounce various words, yet they cannot speak ; and physicians often look for the cause of this want in the organs of voice, or in the tongue, tonsils, palate, &c.; but these parts are never the cause of the want of language. Nay, certain persons deprived of the tongue have yet continued to speak ; their pronunciation of course could not be so distinct as that of other persons ; they could not pronounce certain letters, but they felt the necessity of speaking, or of communicating their sensations, ideas and feelings, and they actually did contrive to speak. On the contrary, these partial idiots pronounce single words very well ; but they cannot maintain any discourse, they cannot keep up their attention or combine their expressions.

In such partial idiots the five senses are often perfect, several are deaf ; in general they manifest the intellectual powers in various degrees, though imperfectly ; but they are destitute of consistent consciousness and perfect will—hence they belong to the state of insanity. Some of them show mechanical talent. The pretended savage of Aveyron, in the Institution for Deaf and Dumb at Paris, knows several written signs and words, and points out the objects denoted by them ; and he has the love of

* Medical Inquiries and Observations on the Diseases of the Mind, p. 298.

order in a remarkable degree. A young person of this description was shown to me in Edinburgh. I saw an idiotic child who sang several airs ; and if others began to sing, she accompanied them with harmony and cadence. Some even learn to play a few airs on the piano-forte. They recollect persons they have seen before, &c.

Various propensities and sentiments are also active in different degrees ; but it is not true that all Cretins are particularly inclined to physical love. In idiotic persons, however, such an instinct, though it exist in a smaller degree, will be manifested in an inordinate manner, since reflection and will are suppressed. I have seen several idiots in whom this propensity was very powerful ; but I have seen others who were quite indifferent in this respect. Some idiots like to imitate other persons ; some are very benevolent and cheerful ; others like to be caressed, or are very obstinate ; some are fearful ; others are irascible, and like to quarrel and fight. Several are incorrigible thieves ; others have the most decisive instinct to bite, pinch, scratch, and even to kill. Where I have treated of acquisitiveness and destructiveness in my work on Phrenology, I have quoted several examples of such idiots. At Paris I have met with two partial idiots, who were very mischievous, inclined to break every thing, and to take revenge for the least offence. The parents themselves were obliged to guard against their unfortunate propensity. A young girl in Edinburgh possesses weak intellect, but is delighted with breaking things and tearing paper into pieces.

I shall copy two cases mentioned by Mr Haslam.* They belong to this kind of insanity, and were incomplete idiots with some energetic propensities. "W. H., a boy nearly seven years of age, was admitted into the hospital, June 8, 1799. His mother, who frequently visited him, related the following particulars respecting his case. She said, that, within a month of being delivered of this child, she was frightened by a man in the

* Lib. cit. p. 206.

street. When the child was born, it was subject to startings, and became convulsed on any slight indisposition. When a year old, he suffered much with the measles; and afterwards had a mild kind of inoculated small-pox. At this age she thought the child more lively than usual, and that he slept less than her other children had done. At two years the mother perceived he could not be controlled, and therefore frequently corrected him.

“There was a tardiness in the development of his physical powers. He was fifteen months old before he had a tooth, and unable to go alone at two years and a half; his mind was equally slow; he had arrived at his fourth year before he began to speak; and when in his fifth, he had not made a greater proficiency in language than generally may be observed in children between two and three years. When admitted into the hospital, he wept at being separated from his mother, but his grief was of very short continuance. He was placed on the female side, and seemed highly delighted with the novelty of the scene: every object excited his curiosity, but he did not pause or dwell on any. He was constantly in action, and rapidly examined the different apartments of the building. To the patients in general he behaved with great insolence, he kicked and spit at them, and distorted his face in derision; but on the appearance of the nurse he immediately desisted, and assured her he was a very good boy. Great, but ineffectual pains were taken to make him understand the nature of truth; he could never be brought to confess any mischief he had committed, and always took refuge in the convenient shelter of a lie. In a short time he acquired a striking talent for mimicry, and imitated many of the patients in their insane manners: he generally selected for his models those who were confined, as he could practise from those with impunity.

“In about three months he had added considerably to his stock of knowledge, but unluckily he had selected his expressions from those patients who were addicted to swearing and obscene conversation. To teach him the letters of the alphabet had many times been endeavored, but always without success. The at-

tempt uniformly disgusted him; he was not to be stimulated by coaxing or coercion; he did not possess a sufficient power of attention to become acquainted with arbitrary characters.

“He was in good health, his pulse and bowels were regular, and his appetite was keen, but not voracious. In October he became unwell, and at the mother’s request was discharged from the hospital. In September, 1805, I again saw the boy; he was then thirteen years of age, had grown very tall, and appeared to be in good health. He recollected me immediately, and mentioned the words, school, Moorfield’s nasty physic. By this time he had made, comparatively, a great progress in language; he knew the names of ordinary things, and was able to tell correctly the street in which he resided, and the number of the house. Having been taught, when in the hospital, to use a bowl for his necessary occasions, he obstinately continued the same practice when he returned home, and could never be persuaded to retire to the closet of convenience; but the business did not terminate here: when he had evacuated his intestines into the bowl, he never failed to paint the room with its contents. To watch other boys when they were playing, or to observe the progress of mischief, gave him great satisfaction; but he never joined them, nor did he ever become attached to any one of them. Of his mother he appeared excessively fond, and he was constantly caressing her; but in his paroxysms of fury he felt neither awe nor tenderness, and on two occasions he threw a knife at her. Every thing splendid attracted his attention, but more especially soldiers and martial music. He retained several tunes and was able to whistle them very correctly.

“The defect of this lad’s mind appeared to be want of continued attention to things, in order to become acquainted with their nature; and he possessed less curiosity than other children which seems to excite such attention; and this will in some degree explain why he had never acquired any knowledge of things in a connected manner. His sentences were short, and he employed no particles to join them together; he always spoke of

himself in the third person, and never made use of the pronoun. His attention was only roused by striking appearances or loud intonations; ordinary occurrences passed by unobserved."

"In the month of July, 1803, my opinion was requested respecting a young gentleman, ten years of age, who was sent here, accompanied by a kind and decent young man to take care of him. The parents are persons of sound mind, and they do not remember any branches of their respective families to have been, in any manner, disordered in their intellects. Their eldest son at the age of two years, became so mischievous and uncontrollable, that he was sent from home to be nursed by his aunt. He was indulged in every wish; and thus he continued until he was nearly nine years old, the creature of volition and the terror of the family. At the suggestion of a physician, a person was appointed to watch over him. A different system of management was adopted. The superintendent was ordered to correct him for each individual impropriety. At this time the boy would neither dress nor undress himself, though capable of doing both; when his hands were at liberty, he tore his clothes; he broke every thing that was presented to him, or which came within his reach, and frequently refused to take food. He gave answers only to such questions as pleased him, and acted in opposition to every direction. The superintendent exercised this plan for several months, but perhaps not to the extent laid down; for it may be presumed that, after a few flagellations, his humanity prevailed over the medical hypothesis. When he became the object of my own observation, he was of a very healthy appearance, and his head was well formed; this was also the opinion of several gentlemen distinguished for their anatomical knowledge, to whom the boy was presented.* His tongue was unusu-

* I doubt of his head having been *well* formed. This expression is vague, and the configuration of the head has hitherto not been sufficiently attended to. I dare say that the upper part of the forehead of this subject, and the whole coronal part of his head, were small in proportion to the basilar and occipital regions.

ally thick, though his articulation was perfectly distinct. His countenance was decidedly maniacal. His stature, for his age, was short; but he was well compacted, and possessed great bodily strength. Although his skin was smooth and clear it was deficient in usual sensibility; he bore the whip and the cane with less evidence of pain than other boys. His pulse was natural, and his bowels were regular. His appetite was good, but not inordinate; and he bore the privation of food for a considerable time without uneasiness. He seemed to require a considerable duration of sleep.

“Few circumstances seemed to give him pleasure, but he would describe very correctly any thing which had delighted him. As he wanted the power of continued attention, and was only attracted by fits and starts, it may be naturally supposed he was not taught letters, and still less that he would copy them. He had been several times to school, and was the hopeless pupil of many masters, distinguished for their patience and rigid discipline; it may therefore be concluded, that from these gentlemen he had derived all the benefits which could result from privations to his stomach, and from the application of the rod to the more delicate parts of his skin.

“On the first interview I had with him, he contrived, after two or three minutes acquaintance, to break a window and tear the frill of my shirt. He was an unrelenting foe to all china, glass and crockery-ware; whenever they came within his reach, he shivered them instantly. In walking the street the keeper was compelled to take the wall, as he uniformly broke the windows if he could get near them, and this operation he performed so dexterously, and with such safety to himself, that he never cut his fingers. To tear lace, and destroy the finer textures of female ornament, seemed to gratify him exceedingly, and he seldom walked out without finding an occasion of indulging this propensity. He never became attached to any inferior animal, a benevolence so common to the generality of children: to these creatures his conduct was that of a brute; he oppressed the feeble,

and avoided the society of those more powerful than himself. Considerable practice had taught him that he was the cat's master, and whenever this luckless animal approached him, he plucked out its whiskers with wonderful rapidity ; to use his own language, '*I must have her beard off.*' After this operation, he commonly threw the creature on the fire, or through the window. If a little dog came near him he kicked it ; if a large one, he would not notice it. The usual games of children afforded him no amusement ; whenever boys were at play he never joined them ; and he appeared incapable of forming a friendship with any one ; he felt no consideration for sex, and would as readily kick or bite a girl as a boy. Of any kindness shown to him, he was equally insensible ; he would receive an orange as a present, and afterwards throw it in the face of the donor.

"To the man who looked after him, he appeared to entertain something like an attachment : when this person went out of the room, and pretended that he would go away, he raised a loud outcry, and said, '*What will become of me if he goes away. I like him, for he carries the cane which makes me a good boy.*' But the keeper doubted whether he really bore an affection for him, and said, when he grew older, he should be afraid to continue with him, as he was persuaded the boy would destroy him whenever he found the means and opportunity.

"Of his own disorder he was sometimes sensible. He would often express a wish to die ; for he said, '*God had not made him like other children ;*' and when provoked, he would threaten to destroy himself. When conducted through Bethlem hospital, and shown a mischievous maniac who was more strictly confined than the rest, he said with great exultation, '*This would be the right place for me.*' " Several details are omitted, and to be looked for in Mr Haslam's work.

These, indeed, are curious facts which cannot be explained by the common principles of philosophy, but they are easily understood according to Phrenology. Some idiots are good-natured, others mischievous, as is the case with other persons : in them some powers may show considerable activity, while others cannot

act at all ; and as attention is the result of the activity of the powers, they may be attentive in some respects, and not in others. The second boy mentioned by Mr Haslam, was very attentive to every object which he could destroy, but insensible to the sufferings of other beings, or to friendship.

Mischievous idiots are not extremely rare. Dr Hallaran speaks of several idiotic children who have been reported to him as mischievous from their infancy, and who, since he observed them, have continued to evince strong evidences of insanity.

In complete and incomplete idiots from birth, the vegetative functions are often weak, more or less suffering ; it is especially the case with the functions of the intestines. Often, however, all the functions of vegetative life are quite healthy, and sometimes very strong.

The complete idiots are rare in proportion to the incomplete ; and in the latter there are numerous degrees. The natural language always corresponds to the degree of idiotism. The lowest class has the most stupid countenance, a gaping mouth from which the saliva flows continually, a sneering face, a perpetual rolling and tossing of the head. A common appearance in incomplete idiots is a vague, unsteady, wandering eye, which is seldom fixed for any length of time on any one object ; they are constantly moving about, and cannot keep up their attention or reflection, nor combine different impressions : but in proportion as their mental operations are more settled, their natural language becomes more significative.

2. *Idiopathic occasional idiotism.*

Sometimes children are born in perfect health ; they improve in body and mind, acquire notions of external objects, reason on them, and manifest feelings in a regular manner ; but accidentally lose the manifestations of the mind, and become complete or incomplete idiots. Children naturally disposed to such a disease are of a great nervous sensibility, and rickety subjects, of an irritable temperament. Their cerebral parts often increase

too rapidly, and there is not sufficient time for the organs to grow solid. The activity of the mind is sometimes stronger than the brain can bear; and it is a common observation, that too early genius is often too soon exhausted. Moreover, the brain of such children easily suffers by different accidents, such as blows on the head, spirituous aliments, insolation, especially during the time of dentition. The blood is carried in greater quantity to the head, and inflammation of the brain and its membranes is easily produced. The children often die of the disease, or its effects, of which I have spoken under the name *Hydrocephalus acutus*. Sometimes such children overcome the disease, and escape with life; but the energy of their talents is lost, and the hopes of their parents imbibited.

I have seen many such cases. Mr Haslam * mentions one of a female child, three years and a quarter old. "When she was brought to the hospital for medical advice, her mother related that her child, until the age of two years and a half, was perfectly well, of ordinary vivacity, and of promising talents; when she was inoculated for the small-pox. Severe convulsions ushered in the disease, and a delirium continued during its course. The eruption was of the mild kind, and the child was not marked with pustules. From the termination of the small-pox to the above date, nine months, the child continued in an insane state. Previously to the small-pox she could articulate many words, and use them correctly for the things they signified; but since that time she completely forgot her former acquisitions, nor ever attempted to imitate a significant sound. Whatever she wished to perform, she effected with promptitude and facility. She appeared anxious to possess every thing she saw, and cried if she experienced any disappointment; and on these occasions she would bite, or express her anger by kicking or striking. Her appetite was voracious, and she would devour any thing that was given to her, without discrimination, as fat, raw animal food, or tainted meat. To rake out the fire with the fingers was a favorite

* Lib. cit. p. 185.

amusement, nor was she deterred by having frequently burned them. She passed her urine and fæces in any place without restraint. Some cathartic remedies were ordered for her, with an emetic occasionally; and she was brought to the hospital every fortnight, but she did not appear in any degree amended. On June 22d she was admitted a patient, and continued in the hospital until the middle of October, when she was attacked with an eruptive fever, and consequently discharged. During this time little progress was made, although considerable pains were bestowed. She became more cunning, and her taste appeared improved. The cathartic medicine which she drank at first without reluctance, became afterwards highly disgusting; and when she saw the basket which contained it, she endeavored to escape and hide herself. To peculiar persons she was friendly, and felt an aversion to others. She was sensible to the authority of the nurse who attended her, and understood by the tone of her voice whether she was pleased or offended. The names of some things she appeared to comprehend, although they were extremely few; when the words dinner, cakes, orange, and some more were mentioned, she smiled, and appeared in expectation of receiving them. After the lapse of three years the child had made no intellectual progress."

All that I have said of delicate and stout children, with premature faculties of the mind, as liable to hydrocephalus acutus is to be brought in connexion with this sort of idiotism. The soft cerebral organization of children is affected by various morbid causes; neither disease nor effusion kills them always, but sometimes the organization of the brain is deranged, its developments impeded, and the head remains too small in proportion to what it ought to be in later age. The automatic functions of such children are sometimes in good condition; they are well nourished, and live long; in others the bowels are very inactive, or convulsive motions are observed; in still others, after several years, a long series of distressing events is terminated by death.

As insanity consists in the suppression of clear consciousness and will, there cannot be any doubt that children can become insane. But the deranged functions of their minds must exhibit some modification, because the manifestations of many faculties have not yet acquired the same degree of energy which we commonly observe in adults, and several powers are not yet active. Mostly, however, on account of the delicacy of their brains, they die or become idiotic from severe affections of the head.

Fatuity.

There is another sort of occasional idiotism which is commonly observed in adults, sometimes in young persons, often in those who have suffered of chronic melancholia, and still more frequently after chronic and continual mania. I have also seen individuals who, from a violent concussion by a fall or a blow on the head, or from fear, suddenly sunk into a state of general apathy. In other diseases, as in epilepsy, catalepsy, delirium with fever, &c., fatuity often succeeds, particularly in persons who, from infancy, were endowed with a small share of intellect. Febrile diseases, in general, often weaken memory and the other intellectual operations. Thucydides relates, that during the plague at Athens, many who recovered lost their memory so completely, that they not only forgot the names of their friends, but also their own names. Such patients commonly recover the manifestations, in proportion as their health returns. Sometimes the impediment of the manifestations of their mental powers lasts for life. In such cases, organic changes take place in the brain, such as thickening of the membranes, serous effusion, turgescence of the blood-vessels, adhesions by pseudo-membranes; in short, all the effects of an inflammatory diathesis; often thickening of the skull, or its bone growing dense like ivory. In such a state, the brain is no longer fit for the manifestations of the mind. Fatuous persons, indeed, make a great proportion of the patients in asylums for insane.

Idiopathic mechanical causes of Insanity.

The manifestations of the mind may be deranged by various mechanical causes, not only from without, such as violent blows, a fall, fracture or depression of the skull, but also from within, by exostoses, for instance, or hydatids, ossified blood-vessels, various tumors, a collection of pus, of water, or a congestion of blood. As by similar causes the manifestations of the mind are often suppressed, so they may be excited or alienated. I have mentioned cases where violent blows have produced idiotism : on the other hand, there are also examples where, by the same causes in stupid persons, the manifestations of the mind acquired more energy. I know the history of a boy, who, from the fall of a stone on his head, became more stupid, but at the same time infinitely more quarrelsome than he was before the accident. The history of Pere Mabillion is generally known : he was a boy of inferior abilities, till a tile fell on his head ; then he began to display great talents. Acrell, in his *Surgical Observations*, relates the case of a boy, who received a blow on the temporal bone, and whose bone was depressed : the trepan was applied and he recovered ; but in his mind a singular change took place, for from that time he felt an irresistible propensity to steal. Acrell, who declared his mind deranged, delivered him from prison. Dr Jenner told me a similar fact from his own observation, where a mechanical lesion of the head excited the same propensity. In my work on *Phrenology*, I have mentioned more facts of this kind, in order to show that the manifestations of the mind depend on the brain.

It is to be remarked, that the mechanical injuries of the head, with respect to surgical considerations, are not within the limits of this treatise. I here merely state that mechanical lesions of the head may disturb the functions of the mind. On the other hand, it seems to me worth notice that, in numerous cases of insane persons, various morbid appearances, observed after death, have been considered as mechanical causes of insanity, while these

organic alterations ought to be considered rather as the effect of the diseased state of the brain which produced insanity and the organic changes. Such are all morbid effusions, thickened membranes, even increased thickness of the skull. It is, however, to be added that some of these morbid changes, though produced by the same disease as insanity, effusions for instance, may contribute to a greater derangement of the manifestations of the mind, or even entirely suppress them, and in so far act like mechanical causes. I wish particularly to call the attention of practitioners to that error according to which thick skulls are considered as a cause of insanity, while it is only the effect; that is, in chronic diseases of the brain, and in consequence in chronic insanity, that organ often diminishes in size; the internal table of the skull follows the external surface of the brain, while the external table of the skull remains in its natural position. Sometimes this thickening of the skull happens at certain places more than at others. Our opinion is particularly illustrated by the state of the two plates, forming the upper part of the orbit, in many of such cases. Commonly the two tables are so near and close to each other, that they appear transparent: but in some diseased cases the external table remains in its natural situation; and the internal, in following the surface of the brain, is distant from the external table half an inch, or even a whole one.

With respect to the objection, that injuries of the brain have not all disturbed the functions of the mind, I refer to my work on Phrenology.

Is the shape of the head a cause of Insanity?

Haller, Bichat, and others, consider the inequality of the two hemispheres of the brain as a cause of insanity. This inequality is often found in insane people, but it is not the cause of insanity, since in a great number of very intelligent individuals, and I can say, in the majority of mankind, the two sides of the head are

not exactly alike. A friend of Gall has the right side of his forehead half an inch higher than the left, and he feels distinctly and complains bitterly that he cannot think with the left side. At Dublin, a gentleman, whose forehead on the left side is about four lines less developed than on the right, often feels headache on the defective side, and assured me that he is conscious of not thinking with that side. He, however, never had any attack of insanity. At Vienna there is a family in which the children resemble the father with respect to a great irregularity and deformity of the head, but no one among them has manifested any derangement of the mind. Laland's head was much higher on the right side than on the left. The sides of Bichat's own forehead were very unequal; no one, however, will doubt of his extraordinary talents.

There are persons who suppose that we maintain the possibility of knowing, by the external shape of the head, whether any one is predisposed to insanity or not. Pinel was of that opinion; and in order to show the erroneousness of the assertion attributed to us, he caused two skulls to be drawn of nearly the same size and shape. One of these skulls belonged to a madman, and the other to a person of sound senses.

That this is our opinion is merely imaginary, and no one will find it in any part of our writings. The contrary is easily understood from our general considerations with respect to the brain. We continually repeat that the brain is an organic part, and as to anatomy, physiology, and pathology, subject to the same considerations as any other organ. Now, every part of the body, whatever its configuration may be, can become diseased. The eyes, for instance, of every size, form, and color, may be inflamed; the respiration of small and large lungs may be disturbed; and the same may happen with any other part of the body, and with the brain and its parts: I say, that brains of all sizes and forms can be disordered. As, however, certain eyes are more disposed to inflammation than others, and certain lungs more to consumption; and in the same way as medical men

speak of an apoplectic configuration of the neck, a consumptive habit of the thorax ; so we find that certain brains are more disposed to disease, and certain configurations more liable to insanity. This is particularly the case with idiotism from birth, and partial insanities, called hallucinations. Pinel, however, though he refuted the above-mentioned opinion, thought it worth his attention and labor to measure the skulls of insane people in all their dimensions, to compare both sides with each other, and the whole with the proportions of the head of the Apollo of Belvedere, which he considered as the model of perfection. But he does not dare to draw any inference, not even from the small heads of idiots. "I must be," says he, "on my guard against too hasty conclusions. I confine myself to historical facts, without pronouncing that there is a connexion between idiotism and the defect of organization."

We are very well aware that a great number of facts, repeated under various circumstances, are necessary before we can draw a general conclusion ; but, with respect to idiotism from birth, we have made such a number of observations in various countries, that we have no hesitation in affirming that a too small brain is unfit for the manifestation of the mind. I beg to remark, that I do not say that idiotism is the attribute of a too small brain only ; idiotism may be the result of different causes, one of which is a too small brain. We are convinced from observation, that the laws of nature are constant ; and, if we continually observe that the same phenomenon takes place under the same circumstances, we consider our conclusion as certain, till experience shows the contrary. If such a proceeding be not allowed, there is no physical truth. No one then has the right to maintain that an inference is too hastily drawn because he has not made a sufficient number of observations. It is his duty to show facts which prove the contrary, if he intend to deny the inference.

With respect to the configuration of partial insanities or hallucinations, we cannot so positively decide as with respect to a too small brain. As every person with a narrow and compressed

thorax, and hectic appearance, does not become consumptive, nor another with a large elevated breast remain always exempt, so certain configurations of the brain, which predispose to certain hallucinations, if the individual become insane, are not necessarily affected; nor are those who have not that peculiar configuration absolutely free from such a disorder. In the same way it is often remarked, that individuals with a certain character predominant from infancy are disposed to that sort of insanity, as is the case with great genius in respect to the intellectual faculties. Dr Rush* details that the natural conduct of insane people frequently accords with their natural temper and disposition. Proud and ambitious persons imagine themselves to be kings, and demand homage; are they ferocious, they assume the nature of wild beasts; are they pious and benevolent, they are inoffensive in their deportment. He, however, also speaks of exceptions; persons, for instance, of exemplary piety and purity of character utter profane, or impious, or indelicate language, and behave in other respects contrary to their moral habits.

It is a fact, that by far the greatest number of those who are insane by pride, have the organ of self-esteem large in proportion to the other organs of the mind. It does not follow, however, that every one who has this organ large must become insane by pride, nor that every one who has this organ small will be absolutely exempt from such an hallucination; for every small organ may be excited by diseased affection, and show too great activity and deranged manifestations. The influence of the size seems to be obvious, since the greatest number of persons, insane with peculiar hallucinations, have the respective organs larger. Gall possesses the skull of a madman, from amativeness, who fancied himself husband to six wives, and manifested various ideas of that kind. His cerebellum was extremely large. Gall has also the skull of a woman who imagined herself pregnant with five children: the organ of the love of offspring is of

* On the Diseases of the Mind, p. 155.

extraordinary development. I have seen several insane women who fancied themselves with child, and they had the respective organ elevated. I can, however, conceive that an insane woman, with a general indolence and apathy, might have the organ large, and take no care of her children. In the healthy and diseased state of the body, when there is no activity of the mind, the size of the organs is no indication at all.

Insane people, who show a peculiar degree of vanity, who like decorations, and all sorts of distinction and ornament, commonly have the organ of approbation large. Persons insane from religion have generally elevated heads. Visionaries, or those who believe in communications with spirits, usually have the head elevated at the middle lateral parts of the coronal suture, between and a little behind ideality and imitation. Those who are of an anxious, melancholic character, who are afraid of persecutions, or fear, where there is not the least reason, mostly have the middle of the parietal bones prominent. Those who suffer the violent impulse to destroy, or to do mischief, though their reflection and will resist, who beg to be loaded with chains to be prevented from their extraordinary propensity, are commonly broad above the ears. This consideration may be applied to all primitive powers. I however, repeat, that only in the greater number of cases, but not always, the respective organs will be found larger, in the same way as the predominant character is mostly, but not always, preserved. Particularly in those who, when young, adult, and insane, manifest great energy of the same dispositions, the respective organs will be found large. In such cases I am not aware of any exceptions. The influence of larger organs on peculiar hallucinations is partly understood from our physiological investigations, and will be partly explained in the next section on dynamic causes of insanity.

The greatest difficulty to understand the diseases of the brain, as well as of other parts of the body, results from the infinite modifications to which organization is liable. It is impossible to explain the idiosyncrasies of the stomach and the five senses.

No one can show why mutton produces in one stomach all the symptoms of poison, while it is digested by another. No one can point out the organic cause why one taste likes coal or chalk, another herbs, a third meat, one sweet, another bitter, &c. These modifications, however inexplicable they are, exist in the healthy and diseased state of vegetative and animal life.

Thus, in insanity, the configuration of heads is neither to be overlooked nor to be over-rated.

Idiopathic dynamic causes of Insanity.

From the preceding consideration it results that a peculiar development of the individual parts of the brain predisposes to insanity. This may be explained in the following manner: The larger size has an influence on the greater activity of the organs, and a too great activity may derange the harmony of the cerebral functions; moreover, the organs being continually put into action, may become so active that the will has no longer the control over them. Now, all the causes which immediately influence the functions of the brain, may be styled *dynamic*. The functions of the brain are disturbed in the same way as the functions of other parts; that is, by the deranged organization, or by an irregular use of the functions. The stomach may be affected, and its functions deranged, by causes which immediately exist in the organization, as inflammation, gout, &c.; or aliments may be introduced which are not adapted to the digestive power. Vision may suffer by causes which first affect the visual apparatus and disturb sight, or vision may be disordered by light itself. The proper use of the functions of any part contributes, and is even necessary to its healthy state. The proper use will strengthen, but misuse will disturb the function. Continual darkness weakens the eye; too strong light offends or blunts sight. The regulation of the functions of the brain is as necessary as that of aliments to the stomach, and of air to the lungs. Inactivity weakens the functions of the brain, proper

exercise strengthens them, too strong application brings disorder. These disorderly applications or manner of using the functions of the brain, are those commonly called *moral* causes of insanity.

I shall first treat of the dynamic causes of insanity, which immediately depend on the organization. I have shown that the brain and its parts are sometimes too small, or unfit by other causes to act. In the same manner their activity may be too great, on account of their size, or internal organization. I have mentioned, that the brains of children with premature development, and too great energy of the mind, are the most liable to diseases. In adults, also, a too great energy of one power will easily disturb the balance of the healthy functions. For that reason a genius is so often near insanity; that is, his power is so energetic that it acts independently of the will. Now, this may be the case of every faculty; but it is curious to consider the influence of the organization. It is a fact, that there are more insane from feelings than from intellectual powers; and from certain feelings, and from certain intellectual faculties more than from others. Moreover, it is also a fact, that the most energetic powers produce the greatest number of insane cases, and that the manifestations of the most active faculties depend on the largest organs. Such are amativeness, combativeness and destructiveness, cautiousness, self-esteem, love of approbation, religious feelings, ideality, attachment. Among the intellectual faculties there are more musicians and painters insane than mathematicians. Pinel did not observe any mathematician at Bicetre. I know, however, positively, that mathematicians are not exempt from insanity. I possess the skull of an individual who excelled in mathematics, and was insane by pride and vanity. It generally happens that, even in those classes of society who cultivate the intellectual faculties, by far the majority are insane by feelings. I think there are several reasons why the study of mathematics seldom will produce insanity. First, there are extremely few who make an intense study of mathematics, in proportion to the immense number of those who are tormented by amativeness, pride, and

ambition. Then, the organ of number is very small, and its great activity will not so easily derange larger organs, while the disorder of larger organs has a greater influence on the rest of the organization. More individuals, by love, will forget to think of mathematics, than by number forget to feel love. Moreover, the study of reality, which prevents eccentric and chimerical conceptions, will be less liable to insanity. Finally, he who likes mathematics commonly finds opportunity of gratifying his inclination, while the satisfaction of other strong propensities depends on various circumstances, which often are the most unfavorable. Thus, the first idiopathic dynamic cause of insanity is the too great energy of the organs dependent on their size, internal organic constitution, and continual exercise.

Other dynamic causes, which sometimes affect the organization of the brain, and derange its functions, are an inflammatory state of the brain, increased arterial activity, or diminished circulation in the veins. There is no doubt that the deranged circulation of the brain in general, or in single parts, is a great cause of its derangements. In this respect Dr Parry's work deserves the peculiar attention of the practitioners. It is, however, to be considered that the determination of blood is only an occasional cause; the influence of the different degrees of irritability of the cerebral fibres is obvious, since in many individuals the pulse is often very quick, and no delirium or other symptom of insanity is observed. The same quickness of circulation may suppress the activity of one brain, give to another pain, to others various degrees of activity, to one epilepsy, to another catalepsy, or insanity with very different symptoms. Moreover, not only the quantity of blood, but also its quality to nourish the brain, and the morbid change which may result in the brain, must be considered. The internal organic constitution of any living being and its parts is modified according to the state of nutrition. I have already mentioned that, sometimes weak and sickly children, with very large heads, suffer from general apathy, because the organization has no internal strength. Messrs Young and

Hodgson, of London, were so kind as to invite me to the dissection of an idiotic child, two years of age. Both substances of the brain, grey and white, had more the aspect of the cerebral organization of very young children, that is, of a more grey-bluish color and gelatinous nature, than we find the substance in children two years old. It seems that the cerebral organization was retarded in its development, and unfit to manifest the powers of the mind.

Various morbid causes may affect the brain alone as well as other single parts, as rheumatismus vagus, repelled cutaneous affections, &c. I cannot doubt that in many morbid affections of the body, there exists what has been called a morbid cause, whatever its nature may be : this exciting cause may affect the brain and its portions as well as other parts of the body. Children who have ophthalmia are often delivered from it by a few pustules on the lips. Sudden metastasis cannot be explained in any other satisfactory manner. The morbid cause often changes one place with another ; alternates, for instance, in the lungs, stomach, kidney, &c. A great many examples are mentioned in various works. I shall only observe, that, sometimes, if the perspiration of feet, on account of its offensive smell, is suppressed, and the patients complain of head-ache, bad digestion, difficult respiration, and cannot be relieved till the disagreeable perspiration at the feet is re-established, the existence of a morbid cause cannot be denied. The use of setons and blisters as derivatives is admitted by all those who have more confidence in facts than in explanations. I think we may suspect such a cause if insanity alternates, or is interchanged with morbid affections of other parts.

I come now to the second sort of dynamic causes of insanity, viz. to those which concern the use of the cerebral functions, or the exercise of the manifestations of the mind. Every one admits affections and passions, and intense study, as causes of insanity. I think our anatomical and physiological investigations alone give an explanation, if we are not satisfied with unmeaning words.

The mind, being endowed with reflection and will, why does it become passionate? Why, in so many cases, can it not abandon the disagreeable affections which disturb its happiness, if the manifestations of the mental powers, and of the affections themselves, are independent of organization?

In my work on the philosophical principles of Phrenology, I have detailed what we understand by passions and affections. I here only repeat, that passion is the highest degree of activity of every faculty, and that there are as many passions as individual primitive faculties of the mind; while affections are the different modes in which the faculties may be affected. I have already mentioned that the regulation of the activity of the faculties is of the highest importance; that inactivity weakens, moderate and convenient exercise strengthens, and too great exercise exhausts or disturbs the functions. As the functions depend on the organization, disturbed functions will derange the organization, and one deranged cerebral part will have an influence on others, and so produce insanity. This may happen suddenly, or by degrees.

Whatever occupies the mind too intensely or exclusively is hurtful to the brain, and induces a state favorable to insanity, in diminishing the influence of the will. If the external senses are impressed for a considerable time, the impression, though it is gone, seems still to be present. Card-players sometimes cannot lose the sight of the figures, though they have ceased from playing. Those who are fond of music hear the tones after the music ceases. After a voyage the gyration continues when we are on shore. In the same way the strong activity of every faculty may become involuntary, and even derange other functions. Now it is a fact, that the most active powers of the mind produce insanity most easily. One of the most powerful feelings is amative-ness. Though it is given for the preservation of the species, and in millions of beings fills all nerves with pleasure and rapture, many individuals become its victims. In many persons it constantly occupies the mind, excites the other faculties in an extraordinary way, causes sleepless nights, the most extravagant

reveries, and is a fruitful source of insanity. It may act alone, or combined with other feelings, and appears, therefore under various modifications, as unsatisfied, disappointed, seduced, or jealous. I cannot help copying a passage from Dr Cox's work.* "The detestable crime of seduction is a very fertile source of insanity. Its cruelty and criminality must strongly impress every heart in which humanity is not wholly obliterated. The common consequences of seduction are the fear of discovery, consciousness of guilt, and the reproaches of the world. The female sufferer sinks to despondency, while experiencing the neglect of the inhuman being in whom she confided; her tenderness is thrown back on her own heart; with no eye to pity, nor ear to listen to her tale of woe. Can we wonder if women suffer the loss of reason in such distressing circumstances? Perhaps the most disinterested affection has been the original cause of their deviation from the path of virtue, and thus tenderness became the instrument of their ruin: for in proportion to the sensibility, consciousness of shame, and remaining virtue of the victim, may we apprehend the degree of morbid effect on the intellect. Sometimes the unprincipled seducer himself falls a sacrifice to his infamy, if he be not a practised villain; but unfortunately for the present age the crime is too common, and we more frequently meet with men glorying in their cruel success than suffering from remorse."

Religion is another fertile cause of insanity. Mr Haslam, though he declares it sinful to consider religion as a cause of insanity, adds, however, that he would be ungrateful, did he not avow his obligation to Methodism for its supply of numerous cases. Hence the primitive feelings of religion may be misled and produce insanity; that is what I contend for, and in that sense religion often leads to insanity. The Domestic Guide for Insanity says, "How often has the preacher of Christianity been stigmatised as the cause of insanity in some dark-minded hearer,

* On Insanity, 3d edit. p. 32.

when at the same time out of a hundred people, all living in the same neighborhood, possessing nearly the same means of information, all reading the same religious books, and receiving the same religious instruction from the same preacher, ninety-nine have felt the cheering influences of religion? Surely, if the cause had been in the preacher or religious instruction, the bad effects would have been more general; but the poor creature had a predisposition to insanity, and religion happened to be the thing by which it was first discovered to the world."

The same observations might be made with respect to all madmen and their exciting causes; and it shows the error of considering the external impressions alone as sufficient causes. The internal predispositions of the mind, in its state of health and disease are too often overlooked. In my work on Phrenology, I have sufficiently detailed the innate dispositions of the mind, which may be diminished, excited, cultivated, and directed in their actions by external circumstances; but their activity is the result of internal innate powers and external exciting causes together. It is the same in the state of disease or deranged functions. The internal predispositions are often of more consequence than the external impressions. The great philosopher Kant was right in saying, "When a common man falls in love with a Queen and becomes insane, he was insane before, because he fell in love with a Queen." However, as many faculties could not act if they were not excited by external circumstances, in the same manner, they would not be deranged without the external impressions. Real religion certainly is a blessing to mankind, and no one will reject it by the consideration that such a feeling may be ill regulated, and contribute to diminish reflection and will. Charity, veneration, hope, satisfaction, cheerfulness, consolation, mutual assistance and forbearance, peace, righteousness, and wisdom, are the aim of Christianity; not grief, gloominess, moroseness, despair, persecution and stupidity. Certain individuals are naturally very anxious, and sometimes despair of

their temporal and eternal happiness, without being influenced by any sermons. It cannot fail, however, that a minute description of the consequences of sin, of the horrors of hell, and the dreadful sufferings of the damned, in the most glowing colors, should make a deep impression on weak minds, and that those who naturally are disposed to insanity, should lose the free actions of their will. It is, therefore, a great error to preach to every one in the same manner. A good shepherd ought to know his sheep. A hardened and impenitent flock requires strong impressions to be moved, while a fearful, pious, and righteous mind wants encouragement and confidence.

Insanity often originates from ungovernable or disappointed ambition, love of glory and fame ; from reverse of fortune, and from various affections of other feelings, such as from sorrow, grief, anxiety, apprehension, melancholy, fear, and despair, in Cautiousness ; from anger, fury, wrath and hatred, in Combateness and Destructiveness ; from pride, haughtiness, contempt, and disdain, in Self-esteem, &c. Several compound affections also, such as jealousy, envy, shame, often disturb the functions of the mind.

The disagreeable affections have a great influence on vegetative life. They often produce torpor in every irritable part, especially in the circulating and absorbent system ; contraction and slowness of the pulse, a laborious, slow respiration, sighing, a general languor and lassitude, and a sense of oppression ; the lungs are loaded with blood ; the heart is full, and like to burst ; contraction, shrinking, and paleness of the skin, and coldness in the extremities. The effects, however, differ in various individuals. Sometimes in anger the face glows with heat, and flushes with blood ; at another time it is deadly pale, and the features shrink : in general, anger has a great influence on the skin, and raises the hair of animals ; excites spasmodic contractions in the liver, and alters the secretion of the bile, not only in quantity but also in quality, whence diarrhœa, vomiting, colic or jaundice arise. It excites the heart and arteries to a preternatural degree

of action, and accelerates the circulation of blood through the heart and arteries, but retards its return through the veins.

Too sudden affections, agreeable or disagreeable, often produce various disturbances of animal life. There are instances on record that sudden joy was the cause of death. I have seen several examples of persons, who from fear, became insane, some quite idiotic. The affections of the mind which take place in the brain, act immediately on its substance and blood-vessels; then on circulation in general, on the digestive organs and on nutrition, and, by the disorders of those functions, again mediate on the brain. In this manner it is conceivable, why affections produce insanity. Thus, every thing which excites the feelings and their affections too much, will contribute to insanity. This may be proved by the effect of revolutions, since in all great political changes and disturbances, all feelings and selfish passions, such as ambition, pride, courage, fear, anxiety, are more active; and many feelings are disappointed, whence insanity is often the natural consequence. In later years, France and Ireland have furnished many examples in support of this truth.

It is believed that insanity is more or less frequent, according to the state of civilization. Dr Rush * says, "After much inquiry, I have not been able to find a single instance of fatuity among the Indians, and but few instances of melancholy and madness:" and in another work † he states, what he was told by Baron de Humboldt, that he did not hear of a single instance of madness among the uncivilized Indians in South America. In proportion as luxury and refinement extend their influence, diseases increase in number and varieties, nervous sensibility and imagination are exalted, and more examples of insanity afflict mankind. Misunderstood education, romantic or ideal notions of the world, hence disappointment in finding the world as it is, and not as it ought to be according to fanciful dreams, have often reduced the mind to a state of insanity.

* Medical Inquiries, vol. i. p. 19.

† Diseases of the Mind, p. 65.

A too intense application of the intellectual faculties, deep thought, incessant study during day and night, may equally lead to the derangement of the mental operations, either to exhaustion or alienation. The greatest harm is done if the inclination to study is greater than the power ; if the individual excite himself by spirits or stimulating liquors of any sort : the vascular action increases, various feelings are excited, and different disorders of the brain produced. Among scientific professions, however, with respect to insanity, it may be observed that those whose occupations naturally excite the feelings at the same time, such as priests, poets, advocates, actors, musicians, painters, sculptors, are more disposed to insanity than those who study geometry, mathematics, and natural philosophy in general. I have already mentioned the reasons which seem to account for this observation.

II. SYMPATHETIC CAUSES OF INSANITY.

Every cause which mediately affects the brain, and deranges the manifestations of the mind, is sympathetic, but it remains certain that the proximate cause of insanity is in the brain. Nothing is more generally admitted than that the reciprocal influence of the head and the abdominal and thoracic viscera, and that the diseased state of the stomach, intestines, mesenteric glands, pancreas, liver, spleen, ovaria, uterus, often affect the brain by sympathy and produce insanity. Yet I shall never agree with those who maintain that insanity is always the effect of a disease of the abdomen. The cases of insanity, produced by sympathetic causes, may be reduced to six sorts.

1. *Insanity from disorders in the generative functions.*

This is a very frequent cause of insanity in the female sex. Pregnancy commonly disturbs the stomach, and this the brain. Various disorders of the feelings and external senses occur in

pregnant women, and even insanity may result from this cause. Insanity of this sort, however, most frequently originates from suppressed menses, lochia, or milk.

2. Insanity from disorders in the digestive organs.

Indigestible aliments, poisons, worms, intemperance, and the abuse of intoxicating liquors may produce insanity. The consequences of intemperance are dreadful. It not only disturbs the functions of the body, but also those of the brain. It affects all the intestines and the circulation of blood; it is a cause of indigestion, obstructions, cardialgia, cephalalgia, vertigo, numbness of the senses, melancholia, mania, epilepsy and apoplexy. It is particularly dangerous to those who have a natural disposition to insanity. Who then might not wish to see this perverted appetite restrained within moderate boundaries; and religious codes are praise-worthy for having declared it sinful! I know several cases where an inflammatory state of the stomach and intestinal canal deranged or suppressed the free will. Melancholia, often, but not always, depends on disorders in the vegetative functions.

3. Insanity from general diseases.

General diseases, such as small-pox, measles, scarlatine fevers of various sorts, dentition, &c. sometimes affect the brain, produce morbid changes in its organization and hence insanity. This complaint may also be a symptom of the ague.

4. Insanity from repelled cutaneous diseases or suppressed habitual evacuations.

Old drains dried up, as setons, issues, repelled **d**artrous affections, suppressed, habitual hemorrhoids, or sweat, may affect the brain as well as the lungs, stomach and any other viscus, and disturb the functions of the brain as well as those of the other organs.

5. *Insanity from diseases which change the place.*

Erysipelas, gout, rheumatismus vagus, in affecting the brain may be causes of insanity.

6. *Insanity from general atony.*

From every circumstance that weakens much the body and causes inanition, such as continual evacuations of blood, semen, or want of nourishment, various nervous complaints and different symptoms of insanity may originate. A precipitate retirement from active life is frequently accompanied with different disorders in vegetative and animal life, and sometimes with insanity.

A general reflection is to be made concerning the sympathetic causes of insanity. There is no certain rule for them, and there are exceptions here as in all parts which generally sympathize together. In pregnancy the uterus commonly affects the stomach; some pregnant women, however, are free from this influence. The brain and the stomach generally sympathize, but in some persons, the disorders of the digestive organs do not disturb those of the brain. It may be said in a general way that sympathy is mostly observed in the weakest parts, whilst in strong parts there is no sympathy at all; grief or fear, therefore disturbs in one respiration, in another digestion, in a third the secretion of bile or the functions of the uterus, and in others it scarcely alters the function of any viscus. It may also be observed that one deranged function of vegetative life may derange one or the other, or all the functions of animal life; and, *vice versa*, one disordered animal function may derange one or the other, or all the functions of vegetative life. Moreover, each diseased part of vegetative life may affect any other vegetative function; and in the same manner, in animal life, one deranged function of the brain may disturb any other. The individual conditions of the parts, however, and their modifications of

irritability, are infinite, and can only be observed in given cases, without any other knowledge, but that such is the case.

The preceding considerations explain why insanity is most frequent between twenty and forty years of age. At that period all the dynamic idiopathic, and sympathetic causes of insanity exercise the greatest influence. Then the feelings and intellectual powers are the most active; then there is more anxiety to succeed, more regret and disappointment; the habit of intoxication is formed, and an infinite number of causes produce more disorders of body and brain during this, than in later periods. I have already stated, that then the brain is strong enough to suffer morbid disorders without incurring death, while in children its affections soon terminate in death.

I have mentioned, that, in insanity, the ears suffer more than the eyes. This may be explained, because the feelings are far the most frequent causes of insanity, and the auditory nerve is in a more intimate connexion with the organs of the feelings than the optic nerve. For the same reason, in the natural language, the sense of hearing and the organs of voice are more active in the manifestations of the feelings than the eyes. More attention ought to be paid to the derangement of the senses combined with those of the manifestations of internal powers, than hitherto has been done. In what cases, for instance, is the smell more excited, and the patients so fond of snuff? Previous habit certainly ought to be considered.

I shall finish this chapter with the examination of the question, Why is insanity so frequent in England?

I have divided insanity into idiotism, fatuity, and alienation. Idiotism from birth does not seem to be more frequent in England than in other countries. But I met in the English institutions for insane, a great number of fatuous; viz. those who by chronic alienations sunk into that state, or those who prove our ignorance with respect to the cure, that is, the chronic affections of the brain have produced in the organization alterations which cannot be cured, while it is the object of the healing art to prevent such

organic changes. In saying so, I do not maintain that, in other countries a better treatment is understood. Medical skill, as to insanity, seems to be every where equally advanced ; I mean, the patients who could be cured by nature were cured, and medicine had a very little or no merit in it. But as there are many insane persons in England, and as neither nature nor art are more successful in curing them, a great number of incurable is the result.

In order to give a clear idea, I shall recapitulate the causes of insanity, and show that, in England, they exist in a greater number. It must be understood that one cause cannot explain the facts, and that insanity is the effect of the natural dispositions, and the occasional causes. The first cause of insanity is hereditary disposition ; and as that disposition actually exists in many families, their frequent intermarriages must increase the number of mental disorders, particularly as the other reasons which have produced that predisposition continue to exercise their influence.

Among the idiopathic causes of insanity, the activity of the cerebral functions is one of the most important. In England, indeed, this cause is very powerful. Here all faculties of the mind act with great energy. No nation in Europe, for instance, in political and private views, has the right to indulge so much in the sentiment of self-esteem and independency ; and the English do it to a great degree. Here every thing finds opposition, and opposition naturally excites the feelings. In England no plan will be conceived by the government, however salutary it may be to the country, without opposition. No church will be erected to explain the meaning of the Bible, but another preaching-house will soon be in the neighborhood to give another explanation. Every one may form a party, but he will find opposition. This spirit of party and opposition is continually nourished, and all selfish passions must be exasperated. The fanciful gratification of the propensities is seen in many respects. Here only, two persons, in good humor and smiling, will shake hands,

and then try to give to each other death-blows, while thousands of spectators are attracted.

Religious feelings are extremely active in this country, and may act without any restraint. Every one who thinks himself enlightened enough, or perhaps inspired by supernatural influence, may preach to all who will listen to him. Whether he understands human nature, or is an artisan; whether he has studied the feelings of man, or has been employed in manual labor, that is no matter. He may consider the individuals of his congregation all alike, and speak to the mild, gloomy, and timid, as to the disobedient, hard-hearted, and stiff-necked. He may damn to hell and eternal pains all those who do not believe with him. I am convinced that a gloomy preacher who does not know the God of Christians, and the method of instruction of the great Apostle, who modified his speech according to those to whom he spoke, in order to save them all, easily deranges a tender mind by his picture of a jealous God, of a God of wrath and of vengeance, by a language which is perhaps necessary to guide his own feelings. Indeed, how often must an anxious mind be overpowered! Moreover, it is easily conceived that individuals, who are anxious for their eternal beatitude, and listen to so many different explanations, torment their brains in order to find truth. Now, if at the same time other feelings are excited, it must occur that reflection and will are lost.

Ambition, a frequent cause of insanity, is not quiescent in England. Even in charitable works, ostentation is never forgotten. Moreover, England is a mercantile nation; the mind is continually occupied with speculations, wavers between fear and hope, since the success depends on so many chances. Selfishness, the soul of commerce, easily becomes jealous, envious, and often calls on many other powers for assistance. In short, it seems to me that in England all feelings, selfish and liberal, religious and moral, low and high, are extremely active.

Not only the feelings, but also the intellectual faculties, have no restraint but that of their own power. If genius be not

always encouraged, its activity at least is not suppressed, and every one may hope to profit by his labors and speculations in one way or other. Thus, the powerful activity of the mind seems to me a great cause why insanity is so frequent in England; and, indeed, it is a singular fact, that the greatest desire of man, his personal liberty, also has its bad effects. "In despotic countries," says Dr Rush,* "where the public passions are torpid, and where life and property are secured only by the extinction of domestic affections, madness is a rare disease. Of the truth of this remark," continues Dr Rush, "I have been satisfied by Mr Stewart, the pedestrian traveller, who spent some time in Turkey; also by Dr Scott, who accompanied Lord Macartney in his embassy to China, and by Mr Jos. Roxes, a native of Mexico, who passed nearly forty years of his life among the civilized but depressed nations of that country. Dr Scott informed me that he heard but of one single instance of madness in China."

The other causes of insanity also act with great power in England. Luxury and cockering produce nervous complaints and insanity. In fact, proportionally, the rich are more vexed by these complaints than the poor. Now, there is no country where comfort is enjoyed to such an extent, and where the richer classes are so numerous. In no country have so many individuals independent fortune, and can so much indulge in their fancies. Many cultivate their feelings at the expense of their body.

Moreover, it is also certain that single persons are more disposed to madness than married people. But luxury and expensive fashions require in England a large fortune to enable a man to marry; hence only rich females have a claim to marriage, the others mourn in silence, and look for other sorts of satisfaction. Sometimes they have recourse to means which weaken the body, and contribute to derange the mind. Now, there is no doubt that

* Med. Inquiries and Observations on the Diseases of the Mind, p. 69.

in all countries, even where love is less restrained by fashion and law, the greatest number of insane females are the victims of amativeness.

Great and sudden changes in our manner of living have a great influence on the body. Many English became lately extremely rich, and naturally changed their manner of living. Many for some time worked hard, day and night; then they retired, and being often without occupation, found their life tiresome, indulged their fancies, and suffered from various complaints.

I have spoken of the influence of circulation, and of the abdominal viscera, on the brain. The manner of living in England must affect the nervous system and the digestive organs. Climate and weather require food and drink somewhat different from those in warmer countries, but the English evidently indulge too much in spirituous liquors. The abuse of spirits, and the habits of intoxication, is admitted as a frequent cause of insanity, by all those who have treated on that disorder. The brain suffers immediately and mediately. The circulation in general, and the determination of blood to the head, are increased; several faculties are excited; others are suppressed; and various morbid changes successively result in the brain and abdominal viscera. Generally speaking, I have remarked that the brains of individuals who die in the hospitals in London are firmer than those on the Continent and in Dublin. Nourishment is the probable cause.

I have mentioned that all causes must be considered, to explain the frequency of insanity in England. Hard drinking, for instance, cannot be the only cause; since the females, who in better classes cannot be accused of that fault, are in great numbers subject to insanity. It is possible, however, that a daughter may suffer for the faults of her father, whose dissipation might be the cause of her weakly and nervous constitution.

The manner of living in England is not conformable to dietetic principles. It is known that the same quantity of food taken

at different times is better digested than taken at once, and that medicine administered in smaller and repeated doses, produces more effect than the whole quantity taken at once. The English commonly take one plentiful meal, and at a time when the circulation is naturally quicker, that is, towards the evening. Besides, they excite the circulation by strong wines, and tea; and instead of being quiet during the time of digestion, like other living beings, they directly after dinner frequent crowded assemblies, are squeezed and tired, and have no place to repose. Is it then a wonder that dyspepsia, liver complaints, disorders of the abdominal viscera in general, and so many affections of the brain, are observed?

The manifestations of the mind depend on the body, and the body on climate and weather. The agreeable sensations of a mild climate, dry air, and a beautiful sky, give hilarity to the mind; while cold and moist weather make it gloomy, and gloominess is not rare in England.

All other causes are common to the English with the inhabitants of other countries. In pointing them out and in preventing their influence, we render greater service to society than in shutting the patients up, and in taking care of their moral treatment.

I shall not write a peculiar chapter on the means of preventing insanity, though I think, with Bacon, that the wisdom of foresight is far above the wisdom of remedy. They may be reduced to the general advice—to prevent the causes. Hence, all the considerations concerning the causes must be attended to. Thus, if a disposition to insanity exist in families, it is obvious that intermarriage ought to be avoided, &c.

SECTION V.

PROGNOSIS OF INSANITY.

With respect to prognosis, the same terms, which are used in other diseases, may be applied to insanity. Any disease is incurable or curable ; the latter is acute or chronic, it is cured with facility or difficulty. Such expressions, however, are quite relative ; they depend a great deal on our knowledge or ignorance of the diseases. There was a time when the ague was considered as a very dangerous complaint, and syphilis was incurable. In our days, however, we are enabled to make a different prognosis of those diseases. The term incurable ought to be applied only to an organic alteration, which cannot be reduced to its former condition ; a suppurated internal organ, for instance ; ossification of blood-vessels ; an effusion of blood in the cavities of the brain ; a tumor, &c. On the other hand, all disorders from dynamic causes ought to be considered as curable.

We must confess that hitherto medical art has acquired very little merit in the cure of insanity ; nature alone does almost every thing. It is, however, interesting, and even necessary, to know what nature can do, in order to understand and appreciate the merits of the art.

The prognosis of insanity, like that of any other disease, depends on the predisposition of the patient, the bodily strength, the particulars of the constitution, sex, age, the nature of the disease and its cause ; its duration ; the organic change it has produced in the brain, and the degree of our knowledge. A few remarks will elucidate my ideas.

Natural predisposition to insanity makes a perfect cure more difficult, and the relapses more likely. Strong constitutions longer resist the morbid causes, and when affected they are more easily restored. I have mentioned that in all sympathetic disturbances the weakest parts are the most easily affected. In young and middle age, and in vigorous persons, insanity is the most easily cured; and the probability of recovery lessens, the nearer life approaches its termination. In females the prognosis of insanity connected with pregnancy, parturition, and uterine affections is mostly favorable. Singularities in the brain exist as well as idiosyncrasies in the stomach and five senses; their prognosis cannot be submitted to any positive decision. Often, however, they are dependent on the general constitution.

Moreover, the prognosis depends particularly on the cause and nature of the disease. Either it is impossible to remove the cause, and insanity is incurable, or it is removed with less or more difficulty. Idiotism from too small a brain is incurable. If strong and predominant feelings be the cause, the cure is difficult. Pinel says, religious melancholy is seldom known to terminate in any other way than by death. Hallaran, Haslam, Cox, and others speak of the same difficulty. A professed drunkard is not easily restored to a permanent abstinence from such a habit. The prognosis of insanity, from idiopathic causes is more favorable than from sympathetic. When insanity supervenes epilepsy or palsy, or when these appearances join insanity, a cure is very seldom effected. On that account such patients are excluded from certain establishments for the insane.

It is a general observation that maniac patients recover in a larger proportion than those who are melancholy. The reasons seem to be various. First, in mania, the symptoms are alarming, make stronger impressions on the beholders; hence relief is sooner looked for, and more attention is paid to the diseased state. In melancholy, the patients, sometimes for years, are given up to their fate; they are considered as fanciful and imaginary. It is however, a great fault on the part of their friends, and even of physicians, not to consider the deranged imagination as the effect

of a bodily cause. The advances of melancholy are insidious and imperceptible, and after a long duration the removal of the cause must be more difficult. Moreover, the nature of the disease in mania and melancholia may be the same as well as different. An inflammatory state of certain cerebral parts may produce mania, and in others melancholy, and both symptoms are cured by blood-letting. This will be often the case in acute affections. Chronic melancholy on the contrary in weak, delicate and nervous individuals, is mostly the result of debilitating causes, but if in such patients irritability increases, and a great determination of blood to the head excites maniac symptoms, it is conceivable that the same treatment, which has cured the acute inflammatory state, will fail. Now, for the relief of the symptoms of melancholy nothing is done ; and if they are combined with maniacal symptoms, and the treatment which had good effect in another disease with maniacal appearances does not succeed, melancholy is declared incurable. It is, however, not sufficient to observe only symptoms of mania or melancholy, to form the prognosis ; it is of greater importance to know the nature of the disease.

Insanity from an inflammatory state of the brain, is liable to the same events as inflammation in any other part : it may be acute or chronic, the chronic continual or intermittent. Ophthalmia is often interrupted, and returns from time to time. In acute inflammations, we make a good prognosis, if the disease has not lasted long, was not too violent, or, even in that case, if evacuations take place, first by the skin, then by the urine, and at the end by the intestines ; and if the symptoms of inflammation gradually diminish. The most violent insane very often recover in the same manner. The paroxysms diminish gradually in their intensity, till at length no vestiges are to be traced, and such a gradual return to sanity is the most favorable to its durability.

The inflammatory state of the brain often terminates in secretions of serum, in the formation of pseudo-membranes thickening of the membranes, hardening the bone, or in suppuration. If insanity degenerate into fatuity or dementia, or if emaciation be increasing, though the patient eat with a voracious appetite, the

case is hopeless. Then incurable changes have taken place in the substance of the brain, in its membranes or blood-vessels.

Remissions and intermissions are favorable: they show that the cause is not so active, and that organic changes do not so easily take place. In such cases, the prognosis is particularly favorable, if the successive paroxysms are weaker; for there are diseases which, so to say, exhaust themselves.

Insanity without alteration of the pulse in the body is more difficult to be cured, because the disease is idiopathic. The prognosis is also unfavorable in insanity connected with violent chronic head-ache, especially in the neck, or in cases where drastic remedies fail to produce any effect; or if blisters neither vesicate the cuticle, nor increase the heat about the parts to which they are applied.

If weakness of memory or deranged judgment proceed from debilitating causes, or follow a too debilitating treatment of acute mania, the patient is frequently restored by good diet, humane treatment, and tonics. But if naturally weak intellectual powers still gradually diminish and terminate in imbecility, there is little hope.

In proportion to the duration of insanity, the prognosis is more or less favorable, so that the probability of recovery diminishes as the length of its duration increases. The question is, how long insanity can last before it is incurable? The question shows, that we have no idea of what is to be called insanity. According to the report from the select committee for the better regulation of mad-houses, "In Bethlem, at London, after a residence of twelve months, if such persons have exhibited symptoms of malevolence or are mischievous, and it is considered necessary that society should be delivered from them, they are declared incurable, which declaration is subsequently confirmed by the governors, and then they are no more treated with a view to cure their disease." According to the same report, "Dr Sutherland is of opinion that one year is decidedly too short a period at which to give up any expectation of cure and consequently

any medical treatment. There are frequently patients who recover after that period. Therefore, dismissing a patient after having been twelve months in St Luke's hospital, they never make use of the term incurable; they merely dismiss them uncured."

Mr Haslam has observed, that many patients are dismissed from Bethlem as cured, who come back with relapse; and that others are sent away as incurable, and recover. Dr Hallaran finds it improper to give up as hopeless any case of insanity so long as the vigor of youth or disposition to a diversified form of the disease has continued. He tells us more than we learn from the preceding statements, but it seems to me that the proposition is not sufficiently determinate. In many cases of young individuals insanity is incurable, though the body is vigorous; and in many more weak persons insanity will be cured as soon as we shall better understand its nature. At St Luke's hospital they are prudent in dismissing the patients only as uncured; but this expression is employed indiscriminately, and must be, so long as we do not know the nature and cause of insanity, according to which alone it is to be declared incurable or curable.

There are cases where insanity can be declared incurable; idiotism, for instance, from a defective organization of the brain, or fatuity from organic changes after a violent, continual, and chronic mania. But in many cases twelve months are not sufficient to give a decided opinion. Dr Rush* relates, that manalgia has been cured in a woman who had been insane nine years. In another woman manalgia had continued two years, and was cured by an acute dysentery. Four patients have been cured of manalgia by abscesses at different parts of the body; one of them had passed a third of his life in the hospital at Philadelphia. At another passage† he mentions spontaneous recoveries after the disease had continued eighteen and twenty years.

* Medical Inquiries and Observations on the Diseases of the Mind, p. 223.

† Lib. cit. p. 155.

These facts prove that in the brain the same phenomena take place which are observed in other organic parts. I doubt whether physicians would agree in declaring all diseases of other parts incurable after they have lasted twelve months. Chronic inflammation sometimes disturbs vision for years, before the patient finds relief for the rest of his days. And if chronic affections of the skin, lungs, liver, stomach, or uterus, are cured after several years duration, why should it not be possible with diseases of the brain ?

Finally, the prognosis of any disease depends on our knowledge and ability. In the aphorisms of Hippocrates we find many symptoms declared mortal ; in our days, however, a physician would be very blameable, did he lose his patient under such appearances ; and a physician would be considered as ignorant, if his patients should suffer as many relapses as the patients of Hippocrates did. Melancholy and insanity, with the propensity to suicide, are seldom cured, according to the assertion of all writers on insanity. I am, however, convinced from repeated observations, that it is curable, and as often as mania. In general, I am decidedly of opinion, that in insanity, if we immediately employ the proper means, and continue the true treatment for a sufficient length of time, the number of curable cases will greatly enlarge. In many cases the power of nature, without support, is insufficient ; and in many others it is more difficult to repair the mischief induced by improper treatment of insanity, than it would have been to cure the original complaint ; just as it often happens in other diseases.

If re-convalescents return to their primitive tastes, pursuits, and habits, it is a good indication of their final and complete re-establishment. Dr Rush * relates, that " in a young man of the name of Wilkison, the habit of stammering was suspended during his derangement, but returned as soon as he began to amend." Dr Rush † also mentions, that " a Mrs D—— said to him, one day,

* Lib. cit. p. 254.

† Lib. cit. p. 254.

in passing by her in the hospital, and asking how she was, that she was perfectly well, and that she was sure this was the case, because she had at least ceased to hate him." A similar instance of a perfect recovery, succeeding the revival of domestic respect and affection, occurred in a Miss H——, who was confined in the year 1800. For several weeks she discovered every mark of a sound mind, except one: she hated her father. On a certain day she acknowledged with pleasure a return of her filial attachment and affection for him. Soon after she was discharged, cured. Similar observations are made in other diseases. Sometimes insanity, as well as other complaints of internal parts, cease at the return of piles, cutaneous eruptions, erysipelas. Sometimes affections of the brain change with asthma, dyspepsia, and other morbid appearances of internal parts.

The natural language of insane persons, as voice, gesture, manner of talking, looking, walking, &c., is different from that of a sound one; it is, therefore, a good sign in insanity, if we observe a progressive amendment in the more obvious and striking symptoms, if in the intervals the countenance and behavior are more regular, and the whole appearance more natural.

Like other persons, insane patients recollect very early impressions better than recent ones; and they often show knowledge of things, which they had forgotten in the healthy state, just as is the case in other diseases. The instance of the Countess of Laval is known, who was nursed among the Welsh, and appeared to have entirely forgotten the Welch language. But long after she had grown up, in the delirium of a fever, she spoke many words in a language unknown to her attendants, which was at length discovered by an old Welch woman.

Like old persons, who sometimes a short time before their death show increased activity of their powers, many insane, before the end of their days, show often a sudden restoration of reason. The mind of Dean Swift awoke from its long repose in fatuity in consequence of an abscess in one of his eyes. Dr Percival relates an instance of a woman who lived from her in-

fancy to the 35th year of her age in a state of fatuity, and died of a pulmonary consumption, in which he discovered a degree of intellectual vigor that astonished her family and friends.

Insanity, as well as other diseases, is liable to relapses. Any part of the body, and so also the brain, being once affected, preserves a predisposition to the same disease. I know a gentleman who was accustomed to drink, and without being intoxicated, he could drink more wine than any of his acquaintances, till once he became intoxicated by rum. Since that time he felt the effects of wine as soon as any other. It is a general observation that, if an attack of insanity cease suddenly, the relapse is to be expected. Dr Hallaran says,—“When I have found mania to subside speedily and suddenly on the first attack, I have ever laid my account on its hasty return with redoubled violence. In this I have never been deceived, though the interval has been in the strictest sense a lucid one.” He adds, that he has “never witnessed a perfect recovery in recent cases of insanity, where the symptoms had suddenly given way.” This is the case in many periodical affections, and proves that mania can be the result of different occasional causes. In insanity, however, as in any other disease, a relapse is no proof that it was not cured before. Ophthalmia often returns, and each time it is said to be cured; in the same way the ague, a catarrhal affection, an erysipelas, &c., are said to be cured, notwithstanding the relapses to which they are liable.

There are writers who think that insane people cannot live long; and atrophy, pulmonary consumption, dropsy, particularly hydro-thorax and anasarca, are considered as the most frequent occasion of death among them. Samuel Tuke, however, states, that it is perhaps a matter of doubt, whether the frequency of death in these diseases is more connected with the mode of treatment than with the mental disorder. In the retreat insanity is not essentially prejudicial to automatic life. Samuel Tuke speaks of one eighty-seven years old, of eleven between sixty and seventy, and of four between seventy and eighty years.

In the section on moral treatment, I shall mention reasons enough why insane people commonly do not live long. In the first report from the select committee for a better regulation of mad-houses, there is an example quoted, that a patient was so much neglected that he was spoken of as a dying man ; but the poor creature being removed and better attended to, in a few months was so much recovered as to be able to be removed to his parish in an inoffensive, though imbecile, state of mind.

RECAPITULATION.

In this section I had the intention to show that the prognosis of insanity must be instituted in conformity to the same considerations as those of any other disease, viz., according to the predispositions of the patients, the constitution of the whole body, or of single parts ; according to age and sex ; especially according to the cause and nature of the disease, its duration, organic changes in the cerebral organization ; finally, according to its disposition to relapses, and our knowledge and ability of curing the disease.

SECTION VI.

TREATMENT OF INSANITY.

I come now to those considerations in which the patients are most interested, and where experience and our own conscience attest our ignorance. We must, indeed, all agree, that the method of curing insanity is not yet sufficiently understood. I will not censure, I only relate simple facts. The Greeks and Romans endeavored to cure every insanity by hellebore; in the middle age, superstition had recourse to exorcisms; and according to the report of the select committee for a better regulation of mad-houses, at Bethlem, in London, a few years ago, the patients were bled, vomited, purged, and blistered, according to the season.

Two sorts of treatment are commonly spoken of; one is termed moral, the other medical. At all times the opinions have been different, which is the most important. Aretæus, who treated professedly on the diseases of the mind, overlooked the moral treatment; Celsus, on the other hand, had the greatest confidence in it. In our days, far the greatest number, even of medical men, expect better effect from the former than from the latter. I shall therefore begin with its elucidation.

I A MORAL TREATMENT OF INSANITY.

Pharmaceutic preparations and medicines excepted, all the rest belongs to the moral treatment; habitation, for instance, nourishment, coercion, occupation, and personal treatment. I shall first

mention the things as they are, and then propose some improvements.

I shall begin with the habitation. As to their situation, I have seen mad-houses near rivers, in marshy districts, where the atmosphere was constantly damp ;—sometimes near issues of sewers ;—or in the neighborhood of large hospitals, where thousands of patients were crowded together to infect the air ;—or where the galleries looked over large burial-grounds, where interments daily happened under the eyes of the most gloomy and melancholy patients. With respect to their construction, I have found round towers, or square buildings, two or three stories high, and the airing grounds in the centre. In this way the free communication of air was prevented, and the cells at the ground-floor were dark and moist. I read even that buildings of four stories are proposed, because they are preferable for economy, as only requiring the same quantity of roofing that is requisite for a building of one or two stories. I find also that such a height is excused, because the place is so small, and airing ground wanted. In that case I would object against the situation in general ; for not the place, but the patients, deserve the first attention. I have seen the staircases of all stories, or the outlet of all cells, common ; sometimes there were no means of ventilating the cells when they were inhabited, or the cells were not glazed ; hence it was necessary to exclude light with the cold air. Commonly there were no means of warming the apartments ; the cells sometimes resembled stables or dungeons ; the water-closets often too near, and the smell offensive ; no airing grounds at all, or small damp ones within the square buildings, and these still encumbered with rubbish ; sometimes I have observed them exposed to the sun without any shelter ; at other times surrounded with high walls, that no sunbeam could reach them. A want of sufficient room to classify the patients is almost general.

In considering the treatment of the patients, it is impossible to remain indifferent. Even the most obvious idea, which is indispensably necessary, viz., the separation of the patients, was and

still is too much neglected. The most furious and the most melancholy ; the most imperious and the most fearful ; the most vociferous and the most cheerful ; the most villanous and most religious ; clean and unclean ; curable, convalescent, and incurable, are put together : all is chaos and confusion. In the same day-room the furious are chained, and the gloomy walk round them. Sometimes men and women are put together, and it is reported that the insane were pleased to propagate their race. If any separation of patients exist, it is made according to what can be paid for them. I have met insane persons, who were reasonable in many respects, of accomplished manners, and who were fully sensible of their situation, in the same floor with wretched beings without clothing, who were unaware of the necessity of nature ; in short, with beings of the most degrading and brutalizing condition.

I have seen patients fastened by chains, sitting at the grating of their doors or windows, like savage animals in cages. Often I have found them in work-houses, under the care of persons totally ignorant of the proper treatment which such patients require, and in rooms not at all adapted to them. Such unfortunate creatures naturally are a great annoyance to the other inhabitants of the house ; they are then either confined in a strait waistcoat, or tied to their bed day and night. If they walk about the house, they are made the sport of children ; hence they are often huddled together in rooms, and several in one bed.

I have also found them confined in houses of correction, or in prisons, in dark, cold, and dirty cells, separated from every living creature ; while the felons were comfortable round the fire. Several keepers seemed to possess all the qualifications necessary for superintending a jail, but they seemed to me quite unfit for taking care of the insane. They also attended rather to the complaints of the criminals, than of the unhappy lunatics. They had more compassion for the felons, or perhaps more fear of the justice which defends their cause, while the insane are abandoned and given up in loathsome cells to the most arbitrary system of

cruelty. Sometimes I have seen such deplorable beings in stables, naked, and exposed to the temperature of the atmosphere, during winter and summer. I confess to have left many such places with the utmost indignation at our ignorance, and at the inhumanity of treating insanity worse than crime ; of excluding the insane alone from the humane feelings of society, and of abhorring them more than evil spirits. No one, who has witnessed the deplorable situation of such unhappy creatures, or who has read the report of Dr Latham, the President of the College of Physicians of London, or of the secretary, Dr Powell, and who is a friend of humanity, can remain indifferent. The former tells us,* "All mad-houses under the present regime are more calculated for places of confinement, than as places of cure ; the relations of the unfortunate people shut them up there, in order to put them out of the way ; and in nine cases out of ten this is the fact." The latter says,—"Insane houses are places which seem rather intended for the confinement and imprisonment of lunatics, but not one of them seems fully calculated for the cure of them. I think we can add, the greatest number of mad-houses are calculated to produce insanity, or at least to prevent the cure, rather than to promote it.

It seems to me a horrible idea to confine the insane in prisons. How excruciating the feeling must be of an individual, who can still reflect on his situation, and sees himself in a prison, and locked up by a keeper. I have heard melancholic persons bitterly complaining of such an abode ; indeed, if an insane person should think himself persecuted by the justice, he would be confirmed in his insanity. Those who infect society with the itch, or syphilis, are never confounded with felons ; they have separate hospitals. The insane alone, who often are the victims of the most noble feelings, experience less attention.

The thing which strikes me as the most shocking and abominable is, that the villains who have disturbed the peace of socie-

* First Report, p. 111.

ty live in palaces, have an airing, sometimes a play-ground, have often the whole building, even their place of worship, warmed, fresh water in the yards, often cold and warm baths, and every thing comfortable and clean ; while the poor insane, who want and deserve our pity, lie on straw and dirt, exposed to all vicissitudes of season and weather, reduced to the mercy of the turn-key, and less attended to than a horse or a wild beast. No one who can contribute to the abolition of such abominations ought to be inactive. It is not less the duty of a Christian to relieve the sufferings of his countrymen and fellow-citizens, who, according to Dr Latham's testimony are rejected as burthens, than those of negroes, who, on account of their usefulness, at least, are taken care of like animals.—If any one finds this passage a digression on my side, I beg him, instead of examining the reports, to visit the insane of Europe, in public and private establishments, wherever he can meet them, and I am convinced he will not treat professedly on insanity without an emotion of horror.*

* Europe is not alone in this guilt, as may be seen from the subjoined extract from the Second Report of the "Prison Discipline Society."

"In Massachusetts, by an examination made with care, about thirty lunatics have been found in prison. In one prison were found three; in another five; in another six, and in another ten. It is a source of great complaint with the sheriffs and jailers, that they must receive such persons, because they have no suitable accommodations for them. Of those, last mentioned, one was found in an apartment in which he has been nine years. He had a wreath of rags round his body, and another round his neck. This was all his clothing. He had no bed, chair, or bench. Two or three rough planks were strewed around the room; a heap of filthy straw, like the nest of swine, was in the corner. He had built a bird's nest of mud in the iron grate of his den. Connected with his wretched apartment was a dark dungeon, having no orifice for the admission of light, heat, or air, except the iron door, about 2 1-2 feet square, opening into it from the prison."

"The other lunatics in the same prison were scattered about in different apartments with thieves and murderers, and persons under arrest, but not yet convicted of guilt."

"In the prison of five lunatics, they were confined in separate cells, which were almost dark dungeons. It was difficult, after the door was open, to see them distinctly. The ventilation was so incomplete that more than one person

Principal requisites of a mad-house.

The want of better establishments for the insane is felt by all those who take interest in the condition of these helpless beings. But who shall make the plan? Who shall decide on its adoption? The architect, who is fond of his art, and likes to display architectural beauties, fine columns, and external decorations? or he who is ignorant of the human mind in its state of health and disease? or medical men, who have paid peculiar attention to insanity? The answer is obvious.

on entering them, has found the air so fetid as to produce nausea and almost vomiting. The old straw on which they were laid, and their filthy garments were such as to make their insanity more hopeless, and at one time it was not considered within the province of the physician's department to examine particularly the conditions of the lunatics. In these circumstances any improvement of their mind could hardly be expected. Instead of having three out of four restored to reason, as is the fact in some of the favored Lunatic Asylums, it is to be feared that, in these circumstances, some who might otherwise be restored, would become incurable, and others might lose their lives, to say nothing of present suffering."

"In the prison in which were six lunatics, their condition was less wretched. But they were sometimes an annoyance, and sometimes a sport to the convicts; and even the apartment, in which the females were confined, opened into the yard of the men; and there was an injurious interchange of obscenity and profaneness between them, which was not restrained by the presence of the keeper."

"In the prison, or House of Correction, so called, in which were ten lunatics, two were found about seventy years of age, a male and a female, in the same apartment of an upper story. The female was lying on a heap of straw under a broken window. The snow in a severe storm was beating through the window, and lay upon the straw around her withered body which was partially covered with a few filthy and tattered garments. The man was lying in the corner of the room in a similar situation, except that he was less exposed to the storm. The former had been in this apartment six, and the latter twenty-one years."

"Another lunatic, in the same prison was found in a plank apartment of the first story, where he had been eight years. During this time he had never left the room but twice. The door of this apartment had not been opened in eighteen months. The food was furnished through a small orifice in the door. The room was warmed by no fire; and still the woman of the house said 'he had

Any hospital whatever, ought to be adapted to its purpose, and placed in a healthy situation. With that view I dare propose some ideas, as I have conceived them from numerous observations. I declare, not beautiful architecture, not fine columns, superb staircases, lofty domes, external decorations, magnificent committee rooms, to which my attention has often been called when I visited public establishments,—but quite other requisites of a mad-house, seem to me the most essential. I shall divide them into two parts: in the first I shall consider the requisites in relation to architecture; and in the second, those of internal management, or moral treatment.*

As every hospital ought to be appropriated to its purpose, I cannot agree that only one sort of building is to be erected. Insanity is incurable and curable; both sorts of patients require in many respects a different treatment. Their hospitals then ought to be different also. Many arrangements necessary for curable patients are quite superfluous for incurable idiots and fatuous,

never froze. As he was seen through the orifice in the door, the first question was, 'is that a human being?' The hair was gone from one side of his head, and his eyes were like balls of fire."

"In the cellar of the same prison were five lunatics. The windows of this cellar were no defence against the storm, and, as might be supposed, the woman of the house said, '*we have a sight to do to keep them from freezing.*' There was no fire in this cellar, which could be felt by four of the lunatics. One of the five had a little fire of turf in an apartment of the cellar by herself. She was, however, infuriate, if any one came near her. This woman was committed to this cellar seventeen years ago. The apartments are about 6 feet by 8. They are made of coarse plank and have an orifice in the door for the admission of light and air, about 6 inches by 4. The darkness was such in two of these apartments, that nothing could be seen by looking through the orifice in the door. At the same time there was a poor lunatic in each. A man who has grown old was committed to one of them in 1810, and had lived in it seventeen years."

"An emaciated female was found in a similar apartment, in the dark, without fire, almost without covering, where she had been nearly two years."

* The Practical Hints of Samuel Tuke, on the Construction and Economy of Pauper Lunatic Asylums deserve the attention and consideration of those who can contribute to the amelioration of the unfortunate insane.

who make up the great number of insane in many houses, because they remain for life. A building which shelters them against the inconveniences of season and weather is sufficient ; to treat them with humanity, to provide for their natural wants, and secure them against any injury, is all that we can do ; and if they are considered as a department of the poor-houses, they should not become an annoyance of the other poor. It is, however not my intention to detail their establishments : I remark only that in such departments some divisions must be made, because some are clean, others dirty ; some cheerful and innoxious, others mischievous ; some incapable of doing any thing, others only partial idiots, and fit for manual labor, so that they could plant and cultivate the vegetables which they and others eat. Thus, the incurable and curable ought to be separated, and confined to different institutions. The curable again require two sorts of establishments, one for the patients under treatment, and the other for convalescents. I shall first speak of an hospital for curable insane, and then of that for convalescents.

I. *Architectural Requisites of an Hospital for curable Insane.*

I shall treat of these requisites in the order as I think them most important.

1. *Healthy situation.*

I have already mentioned the faults which I have observed with respect to the situation of some public institutions. It is obvious that they ought to be avoided ; and the idea is so striking to the senses, that it is sufficient to call the attention to the subject. I should propose to erect such hospitals in the neighborhood of places where the medical schools exist, in order to give opportunity to medical pupils to become acquainted with this important branch of medicine.

2. *An ample space, and proper distributions.*

This is an indispensable condition of such an establishment. It seems to me there is no occasion for palaces, to waste the

funds, and to prevent the patients from being taken in. I am sorry to read, that a building, calculated for thirty patients, costs eight thousand pounds, and that on that account the governors are obliged to confess their want of money, and to announce to the public, that they cannot admit patients from the lower classes of society on moderate terms. A building which costs a hundred thousand pounds is of less use than another might be which would cost half the sum, if the other half was expended in the purchase of fields surrounding it. To what purpose does ostentation with respect to walls, columns, and other architectural beauties, lead! The means of curing the patients ought to be first attended to: hence a convenient and sufficiently large place is to be surrounded with a wall; proper divisions and subdivisions of the patients are to be made, and proper buildings to be erected; large airing-grounds, large fields, and places for various occupations, are to be looked for.

I have mentioned the reasons why buildings surrounding an interior space are to be avoided. I am also hostile to high buildings, because it is troublesome to bring the patients from the third or fourth floor down to the airing-grounds. Keepers will easily excuse their negligence, and the patients themselves will often dislike to go down; while being on a level with the airing-ground, they will enjoy the free air at every fine moment. Our buildings are commonly erected according to one general plan. At the airing-ground one patient perhaps might escape over a wall of middling height; hence we make enclosures which look like fortresses, and prevent the free communication of air. There are some furious patients; hence the most timid are also confined between thick walls and behind iron doors. Why do we not construct different sorts of cells, and make a proper division of the patients? There are some furious, who require stronger cells than tigers, but simple cells will be sufficient for the majority of patients.

As the separation of the patients is indispensably necessary, the buildings must be constructed accordingly. All other hospitals

have divisions: there are medical and surgical wards: those with itch and syphilis are separated from the others, in order to prevent infection, and mutual harm. It is, however, certain that clean, dirty, noisy, furious, and melancholy patients, together, prevent the cure of each other. It seems to me that the division of the insane is more necessary than all other patients. It is an obvious rule to remove the furious, noisy and dirty patients from the others. Their airing-grounds ought to be outward, and in a direction opposite to the other divisions. Airing-grounds, however, are to be provided for them, because it is extremely rare that an individual must be constantly confined to his cell. The greatest number of those who are troublesome, noisy, and dirty, are able to walk with some precaution, and proper means of coercion, and walking in free air will undoubtedly contribute to their recovery.

The department of harmless, quiet, and melancholic patients, requires a different arrangement; the common airing-grounds are not sufficient. Open fields, agreeable sceneries, adjoining gardens, large places to engage them in horticulture and agriculture, are preferable. The temples in Egypt, dedicated to Saturn, have shown what may be effected on melancholy by moral treatment. Without favoring superstition, we ought not to neglect the beneficial use of natural means. Almost all are fit for one or the other occupation. Distributions of that kind ought to be attended to. Large day-rooms, where many patients are crowded together, are often the cause of great disorders and mutual vexations. The proper classification and separation of the insane patients will obviate inconveniences of that kind. In small associations the patients become more attached to each other. The communication of the departments, and the easy transmission from one room to another, must not be overlooked. I have given such a plan of an hospital as I consider the best for curable insane. (Pl. III.) The details may be seen in the explanation of the figures.

3. Regulation of air and light.

The influence of air and light on inorganic and organic beings is too well known to require any elucidation. From ancient times air has been called *pabulum vitæ* ; but from modern discoveries we have learnt to understand its nature and varieties.—Every morning we experience that light awakens the activity of the mind. The architect, then, must take into consideration these conditions of health, and procure means for regulating them. In any large hospital, where many patients live together, the air becomes noxious, and ventilation necessary. In every cell there ought to be two openings, one communicating with the external free air, and one with the gallery. Both must be fitted to be opened or shut as it is required. The ventilation from without may take place at the upper end of the wall by means of windows and shutters. These then must be fitted so that each can be shut up, or let down, or placed in any position. The opening into the gallery must be arranged so that it can be shut or opened from without, and withdrawn from the reach of the patient. In short, the construction of the building and the cells must be such, that the admission of air and light can be regulated.

4. Regulation of temperature.

When shall we abandon the unpardonable error, which prevails in all institutions of mankind, viz. to take one individual as a prototype for all? There are insane people who can bear cold with great impunity ; others are insensible to cold, though their health suffers from it; and again others complain of heat, and cold is beneficial to them. Ignorance and idleness immediately say, Madmen do not want the enlivening power of heat. We see, however, the majority anxious to come as near the fire as possible; and medical men of such institutions know that many suffer in consequence of cold ; that even mortifications, or gangrenous sores of the lower extremities, and lameness for life, are

frequent complaints. I have often witnessed criminal neglect in such establishments with respect to temperature. More than once I have found the poor creatures, in the depth of winter, on the ground floor, without fire, contracted and shivering. I know and acknowledge the influence of habit, but it has its limits, and as the majority of the insane require warmth, the architect must think of means to regulate the temperature. I dislike the idea of making a fire only in the sitting-rooms at the extremity of the gallery. Where warmth is useful, the interior of the house, gallery and cells ought to be warmed by means of flues and heated air. A few cells might be left without being warm. In these, and in the cells of dirty patients, the floor might be paved with flag-stones.

5. *Cleanliness.*

Cleanliness is a great comfort, and is absolutely necessary to health, and to the cure of patients; but in an hospital for insane many circumstances are opposed to it. Hence the architect must pay a peculiar attention to furnish the means which depend on the building. It is obvious that the dirty patients must be kept in a separate division. Cells and beds must be arranged so that they may be easily cleaned; the bottoms of the beds ought to have holes to let the urine pass, which may be received by some contrivance under it, which could be taken away, emptied, cleaned, and replaced. The floor of the cells might be inclined towards the door. A sufficient quantity of water ought to be provided over the whole house. The privies for those who can make use of them must be constructed and situated so that they do not incommode by the smell, or infect the air of the gallery and cells. For patients who cannot leave their cells, an apparatus must be provided within.

6. *Means of occupying the patients.*

The necessity of occupying the patients is generally felt; and it is inconceivable why so little attention is paid to it in the erec-

tion of hospitals for insane. I shall detail the advantages of occupation, in treating of the internal management. Here I call the attention of architects to such a distribution of buildings, that proper places are assigned to that purpose. I have already mentioned that the common airing-grounds are not sufficiently extensive for harmless patients, but that large fields, gardens, places for manual labors, playing-grounds, long walks ought to be prepared.

7. Economical concerns.

Dietetic and medical care requires places for cold and warm baths, a shower-bath, a swing, a place for the dead and their examination, an apothecary and laboratory. The household affairs need the attention of the architect with respect to kitchen, wash-house, drying-room, store-house, pantry, straw-room, coal-room, lodging of the steward and matron, bed-rooms of the other attendants, all necessary accommodations, and also a committee-room.

These general ideas may be sufficient to call the attention of those who direct mad-houses, to the architectural requisites of an hospital for curable insane. There remains still to speak of the department for convalescents.

II. Department for Convalescents.

Convalescents ought to be separated from the patients under curative treatment. Their habitation requires less care as to division; the internal management may be more general. Besides the general requisites of any hospital, such as healthy situation, regulation of temperature, air and light, and cleanliness, the most important part is to provide for the occupation of the patients. They ought to form a large family, and not one ought to be idle. Those whose natural dispositions and situations in the world permit mental occupations, may attend to the most suitable objects. Others, who are only fit for manual labor, may be employed in those sorts of occupations to which they have been accustomed.

More details will be mentioned where I treat of the internal management. The house for convalescents may be in the neighborhood of the division for harmless patients, so that from their enclosure they might be immediately removed to the department for convalescents.

In this manner the expenses of the establishment must increase; but I am convinced with Dr Hallaran,* that the expenditure of suitable buildings, and the purchase of such implements of husbandry as may be required to carry on the work, is the only expense. As to the rest, a moderate and well-regulated labor of all harmless patients and convalescents, "fed and clothed as they still must be, will clear the current expenses and all incidental charges of a large farm." Moreover, the curative means, the comfort and improved situation of the patients, which necessarily will be the result of such a treatment, cannot be looked upon with indifference. Few are actually cured; and many, being incurable, like other poor, live at the expense of their parishes. A small sum furnished for the purchase of such fields will save a much larger which is annually consumed by the incurable. I have joined a plan of a house of convalescents. (Pl. IV.) The explanation of the figures gives the details.

From the preceding considerations it results that, in my opinion, an architect has only to execute the peculiar requisites, while the plan of an hospital for insane must be dictated by those who understand the wants of the patients.

*Internal management of an hospital for the curable insane,
or moral treatment in particular.*

Far the greatest number of medical men, and those who take care of insane persons place the greatest confidence in what is called moral treatment. This treatment being employed exclusively, it seems the more singular, as it constantly proves itself

* On Insanity, p. 109.

erroneous. Even the common behavior towards such unhappy beings cannot be termed rational. I beg to think only of the neglect of separating the different patients, or of their classification according to the payments made by their friends. The objects of the internal management are the reception and distribution of the patients, cleanliness, temperature, diet, coercion, and occupation. I shall mention what I think the best ; but I am well aware that the most essential point is to put good rules into effect. I have often found that " what is the best administered is the best." I have seen abundant means, and very little use made of them ; and sometimes much was done by small means. An inferior plan well executed is more beneficial than a better system under negligent management. I shall speak of several points worth the attention of managers and inspectors of such establishments.

1. Reception of patients.

As I speak of a hospital for curable insane, it is understood that idiots, fatuous, epileptics, and paralytics, are excluded from it. Then the first question is, under what circumstances curable patients can be received ? If payment be the principal condition, the interest of the establishment must be secured before the patient can be taken in. Moreover, as abuses may easily take place, and innocent persons be confined as insane, the government takes care of the individuals, and orders that the insane state of the patient be ascertained by the certificate of a medical man and witnesses. The question arises, whether the law shall prevent the reception of a patient till all formalities be fulfilled ; in my plan for curable patients I place the cure above every other consideration ; and in that view I wish it to be judged of.

No human arrangement will ever be without imperfections ; that which presents the least is the best. The following error, however, seems to be obvious. In a great asylum for insane at London, where those who can afford to pay must do it, or the parishes for them, but where also poor are admitted, the patient must

first send in a certificate signed by any medical man and two witnesses with the petition. Certificate and petition are then laid before the committee, who sit once a week, and order that as soon as there is a vacancy the patient should be brought in, viewed, and examined by them and the physician, and then to be admitted, if a proper object. For my profession's sake, I was ashamed to read the report that the patient could not be admitted 'if he be not strong enough to undergo a course of physic;' that is, could not bear to be bled, vomited, and purged, according to the season and weather. Such a regulation, and its interpretation, I hope will be abolished forever.

Anxious respecting the gradual improvement of our knowledge of the deranged manifestations of the mind, and respecting the fate of insane people, I take the liberty of submitting a few remarks to the consideration of those who can contribute to a better regulation of mad-houses. The bill, as it stands, will certainly ameliorate the condition of these helpless creatures. Its tendency, however, seems rather to prevent the most degrading abuses, than duly to regulate the treatment of insane persons.

The bill states that, in London, and within seven miles, without a certificate in writing under the hands of two fellows or licentiates of the College of Physicians, or members of the College of Surgeons, or members of the Company of Apothecaries in London; and, in other parts of Great Britain, without a certificate in writing under the hand of some physician, surgeon, or apothecary practising as such, no keeper or keepers of a mad-house can confine a person longer than forty-eight hours.

In this respect I repeat what I have mentioned in the section on the definition of insanity, that the complicated nature of the human mind, the various conditions of its manifestations, and our imperfect knowledge as to its operations, make the examination of its derangements extremely difficult, and the decision upon certain cases almost impossible; that few medical men make insanity an object of their study; that the attention of medical students is never called to this branch of their art, not to say that in any profession there may be individuals without a sufficient degree of skill, nay, without moral probity.

The regulation as proposed overlooks another difficulty ; viz., that insanity is acute or chronic, and often intermittent. Some fits of insanity, like other diseases, require prompt assistance. A patient, for instance, may have fits of the propensity to suicide, or to kill others, which make speedy confinement necessary ; but before the medical man has time to examine the patient, the fit may be over, and the person may appear sane and conceal his state with great cunning. Shall he then, under such circumstances, be left at liberty, while in a new fit he may produce great mischief ?

The bill orders, that the physician, surgeon, or apothecary, shall not give a certificate without having carefully visited and examined the person in relation to whom the certificate is given, and without having ascertained, by such examination, that such person is, to the best of his judgment, a lunatic, and proper to be confined in the house for the reception of lunatics. But it requires often long time and daily observations, before the insane state of a person can be ascertained. The physician very often cannot have the least confidence in the account which the patient gives of himself, or even in the aspect which he artfully assumes. How then, in the mean while, shall the patient be disposed of ?

To obviate these difficulties, it would seem proper, 1st, that the oath of two relatives or respectable witnesses should alone be necessary to obtain the reception of an insane person into a mad-house ; 2dly, that within twenty-four hours every person confined in any house for insane persons should be reported to the magistrate of his county, or to the authorized commissioners, by the medical man attending the house ; and, 3dly, that where the case in his opinion is doubtful, there should, within forty-eight hours, take place, before the magistrate or the commissioners, a personal examination of those upon whose call the patient was committed.

It must be admitted, that unfrequent visits are seldom sufficient to decide on insanity : hence it seems to me that every establishment for insane ought to be attended regularly by a medical man of acknowledged skill in sanity, and of moral probity. Being answerable for his opinion, he will try to ascertain the

state of the confined person, and being obliged to make daily visits, he may be able to do so. In case of doubt, information being given to the magistrate, juridical investigation may be made, and farther medical advice may be taken. In public hospitals, such a proceeding will prove of great value to the patient, and less improper conduct can be suspected, than if every medical man have a right to declare a person insane. Greater precaution is necessary, if a medical man keep a mad-house, and derive emolument from his patients. Even then, however, he will be controlled by being obliged, like other keepers, to intimate within twenty-four hours the admission of any individual into the establishment.

Various considerations, respecting this branch of legislation, may be made. I will mention some which immediately concern the healing art. To improve our knowledge of insanity, the law might assist the medical profession in procuring means of judging of insane persons. As the physician often cannot have the least confidence in the account which the patient gives of himself, the clergyman of the parish, or of the congregation, who is supposed to know his flock, has the best opportunity to furnish the evidence. He should be obliged to particularize certain points concerning the cause of the disease; whether, for instance, other individuals in the family were affected with nervous disorders or insanity; whether the patient was subject to any, and to what disease; what his manner of living was; what his occupations, &c. were. The physicians appointed to such establishments, ought to make the best of every opportunity. They ought to publish an annual report of the number, age, and sex of the patients, their diseases, outlines of the treatment, the event, and, in case of death, the appearances in the brain and abdomen. Exact casts in plaster ought to be taken from the heads of all those with partial hallucinations; of those, for instance, who are insane by pride, or vanity, or religion, fear, &c. The money laid out for such a purpose will be a great means of improving our knowledge, and to the patient of greater use than external decorations of the house.

There are still other reasons which prevent me from approving of the regulation, that houses which contain a hundred patients and upwards, shall alone be visited daily, or at least twice a week, by a medical man. Does not every insane person deserve assistance and protection? I can easily conceive that, in a house containing a small number, there may be individuals more important to their families or to society at large, than the hundreds contained in others. Assuredly every curable patient ought to be visited every day, especially if the disease be of an acute nature. Such patients may be sent in every day, their restoration to health may depend on speedy assistance; and the disease, when protracted, may produce incurable alterations in the organization.

2. Classification of patients.

This point ought to be permitted to the physician, as he finds it conducive to the cure. He will separate the noisy and dirty, will bring cheerful and gloomy together, exhilarate or temper one by the other; in short, will modify their situation according to their individual characters. Some are more noisy when alone, others in society. It follows, that the physician of the insane ought to know more than to bleed and purge; and that daily visits are required.

3. Cleanliness, air, and light.

The regulation of these points belongs to the treatment; and the physician, visiting the patients every day will take care of them. If sufficient means and accommodations are furnished, the trouble will be less, and the neglect the more unpardonable. The disagreeable smell will be only in the cells of the most dirty patients; the suffocating stench, which sometimes pervades the whole asylum so as to excite nausea and vomiting, will no longer exist under daily inspection. The patients will no more be confined for weeks in dark cells; they will breathe fresh air, and will be no longer suffocated in the effluvia of their own bodies.

Dyspnœa, cachexy, and scurvy, will become rarer in such institutions. To the impressions of light, which must be modified according to the irritability and bodily constitution of the patient, as is the case in other diseases, better attention will be paid ; the physician will remember that in fearful patients, with irritable senses, all symptoms are aggravated by darkness ; while it may be useful to restless and sleepless individuals. He will not overlook either the passage from long darkness to light ; or cleanliness with respect to beds, cells, and galleries ; or the influence of washing and cleaning the patients every morning, &c.

4. *Temperature.*

There are many examples upon record of insane who like cold, and resist the strongest frost. Pinel mentions the history of a maniac, who, during the winter, sat up whole nights in his chamber, with no other covering than his shirt ; and no sooner was the door opened in the morning, than he run in that condition to the interior court of the hospital, where he seized a handful of snow and applied it to, and left it to melt on, his naked bosom. This seemed to give him great delight and satisfaction. But such a propensity for applying, and the capacity of resisting the effects of cold, are by no means general. There are many who are severely affected by cold. In the winter it is common to see the patients crowded about the fire.

Indeed, various fatal accidents from cold at the extremities may be observed. Pinel states that, in cold weather, there is the greatest danger for those who lie motionless in the bed with weak and depressed pulse. He mentions that such patients, at the commencement of the winter, have been found dead in the bed. Dr Hallaran* observes, that "insane people, during a tedious confinement, if not kept carefully and warmly covered, and made to extend their limbs in the bed, will acquire the habit of con-

* Lib. cit. p. 99.

tracting their limbs together for the sake of warmth." He mentions that there is sometimes an extreme degree of muscular debility, which very often degenerates into rigidity of fibres, sometimes in a curvature of the spine and a total inability to extend the lower extremities. I have met several individuals of this kind at different places.

The condition of the skin is of importance in any disease, and not a matter of indifference in the treatment of insanity. The physician then will take care that the patients are comfortable as to temperature in their abodes. To that purpose the architect has provided means of artificial heat. Proper clothing and covering will be looked for.

5. *Diet.*

It seems to me that the diet of the insane is not sufficiently understood, nor the articles of food sufficiently attended to; yet their importance in all acute and chronic diseases is obvious. Nay, the latter disorders, it seems to me, are rather cured by diet than by prescriptions of medicine. Commonly all insane of a hospital are nourished out of the same kettle. Yet this is to allow that we do not believe in their corporeal disease nor in the constitutional varieties of the stomach. It is the more surprising that, in institutions where the medical men consider insanity as the result of corporeal causes, the same character of diet is indiscriminately applied to all forms and varieties of this afflicting disease.— On Mondays for breakfast, a large basin of water-gruel with two ounces of bread in it; for dinner they have a quart of milk porridge, seven ounces of bread, two ounces of cheese, and a quart of beer; for supper they have seven ounces of bread, and the same quantity of cheese. This is the diet on a meagre day, of which there are four in the week. The other three are meat days. Then they have for breakfast water-gruel and bread; for dinner eight ounces of meat after being dressed, seven ounces of bread, about a pound of potatoes, and a quart of table beer, &c. At

the same time it is said that for the sick the apothecary orders what he thinks fit.

The only excuse for such a mode of proceeding is, that incurable and curable patients are together in the establishments, and that the former make out the greater number. In an hospital for curable only such a degree of ignorance should be unpardonable. In such an institution as that which I propose, it cannot be tolerated any more than in an hospital for other patients. Sometimes I have found the improper practice of deluging the stomach with warm thin fluids in the form of tea or ptisan, which impair the stomach, and produce flatulency. In every point, insane persons are the worst treated. For other patients the diet is adapted to the disease; but the poor insane are not considered as sick, and even those who are treated as sick must submit to the general prescription. Because there are patients who require the lowering diet, and often support the extremes of hunger, the diet in general must, it is said, be lowering. We have, however, seen that, in many cases, melancholy is the same disease as hysteria and hypochondria. Now, such individuals are known to have commonly weak digestive organs; and if no medical man prescribe milk, cheese, light beer in hysteria and hypochondria, why is it done in melancholy? In certain cases, animal diet is too stimulating and nutritious; and it would rather increase than diminish insanity; but are now all patients to be reduced indiscriminately to vegetable diet? And as in apathy of the digestive organs animal food is more salutary than vegetables, shall therefore the general diet consist of meat? It evidently results, that the diet must be modified, and that bleeding and purging are not the only indications to be observed. I say this, because I have seen that a patient, who was bled the day before, got his cheese in the evening, which he vomited during the night indigested, and then he was purged. Such a treatment would, indeed, deserve retaliation.

There are very few to whom an indiscriminate diet will do no harm; and not only the quantity, but also the quality of the ali-

ments require our attention. Moreover, even the time when food is to be taken is of importance, and many modifications are to be admitted. The diet ought to be ordered every day by the physician as in other diseases, and adapted to the state of the patient and of his digestive organs, which vary according to temperament, age, previous manner of living, and particular idiosyncrasies.

The quantity must be sufficient, but there can be no general measurement. Some need a great quantity of food, and languish even to fainting from want or deficiency of nourishment. Low diet ought not to be confounded with a diet nearly approaching to starvation. Pinel describes the greater mortality in the asylum of Bicêtre, before and at the beginning of the French revolution, to the insufficiency of food, which, says he, when it does not altogether extinguish the vital principle, is not a little calculated to exasperate and prolong the disease. If in protracted paroxysm and general weakness, the lowering diet be continued, fatuity is often the consequence. Hence at the more advanced period of convalescence, and under the common appearance of debility, arising either from age, or the protraction of the disease, the necessity of allowing a gradual indulgence of animal food must be obvious; and where this has been found admissible in a progressive degree, it has afforded one of the best securities; for whenever convalescents acquire corpulency from good nourishment, there is great hope of recovery.

Every kind of food ought to be easy of digestion. Here again the peculiar constitution of the patients deserves a particular attention. Some persons digest fruit very well, in others it produces flatulency, a sign of indigestibleness. With some patients animal diet will agree better, with others vegetables; and the same thing may be agreeable or disagreeable to the same patient at different periods. Insane persons, liable to fits, sometimes, a few days before the paroxysm, refuse animal food. A great deal depends on the previous habits and manner of living. Drunkards often dislike vegetable diet; very sober individuals, however, may also prefer animal food. All kinds of aliments,

which occasion flatulencies, ought to be avoided or withdrawn from individuals with whom they disagree.

With respect to the time when the aliments are to be given, it seems to me that it is better to give food oftener and less at a time, than much and seldom ; particularly if the digestive organs be weak. In many cases of the aged and more infirm patients, in the state of convalescence, particular allowances are to be made.

Dr Hallaran, of Cork, mentions a singular abuse as to diet, and he is right in blaming it : that at certain seasons of the year, the insane participate in the general festivity of the city : he has observed, that such an unusual stimulus in food or drink never fails to aggravate the symptoms. Such a rule shows general benevolence in the managers, but this exalted feeling is here misapplied, and ought to be corrected.

Thus, the diet must be conformable to the general curative plan of insane persons. If the whole treatment is antiphlogistic or lowering, the diet must be similar ; if the curative plan be tonic, the diet must correspond ; and if at the same time tonics combined with aperients are indicated, the diet ought not to be in opposition.

6. *Coercion.*

Coercion forms a material part of, and is intimately connected with, the general treatment of insanity. In this point the abuses are enormous. Pinel calls the asylums for insane, medical prisons ; and says that he cannot speak without horror of the barbarous methods which are employed for the repression of maniacs. I think, in certain countries, these institutions are infinitely worse than prisons, and the treatment of the insane more inhuman than that of wild beasts. Such unhappy creatures have been, and sometimes still are, flogged and exposed to personal indignity. I have seen them chained to the stone floor to sleep on straw covered with vermin and filth.

It is evident that there is no occasion for confinement or personal coercion, if the feelings of insane persons are innoxious.

Personal coercion is only necessary, and only justifiable in preventing the patients from doing mischief to themselves and others. Coercion must be considered only as a protecting and salutary restraint. When it is become absolutely necessary, it must be applied without silly coaxing or vague insinuations, but with humanity and firmness, and as little noise as possible. Strong coercive measures are seldom necessary ; but there are patients perfectly unmanageable without bodily restraint, and different means of security must be allowed.

The essential point is to understand the different means of coercion which different patients require. It is a very convenient mode for the keeper to iron every one who is a little troublesome ; but there can be no doubt that in many cases of irritable patients such a coercion injures the health of body and mind. Pinel says "a method of treatment, simple enough in its application, but highly calculated to render the diseases incurable, has been adopted from time immemorial, that of abandoning the patient to his melancholy fate as an untamable being, to be immured in solitary duration, loaded with chains, or otherwise treated with extreme severity, until the natural close of a life so wretched shall rescue him from his misery, and convey him from the cells of the mad-house to the chamber of the grave. But this treatment, convenient indeed to a governor more remarkable for his indolence and ignorance than for his prudence and humanity, deserves at the present day to be held up to public execration, and classed with the other prejudices which have degraded the character and pretensions of the human species."

There was a time when it was a general opinion, and there are still persons and practitioners so ignorant as to fancy, that the insane ought to fear, and that stripes and blows are the best means of effectuating a permanent impression. Corporeal punishment was, and sometimes still is, recommended even by medical authority, with a view of rendering insane people rational by impressing terror. This is, however, not only cruel and against Christian charity, in cases where the patients are partially de-

prived of understanding, but it is even absurd. Indeed, experience has shown the greater efficacy of milder methods of treatment. The most tender method generally produces the best effect ; and in coercion, the mildest possible means ought to be adopted. No corporeal punishment, as stripes and blows, no resentment, no return of injury is to be allowed ; and unnecessary severity ought to be punished as criminal. No deception must be permitted ; but a confidential behavior and firm authority are to be observed.

Sometimes it will be sufficient to confine a patient to a solitary cell, and to show him that he has some superior who can control him. In many cases it will create a tacit acquiescence ; but unfortunately there are insane to be met with where the possibility of gaining such an ascendancy is out of the question, and more restraint is necessary. Dr Hallaran has invented a kind of belt of leather round the body, with straps to confine the arms. It is a milder means in hot weather ; the fore arms are free. In cold weather the strait waistcoat is an admirable contrivance ; in the hot season manacles may be preferred. Chaining to the walls, or bolting fast into a chair, from which they cannot move, seems to me in most cases improper. Confinement by means of a chair may be useful, if there be a strong impetus of blood to the brain. This position also favors the application of cold water and ice to the head, warm water to the feet, and enables the surgeon to bleed without any trouble. Dr Hallaran praises the swing as a means of coercion. Sometimes, in the most violent fits of young and powerful maniacs, chains may be necessary : but it ought to be a fixed rule to employ coercion no more, and no longer, than personal safety requires. Every cause of irritation ought to be avoided.

There is never, perhaps, occasion to keep a man under close confinement for months ; but an individual, being furious for a few days is fettered for years. I have seen several cases of that kind. Unnecessary confinement, however, interferes with the cure ; and a continued coercion is calculated to make a man lose his reason rather than to restore a madman to his senses. Pinel

says, " When the furious and extravagant madmen are continually chained down in their cells, as they were when I entered on the duties at Bicêtre, they were incessantly and ravingly agitated ; cries, howlings, and tumults echoed at all hours throughout the melancholy mansion. But since the strait waistcoat has been substituted for chains, and limited liberty for absolute confinement, there is more calmness and tranquillity." If in a moment of indulgence, mischief be committed, no other means should be used than those which are necessary to prevent the patient from repeating it.

In cases where patients are bent on starving themselves, or where they resist the introduction of remedies, Mr Haslam has invented a simple instrument, of which a drawing is given in his work on Insanity. The patient is kept secured, the nostrils shut, the instrument introduced into the mouth, and the medicine or liquid aliments poured into it in small quantities.

Thus, to allow every patient the latitude of personal liberty consistent with safety, to proportion the degree of coercion to the character of the patient, to be kind with unyielding authority, and to proscribe absolutely all violence, ill-treatment, or partiality on the part of the keepers, are rules of fundamental importance, and essential to the successful treatment of the patients.

7. Treatment of the feelings.

Insanity particularly concerns the deranged feelings ; and, as their functions appear often disordered in the state of health, it has been said that the whole world is a mad-house. It is real madness as soon as the will has lost its influence on the actions of the feelings. We find, however, in insane people the activity of all the primitive powers of the mind, and their manifestations modified in every individual, as is the case in the state of health. Some insane are bashful ; others do not know what is due to decency ; some are morose and quarrelsome ; others, gay and cheerful ; some, being with other patients, continually create in-

surrections, and persuade the patients to commit acts of mischief; others are peaceable and obedient; we meet among them with good or ill-natured, noisy and quiet, cunning, stubborn, though tender in their appearance; distrustful, jealous, envious, vindictive, irascible, or forbearing; open, candid, and mild; proud or modest; and, in short, every variety of character. Many have the propensity to escape; they feel uneasy, and expect to be better somewhere else, &c.

These different characters of the insane ought to be understood by those who take care of them. They are explained in the same manner as in the state of health. It is impossible to lay down general rules, which are sufficiently comprehensive to meet each circumstance which may enter and materially affect the particular case. One must be soothed, the other threatened. Pinel says, "The doctrine of balancing the passions of man, by others of equal or superior force, is not less applicable to the treatment of insane than to the science of politics. Unfortunate then, is the fate of those maniacs who are placed in hospitals for insane where the basis of practice is routine, and where perhaps the patients are abandoned to the savage cruelty of underlings."

Insane people require a modified treatment, as well as children and adults, in the state of health. It ought never to be forgotten that, with respect to other persons, man always acts by feelings and not by reasoning. Mr Haslam* says, "We have a number of patients in Bethlem Hospital whose ideas are in the most disordered state, who yet act with great steadiness and propriety, and are capable of being trusted to a considerable extent." Moreover, it is to be remembered that sane and insane, acting by feelings, are guided by different motives; that is, what is motive for one is none for another; and though the intellectual faculties are deranged, he who understands the feelings will regulate the actions. One insane person will behave well by veneration; another, by fear; a third will be guided by the love of approbation, often by attention paid to his self-esteem; many, by gentle manners and

* Lib. cit. p. 299.

kindness; melancholic, anxious, and fearful patients, by the greatest mildness. The conversation must be fitted to the various states of mind wherein we find the patients; for they are not always disposed in the same manner. Derision does great harm, particularly in those who have much self-esteem. Such a feeling being disdained, will be excited and excite others: on the other hand, their haughtiness must not be coaxed; they must be respected, but made obedient to kind and firm authority. For that reason persons insane by pride are seldom cured in the bosom of their family, where they are accustomed to command.

All who have had experience in this department agree that deception is extremely hurtful to madmen: if they detect it, they naturally lose the confidence and respect which they ought to entertain for the persons who treat and govern them. Dr Hallaran says well, "Maniacs, when in a state to be influenced by moral agents, are not to be subdued by measures of mere force; and he who will attempt to impose upon their credulity by aiming at a too great refinement in address or intellect, will often find himself detected, and treated by them with marked contempt."

A sore or inflamed part of the body is not to be rubbed, an inflamed muscle is not to be moved, and an inflamed eye is not to be exposed to strong light: in the same way any feeling, being too active or deranged, ought not to be put into action. Irritating an angry dog or man is irritating the respective feeling. Every object which may excite the deranged feelings must be removed. This is the case with religious insanity, with pride, melancholy, or any other feeling. How injudicious is it therefore to give the Bible to persons insane from religion, or to let them hear sermons, which nourish their disorders; or to keep with melancholics a conversation on the subject of their despondency.* Persons

* This is a most fatal error, and yet it pervades all society. If a person becomes melancholy in the study of religion, the *physician* is not even thought of, much less called; the clergyman is sent for, religious matters being considered as entirely within his province. His prescriptions are prayers and exhortations; of all things, in such cases, the most to be avoided. It is like the application of friction to a wound, to allay an inflammation.

who are susceptible of the liveliest emotions of joy or grief, or very irritable in general, require a particular care.

Thus, the mutual influence of the faculties may be employed as a means of curing the disordered feelings. Every irritable power is to be spared and kept quiet, while the other feelings are to be excited. In this manner hysteria and hypochondria are often cured by love or attachment. Hence I may say again, he who takes care of the insane ought to understand the primitive powers of the mind, and the individual dispositions of the patients; and it is not sufficient for a physician to make his first approach with the assumed aspect of unbridled authority. Indeed, the suitable regulation of the feelings of insane people requires something more important than muscular strength, a martial look, a haughty countenance, and the assistance of keepers, manacles, and fetters.

8. *Treatment of the intellectual faculties.*

In the section on the causes of insanity, I have shown that the disorders of the manifestations of the mind are not so often the result of the intellectual faculties as of the feelings; and that the activity of the intellectual faculties, combined with the feelings, is a more fertile source of insanity than understanding alone. To elucidate this, I have mentioned the greater number of insane among painters, poets, actors, musicians, advocates, than among mathematicians and natural philosophers. There are, however, cases where too great or disordered activity of the intellectual powers produces insanity.

The question, what is the influence of understanding on insanity, has two meanings, either whether we can become insane by understanding, or whether we can cure insanity by reasoning. The first question has been sufficiently detailed, where I have treated of the idiopathic dynamic causes of insanity. Here I shall examine, whether reasoning may cure the deranged functions of the mind.

Those who derive all activity of the mind, its perceptions and feelings, from without, ought in insanity to expect the best effect from external impressions on the senses. Our understanding ought to have the greatest influence on insane persons. This ought particularly to be the case, if insanity were not the result of a corporeal cause. All practitioners, however, who have conversed with insane persons, and tried to exhibit logic as a remedy for insanity, agree that such a treatment is attended with little success. "An endeavor," says Mr Haslam, "to convince madmen of their errors by reasoning, is folly in those who attempt it, since there is always in madness the firmest conviction of the truth of what is false, and which the clearest and most circumstantial evidence cannot remove." At the retreat, near York, no advantage has been found to arise from reasoning with them on their peculiar hallucinations. The attempt to refute their notions generally irritates them, and rivets the false perception more strongly on the mind. Dr Hallaran states that "it has been very generally allowed, that the attempt to argue an insane person out of the opinion to which he may at the moment seem to be most attached, is even worse than labor in vain. In those cases where the difficulty is greatest, the effort on the part of the attendant is sure to be productive of additional mischief; and it most commonly happens that, at such a time, the prevailing hallucination is so intimately connected with the root of the complaint, that, in order to modify the one, the other must be fairly eradicated: all argument, therefore, should be carefully avoided. On the whole, the less notice there can be taken even of the most obstinate fancies of the insane, the less disposed will they be to retain them. So fully satisfied am I of this, that I never think of diverting them from their opinions, until they begin of themselves to show surprise at their credulity. On the contrary, I make it a rule rather to coincide with their greatest extravagancies, unless where the delirium of fever would enjoin the strictest silence, or the disposition to commit an injury, a positive interdiction."

There are, however, examples where reasoning has, if not cured the patient, at least changed one train of disordered manifesta-

tions. Pinel relates the example of a very intelligent watch-maker who became deranged, and believed that he had been guillotined, his head mixed with those of other victims, and that another head had been re-placed on his body ; hence that his former head was exchanged for his actual one. He was corrected by the representation of the miracle of St Denis, who carried his head under his arm, and kissed it as he went along. When the watch-maker maintained the possibility of the fact, and endeavored to confirm it by the appeal to his own case, a companion burst out into a loud laugh, and said to him, "What a fool you are ; how could St Denis kiss his own head ? was it with his heel ?" This repartee struck the insane ; he returned, and never after spoke of the misplacement of his head. Dr Cox mentions, that one patient asserted that he was the Holy Ghost. Another asked him, "Are there two Holy Ghosts ? how can you be the Holy Ghost, and I be so too ?" He appeared surprised, and after a short pause said, "But are you the Holy Ghost ?" and when the other replied, "Did you not know that I was ?" he answered, "I did not know it before ; then I cannot be the Holy Ghost." Several other facts of that kind are related ; but few will give up their opinion so easily as the patient of Dr Cox.

I expect the least effect from reasoning, wherever strong feelings are deranged. Reasoning will rather excite than diminish them. Neither in the healthy, nor in the diseased state, has reasoning an influence on the existence of the feelings : these exist independently, and reasoning cannot destroy them, any more than it can annihilate hunger and thirst. Even in the healthy state reasoning has an influence only on the instruments by which the feelings act, that is, voluntary motion. Reasoning can only prevent eating, while the inclination to eat continues. Moreover, reasoning cannot take away any deranged sensation, such as, hearing the angels sing, or the devil roar, feeling burning heat on the skin, &c. This observation is the more founded on nature, that insane persons with deranged sensations and feelings reason often with consistency, if we grant their sensations and feelings. If a cure by reasoning be performed, it will be the most

in conceptions or ideas of the mind. It seems to me, however, very obvious, that the cases must be extremely rare. Sane persons have often various transitory ideas, and insane people often declare that certain ideas are forced into their mind, and that they cannot prevent their intrusions. Now, as such ideas involuntarily present themselves to the mind of healthy persons—in insane people, who believe in the illusions, reasoning must have less effect. Moreover, few persons are capable of, and still a smaller number are accustomed to close reasoning in the state of health; from infancy, they have acquired certain habits of thinking, and never account for their opinions: now what influence can we expect from their reasoning in insanity? In general, however, we have more power of control over the intellectual faculties than over the feelings, because their activity depends on external impressions. Hence, if an intellectual power be too active, the respective impressions from without must be avoided.

In the treatment of the insane, the regulation of the five senses and voluntary motion is of importance, since by means of the senses we act on the manifestations of the mind. Even the smell ought to be attended to. In fainting, and various nervous complaints, we act on the brain by means of the smell. Insane people are commonly fond of taking snuff. In debility or inactivity of the intellectual faculties excitement of the smell may be useful; and anatomy and physiology prove that the olfactory nerve is in the most intimate connexion with the organs of the intellectual faculties. In short, I think with Dr Cox,* that “no means are to be despised which are capable of changing the train of thoughts, interesting the affections, removing or diminishing painful sensations.” Hence we ought to have recourse also to seeing and hearing. Various colors, harmoniously or inharmoniously arranged, are to many individuals a source of pleasure or pain. It is, indeed, astonishing that no more contrivances have been invented to amuse the eyes, as is done with the ears; in the phrenological language I should say, to amuse the power of coloring as well as that of melody.

* Lib. cit. p. 97.

In this respect I observe the same error committed by writers on insanity, which we find throughout all mankind ; that is, every one judges of others according to himself. There are physicians who have very little taste for music, and they will maintain that music has no influence on the feelings of the insane ; they will even ridicule such a proposition. Those, on the contrary, who possess that talent, and feel the influence of music on themselves, will praise and recommend it for insanity. Dr Cox says, "I would ask the musical amateur, or the experienced professor, if he has not frequently felt sensations the most exquisite and indescribable ; if he has not experienced the whole frame thrilling with inexpressible delight, when the tide of full harmony has flown on his ear ; and the most wretched miserable feeling, universal horripilatio, and cutis anserina, from the grating crash of discord ? All the varied sensations, from transport to disgust, have been occasioned by the different movements in one piece of music."

There can be no doubt that music has a great effect on many individuals, and on more in one nation than in another. According to the different dispositions of the individuals, and to the nature of the music, different feelings will be more or less excited. Warlike persons will feel a great impression from warlike music ; melancholic feelings will be nourished by gloomy songs. Hence, if music should be employed to distract the mind of insane persons, it must be regulated according to the feelings of the patients, and it ought never to be analogous to the deranged manifestations of the mind. This would be as noxious as a conversation on the respective feeling. The director then ought to have knowledge enough to select the compositions. It is even necessary to choose the pieces which are performed, allegro, andanté or presto, forté or piano, according to the feelings of the patients. There are those who could not bear a high tone, or the tone of such or such an instrument.

The rule to adapt the external impressions to the individual feelings of the patients is quite general, and must be observed, if music and painting are employed as occupations. A person, for

instance, insane by religious feelings, and who might amuse himself with painting, ought not to be permitted to represent scenes which could keep up, or increase, the derangement of the mind, no more than he should be allowed to read books on religious subjects. It is an essential point, that all faculties which are deranged should be kept inactive, and others exercised.

9. *Occupations of the insane.*

All practitioners who have taken care of insane people agree with respect to the usefulness of employment. It is, indeed, a fact, that in those asylums for the insane, where labor makes a part of the regimen, a greater number of patients recover. Is it then not surprising that this important point is so little attended to in the erection and management of mad-houses? Sufficient occupation of the mind is beneficial in two respects, in point of cure, and economical advantage. In the healthy state of the mind, idleness is the mother of many disorders, and in many insane, from want of suitable occupation, the disease is nourished: the patients indulge in their fancies, and injure their health by want of bodily exercise. In the asylums for the insane, however, we meet many persons of both sexes, vigorous, strong, and, in many instances, fully capable for manual labor. They loiter away their time in apathy, and live often at the expense of the institution, while many economical concerns, and the necessary affairs of the house might be done by such patients. Many, from previous habits, could be employed in the handicraft line, as white-washers, carpenters, and tillers; others ought to be employed in the ordinary concerns of horticulture and husbandry, in digging, planting, weeding, wheeling; some might be employed in sowing, stone-cutting, twining ropes; female patients in washing, mending, getting up the linen, &c. It has been observed that, in all institutions for insane, the male patients who assist in cutting wood, making fire, and digging in the garden, and the females who are employed in washing, ironing, and scrubbing floors, often recover;

while persons, whose rank exempts them from performing such services, languish away their life within the walls.

It is understood that the labor ought to be relieved by sufficient rest, by recreation and amusement. The fatigue of the day would prepare the laborers for sleep and repose during night. Many individuals are very solicitous for some kind of occupation, and during their employment in moderate labor they never fail to enjoy a more happy state. It is evident that the temperature of the atmosphere is attended to at the same time. The rich ought to exercise the fine arts, ought to be amused with various games, such as bowling, cricket, billiards, and in general with such occupations as keep body and mind in activity. We meet, in many institutions, drawings of various kinds made by patients. Dr Hallaran, therefore, wishes "to pay the earliest attention to the capacity of every individual, in order to ascertain, at the period of convalescence, the practicability of employing the mind by any species of bodily exertion."

Occupation is particularly necessary for convalescents. To that end, I propose for them a separate building, with workshops for handicraftsmen, with grounds for tilling, and every other sort of occupation and amusement. The rich may cultivate music and painting, may read aloud entertaining books of history and travels, may walk and play.—In what a dreadful situation must a man find himself, when, returning to reason, he sees himself surrounded by persons under all the different gradations of mental misery.

I could quote many facts in support of the truth that the insane more easily recover if body and mind are occupied. I shall copy only one fact from the work of Dr Hallaran. "A young man, who had been an entire stranger at Cork, and who was remitted, from a distant part of the country, to the asylum in the usual form, came under my care in the state of acute mania, and continued so full three months without any intermission. The symptoms having at length given way, he was treated as a convalescent patient, and every means tried to encourage him to

some light work, merely as a pastime, but all to no purpose. Though the maniacal appearance had totally subsided, he still betrayed an imbecility of mind that bordered closely on dementia, and it was found impossible to excite in him the smallest interest either for himself, or, in any measure, for that which had been proposed for his amendment. This man had nearly been ranked amongst the incurable idiots of the house ; when, by accident, he was discovered in the act of amusing himself with some rude coloring on the walls of his apartment. From the specimen he had then given, he was questioned as to his knowledge of drawing ; and he, having signified some acquaintance with that art, was immediately promised colors of a better description, if he would undertake to use them. This evidently gave immediate cheerfulness to his countenance, and he shortly evinced an impatience for the indulgence offered to him. On his being furnished with the necessary apparatus for painting, he immediately commenced a systematic combination of colors, and having completed his arrangement, he requested one of the attendants to sit to him. This essay was sufficient to satisfy me, that his recovery was not so remote as I had reason to suppose. The portrait was an exact representation of the person who sat before him ; and in a few days there were several other proofs of his skill in this line, which bore ample testimony of his ability. He soon became elated with the approbation he had met with, and continued to employ himself in this manner for nearly two months ; after which, progressive improvement as to his mental faculties, took place, when he was dismissed, cured, under the protection of some gentlemen amateurs, who took a kind interest in his preferment. He pursued his profession of miniature painting in this city for some time after, and has since, as I understand, removed to London, where he practises it with singular success." As the public establishments are not properly adapted to occupy the insane, it confers the more honor on the superintendents and managers, who pay particular attention to this point, and make the best use of the situation to which they are reduced by the plan of the architect.

10. *Inspection and visitation.*

The question is, whether things are better done by committees, or by single individuals. An individual who takes interest in a thing, who works with pleasure, and lives for an object, will do much more without restraint of the opinions of those who are fond of showing their personal authority. On the other hand, I am also convinced that, if several together have nothing in view but the success of an object, their united labors will produce more effect than that of one individual alone; but if the directors be hired, and do their business merely because they are paid, measures must be taken to prevent abuses. I think that every mere hireling, in any branch whatever of society, ought to be under inspection.

Now, it may be asked, who ought to be the manager of an hospital for the insane? It is reported that medical men are the most unfit for inspecting and controlling mad-houses, because medicine has little or no effect on insanity, and because the medical attendants of such public institutions often have private houses, and are therefore all interested in the object. The objection is quite clear: the meaning seems to be, that in the management of hospitals for the insane, the opinion of medical men ought to be of the least influence. I agree that interest is a great enemy to duty, but I cannot conceive that such an objection can be especially applied to medical attendants of public institutions for the insane, because some keep private establishments. In that case, a medical man who takes care of any public hospital ought to have no private practice. It seems to me, that the only thing to be attended to is, that the private practice, or the private institution, does prevent the physicians from seeing the patients at the public establishments. For that reason it should be necessary that every medical attendant writes down, in a book kept on purpose, the time when he comes into the institution, and when he goes out, signed with his name, and that every day.

As to the skill of directing mad-houses, if the mind acted inde-

pendently of the body, a speculative philosopher, who studies man in his closet, would be the best inspector of a mad-house ; but as the operations of the mind are influenced by the body, and the medical profession particularly studies the body in its state of health and disease, this profession will be the best informed with respect to dietetic influence, and must have an important voice in the management of the insane. Moreover, as insanity is a corporeal disease, I can never admit that medicine, strictly speaking, has no influence on it. Syphilis was once incurable ; has medicine in our days no power over it ? When the influence of the nervous system, and of the cerebral parts, on the manifestations of the mind shall be known and better understood, such a discussion as this will be at an end.

Thus, in establishing the rules according to which an hospital for the insane is to be managed, the medical profession is the most fit. But still inspection is necessary, that the rules may be enforced : now, who ought to be the inspector ? I think, any active, charitable, and conscientious man, who knows the nature of insanity, and the wants of the patients. Could medical men be found, who have nothing else to do but to visit mad-houses, their profession would entitle them to that place.

Such inspectors ought to be appointed by the government ; they ought to have free access at all hours to any mad-house ; and in every mad-house which they inspect, they ought to write in a particular book, when they come in and go out, with their remarks of satisfaction or discontent ; these books ought to be presented every year to a committee appointed by the government. They ought not to receive fees for their visits, but to be paid in general by the government. The common inspection, made once, twice, even four times a year, is good for nothing ; the institutions must be visited as many times as possible, and at moments when they are not prepared. The inspector must have time to visit all cells, and not haste to return to his private practice. This, however, is impossible, considering the manner in which inspection is usually made. I have seen enough with my own eyes to disapprove of

the actual manner of visiting the mad-houses in Great Britain: but I appeal to higher authority, to gentlemen who have understanding to judge, and probity to place duty above interest; I mean, the president and the secretary of the visitors. The former, Dr Latham, in his evidence to the select committee for a better regulation of mad-houses stated: * “The first time I was a commissioner, we examined a house at Plaistow: there were two women confined, which I thought were not insane. The keeper said, they were, and that we were mistaken: we desired them to write to their friends to give them a trial. We were all of opinion these women were improperly confined, and desired their friends would take them out. Upon our next visitation, *the following year*, I had, of course, considerable curiosity to know what had become of these two people. One had drowned herself, and the other had hanged herself; so that if we suppose the patient is really sane, we feel a great deal of difficulty, and we must very often trust to what the keepers say. We are obliged now and then to take their opinion upon the subject, as to whether they have for the last month been orderly, and whether their friends talk of removing them.” In support of my opinion, I shall add the candid evidence of Dr Powell to the same committee.† “It is obvious,” says this intelligent observer, “that the commissioners cannot, on their visitations, have time enough to examine into individual cases of lunacy; for doubtful ones may require many hours, and repeated visits; and if the commissioners were to act from the impulse of the moment, or barely to judge from temporary propriety of conversation, they might let half the lunatics they see, loose, though they were unfit to be so.” It is not to be overlooked that, when Dr Powell gave his evidence, there were thirty-four licensed mad-houses which contained about two thousand patients, to be visited by the commissioners of the College of Physicians at London. I repeat, however, that I do not maintain that the medical profession is unfit for that office; but, that on the contrary, in my opinion, it is the most entitled to it; and that I am

* First Report, p. 113.

† First Report, p. 75.

hostile only to the mode in which mad-houses are inspected. It will be more easy to inspect the public than the private mad-houses ; the latter present unavoidable difficulties. I fear the government is in the situation of a physician who treats an incurable disease. Something must be done, though the remedy is uncertain and insufficient. Indeed the abuses are enormous ; better arrangements must be made, but a radical cure seems at present impossible.

Inspection alone is not sufficient ; we must come nearer the root of the evil. To this end, I shall consider two points : viz., to whom are licenses to be granted, and on what conditions ? Shall sufficient money entitle every one to keep a mad-house ? It seems to me the government ought to consider above all the qualities which contribute to the comfort and cure of the patients ; and that these alone ought to entitle an individual to the permission to keep them.

The best thing would be, if the government at different districts erected suitable institutions for poor and rich : these then could be at once managed and inspected according to a reasonable plan. The incurable, who are to be excluded from such establishments, might be taken care of, as I have mentioned above, in a department of the poor-houses in every county. The purchase of the land, and the erection of the buildings for curable, would be the principal expenses of the government. The rich boarders would contribute to defray the expenses of the poor. If this were not the case, how should it be possible that so many families pay the licenses, and make money by keeping the patients ? Moreover, buildings constructed only for the purpose of proper treatment, and not for ostentation, and the whole managed as I have detailed, would greatly diminish the expenses.

As, however, private families cannot be obliged to send their diseased relations or friends to public hospitals, private establishments must be permitted ; but general regulations as to the situation and construction of the houses, the internal management and medical attendance, might be prescribed, and I think the same as in public institutions.

The license being granted, the inspection ought to begin with the daily visit of a well-informed physician. If the same medical man take care of several establishments, the daily visit ought to be the *conditio sine qua non*. He might be paid by the keeper of the house according to the number of licensed patients, and his salary might be regulated in a general way. The friends of the patient, however, are to be permitted to send any other medical man, in whom they place particular confidence, to deliberate with the regular physician of the institution on the treatment. The medical man sent by the friends or relations of the patients, should be paid by them. In the same way, they should be obliged to pay for those medicines which the consulting physician prescribes by his particular advice, while those, which are given by common consent, like the rest of the remedies, ought to be furnished by the establishment.

Thus the regular physician, who makes daily visits, has not only opportunity of directing better the distribution of the patients, of watching every change, of modifying diet and the whole treatment, according to sound principles of the healing art, but, being obliged to inform the magistrate whenever a patient is received or dismissed, or dies, he also controls illegal confinements. Such a medical attendance, in many respects, under the control of general inspectors who are obliged to visit public and private establishments, their responsibility to a committee, and all being answerable to the government, will be more effectual than the present and newly-proposed mode of visiting mad-houses.

There is still an important consideration to be made concerning strangers and friends who request permission to see the establishments or patients. The communications between the insane and persons from without are to be prudently restricted. The visits of their friends are productive of great inconveniences. The patients are always more unquiet and ungovernable for some time afterwards. Many relapses have taken place, when, in convalescence, the meeting with friends was not conducted with sufficient precaution. The most intimate friend is often the last to be

suffered to approach. No general rule can be given. All the natural dispositions of the patients, the causes of their diseases, are to be considered ; and, accordingly, the communication with strangers and friends admissible. I think also that this branch ought to be regulated by the physician of the house. No one, without his special permission, ought to have the liberty of seeing any patient, or the cells where the patients are. It is obvious that patients never ought to be exhibited to gratify the curiosity of strangers. Yet professional men, or those who take particular interest in the treatment of insanity, never ought to be prevented from visiting at seasonable hours every part of the establishment, but the patients only in the presence of the physician. It is understood, that the discretion of strangers must rely on the judgment of the physician, if certain individuals cannot be shown to them.

Thus I am decidedly of opinion, that the institutions for insane must be better provided with medical attendance ; but then the important situation of physicians appointed to such establishments also requires that this branch of medicine be better cultivated, and taken up as a study. It evidently follows that theoretical and practical instruction on the deranged manifestation of the mind are desirable, and ought to be particularly attended to by those who wish to be trusted with the care of insane patients.

Are private or public mad-houses preferable ? I take for granted that, in this question, the actual state of both sorts of mad-houses cannot be taken into consideration, because, according to the evidences given to the select committee for the better regulation of mad-houses, all are bad, and not calculated for curing, but for mere confinement. I consider this question in the supposition that both sorts of institutions are well regulated. In the actual state, the keepers of private houses object with right against the general routine of public practice, while insane people require modifications in their treatment.

I think the question cannot be answered in a general way. In several cases, the patients would much rather stay in their fami-

lies, than go into any mad-house ; but in other cases they could never be cured at home. If, for instance, a patient be rich, quiet and manageable without coercion, the attendance of an affectionate wife or husband, brother, sister, or friend, may, with proper instruction, be able to do much more than can be expected where a great number are to be attended to. But patients in a furious state are seldom cured at home. The idea of being under restraint in their own house will be a constant source of irritation to their mind. Even in institutions the visits of friends make such patients more ungovernable. They are more easily restrained by strangers. It is often the case that patients violent in their families become quiet as soon as they are confined in an asylum. Those insane by pride are never cured in their families, where every one formerly was obliged and accustomed to obey. Hence there must be institutions for the rich as well as the poor.

As long as public establishments are not adapted to the comforts of the rich insane, private mad-houses are preferable for them, because every thing can be better attended to. The government has only to prevent illegal confinements and ought to take care that those who attend such patients understand insanity. The rich families themselves will consider the domestic comforts of their unhappy friends. But the poorer classes need the assistance of society at large, and of the government in particular. There ought to be public establishments for them. The parishes actually pay ; but those who keep them wish to gain, and not to lose. It is, however, impossible to give a single cell and a bed, to warm the room, pay necessary attendance, medical assistance, medicine, food, bath, and every thing that may be necessary, for ten shillings a week. For the sake of emolument, the keepers of such houses crowd the patients together, provide double bedsteads, and chain them, if they be the least troublesome. The only way to improve the fate of these unfortunate beings is to erect public hospitals, conformable to the wants of the patients. This kind of the distressed has the best right, and the most urgent claim to the assistance of the government because they have

lost all, even their personal liberty, by disease, and not by criminal conduct, like felons, whom every country is obliged to treat with great humanity.

RECAPITULATION.

From the preceding considerations it results, that the moral treatment of insanity must undergo great improvements ; that the buildings must be adapted to the particular condition of the patients, and the internal management founded on sounder principles. To the elucidation of those points, I have spoken of the architectural requisites of an hospital for the insane, and of the internal management, such as reception and classification of the patients, regulation of temperature, cleanliness, diet, coercion, treatment of the feelings, treatment of the intellectual faculties, occupations of the patients, inspection, and the difference between private and public establishments.—The regulations for the master, matron, porter, male and female keepers, and economical concerns, are certainly of importance, and must be properly arranged and conducted ; but such details are not within the reach of my present considerations. I wish to call particular attention to the most essential points which concerns the medical profession, and the immediate treatment of the patients.

II. MEDICAL TREATMENT OF INSANITY.

In the greatest number of houses for the insane, medical treatment is scarcely thought of, because insanity is not considered as a corporeal disease. "The successful application," says Pinel, "of moral treatment exclusively gives great weight to the supposition that, in a majority of instances, there is no organic lesion of the brain or the cranium. . . . Attaching little importance to pharmaceutical preparations, and all sufficiency in curable cases to physical and moral regimen, I intend not to devote many of my pages to the exclusive consideration of drugs and mendicaments." Many think, with Pinel, that medical treatment is of no use in insanity. There are only two ways of excusing such an assertion ;

either they must confess our ignorance as to the application of medical treatment, or contend that insanity is not a corporeal complaint. Now, self-esteem does not like to confess ignorance; hence the second proposition is the natural consequence. In many complaints of the body we can say, with Pinel, that medicine is of no use, and rather does harm, and nature alone will cure sooner if it be not disturbed by our prescriptions; indeed, we would rather confine ourselves to mere *medicine expectante*; but does it therefore result that medical treatment could not assist nature?

Dr Rush says,* "It is perhaps only because the diseases of the moral faculty have not been traced to a connexion with physical causes, that medical writers have neglected to give them a place in their systems of nosology, and that so few attempts have been hitherto made to lessen or remove them by physical as well as rational and moral remedies." Moreover, those who have treated insanity as a corporeal disease have made too little discrimination. All the means are applied chiefly to the alleviation and suppression of symptoms, and not according to the disease; that is, all treatment is symptomatical, as if there were a remedy against every symptom. The nerves, for instance, suffer, and there are convulsions, hence opium, valeriana, ether, camphor, &c.; the circulation of blood is accelerated, hence digitalis; there is delirium, hence bleeding; there is nausea, hence vomiting, &c. Indeed, nothing is more easy than such a medical knowledge; but such a physician is like a judge who knows only the letter of the law, and neglects all modifications. Insanity is commonly treated in the same routine. Insanity, however, and its symptoms, present as much variety with respect to causes and circumstances as any other disease; and it cannot be treated by any general method, as by bleeding, vomiting, purging, blistering, bathing, the use of opium, caustics, digitalis, mercury, &c. There is not, and there cannot be, a specific remedy against insanity, since it is no special disease, but a peculiar state of disease

* Medical Inquiries and Observ. vol. ii. p. 22.

of the mental functions. There are specifics only against determinate diseases, such as syphilis, the ague, &c., under whatever form they appear, or whatever part they affect ; but the morbid symptoms of the lungs have no specific remedy, because the functions of the lungs may be deranged by various causes, as by an inflammation of the lungs, bad digestion, hysteric affections, &c. ; and according to these causes the treatment of the lungs must be modified. The same must be said of the brain.

There is no doubt that nature often cures insanity as well as other diseases. But, as in other complaints the patient is often relieved by art, and would die without it, so it is in insanity. *Medicine expectante*, though practised by Hippocrates, can no longer satisfy any rational pathologist. Nature has been observed long enough in insanity, and we know what she alone can do, viz. cause a great number of insane persons to become fatuous ; indeed, further indolence deserves to be reprobated.

My manner of considering the medical treatment in insanity, is conformable to the general principle of pathology. The proximate cause of insanity is corporeal, and resides in the brain. Now, either we can cure the diseases of any bodily part, or we cannot. In the former case it must be possible with the brain as well as with the lungs, the bladder, the blood-vessels, the muscles. But then we may say, with Mead and other great physicians, " In all things which our art contains, there is nothing that does good but what may also do harm ; and when a remedy is used indiscriminately, it must of necessity be used improperly." I shall first state what is commonly done, and with what effect, and then propose my ideas.

The usual treatment of insanity is merely symptomatical. In mania they bleed ; in melancholia they purge. At the Bethlem, in London, during the time of Haslam, the same method was used in mania and melancholia ; and he mentions, that patients who were in a furious state recovered in a larger proportion than those who were melancholic. Out of a hundred violent, sixty-two were cured ; and from the same number of melancholic, only twenty-sev-

en. The author of the Domestic Guide in Insanity thinks * that, "in nine cases out of ten, too much stimulus of one kind or other is the cause of insanity. A general system of relaxation may therefore be laid down as the best general rule." He continues : "Even in cases that had the hypochondriacal appearance, and which might ultimately require the tonic treatment, I should use the relaxing system for a fortnight or three weeks, but not less than a fortnight ; then to administer two or three smart vomits in as many days ; yet not to give vomits at a time of amendment, nor till smart purges have been given ; nor, if there is any fulness of blood, to continue the same treatment during six months." After that time he recommends sudden shocks, by plunging the patient into water, and violent motion by the swing. If these measures produce no alteration, he tries repletion, and fills the vessels as full as possible by good living, and proposes to make the patients drunk ; and, when this is accomplished, to recommence the first plan. He candidly confesses that he has very little variety of treatment to recommend.

I hope he has no curable patient under his care, and I confess such a medical man should not be the guide of my friends in cases of insanity. His candid confession of ignorance would have induced me not to trouble the reader with his opinion, were it not publicly known that a similar routine of hospital practice degrades our profession. Idiots, furious, melancholic ; in short, insane people of all descriptions, were bled, purged, and vomited, according to season and weather ; and all was done on a particular day. During the rest of the year, the keeper was furnished with powders, which he distributed as he found it necessary ; and if any male or female patient complained, the keeper said, he or she wants a powder. If the patients became sick and weak, or were not able to undergo the discipline of the house, they were immediately discharged. If it was not the season, it was not minded whether the patient wanted alvine excretions ; he might

* P. 63.

die of constipation, and the bowels burst in consequence of the accumulation of the contents. Moreover, we are told that other persons have been insane for fourteen years, without taking a single grain of medicine; that a warm bath never was heard of; that the surgeon was mostly drunk and insane himself for ten years. Finally, that the physician has been represented as a physiologist, who understands the influence of external circumstances on our body so well, that he thinks "a person could have had about him a weight of iron six or eight and twenty pounds, that he could have been confined to his bed without being allowed to turn round for nine years, or without being able to get out and sit on the side of his bed, being chained by the head by a chain only twelve inches from the iron stanchion, and that that would have no effect upon the general health." Every one, however, will believe that such a treatment, only for nine days, should have convinced him of its influence on the body. —I know that, in another establishment, it was the custom to put all sorts of insane persons head foremost into a cask nearly filled with water, to work their way up the best way they could.

If insane patients are only consigned to such a routine of practice, to painful coercion, to starving, indiscriminate abstraction of light, to bleeding and purging, *ad libitum*, there is no doubt that neither physicians nor the public can gain confidence in medicine with respect to insanity. I fully agree that, if we continue such a proceeding in insanity, our profession ought to be interdicted by those who have the will and the power to improve the public good. If such be our skill in treating insanity, or also if medicine have no influence on insanity, the commissioners for establishments of insane must be excused for making no particular inquiry into the disease of the patient, nor into the medical treatment; for thinking it their only duty to direct their inquiry chiefly to lodging, victualling, and general accommodations of the patients; for observing that none, but such as are afflicted with insanity, have been received into the institution; and that none

are retained in it after being sufficiently recovered to be discharged. It is, however, allowed that the latter points cannot be decided upon in one short visit, during three months.

The incongruity of remedies, such as opium, camphor, bathing, copious bleeding, blisters, moxa, digitalis, cold applications, &c., administered to the same patient must excite indignation. I am pleased with the remark of Mr Hill,* when he says: "The young and the aged, the infirm and the athletic, the debilitated and the plethoric, all are included in one indiscriminate mass, and a copious bleeding is instantaneously directed. This procedure, though erroneous, has the sanction of ages and of names illustrious in the public opinion; and no sooner is the disease determined to belong to the class of insanity, but bleeding, hellebore, chains, painful degrading coercion, starving, and dark dungeons, crowd on the mind by the common association of ideas, forming an endless circle applicable to all cases. In the same disease of the same patient they have recourse to every thing that suggests itself; so that when a cure has occasionally taken place, it appears to have been effected upon empirical principles, more from chance than the result of any consistent rules of practice; while, on the other hand, if such a happy termination does not follow, the cure is declared to have been, from the first attack, impracticable."

I find his feelings laudable, when he ranks "with the puffing advertisements of charlatans, the concealment of a preventive of insanity, or of the proper treatment, which, under strong family obligation, cannot be disclosed." Indeed he who is fond of truth likes candor and openness. Experience has always shown, that ignorance wishes to be covered with the veil of haughty deportment. Without considering that Christian principles exclude selfishness as the supreme motive, it must be admitted, that where arcana are tolerated, quackery is patronised, and the health of the public delivered without discretion.

* Lib. cit. pp. 283 and 328.

I am of opinion that the medical treatment of insanity must be entirely reformed ; it is to be reduced to sound principles of pathology in general.

Every one, who examines nature with reflection, will find that all considerations, which may be made with respect to anatomy, physiology, and pathology of any other organic part, must be also applied to the brain. Now the pathology of every part must be founded on the knowledge of its healthy state ; and he who will study insanity must understand the functions of the mind in their state of health. Moreover, in pathology, the most essential object is to point out the cause of the disorder. This then can be removed or not. Every other proceeding is merely experimental. After this, the modifications of the disease, dependant on sex, temperament, and individual idiosyncrasies of the patients, on climate, season, weather, and external circumstances, are to be examined, and the treatment to be modified accordingly. Thus, the medical treatment is essentially founded on the knowledge of the causes of insanity, which are idiopathic or sympathetic.

In any disease, our art has its limits, and so it has in insanity. Idiots from birth, by a defect of the cerebral organization, or from occasional causes, and fatuous from violent mania for many years, belong to the incurable complaints. If a child from early youth be a complete or incomplete idiot from a defective organization, by morbid alterations, or by water in the brain, medical attendance, strictly speaking, is of no use. Here the bodily constitution in general must be taken care of by dietetic means, such as regulation of food, air, temperature, light. In short, to a good, commonly called physical education, the parents or friends ought to have recourse. The digestive organs deserve a particular attention, because their functions are often deranged.

Sometimes, however, it happens in idiotic children, that, at the periods of climacteric years, when the organization acquires more development, and afterwards more solidity, the manifestations of the mind appear. We ought to know that, in such children, the

intellectual operations cannot be acquired by force. I have seen children of that sort treated in the most unreasonable manner; but all blows and vexations could not produce talents. Force may excite powers which exist; but where they are wanting all labor is lost. Such a treatment rather increases their state of idiotism. Moreover, it ought not to be overlooked that, in delicate and sickly children, from a too early and too continued application of their intellectual powers, exhaustion originates, and the foundation of weakness of the mind or of insanity is laid.

Those who, during madness, become fatuous are partly curable, or partly incurable. Among the curable may often be found those who, in mania, have undergone too much lowering treatment. It is known, that after fever with delirium, a debility of the whole body, weakness of the external senses—and inaptitude of the intellectual faculties, are observed; every function then improves in proportion as bodily strength is re-established. If fatuity be the result of mere debility, for instance, after great evacuations of any kind, after dysentery, continual loss of semen, after hæmorrhages, too much bleeding and purging in inflammations, tonic treatment, adapted to the individuals, will have the best effect. Dr Rush mentioned in his lectures, attended by Dr Jardine, of Liverpool, who was so kind as to communicate the fact to me, that “the Rev. Mr Tennent, of New Jersey, lost his memory entirely at the age of nineteen from a fever, during which he lay in a lethargy so deep, that he was suspected to be dead for some days. He had previously made considerable progress, but was obliged to begin his grammar again. Some weeks after his recovery, while he was repeating one of the early grammar rules, he suddenly stopt, and told his master that his knowledge was returned; and he was afterwards as well as usual.” I have seen several facts where weakness of mind was improved by strengthening the body. I shall add a few examples where fatuous persons after insanity were cured. Dr Rush* says, “In the year 1795,

* *Inquiries and Observations on the Diseases of the Mind*, p. 233.

a young man of the name of Donaldson, from York county in Pennsylvania, was admitted into our hospital, in the lowest state of monalgia. He appeared to have no mind, and scarcely any locomotive powers. When placed at the head of a pair of stairs, he rolled to the bottom of it. By means of most of the remedies I have recommended, he was nearly cured. He acquired the use of his speech, knew his attendants, and called me by my name, when I visited him. Unhappily, in his progress to a perfect cure, he was attacked with a malignant fever, and died in the hospital on the fifth day of his disease." Dr Rush relates another fact, which happened at the Lunatic Asylum at York, in Great Britain. "On the 25th of October, 1778, a seafaring person, about forty years of age, was recommended to the Lunatic Asylum for cure. About two years before that time, he had sustained a considerable loss by sea, which operated so violently upon his mind, as to deprive him, almost instantly, of all his reasoning faculties. In that state of insensibility he was received into the asylum. During his abode there, he was never observed to express any desire for nourishment, and so great was his inattention to this particular, that, for the first six weeks, it was necessary to feed him in the manner of an infant. Food and medicines were equally indifferent to him. A servant undressed him at night, and dressed him in the morning; after which he was conducted to his seat in the common parlor, where he remained all day with his body bent and his eyes fixed upon the ground. From all the circumstances of his behavior, he did not appear capable of reflection. Every thing was indifferent to him; and from the fairest judgment that could be formed, he was considered by all about him as an animal converted nearly into a vegetable. In this state of insensibility he remained till the morning of Tuesday the 14th of May, 1783, when, upon entering the parlor, he saluted the recovering patients with a 'Good morning to you all.' He then thanked the servants of the house in the most affectionate manner, for their tenderness to him, of which, he said, he began to be sensible some weeks before, but had not, till then, the resolution to

express his gratitude. A few days after this unexpected return to reason, he was permitted to write a letter to his wife, in which he expressed himself with decency and propriety. At this time he seemed to have peculiar pleasure in the enjoyment of the open air, and in his walks conversed with freedom and serenity. Talking with him what he felt during the suspension of reason, he said that his mind was totally lost ; but that about two months before his return to himself, he began to have thoughts and sensations ; these, however, only served to convey to him fears and apprehensions, especially in the night-time. With regard to his medical treatment, the medicines usually prescribed for melancholic persons were in his case studiously avoided ; and instead of evacuates, cordials and a generous diet were constantly recommended. Finding his mind sufficiently strong, he was dismissed, and afterwards appointed to the command of a ship employed in the Baltic trade."

A too great loss of semen undoubtedly weakens the intellectual powers ; and many young persons become the victims of this propensity ; but I have also met idiotic individuals in hospitals for insane, whose imbecility was considered as the effect of their lasciviousness, while this rather originated from the want of moral feelings and reflection ; that is, amateness was active, without restraint, as in animals.

There are more fatuous restored after simple melancholia than after chronic violent mania. If in the latter cases the manifestations of the mind are lost by degrees, and the patients become quite fatuous without having suffered by debilitating causes, their state is perhaps always hopeless. In such cases organic changes have taken place in the brain, and the effects of the primary disease cannot be removed. Such patients then are no longer the object of an hospital for curable patients. It is easily conceived what Haslam has stated, that "In bodily weakness, if the raving paroxysms have continued for a considerable time, and the scalp has become unusually flaccid, or where a stupid state has succeeded to violence, no benefit has been derived from bleeding. It may be added, that, if there be mere bodily weakness, bleed-

ing will increase it, and that if organic changes have taken place in the brain, no treatment will cure the derangement.

The best treatment of the curable fatuous consists in evacuants, to keep the bowels open without purging, combined with tonics, generous diet, dry and warm abode, pure air, aromatic baths, shower bath, rubefacients along the spine, issues, and a prurient eruption on the shaved scalp, produced by the lotion, with a strong solution of antimonium tartarizatum. This treatment must be continued for a long time, and its effect will depend on the state of the cerebral organization.

Insanity, strictly speaking, from idiopathic causes.

In considering the opinions of various authors, we find that the same means are blamed and praised. These contradictions can be reconciled only by supposing that the remedy was employed in different diseases, or in modified individuals. It is to be remembered, that the symptoms of insane patients are innumerable, and that it is necessary to point out the cause of this peculiar state of the mental functions. Moreover, it must be understood, what all intelligent practitioners admit, that the art of medicine does not consist in multiplying medical formulas, but in judiciously prescribing a few select and active remedies. As it is so important to understand the nature of every disease, before we can form a sound treatment, the physician of the institutions for insane should be made perfectly acquainted with the history of every case from its commencement.* The treatment of insanity, as it is detailed by Dr Rush, seems to me more satisfactory than that of any other writer. I think with him,† that “the successive and alternate changes of the different forms of madness into each other, show the necessity of renouncing all prescriptions

* It is truly lamentable that some, either from false delicacy or pride, so far forget their duty as to deny altogether this important information to the physicians. There are many cases of this kind in Massachusetts.

† Medical Inquiries and Observations on the Diseases of the Mind, p. 237.

for its names, and of constantly and closely watching the disease." I shall speak of the medical treatment of insanity in the same order as I have mentioned its causes.

1. *Treatment of mechanic causes of insanity.*

Mechanic injuries of the brain, such as concussion or compression by blows, a fall, wounds, fracture, or depression of the skull, exostoses, fungus of the dura mater, collection of blood or pus, produce various derangements of the cerebral functions. The nice distinctions made by some theoretical authors, as to concussion or compression of the brain, cannot be ascertained in practice. The same symptoms may occur in both cases. Sometimes there is concussion and compression, without the symptoms which are ascribed to them; and at other times such symptoms exist without previous concussion or visible compression. From violent causes may originate vertigo, giddiness, numbness, stupor, delirium, inflammation, suppuration, extravasation, epilepsy, idiotism, palsy, trismus, insanity, or apoplexy.

In violent injuries from without, the teguments and the skull are to be examined. If the skull be fractured, and a portion depressed, this must be elevated by surgical operations. Sometimes there are great disorders in the brain, and the skull has not suffered at all. At Liverpool, I have seen, with Mr Bandreth, and Dr Renwick, a man who received a blow on the head with the fist, and sank dead to the ground. There was no injury of the teguments or skull, but a great turgescence of the blood-vessels of the scalp, a great congestion over the whole brain, and a great extravasation at the basis of the brain, particularly at about the great commissure of the cerebellum (pons Varolii). If extravasation be suspected, they advise to apply the trephine; but sometimes it is difficult to determine the place of the extravasation; sometimes it is at the side of the head opposite to the blow or wound. There are also cases on record, where extravasation was suspected, and nothing found after the operation; and at other times the operation was neglected, and extravasation or

consecutive suppuration detected after death. These cases are sometimes extremely intricate; and if the extravasation be not at the surface of the brain, nothing can be done. Sometimes we open individuals who die suddenly from violent blows, and nothing but congestion of blood is found, or paleness and a collapsion of the brain. I have seen patients, after violent injuries on the head, lingering for a long time and declining to dissolution. After death, suppuration was observed.

Surgical operations do not belong to my considerations. If they are necessary, the disease requires an antiphlogistic medical treatment; such as bleeding, cold applications to the head, keeping the bowels open, low diet, &c. In the greatest number of cases, no surgical operation is indicated; but very often blows derange the functions of the brain in disturbing the circulation of blood, or the delicate structure of the cerebral fibres. I have seen individuals, the operations of whose mind were entirely suppressed, by their head being violently shaken, while organic life continued its functions. Some persons after having received violent blows on the head, feel head-ache, vertigo, giddiness, or become insane; and if such individuals die sooner or later after the injury, congestion of blood is detected. Hence it happens in the head, what we perceive in external bruises; and the curative plan is obvious: bleeding, application of ice, snow, or cold water on the head, aspersion with ether; the bowels are to be kept open, and every thing which carries the blood to the head avoided, as spirituous liquors, indigestible aliments, costiveness, violent affections. Moreover, whatever removes the blood from the head must be employed. To this end a more upright position is preferable, mild evacuants to open the bowels, low diet, &c. Sometimes a great weakness of the blood-vessels remains for a long time, and the general treatment is to be continued, as washing the head with ether, cold water, cataplasmata of aromatic herbs boiled in wine, and every thing that can give tone to the blood-vessels. After the first period, bleeding will be of less use; but whatever can determinate the blood to the head must be

avoided, as walking in hot weather, dancing, going on horseback, swimming, stooping, &c.

Blisters and vomiting are highly improper. Nothing is more common than vomiting the patients, who have suffered some violent injury of the head, especially if they have nausea. Nothing but routine, however, can excuse such a proceeding. The most common observer, who has looked at persons during that act, must have seen, and he who has once taken a vomit must have felt, that the blood is determined to the head.

Sometimes external injuries may be succeeded by an inflammatory state of the brain, and various symptoms of insanity. Their treatment then follows the general principles of pathology; hence no vomiting, no blisters, no opium, no ether, no camphor, and such things, but the antiphlogistic treatment must be adapted to the individual. Whatever may be said with respect to the general use of vomits in such cases, we must agree, that even universal practice cannot alter the nature of things, nor universal error change the nature of truth.

2. *Treatment of the idiopathic dynamic causes of insanity.*

Here also pathological facts prove that our common knowledge of insanity is not satisfactory, and that Dr Powell was right in saying "the whole should be new modelled." It seems to me that, with respect to idiopathic dynamic causes of insanity, there are three different states of the cerebral organization, every one of which requires a different treatment.

There can be no doubt that the functions of the brain may be deranged by too great a stimulus. I shall call that state of the brain hypersthenic; if however, any nosologist prefers the term *inflammatory*, I shall never dispute about names. The essential point is to understand the state of the brain designated by that name. This state of too great excitement may affect the brain, but one part more than the others; and hence it may produce various symptoms. In symptoms of erotomania, or nymphomania, for instance, the cerebellum suffers particularly; in fury and

mania the middle lobes ; in too great self-esteem or pride, the cerebral parts at the vertex of the head, &c.

This hypersthenic state of the brain may be only local, that is, confined to the brain ; or it may be combined with various symptoms of automatic life ; in the same way as the affections of other parts sometimes are local, such as ophthalmia, diarrhœa, &c., or are accompanied with various other symptoms. Dr Parry says,* " I have many times known the pulse in the temporal artery so weak, that blood would not flow from it, however well it was punctured, and in other instances it was too weak to be felt ; and yet in all, the pulse in the carotid has been extremely strong, and there has been the most decisive evidence of preternatural impulse of blood to the brain. In erotomania, or the hypersthenic state of the cerebellum, there is often involuntary priapismus, as a secondary symptom. The treatment of all those secondary symptoms depend on the general disease. In this case, it would be bleeding behind the ears, cold applications on the neck, low diet ; while poultices alone, against priapismus, are of no use. Also the castration, which has been made in animals and in man against that disease, may be prevented. In hypersthenic erotomania, the debilitating method will succeed in the safest manner, as in this state of the brain in general. Such patients must be kept in solitude and darkness, and exposed to cold. There are examples known, where nature cured them by spontaneous bleeding or cold. Dr Rush† mentions two facts, where the patients escaped from the keepers in the evening, and passed the night in the open air, in the midst of the winter, to their advantage.

The question arises, how we can distinguish this state of the brain, or its parts ? If it be local, it is more difficult to be understood ; but it is much more easily pointed out, if it be connected with morbid appearances of automatic life. It may be suspected, in young, plethoric, well-nourished and strong individuals, where no cause of weakness, but rather stimulating causes, have preceded

* Lib. cit. p. 346.

† On the Diseases of the Mind, p. 197.

ed ; where the disease began suddenly, and is still of short duration ; hence, where the whole condition of the patient, his age, temperament, previous health, manner of living, all external influences of season and weather, indicate inflammation. The diagnosis is easy, if other parts be affected at the same time ; if, for instance, there is a certain glittering appearance of the eyes as in other inflammations, a flushing of the face. The pulse is often deceitful : sometimes it is suppressed and small, as in spasm, and rises after venesection ; sometimes it is full and strong. If such patients die in a short time, we find the texture of the blood-vessels firm, and of greater resistance than the fibres of the brain ; so that I do not like the brains of such individuals for the demonstration of the cerebral organization.

The inflammatory state of the brain is often without pain, and practitioners are then led into error, if they forget that the brain is not sensible, and differs, in this respect, from the nerves of the body. They ought to know that fear, fury, disdain, and other disagreeable affections or modes of the feelings, are, with respect to certain cerebral parts, what pain, in the common acceptation, is with respect to the nerves of the body.

Another common error, which I have already mentioned, is to think that violent delirium and fury are the only signs of the inflammatory state of the brain. Inflammation, however, may exist without such symptoms, and both symptoms may exist without inflammatory state of the brain. On account of its importance I repeat, that numerous dissections have convinced me to say with Dr Powell, that "inflammation of the brain is by no means infrequent, while we rarely find it unaccompanied by the symptoms which (according to the theoretical opinions of the schools,) should designate phrenitis. The symptoms are referable rather to oppression of the nervous power, than to increased activity of the blood-vessels."* Fury depends only on the excitement of the organs of combativeness and destructiveness, while a too

* Some cases illustrative of the pathology of the brain, read in the College by Dr Powell.—*Medical Transactions*, vol. v.

great activity of cautiousness produces melancholy or despondency. This explains why, sometimes, fury and despondency may exist in the same person. There are, indeed, positive facts on record, that individuals felt the greatest inclination to destroy every being around them, and at the same time the greatest anxiety and fear of committing such atrocities; they became quite disgusted of life, and disposed to suicide. Such an opposite state in the feelings cannot be explained by a single mind, nor by a single state of disease of the brain; the only way of understanding it, is by the plurality of the functions of the cerebral parts, which may be affected singly or together by the same disease, and produce various symptoms. This explains also why mania and melancholia are often cured by the same proceeding, and at other times increase under the same treatment. Hence not one single symptom can guide our indication; not the pulse alone, because in phrenitis with mania or melancholia, it may be contracted and will increase under bleeding and the lowering method, and in irritable and nervous subjects it may be full and hard, while the disease is not at all hypersthenic.

Thus the treatment of the hypersthenic state of the brain, whatever the symptoms of insanity may be, such as erotomania, fury, despondency, religious fanaticism, pride, liberality, &c., is the same, and may be termed lowering. Bleeding is the genuine remedy, opening of the temporal artery, cupping at the temples or behind the ears, at the neck, leeches to those parts, venesection at the arm, shaving the head, application of ice, cold water, aspersion with water, or vinegar and water; tepid bathing of the body, evacuants to keep the bowels open, frequent use of serum lactis, decoctum hordei, altheæ, lemonade; in short, the whole antiphlogistic treatment, as in that state of the lungs or any other part. If it be the result of refrigeration, called by some authors *inflammatio rheumatica*, blisters will be of use; but if it originate from spirituous liquors, insolation, hard working without refrigeration, great application of the mental powers, or any internal excitement, blistering will do harm, in accelerating the circulation, and determining the blood to the head. Any thing

that irritates must be avoided, such as light, caloric, camphor, vomiting. It even seems to me that we ought to be very careful in administering opium and digitalis. I have seen that, under their use in irritable persons, the symptoms rather increased than decreased.

In this state of the brain is applicable what Dr Hallaran says : "Opening the temporal artery in recent cases of insanity affords the most direct means of diminishing the excessive impetus of the heart, and gives the most immediate relief. . . . Unless in young persons, where the pulse stands from ninety-six to a hundred, with a white tongue, hot skin, and suffused eyes, it should not be resorted to. When these appearances are present it will undoubtedly be found expedient, if not essential to the safety of the patient." In such cases, bleeding is of urgent necessity ; I would not, however, consider it admissible merely under such circumstances, but in a smaller extent it will be useful in cases where the inflammatory symptoms are not quite so strong. For it must be observed that inflammation is acute, chronic, violent or slight, in various degrees ; and the anti-phlogistic proceeding must be always proportionate.

This is the real point where the talent of the physician appears. It cannot be taught by any rule ; it requires what is called the natural tact, but it can be exercised by practice. The patient is treated according to the precepts of the school ; and if he die, it is not the fault of the rule but of the physician, who does not understand how to modify its application. We may often see that the general indication is well distinguished, but no distinction made as to the individual modifications. I have seen inflammations treated by physicians of celebrity without any consideration of the individual forces of the patients. Commonly the quantity of any remedy is mentioned, while it is often forgotten to add, that it is necessary to consider the effect rather than the quantity, because, supposing the indication is well established, the dose required to produce the desired effect varies extremely in differ-

ent individuals. Such misapplications of the general rules take place in the affections of the brain, as of the lungs, kidneys, bladder, &c.; and the result will be the same; that is, our ignorance as to the modifications kills the patient, or makes the disease degenerate into an incurable disorder.

Another state of the brain, accompanied with its deranged functions, is the result of debility: I call it asthenic. Haslam observes: "In bodily weakness, if the raving paroxysms have continued for a considerable time, and the scalp has become unusually flaccid, no benefit has been derived from bleeding." To this state particularly is applicable the opinion of Pinel, "that bleeding without rule and bounds often exasperates insanity, and causes curable mania to degenerate into dementia and idiotism;" and the other passage where Pinel says, "The blood of maniacs is so lavishly spilled, and with so little discernment, as to render it doubtful whether the patient or his physician has the best claim to the appellation of a madman." Indeed, the lancet has been very frequently applied to insane people merely for the purpose of rendering them less noisy. I, however, do not wish to be understood as proscribing altogether the use of the lancet, even in this state of the brain; but it will be seldom necessary, and the bodily strength is always to be considered, and bleeding modified.

This disease does not consist in melancholy or despondency; it may, like the former, produce all the symptoms of insanity, such as melancholia, mania, pride, liberality, or a weakness of the manifestations of the mind; nay, entire apathy. On dissection in these cases there is great congestion of the blood-vessels; they are weak, and the substance of the brain is soft. Thus the bodily strength of the patient before insanity, the beginning and progress of the disease, previous debilitating causes, and all circumstances together, will guide our decision. Such patients are weak and delicate, often of a nervous irritable temperament, a florid complexion, flushing face, subject to hæmorrhages, exhausted by evacuation, but mostly of an inert phlegmatic constitu-

tion The quantity of blood, or the great activity of the blood-vessels, is not the cause of insanity; it is not *plethora vera*, but congestion from weakness. Hence blood-letting will not remove the cause of the complaint. Every thing, however, which determines the blood to the head increases the disease; such as spirituous liquors, artificial heat, hot weather, affections of the mind, &c. Similar exciting causes then must be avoided, and the general treatment must be tonic and nourishing without stimulating.

In great exacerbations of the symptoms, blood may be drawn with precaution to empty the blood-vessels; but no strength will be given to the blood-vessels, and no tone to the cerebral organization; hence the blood-vessels will soon be over-filled again: It is, indeed, a great error to confound congestion with inflammation. In the latter, bleeding is the genuine remedy, and the whole treatment must be lowering; while in the former, at the beginning, a part of the blood may be removed in order to procure a free circulation to the rest; but the cause of the congestion, viz., weakness, must be removed by other means. The head is to be kept cold by shaving the hair, making aspersion with water, or washing the head with cold water, or application of ice, mild evacuation of the bowels. The internal remedies must be tonic without stimulating, such as amara, decoctum cort. Peruv., cinnamomum, acidum sulphuricum, and, with the greatest caution, digitalis. The alvine and extraneous evacuations must be particularly attended to. Medical prescriptions may help this end. Pulv. ipecac. et opii, or bathing in tepid water, is seldom useful; it weakens in most cases of this sort. Sea bathing is preferable. The diet must be light, digestive, not lowering nor stimulating, but nourishing. Good and well hopped beer, soft eggs, good broth, more animal than vegetable diet, particularly roasted meat. Every aliment that gives flatulencies and acid eructations must be avoided.

A third state of the brain in insanity, from idiopathic causes, may be called nervous. It has many symptoms common with

the second, but it is more dangerous. It exists in very irritable, delicate, and so called nervous temperaments, where violent or long-continued disagreeable affections, as anger, jealousy, envy, offended self-love, sorrow, grief, disappointed love, &c., have exhausted the bodily strength. In such individuals, all diseases offer a more severe and dangerous character, because the so styled *vis medicatrix naturæ* is enfeebled, and the symptoms are deceitful. Appearances of inflammation, and crudities in the digestive organs, are too often considered as causes of this sort of insanity, while they are, like insanity itself, the effect of the same morbid cause.

The treatment of this state is not bleeding, purging, or vomiting, but antispasmodics and tonics. The remainder of bodily strength must be spared, the loss repaired, and the irritability calmed. All that debilitates increases the disease. At the beginning of insanity by violent affections, as fear, grief, anger, fury, &c., opium and other anodyne medicines are indicated. In anger, a draught of cold water is often useful, or cold water thrown over the whole body, and silence. Opium has a high rank in other irregularities and nervous affections of the body, and it is of great importance also in the derangements of the brain from moral causes; but its tendency to diminish at the same time the action of the bowels is not to be overlooked, if it be necessary to keep them open. Then hyosciamus, moschus, castoreum, may deserve the preference. Camphor in small doses is often useful. The anti-spasmodics have the first rank, then come the tonics, such as flores chamom., columbo, quassia, gentiana, cortex Peruvianus, martialia. Bathing in tepid water will be of great advantage. The external and dietetic treatment is the same as in the asthenic state of the brain. In the same way, every thing which carries the blood to the head, particularly all moral causes must be carefully avoided.

The preceding considerations easily explain why medical practitioners often bestow much praise on the virtues of a remedy in the cure of insanity, while others equally respectable decry it as

useless, and a third party declare it to be pernicious. Such contradictions and opposite opinions may be all true and false, because insanity is a mere symptom, and may be the result of quite different states of the brain. Sometimes also the failure of success arises more from the manner of using the remedies than from any radical defect in their properties. I have already mentioned that sufficient attention is not always paid to all the individual circumstances of the patient. The following remarks will prove still more, that there cannot be a general antimaniacal remedy, and that it is not sufficient to follow the common routine, and prescribe copious and repeated blood-letting, water and shower-bath, blistering, vomiting, opium, purging, low diet, and a rigorous system of coercion. Indeed such a medical treatment must prove unsuccessful, and inspire indignation, and the complete interdiction of our profession.

Treatment of Insanity from sympathetic causes.

In treating of the causes, I have reduced them to six sorts, viz., insanity is the result either of disorders in the digestive organs ; or in the generative functions ; or of general diseases ; or of repelled cutaneous affections ; or of diseases which change the plan ; or of general atony and inanition. The cases occur, as to number, in a direct proportion as the divisions are mentioned.

The greatest number of cases of insanity from sympathetic causes, originate from deranged functions of the digestive organs. For this reason, some physicians looked for the cause of every insanity in the abdominal viscera. To this sort belong the cases exhibiting symptoms of hysteria, hypochondria, melancholia, and suicide from disease. The latter complaint often begins as melancholy, and terminates in mania, or both alternate : it is seldom cured by nature alone, and is not sufficiently understood by medical practitioners in general.

The incongruity of remedies administered in this form of insanity is inconceivable. As the nature of insanity is not known and

the complaint chronic, one remedy after another is tried, and sometimes the most opposite things employed at the same time. The patient is bled, purged, vomited, blistered : he must suffer issues ; swallow camphor, opium, digitalis, and mercury : he is plunged into cold water, takes warm baths, and whatever has been used in medicine is prescribed ; and, as is to be expected, the patient is not cured.

From the preceding remarks made in the chapter on the forms of insanity, it follows that asthenic melancholy, accompanied with hysteria or hypochondria, or the propensity to suicide, is the same disease, and must be treated in the same manner. The ancients considered hellebore as a capital remedy against melancholy. Their explanation is erroneous, but their method of curing is founded on observation. In speaking of the division and forms of insanity, I have sufficiently detailed the symptoms which occur in asthenic melancholy and suicide : here I speak only of its treatment. Because all things have been used without success, almost every where these patients are given up to nature, or the disease is considered as incurable ; but I am convinced from experience, that ignorance alone is the cause of such a prognosis, and as soon as it will be properly treated, its curableness will no longer be contested.

In this form of insanity the lowering treatment is to be avoided : the whole proceeding must be enlivening, animating, and tonic. The lancet is destructive ; and reasoning good for nothing. The behavior towards such patients ought to be easy, kind, and accompanied with looks of complacency, and not impatient, rough and pitiless. Ridicule ought to be entirely prohibited. Change of situation, and occupation of the mind, are of the highest importance. The disease is cured according to the possibility of removing the cause that disturbs the digestive organs and the brain. If, for instance, a delicate female with great sensibility be married with a drunkard or brutal husband, and for that reason insane, it will be difficult to cure the disease without removing the cause. The direction of the feelings, and

the whole moral treatment, are of great importance, but not always sufficient ; and the effect of a proper medical treatment is much greater than is commonly understood.

During a long period, aperient medicines are to be administered in such a dose, that the bowels are at liberty ; that the evacuations are not hard, nor liquid like water, but soft. Whatever laxative is adopted, it must simply act as such, day by day, being augmented, diminished, or interrupted, according to the strength of the patient. Mercury is often administered on the purgative principle. There are, however, patients with whom calomel does not agree, and who from a small dose suffer all the symptoms of salivation. Aperient mineral waters, or vegetable eccoprotics, will be of more proper use. Sometimes there is spontaneous diarrhœa in insanity ; the effect must decide whether it is salutary or not. If debility increase, the violence of diarrhœa ought to be diminished, if not entirely suppressed. The vital powers are of the first condition ; and the greater their want, the longer time is required to change the organization.

Mr Haslam thinks that insane people have naturally irritable bowels, and are easily purged. He has observed that diarrhœa and dysentery are common among them. Others think that they are difficult to be purged. Dr Hallaran, for instance, positively contradicts the opinion of Mr Haslam. The greater number of melancholic patients I know of, were rather costive than free in the bowels. Sometimes diarrhœa and constipation have alternated. The dysentery, of which Mr Haslam speaks, seems to be rather the effect of the moral treatment and of the diet of the patients, than of the natural disease. Mr Haslam himself has observed that, sometimes, the stomach and intestines are very inert and quite insensible, in the same way as the skin. Such patients feel no appetite, have a foul tongue, the bowels constipated, the urine retained in the bladder, and the patients do not feel the want to evacuate urine or fæces : they sometimes require the strongest purgatives to have one opening ; others scarcely feel setons, blisters, and punctures.

The whole constitution must be changed, but no trespass is to be committed on the prevailing debility. There must be moderation according to the general state of the patient. All dietetic rules must be practised. The first evolution is to be made by aperient medicines; then mostly tonics, such as amara, bark, martialia, and antispasmodics, become necessary. But every thing that irritates, such as spirituous liquors, strong wines, spicy dishes, is to be avoided. The diet must be simple and nourishing, not stimulating; flatulent vegetables are to be prohibited; animal food is preferable, especially roasted meat; good and well hopped beer; water and wine mixed. Many patients cannot digest milk, cheese, and such things as are given in common hospitals for the insane.

The perspiration of the skin is important in this disease. The skin may be rubbed over with rough linen or proper brushes. Warm and aromatic baths will be found beneficial. It is to be remarked in general that practitioners do not agree with respect to the usefulness of bathing in insanity. Pinel expressly declares "the utility of bathing in maniacal disorders remains yet to be ascertained." Haslam says that it is difficult to ascertain how far it is useful, since it has never been exclusively employed. At the Retreat near York, it has been thought rather to aggravate the symptoms of mania; but in melancholia it has been found of greater efficacy than all other medical means which have been employed there. I think, in the plethoric inflammatory state of the brain, and when the determination of blood to the head is great, the shower-bath or warm bathing is hurtful, and will increase delirium or head-ache; but in inactivity of the brain, in dryness of the skin, rigidity or spasmodic contraction of the muscular system, tepid bathing is useful. Tepid bath, in fine weather, may also be employed for the sake of cleanliness. Application of ice or cold water on the head, is admissible only in a too great excitement of the brain, both in the inflammatory state and in congestion of blood, if the patients be not liable to catch cold.

In women, a frequent cause of insanity is pregnancy, and the deranged functions of parturition and lactation. The uterus is in great sympathy with the stomach, the brain, and the five senses. It is known that pregnancy produces various affections of the digestive organs, excites various idiosyncrasies in appetite and taste. In the same manner, often, the manifestations of the feelings are much excited or deranged; sometimes amateness, combativeness, destructiveness, covetousness, cautiousness, or any other propensity or sentiment. There are examples on record, that pregnant women liked coals, chalk, dirt, became extremely lascivious, felt the greatest inclination to kill, to steal, or to build. It is not necessary to mention examples that a difficult parturition, and the suppression of the usual evacuations which follow parturition, may produce insanity; they are generally known.

If pregnancy be the cause of insanity, the time of delivery must be expected with patience, and we must confine our assistance to mere palliative means against the most striking symptoms. If the manifestations of the mind are deranged by suppression of the usual evacuations, it has been cured by spontaneous diarrhœa. In general, the best treatment of this sort of insanity consists in purgatives, modified according to the individual patients. In such delicate women the bowels are sometimes very irritable, and strong purgatives will be very prejudicial, cathartic injections best answer the purpose. Here, as in every disease, the vital power, and nervous irritability require a particular attention. Moreover, in this sort of insanity, there are commonly derangements of other functions, which are to be taken into consideration, and, according to which the treatment must be modified, always, however, with the view of necessary evacuations, by means similar to those given to wet nurses to dispel their milk.

If insanity be a symptom of any general disease, or of diseases that change the place, as of ague, syphilis, rheumatismus vagus,

gout, dartous affections, it yields to the means which remove the general disease.

It often happens, that repelled cutaneous eruptions, suppressed hæmorrhoides, drained up sores, produce various internal complaints, in affecting such or such internal part of the abdomen or thorax. The deranged functions of the brain, they must be cured in the same way as the other internal disorders, such as bad digestion, difficult breathing, &c. from the same causes. The piles must be recalled by leeches ad anum, and by the application of the vapor bath on that part. The cutaneous discharge is to be re-established by blisters, issues, or setons. These means, like others, having been employed indiscriminately, in every sort and in almost every stage of insanity, have had the fate of all other remedies; they are praised or blamed according to the effect, while the nature of the disease is overlooked. These means will be useful where an excitement, or a deviation of a morbid matter, or, as others like to say, of an exciting cause, is wished for; but in all cases where excitement is hurtful, their use is to be rejected. I think, with Dr Hallaran,* "The early application of blisters, so long as the symptoms of a powerful determination to the head can be discernible, cannot well be persisted in by those who, taking into account the extreme degree of excitement already produced, must be attentive in avoiding every unnecessary source of irritation. An acquiescence with common custom, more than a feeling of conviction, has, I am satisfied, induced many to commence the use of blisters in the cure of insanity at a time, when, at best, their effect must have been nugatory, and in most instances altogether improper. Their direct application to the head, under the above circumstances cannot be too strictly condemned, nor do I consider them as admissible in any direction, when the absorption of cantharides into the circulation may act as an additional stimulus. Where a want of energy and inaptitude to participate in the usual objects of volition succeed to the previous

* Lib. cit. p. 89.

temper of activity, the occasional application of a blister round the lower part of the neck, will often be found highly beneficial by its local irritation, the fever excited by it rather tends to animate than to disturb."

Dr Hallaran mentions another inconvenience which happens, when, in maniacs, blisters are placed on the calves and other parts of the body. The patients sometimes attempt to swallow them. Moreover, it is a difficult matter to prevail on maniacs to allow blisters to remain at the place. If the hands be secured, they rub with the feet, and dislodge the blisters. Thus, for the greater number of cases of insanity, blisters, setons or issues are hurtful; in other cases they are of great use.

If insanity accompany a general inanition, it is mostly a kind of dullness and fatuity. This state of the mind may be cured, if there be no organic changes in the brain. The medical treatment is like that detailed above, where I spoke of fatuous patients. All debilitating causes must be avoided, and every thing that awakens the vital power and strengthens the organization is indicated.

Before I finish, I shall make a few remarks on the use of the emetics, digitalis and the swing in insanity in general. Dr Willis mentions the deeper seminaries of disease are seldom rooted out without the administering of vomits, but especially in the disorders of the brain and nerves, where their use is found very advantageous. Dr Cox also thinks that a vomiting takes the precedence of every other curative means. The action of emetics is not only confined to the stomach; it extends through the whole system, affecting all the animal and vital functions, agitating every part of the animal economy. It seems to me that just on account of its great influence on the whole frame, it cannot be indiscriminately recommended. In a general apathy, if there be no great relaxation of the blood-vessels, especially of the brain, or if the faculties are suppressed by seburra in the stomach, vomiting is indicated, but wherever the vessels of the brain may be suspected to be much clogged, it is to be avoided.

I say, with Dr Hallaran,* "The propriety of relieving the stomach from indigestible impurities, or of altering its action by the effort of vomiting, I am very willing to subscribe to, though I cannot too forcibly resist the practice of administering emetics to insane patients in such doses as may suddenly promote the violent action of the stomach, at a time when the vessels of the head may be surcharged with blood, and when the danger of over distension is to be apprehended."

Digitalis, from its known influence on the circulation, is particularly used in insanity. It, however, ought not to be administered indiscriminately. Young, sanguineous, and very irritable patients cannot generally bear it. In relaxation it is useful. Dr Hallaran employs digitalis where evacuants have been given before. He prepares the patients by purgatives to bear its employment. In such cases he prefers it to opium as an anodyne and soporific, since it procures a sound and refreshing sleep, and is free from the objections which may be made to opium. If its effect is too strong in producing vertigo, nausea, vomiting, and a too slow pulse, he temporizes and gives purgative medicines during the suspension. In this manner he is induced to act with as much confidence as to the expectation of recovery as he would in cases of lues from the operation of the mercurial action. He recommends table beer as a vehicle, if it be necessary to conceal digitalis. The details which he gives are worth the attention of practitioners; hence I refer the reader to Dr Hallaran's own work. Among all authors on insanity he certainly has given the best account of this remedy. Our observations agree with his and with those of Dr Sanders,† viz., that it acts as a great stimulus; hence its influence must be carefully attended to.

The SWING, which has been made known to the public by Dr Cox as a moral and medical means, is a peculiar remedy in insanity. Dr Hallaran gives his full approbation. It is em-

* Lib. cit. p. 52.

† On Foxglove.

ployed under two circumstances as a means of establishing a supreme authority over the most unruly, and as a means of procuring sleep. The swing, however, cannot be considered as a general antimaniacal remedy, because there is no general remedy against insanity. The immediate influence of the swing is to lower the circulation and general temperature of the body. As its use determines the blood to the head, its employment is contra-indicated in young plethoric patients in the inflammatory state, or in congestion of the blood-vessels. More details may be looked for in the works of Dr Cox and Dr Hallaran.

The preceding details may be sufficient to show that the medical treatment of insanity must undergo an entire change, and be reduced to the general principles of pathology ; they are addressed to medical men who understand their art in general, and consider insanity as a branch of it. I cannot repeat enough that the brain is an organic part, and is liable, as to anatomy, physiology, and pathology, to every consideration of any other organ. It is generated and nourished, it increases and decreases, falls sick and is cured, like the rest of the body. The material changes of the instruments alone are the cause that the manifestations of the mind are deranged ; and in the cure of insanity the instruments alone are restored to their natural state. The mind, as immaterial, cannot undergo any physical change.

CONCLUSION.

My intention was to contribute to the elucidation of the most complex, most difficult, and too much neglected branch of medicine. This study, indeed, is in its infancy, and in our days we cannot expect to see it in its maturity. The new ideas I have communicated are founded on observations ; and if I have succeeded to bring more order and a better arrangement into this obscure matter, I am greatly rewarded. I rejoice in the

idea, that insane people will no longer be treated as outcasts, and that, by degrees, we shall learn to alleviate their sufferings, to ameliorate their condition, and to restore their health.

THE END.

APPENDIX.

INSANITY.

OF the various diseases which afflict mankind, none is viewed with more painful feelings or looked forward to with more dread than that of insanity. This disease prevails, however, throughout the civilized world, though to a far greater extent in some countries than in others. Dr Spurzheim remarks, that it may be considered almost endemical in England, and that the number of the insane there, is, in proportion to the population, more considerable than in other countries of Europe. Had he lived to have travelled through the United States and made inquiries respecting insanity, I have no doubt he would have found it to prevail to a still greater degree here than even in England.

To no people in the world, therefore, is a knowledge of the causes of this disease, methods of prevention and cure, and the general certainty of curing it in the early stage, more important than to those of this country; and I am very desirous of awakening public attention to these particulars.

And, first, that it prevails more extensively in this country at present, especially in the Atlantic States, than in any country in Europe, is, I believe, the opinion of all those who have made much inquiry upon this subject.

We have no means of determining correctly the number of insane persons in the United States; but if there are as many in the other States of the Union as in Connecticut, the number can-

not be less than *fifty thousand*, or *one to two hundred and sixty two* of the population ; as is evident from the following facts. In 1812, a committee was appointed to ascertain the number of insane persons then in the state of Connecticut. The members of this committee addressed letters to the physicians and other persons in every town in the State requesting correct information upon this subject. They received answers so as to enable them to determine the number of insane in *seventy towns*, and after much deliberation and further inquiry, reported they were 'satisfied there were *one thousand* individuals within the bounds of the State mentally deranged, and that the condition of many of them was truly deplorable.' On mentioning this statement recently to the Physician of the *Retreat for the Insane*, at Hartford, and my surprise at the great number reported by the committee, he assured me, it was less, he believed, than the actual number of insane persons in Connecticut. Other members of the committee who made the investigation and the above report, have also stated to me that they were convinced, from subsequent inquiry, that *one thousand* is considerably less than the actual number of idiots and insane persons in the state. But if we admit there were 1000 individuals mentally deranged in 1812, or 1 to 262 of the inhabitants, than there were more than twice as many in this deplorable condition as in any country in Europe, in proportion to the population. The number of the insane in England has increased within the last twenty years, but still there are but about 14,000 in that country, one half of whom are idiots.

In Scotland the proportion of insane to the population is 1 to 574, and in the agricultural districts of England, 1 to 820.

I am not aware that any State in the Union has correct returns of the number of its insane. Dr Beck mentions, that according to the census of 1825, the State of New York contained 1,616,458 inhabitants, and 819 lunatics, and 1421 idiots. Whether the inquiry as to the number of the insane in that state was made in such a manner as to ascertain correctly the number, I cannot

say ; if it was, then there is far less insanity in that State than in several others in the Union.

Dr Parkman, of Boston, stated in 1818, that 289 male, and 252 female insane persons had come to his knowledge in the State of Massachusetts. He supposes, however, that he has heard but of part.

According to a report of a committee of the legislature of that State, made in January, 1833, it appears that they had ascertained, that, in 68 towns, containing a population of 264,327, there were 168 insane persons, and 111 idiots in confinement in jails, alms-houses, and houses of correction.

This would make above 600 of insane and idiots in confinement in the State, which contains but 610,014 inhabitants. But it is probable that only a small part of the insane and idiots are thus confined, and no doubt an accurate inquiry would exhibit more than double, if not triple that number in the State.

But these facts are sufficient, when properly appreciated, to call public attention to the great prevalence of insanity, and awaken philanthropists and statesmen to devise measures for its relief and prevention.

The *Causes of Insanity* in this country are various. But among those that are most operative in this country are, in my opinion,

First, Too constant and too powerful excitement of the mind and feelings, which the strife for wealth, office, political distinction and party success produces in this free country, and the great anxiety and excitement of the mind upon religious subjects, caused by injudicious appeals to the feelings and imagination, and by sectarian controversy.

Second, The predominance given to the nervous system by too early cultivating the mind and exciting the feelings of children, to the neglect of physical education, or the equal and proper development of all the organs of the body.

Third, The general and powerful excitement of the female mind. Females, being endowed with quicker and finer sensibili-

ties than men, are more likely to be injured by strong emotion ; but, as we shall see, such emotions may have deplorable effects upon their offspring.

Fourth, Intemperance ; and to this cause, no doubt, a very considerable part of the insanity and idiocy that prevails in this country is to be attributed.

That these are the most frequent causes of this affliction in this country, is evident from the following facts and observations.

In all countries the disease prevails most among those, whose minds are most excited. Aristotle noticed, in his day, the great prevalence of insanity among statesmen and politicians. Thus we find that insanity prevails most in those countries where people enjoy civil and religious freedom, where every person has liberty to engage in the strife for the highest honors and stations in society, and where the road to wealth and distinction of every kind is equally open to all. There is but little insanity in those countries where the government is despotic. The inhabitants of such countries possess but little mental activity, compared with those who live in a republic, or under a representative government. There is but little insanity in China, and travellers state that there is but little in Turkey. The disease is uncommon in Spain and Portugal, though idiots are numerous in those countries.

In France there is much less insanity in the country than in the cities ; and the same is true of Russia and Ireland. Humboldt states that he saw very few cases of mental derangement among the American savages. In such countries, the spirit of inquiry and improvement is seldom awakened, or is soon stifled when it is ; and the inhabitants exhibit but little more mental excitement than the brute creation.

In all ages and countries, insanity has prevailed most in times of great moral and mental commotion. The crusades, and the spirit of chivalry that followed them ; the reformation of Luther ; the civil and religious discords of Europe ; the French revolution, and the American revolution, and the rebellion in Ireland greatly multiplied cases of insanity.

But not only do the commotions which powerfully affect the minds of people, occasion immediate insanity in adults, but they *predispose the next generation to this terrible disease*; and this is a fact that deserves great consideration. Esquirol says, that many women, strongly affected by the events of the revolution, bore children that the *slightest cause rendered insane*. He is supported by others in this opinion, that strong mental emotion of the mother predisposes the offspring to insanity.

Another cause which I believe is very operative in this country in producing insanity, is thus alluded to by Dr Burrows.

‘Were I to allege one cause, which I thought was operating with more force than another, to increase the victims of insanity, I should pronounce that it was the overweening zeal with which it is attempted to impress on youth the subtle distinctions of theology, and an unrelenting devotion to a dubious doctrine. I have seen so many melancholy cases of young and excellently disposed persons, of respectable families, deranged from either ill-suited or ill-timed religious communication, that I cannot avoid impugning such conduct as an infatuation, which, as long as persevered in, will be a fruitful source of moral evil.’

Lastly, That the *abuse of intoxicating liquors* produces insanity, is a fact, which the records of all lunatic hospitals exhibit. It has been observed in other countries, and in our own. Dr Combe remarks, that ‘the remarkable increase of insanity among the lower orders in Great Britain, particularly in the manufacturing districts, has been pretty accurately traced, partly to the miseries, want, and anxiety inseparable from the fluctuations to which they are exposed; and partly to the prevalence of dram-drinking, as the only means of relief within their reach. That it is not the mental distress alone which is the cause, is proved by finding the large majority of the patients to be among those who have been most intemperate.’

The general certainty of curing this disease in its early stage, is a fact that ought to be universally known, and then it would be properly appreciated and acted upon by the public.

That the greater proportion of the insane, who receive proper remedial attention, in the early period of the disease, are cured, is evident from the following facts, selected from a great number of similar ones. Dr Willis, in his evidence before the committee of Parliament, in 1789, averred that *nine* out of *ten* cases of insanity recovered, if placed under his care within three months from the attack. Dr Burrows stated in 1820, that of recent cases under his care, 91 in 100 recovered, and in 1828 he adds, that the subsequent annual reports of various lunatic institutions, and his own wider field of observation confirmed the above statement. In La Salpetriere, at Paris, the proportion of cures of recent cases was in 1806-7, according to Dr Carter, almost as high as that of Dr Willis, and according to Dr Veitch's official statement to Parliament, nearly two of three of the recent cases were discharged cured, while only five out of 152 old cases recovered.

Dr Ellis, director of the York West-Riding Lunatic Asylum, England, stated in 1827, that of 312 patients admitted within three months, after their first attack, 216 recovered; while in contrast with this he adds, that of 318 patients admitted, who had been insane from upwards of one year to thirty, only 26 recovered.

The same happy result has attended upon remedial measures adopted in the early stage of insanity, in this country. At the Bloomingdale Asylum, New York, of 581 recent cases, 341 were discharged cured; and at the Connecticut Retreat, during the first five years, of 97 recent cases, 86 were cured.

From these facts, every one will be able to arrive at a correct conclusion, as respects some of the most frequent causes of insanity in this country, and all will see the vast importance of early attention to remedial measures.

EPILEPSY.

According to the researches of M. M. Bouchet and Casauvielh, a great analogy exists between epilepsy and mental alienation. Epilepsy, they say, results from chronic inflammation of the white substance of the brain, while chronic mental alienation is the result of slow inflammation of the grey substance of the circumvolutions of the same organ. This conclusion as to the cause of epilepsy is hardly reconcilable with the sudden invasion and short duration of the attacks of this disease ; but certain it is, that a great analogy exists between these two diseases. Most epileptics ultimately become insane ; some, however never do.

On examining the bodies of those who have had attacks of epilepsy, but who have died from other diseases, and who had exhibited no symptoms of intellectual disorder ; no alteration is found in the brain, and often their bodies present no visible signs of disease ; but if they have died during an attack of epilepsy, the brain is found engorged with blood. If they have died after frequent epileptic attacks complicated with intellectual disorder, the white substance of the brain is generally found hardened and rough, and injected with blood ; sometimes, however, this substance is softer than natural, and its blood-vessels enlarged.

In such cases, the grey substance of the brain has undergone an alteration, its consistence has increased or diminished, and often we find adhesions between the surface of the circumvolutions and the membranes, and traces of chronic inflammation in other parts of the brain.

The treatment of epilepsy, as Dr Spurzheim observes, should vary with the cause that produced it. I have known many epileptics very much benefited even when the cause appeared to be some organic affection of the head, by a seton in the neck, a light regimen, moderate but daily exercise in the open air, and the *avoidance of all moral and mental excitement*. Attention to these last particulars, is very important with children who exhibit a tendency to this disease. I have frequently noticed attacks

of epilepsy and convulsion in children with large heads, and premature manifestation of the mental powers, and have known these attacks lessened and prevented by withdrawing such children from study and all mental labor and excitement, and allowing them daily but gentle exercise out of doors.

PALSY.

Numerous cases are recorded of persons losing the power of moving their limbs while sensibility remained undiminished in the same parts. I have recently seen a young man, who having slept on the ground for several successive nights, suddenly lost all power of moving any part of his body except his head, while sensation remained unimpaired. Other cases have occurred in which sensibility has been destroyed, while the power of voluntary motion remained.

Such cases long perplexed physiologists. Galen and others advanced the opinion that there were two sets of nerves distributed to every part of the body, one to give sensibility, and the other to confer the power of moving the muscles.

These theoretical views have recently been shown to be true by the experiments of Sir Charles Bell and M. Magendie. These celebrated physiologists have ascertained, by examination and experiments, that the spinal marrow gives off two sets of nerves, and that the nerves from the anterior column of the spinal marrow are for motion, while those from the posterior part are for sensation. At the place where these nerves come off from the spinal marrow, their separation is very distinct, and if the anterior nerves are compressed or cut, all power of voluntary motion is destroyed, while sensibility remains; but if these anterior nerves are not injured and the posterior cut or compressed, then sensation is diminished in the parts to which these nerves are distributed. These important facts have been verified by examination of the spinal column and nerves of those who have died paralytic, and fully explain the phenomena above mentioned.

APOPLEXY.

Half of the sudden deaths at Paris, according to Falret, are from Apoplexy ; and it is a curious fact that this disease as well as Palsy and other diseases of the head and nervous system, have greatly increased of late years, as the following statements exhibit.

There died of Apoplexy, at Paris, during the ten years preceding 1803, or from 1793 to 1803, 339. In the next ten years, 1803 to 1813, 979. From 1813 to 1823, 919.

In London the same increase of Apoplexy and Palsy has been noticed. During the last four years of the seventeenth century, from 1696 to 1700, there were 80,586 deaths in London ; and during the four last years of the eighteenth century, 72,591. But though the deaths during the first four years were most numerous, only 442 were by apoplexy, and 89 by palsy ; while during the last four years 912 were by apoplexy, and 363 by palsy. What is this difference to be ascribed to ? In my opinion to those causes which have called forth the intellectual energies, and excited the feelings of men more at one period than another.

Treatment of Apoplexy. In addition to the methods of treatment mentioned by Dr S., it is of great importance to keep both the body and the mind of the patient *quiet*. The body should be kept erect or nearly so, and no excitement of the senses should be allowed. Light ought to be excluded, and no noise or conversation allowed in the apartment of the sick person.

The patient should not be moved, for his brain is wounded, and no motion should be allowed it, any more than to a fractured limb that we wish to have heal.

Bleeding from the nose by the lancet or by leeches is important ; a small quantity of blood obtained from the nose often does more good than a very large quantity taken from the arm. If the patient recovers from one attack he should forever after refrain from intellectual labor, and avoid as much as possible the

excitement of the feelings. His diet should be light, and he should sleep with his head elevated and have recourse to daily but moderate exercise, and by these means, and by preserving a quiet state of mind, he may perhaps avoid a second attack.

PHRENITIS. INFLAMMATION OF THE BRAIN.

M. Foville, in the 'Dictionnaire de Medicine et de Chirurgie Pratiques,' has advanced a new method of procedure in the treatment of this fatal disease. He recommends recourse to the *trep-pan* in violent cases. He says that the brain, occupying the whole of the interior of the skull, and being enveloped in a solid case, does not, as other parts of the body, receive pressure from the atmosphere. Consequently when more blood than usual goes to the brain, pressure of its substance must occur, and it often does to such a degree as to destroy life.

He states the well-known fact, that bleeding does not so fully relieve this pressure on the brain as it does other organs, unless aided by the pressure of the atmosphere. And we know that in animals bled to death, though the lungs and other organs are pale and free from blood, yet the brain still contains a large quantity. M. Foville refers to numerous cases in which the removal of large portions of the skull by wounds and blows and even by fire was unaccompanied by severe inflammation or other bad symptoms.

I am disposed to think this method deserves consideration and trial, considering the fatal tendency of the disease. I have often been surprised to notice that severe blows on the head which fractured the skull to such a degree as to make it necessary to remove considerable portions of it, have been followed by no bad consequences; while on the other hand, I have frequently known slight blows upon the head, which in some instances have not fractured the skull at all, and in others only the outer table to be followed by inflammation and other alarming symptoms and death. I am therefore of opinion that an opening in the skull might be beneficial in such cases.

HYDROCEPHALUS ACUTUS.

This exceedingly dangerous disease of children appears to have greatly increased of late years. During the year 1783, only 19 deaths occurred from this disease in London ; but, about fifty years after, in the year 1832, there died at London, of Hydrocephalus, 858.

Dr S. has well remarked, that 'those whose brain is developed early and rapidly, and whose mental powers show a great and premature energy, are most liable to this disease ;' and a late writer in the *Medico-Chirurgical Review* observes, 'The present plan of education, in which the intellectual powers are prematurely exercised, may be considered as one of the causes of the more frequent occurrence of Hydrocephalus.'

I have witnessed several fatal cases of this disease, in children remarkable for superior mental powers, and so closely was the disease connected with great mental application at the infant school, that I could not but believe that this severe mental application produced the disease. I therefore concur in the above opinion that the present plan of prematurely developing the minds of children is one cause of the increase of this almost uniformly fatal disease.

IDIOTS.

The brain of an idiot never resembles that of a sane person. Its form or texture is different. Often it is found to be very small, even when the external appearance of the head is not bad. I have known the skull of an idiot boy to be three-fourths of an inch in thickness. Sometimes the anterior and upper parts of the brain are not formed. M. Payan, of the Hospital des Enfants, in Paris, in 1825, found in the head of an idiot, only the lower convolutions of the brain.

Sometimes the brain appears to have wasted away, or to have been absorbed. This state of the brain is usually accompanied

by atrophy of the members. A very remarkable case of this kind and one very deserving of the attention of the physiologist, occurred at Paris in 1823. It was that of an idiot, whose head was examined by Esquirol, in the presence of a great number of pupils. Previous to his death, this idiot exhibited a very singular appearance. One side of his body was in a state of atrophy. The limbs of this side, the right, were wasted away so that nothing apparently remained but the skin and bones, and were considerably shorter than those of the left side; and incapable of movement. The limbs of the opposite side had their natural development, and were capable of voluntary motion. The head was small, but the bones of the skull presented nothing remarkable. On opening the head nearly all the grey cortical substance of both hemispheres of the brain was found wanting. In place of the usual convolutions, were small irregular granulations. As regarded the white substance of the brain, that of the right hemisphere was not affected, but scarcely any at all was to be found in the left hemisphere, and its place was filled by a sac or cyst of transparent fluid. All the other parts of the brain were natural.

This case throws much light upon some disputed points in physiology, and demonstrates that the grey substance is not essential to voluntary motion; for if it is, the limbs of the left side of the body should have been affected as well as those of the right.

This case gives support to the opinion of Sir Charles Bell and others, that the grey cortical substance of the brain is the seat of the intellect, and the white medullary portion merely transmits sensation and volition. Sir Charles states, that he has found at different times all the internal parts of the brain diseased, without loss of sense, but that he has never seen disease general on the surface of the hemispheres without disorder of the mind.

This view is probably correct. Prof. Jackson, of Philadelphia, says, that if the superior parts of the brain are removed in animals, the intellectual faculties as far as they are possessed by them, are annihilated; and he adds, that pathological observa-

tions justify the above conclusion of Sir Charles Bell. Dr Warren, of Boston, remarks, 'that the cortical part of the brain is the seat of memory, is an opinion I have long entertained, from finding that any continued undue pressure upon the upper and anterior part of the brain entirely destroys memory, and a less degree materially diminishes it.'

HALLUCINATIONS.

Hallucinations of sight and hearing may depend upon some alteration of the nerves of sight and hearing. The alteration of the nerves in insanity has been as yet but little attended to. M. Foville says he found the optic nerves hard, half transparent, and changed from their natural structure in their whole extent, in an insane patient, who had been tormented until his death with horrible hallucinations of sight. The eye itself presented no change during life, with the exception of a contracted state of the pupil. I have observed in patients troubled with hallucinations of sight, that they complained of pain on pressure of the eye, and that their eyes were frequently red and inflamed, and the pupils contracted.

SUICIDE.

This appears to be an increasing propensity. We almost daily hear of suicide from different parts of our own country, and we have long known that it was common in England and France. In 1817 and 1818 there were 681 suicides in Paris and vicinity.

The causes of this propensity to self-destruction are no doubt numerous. Though it appears to be a form or species of mental alienation which is often hereditary, as is stated by those who have written upon this subject, yet vicious modes of education, the violence of the passions, and intemperance, appear often to produce this tendency. Under the influence of intoxicating drink, or the violence of passion, the whole physical, intellectual and moral system is deranged, and men then act totally different

from what they intended to, when sober and sane. I have several times noticed this propensity during intoxication of individuals, who at other times were not in the least inclined to it.

It is also true that the abuse of religion, the excitement of the feelings upon religious subjects, awakened often by powerful, but improper appeals, to the feelings and imagination, have often given rise to this propensity, and should lead religious teachers to be extremely careful and timely in these respects.

Of all the sentiments of the human heart, none is so powerful as religion. An accurate observer remarked, that religion has more influence on mankind than all their passions combined. And as each passion may be excited to excess, so as to cause mental derangement and suicide, so may the religious feelings be so strongly excited as to produce like consequences. But it is the abuse of religion that leads to insanity and suicide; for pure religion, Christianity, tends to subdue the passions of men.

But if the abuse of religion sometimes leads to suicide, the entire neglect of it does more frequently; as is evident from the writings of Esquirol, Falret, and others.

'Irreligion,' says Falret, 'is certainly a very frequent cause of suicide. Those who think all there is of man perishes at once, who do not believe in another life, are necessarily disposed to abandon this, when it appears to be but a source of calamities.'

The details of suicide in newspapers are probably injudicious, and by many writers supposed to lead others to commit the same act.

However strange it may appear, yet suicide is sometimes reciprocal, and two individuals destroy themselves at once by agreement. An instance of this kind occurred recently in Boston, and several others are related by writers on suicide. One instance occurred in London in 1726, and another at Lyons in 1770.

MONOMANIA.

It is seldom that all the mental faculties are deranged at once. Most usually but one faculty is affected, though sometimes several appear to be and probably are. Such cases of partial insanity are better explained by the system of Phrenology than any other. Every Lunatic Hospital presents instances of individuals in whom the primitive faculties, as established by Gall and Spurzheim, are disordered. Numerous cases are related by writers on insanity in which the organ of *Tune* is diseased; and others in which the organs of Locality, Form, Size, Color, and Number are affected.

I have a patient at the present time, a respectable and intelligent gentleman of this town, sixty years of age, who exhibits no other symptom of mental derangement than a total loss of the *memory of places*. He has perfect recollection of persons and events, enjoys good health, and his sight and hearing are remarkably good for a person of his age, yet he does not recognise the place where he has lived for the last twenty years, not even his own house. If he rides from home but a few miles, though he recognises his former acquaintance whom he meets, and converses rationally on all subjects, yet on returning to his house he has no recollection of ever having seen it before, inquires who lives in it, and is surprised to find that his family had arrived before him.

AGE HAS AN INFLUENCE ON INSANITY.

As Dr Spurzheim observes, insanity is not a disease very often noticed in the very young or the very old; and he thinks that generally those cases which are reported as cases of insanity in very early life are cases of partial idiocy from imperfect development of the brain. But there are some unquestionable cases reported. Esquirol relates three cases, and says he has known children rendered insane by jealousy, by fear and the severity of their parents; and Pinel has made the same observation. The

former relates the case of a child, 'endowed with precocious intelligence, with a head uncommonly large,' and who became mentally deranged at the age of eleven. He states also, that he has known many students, animated by a desire to surpass their comrades, to become insane after pursuing severe studies. Such cases are not uncommon in this country. I have seen several, and they appeared to me to have risen from too severe and too incessant labor put upon a brain deficient in size. Scholars of strong ambition and but little talent, who, actuated by a great desire to equal or surpass their companions in study, labor incessantly, and strive to make rapid improvement, and thus, as Dr Combe observes, 'goad on and tax their limited powers to the uttermost, place their cerebral organization on the brink of disease, and require only a trifling cause to produce mental alienation.'

M. Foville says, he has seen a child of ten years of age, whom the assiduous reading of romances rendered insane. This child at last believed himself one of the heroes of the works he had read, and passed most of his time in striking the walls, trees, &c., which he took to be enemies.

HEREDITARY INSANITY.

No doubt insanity is hereditary ; but it does not follow, however, that every child of an insane parent will become insane. But it should lead all those in whom this predisposition exists to adopt such measures as will be likely to prevent its explosion. Children of insane parents should be very carefully educated, they should be kept from all mental excitement when young, and great attention should be paid to the development of the physical powers ; and they should be strengthened by exercise and labor. Such children should not be sent to school at an early age ; as the early exercise of the mind increases the action of the brain, and thus increases the tendency to this disease.

PATHOLOGICAL APPEARANCES.

That insanity is a corporeal disease, and that the manifestations of the mind are disordered, because the brain, the organ of the mind, is disordered, none will now dispute ; and generally though not always mental derangement is connected with alteration of the structure of the brain. Sometimes, no doubt, especially in the early stage of insanity, the disease is only functional, and patients who die in this stage may exhibit no trace of organic disease in the brain, but they usually do. Dr Haslam says, that insanity is always connected with organic alterations of the brain. Greting noticed (besides other organic disease) thickening of the skull in one hundred and sixty-seven, out of two hundred and sixteen cases. Georget, Bayle, Wright, and numerous other observers, have usually noticed some organic affection in those who died from insanity. Mr Davidson, house surgeon to the Lancaster County Lunatic Asylum, examined with great care the heads of two hundred patients who died in the Asylum, and he says, he 'scarcely met with a single instance in which traces of disease in the brain or its membranes were not evident, even when the lunacy was recent, and the patient died of a different disease.'

SANABILITY AND MORTALITY OF INSANITY.

The degree of sanability and mortality in Insanity will be sufficiently exhibited by the following tables, drawn up from official reports.

TABLE.

FRANCE.	Period.	Number treated.	Cured.	Died.	Remain.	Discharged part relieved.	Discharged.	Decimal proportion of cured.
Hospital Salpêtrière								
Pinel	1801-1805	1002	473	250	270			0.47 1-5
Esquirol	1806	333	160	33	140			.48
The same	1807	289	136	70	83			.47 1-18
Pinel	1812-1814	891	413					.46 1-5
Hospital Bicêtre								
Chamseru	1807	102	33					.32 1-3
Hospital Charenton								
Pinel	1789-1800	97	33					.34
Fodéré	1803	499	161					.32 1-4
Royer—Collard	1806	355	134	36	142		5	.36 2-3
Chamseru	1-2 of 1807	214	91					.42 1-2
Esquirol's private In.	1801-1813	335	173					.51 7-11
Dubuisson's		300	177					.59
Sum for France.		4417	1984					0.44 9-11
ENGLAND.								
Beth. acc. to Haslam	1748-1794	8874	2557					.28 7-9
Has. (different acct.)	1784-1794	1664	574					.34 1-5
St Luke's—Tuke	1751-1819	12173	5091	1013	166		5903	.41 5-6
Hos. at York—Fod.	1777-1807	1739	746	192	141	410	250	.42 7-8
Ret. at York—Tuke	1796-1811	149	49	26	47	18	9	.32 4-5
Hos. at Man.—Fod.	1766-1805	1686	667	190	85	220	324	.39 1-2
Hos. Mont.—Act Par.	1805-1815	154	34	36	54	25	5	.22 1-13
Hos. Nott.—Burrows	1812-1819	336	179	39	48		70	.53 1-4
Hos. at Exeter—Bur.	1801-1819	626	355	53	45		173	.56 5-7
Hos. Glasgow—Bur.	1819	183	39	10	106		28	.21 1-3
Hos. Man.—Burrows	1820	350	74	31	190	2	71	.21 1-7
Bethlem—A. of Par.	1800-1815	4810	1839					.39 1-4
Sum for England		32744	12204					0.37 2-5
UNITED STATES.								
N. York Lunatic Asylum	1795-1821	1584	700	153				44. 19
Pennsylvania Hospital	1752-1828	3487	1254	526				35. 96
Bloomindale Asylum	7 1-2 years	1043	436	59				41. 80
Friends' Asylum, Penn.	8 years	158	53	21				33. 54
Connecticut Retreat	5 years	196	100	8				51. 01
Sum for United States		6468	2543					41. 30

T A B L E

Of the Ages of the presumed Curable and Incurable Lunatics, admitted into the Paris Public Hospitals, and the comparative proportion of Cures.

Ages of the Insane admitted.	CURABLES.						INCURABLES.						OBSERVATIONS.				
	1822.		1823.		1824.		1822.		1823.		1824.			Total of the presumed curables.		General Total.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		Men.	Women.	Men.	Women.
	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.		Total.	Total.	Total.	Total.
From 10 to 19 -	15	11	19	11	15	11	7	16	8	3	29	29	58	78	62	140	
" 20 to 29 -	52	71	65	81	66	78	10	6	16	15	15	37	52	198	267	465	
" 30 to 39 -	72	103	74	98	83	87	7	3	10	7	26	36	55	248	324	572	
" 40 to 49 -	80	99	69	88	59	78	8	7	11	3	4	25	48	231	290	350	
" 50 to 59 -							47	64	37	79	48	218	350	132	218	265	
" 60 to 69 -							43	55	37	40	39	146	265	119	146	265	
" 70 to 79 -							29	41	24	26	23	34	104	76	101	177	
" 80 to 89 -							1	2	5	2	4	7	11	7	4	11	
Ages unknown.								1	1		6	6	6	6		6	
Total of Admissions.	219	284	227	278	223	254	155	185	181	125	426	596	1092	1095	1412	2507	
Total of Cures.	103	124	97	141	99	125	27	29	26	25	83	92	175	382	402	864	
Proportions of the Cures to the Admissions in each year.	1 in 2.13	1 in 2.29	1 in 2.34	1 in 1.97	1 in 2.25	1 in 2.03	1 in 5.74	1 in 6.38	1 in 6.96	1 in 5.	1 in 5.13	1 in 6.48	5.84	1 in 2.67	1 in 2.93	2.90	

LUNATIC ASYLUMS.

These are numerous and increasing, and are well conducted in England, Ireland, and Scotland. But this is only recently the case. Until a short period the insane belonging to the poorer class have been crowded into public workhouses, or shut up in houses of correction or in prisons; and associated with thieves and murderers. This practice still prevails in many countries, and I fear it does to a greater degree in our own. Instead of being classed as they should be with the sick and infirm, they are treated often as criminals.

In France, lunatics have long been well treated, and considered as sick persons, and attended upon in hospitals by the brothers and sisters of the religious order of La Charité.

In the Netherlands the insane are exceedingly well provided for; but in several other of the northern continental States they are not. In Hanover, according to Halliday, the whole of the lunatics of the kingdom are shut up in the national prison at Celle.

In Prussia, the lunatic hospitals are well conducted, as well as all the charitable establishments of that country.

In Spain and Portugal are lunatic asylums, where the inmates are kindly attended by friars and nuns, but little is done in way of cure. Insanity is not however very prevalent in those countries.

In Italy are several excellent establishments for lunatics, especially at Milan and Naples. Austria has not made the improvement in the treatment of the insane, which the neighboring countries have. Dr Burrows says the present lunatic establishment at Vienna is a disgrace to the capital and the era of the nineteenth century.

It may be truly said, however, of all countries, that asylums for the insane are too few. Though by an act of Parliament in 1806 the magistrates of the several counties in England and Wales, were authorized to erect asylums for the insane poor, yet

many counties still remain destitute, and the insane still suffer for want of care. In the United States are a few asylums, and well conducted ones, but they are only enough to relieve a small portion of the suffering that abounds from insanity, and which might be relieved by more numerous and larger asylums. But we trust the time is not far distant when every State in the Union will have one or more for the *insane poor*.

There are several private establishments in this country, where the insane, who have property, can be well provided for and attended to, but as yet there are but few public establishments.

In the State of New York there is one at Bloomingdale, a few miles from the city of New York, and which usually contains about 150 inmates. There are two in Pennsylvania, and some of the other states have recently erected asylums for the insane.

There is one in Connecticut at Hartford, erected in part by the funds of the State, and partly by individual liberality. This contains about fifty inmates and is well conducted, but it is altogether inadequate to meet the wants of the insane even of this small State.

The State of Massachusetts has during the past year completed a magnificent establishment for lunatics at Worcester, near the middle of the State. It is called 'The Massachusetts State Hospital for the Insane,' and as its name implies, was erected exclusively by the funds of the State. The first appropriation for the building was \$30,000. The second for furnishing the hospital and preparing the grounds and outbuildings, was \$20,000. This may be considered as the actual cost to the State, as the land, consisting of about twelve acres, was given by the town of Worcester, and the sum of \$500 was left by Nathaniel McCarty in his will, for ornamenting the grounds.

Accommodations are provided in the building for 120 inmates, and it now, (in April, 1833,) three months after its completion, has 79 inmates. All patients are supported by themselves if they have property, if not by their relatives in the direct line. On

failure of those sources, they are supported by the towns where they have a settlement.

This hospital is intended for lunatics furiously mad, and dangerous to the peace and safety of the community. This class have the preference of all others. Town pauper lunatics have the next preference. Dr Samuel B. Woodward is the physician of the institution.

TREATMENT OF INSANITY.

This subject has usually been treated of under the division of medical and moral treatment.

The medical treatment has been as various as the theories of medicine. At one time copious bleeding has been resorted to, and during the prevalence of the belief in the humoral pathology, attempts to evacuate and purify the bile were supposed to be the only rational method of treating the disease. Some have advised shower-baths, and cold and warm baths; others purgatives; others opium, digitalis and other narcotics, and bark, as the best remedies for insanity.

I think with Dr Spurzheim that the medical treatment of Insanity is to be reduced to sound principles of pathology in general, and hence no one method of treatment is applicable to all cases.

The treatment proper for recent cases may be injurious to those of longer standing. The previous health of the patient, age, and duration of the disorder, necessarily demands a different course of treatment.

According to M. Foville, Bayle and others, who had opportunities of opening the heads of hundreds of insane persons, no adhesions were found in recent cases, while they are very common in chronic cases. To prevent therefore those adhesions so generally found in chronic cases, is one of the most important objects to be kept in view, and as they indicate a previous inflammatory state, it is therefore evident that depletion, bleeding, and the withdrawal of stimulants are necessary in the first attacks. But, adds M. Foville, these reasons would have no influence with

me, if the results of my practice had not shown that they were correct. In this opinion he is supported by Rush, Burrows, Hallaran, Broussais, Georget, and the latest and best writers on Insanity. Burrows says, he is sure that leeching can seldom be dispensed with in recent cases.

Broussais observes, that since the time of Pinel, bleeding has been too much neglected in the early stage of the disease, and it is owing to this, he says, that those who do not practise it, seldom effect a sudden cure, while, by adopting this course, he states that often the irritation of the brain is at once subdued and the patient very soon restored to reason. The brain is relieved in the same manner as the lungs in a commencing peripneumony, by abstraction of the blood. This writer, however, and all others of deserved celebrity, cautions against copious bleedings, and says that for the most part topical bleeding is the best, and should be practised in the early stage.

But the acute stage which it is so important rightly to appreciate and treat, soon passes into the chronic, and then bleeding is not very often admissible. Then, plain but nutritious diet, decoction of bark, and often good wines are necessary. Narcotics have been used by different practitioners with various success. According to the celebrated Wepfer, opium is one of the most powerful means of cure, but according to Esquirol narcotics are more injurious than useful. No doubt there are cases in which they are highly necessary and serviceable, while in others they are injurious.

MORAL TREATMENT.

This subject is very ably treated by Dr Spurzheim, and deserves the profound consideration of all who are interested in treating the insane.

On one point there is great uniformity of opinion among medical men with regard to the insane, and that is the importance of separating the patient from his family and customary associations. This, though revolting to the feelings of friends and of the pub-

lic, is a point urged by all writers upon this disease, and it is unfortunate for this afflicted portion of our fellow-creatures that such a state of feeling should exist, as it lessens the chance of recovery, by the delay it produces.

It is also to be lamented, that many look upon insanity as a disgrace, or as a disease that results from some criminal offence. This inclines many to conceal the fact that disease exists in their families, and thus the precious time for curing the disease passes away. More just views are however beginning to prevail, and we hope the time is not far distant, when those who are deprived of their reason will be immediately placed in institutions where they will have all the advantages which the best moral and medical treatment united can afford ; where they will be treated at all times with kindness and perfect candor, and as reasonable beings ; and where they will have all the enjoyments of society and comforts of domestic life, not incompatible with their safety and the means used for their recovery. When this course is adopted, we shall expect to find not only a diminution of the number of the insane, but those who unfortunately become so, very generally and speedily restored to usefulness, to their families and to society.

A. B.

Hartford, April 25th, 1833.

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BIBLIOGRAPHY.

The following list comprises most of the valuable works on Insanity, which have appeared within the last fifty years.

CHRICHTON, (Alexander,) An Inquiry into the Nature and Origin of Mental Derangement, etc. London, 1798.

PINEL, Memoire sur la Manie Periodique ou Intermittente. Tom. 1. des Memoires de la Societè Medicale d'Emulation. Paris, 1797.

DITTO. Recherces et Observations sur le Traitement Moral des Alienes. Tom. 2, des Memoires de la Societè d'Emulation.

DITTO. Observations sur les Alienes et leurs Divisions en Especès Distinctes. Tom. 3, des Memoires de la Societè d'Emulation.

DITTO. Traite Medico-philosophique sur l'Alienation Mentale ou la Mania. Paris, 1809.

COGAN, An Ethiological Treatise on the Passions, 1803.

REIL, Rapsodien uber die anwendung der Phychischen cur-methode aufgeistes Zerruettungen, 1803.

ARNOLD, Observations on Insanity, etc. London, 1806.

AMARD, Traite Analytique de la Folie, 1807.

HASLAM, Observations on Madness, etc. London, 1809.

HALLARAN, Observations on Insanity, London, 1810.

RUSH, On Diseases of the Mind.

COX, Practical Observations on Insanity, etc.

HILL, On the Prevention and Cure of Insanity, London, 1814.

JACQUELIN-DUBUISSON, Des Vesaines ou Malades Mentales, Paris, 1816.

ESQUIROL, Memoire sur les Crises de l'Alienation Mentale. Journal de Medicine de Sedillot, 1804.

DITTO. Articles, Folie, Manie, Monomanie, Demence, Idiotisme, du Dictionnaire des Sciences Medicales.

ESQUIROL des Passions considerees comme Causes, Symptom est moyens de Traitement de l'Alienation, Paris, 1805.

GEORGET, Traite de la Folie, Paris, 1827.

DITTO. Articles, Folie, Idiocie, du Nouveau Dictionnaire de Medicine.

DITTO. Examen Medical de plusieurs proces Criminels.

FALRET, du Suicide, de l'Hypochondria, Paris, 1822.

HOFFBAUER, Medicine legale, relative aux alienes, etc. trac, de l'allemand pas Chambeyron, avec notes de MM, Esquirol et Hard, Paris, 1826.

VOISON, des Causes Morales et Physiques des Maladies Mentales, Paris, 1826.

BOUCHET, et Cazauvielh, de l'Epilepsie considerée dans ses Rapports avec l'Alienation Mentale, Paris, 1826.

CALMEIL, (L. F.) de la Paralyse considerée chez les Alienes, Paris, 1826.

DELAYE, (J. B.) Dissertation inaugurale sur la paralyse des Aliens, Paris, 1825.

BAYLE, Traite des Maladies du Cerveau et de ses Membranes, Paris, 1826.

KNIGHT, (P. S.) Observations on Derangement of Mind, 1826.

HALLIDAY, Sir A., On Lunatic Asylums, London, 1828.

BURROWS, On Insanity, London, 1828.

BROUSSAIS, De l'Irritation et de la Folie, Paris, 1828.

CONOLLY, Indications of Insanity, etc. London, 1830.

FOVILLE, Art. Alienation Mentale, Dictionnaire de Medicine, et de Chirurgie Pratiques, 1830.

COMBE, (Andrew,) Observations on Mental Derangement, 1831.

EXPLANATION OF THE PLATES.

PLATE I.

Six figures of idiots, whose brains, with respect to size were defective in different degrees.

PLATE II.

Fig. 1. The skull of an idiotic child of eight years.

Fig. 2. The skull of an old person idiotic from birth.

Fig. 3. A skull, and fig. 4, 5, and 6, three heads, distended by water in the interior of the brain.

PLATE III.

The plan of an hospital for curable insane. A large place is surrounded with a wall, and divided into two parts, A and B, one for men, the other for women.

1. Entrance.
2. Hall.
3. Porter's lodge.
4. Committee room.
5. Reception room.
6. Apothecary's shop.
7. Physician's & visiter's room.

8. Laboratory.

9. Linen stores.

Under ground are the kitchen and provision stores.

10. Yard.

Both wings of the front buildings are only on the ground floor, and destined for the dirty, noisy, and dangerous patients. There are two subdivisions.

11 and 16. Galleries.

12. Keeper's lodge.

13. Yard for the dirty and noisy.

14. Shelter.

15. Cells for dirty and noisy patients. As they are near the attendants, cleanliness will be attended to.

17. Yard for dangerous patients.

18. Shelter.

19. Strong cells.

20. A very strong cell.

21. Swing, and shower bath.

22. Cold and warm bath.

23. Straw stores.

24 and 25. For keeping and examining the dead.

26. Wash-house. 37. Water-closets.
 27. Drying room for the winter. 38. Place for rabbits, pigeons.
 28. Drying place for the summer. &c.
 29. Gravel walk, which admits house and within the walls.
 free communication of air. 40. Fields and gardens.
 30. A great door.

The middle part of the front building consists of the ground floor, first floor, and garrets. The first floor is inhabited (if the side A contains the men,) over 3 and 4, by the master, so that from his abode he can overlook the yards of the dirty, noisy, and dangerous patients. For the same reason, the matron lives over 5 and 6. The rest of the first floor may belong to the medical attendants living in the house. In the upper story are the abodes of other attendants and servants.

The longitudinal wings may be one or two stories high; they are isolated from all sides for the sake of free circulation of air; they contain the quiet and innoxious patients.

31. Place whence the whole wing is to be warmed by means of flues.
 32. Gallery.
 33. Keeper's lodge.
 34. Eating room.
 35. Single cells.
 36. Cells for two beds, to prepare the patients for the house of convalescents. If necessary, some of these may serve as day rooms.

PLATE IV.

The plan of the house for convalescents. It is divided into two sides; A for men, B for women.

1. Entrance.
 2. Porter's lodge.
 3. Visiter's room.
 4. Eating room.
 5. Long table.
 6. Work rooms.
 7. Water-closets.
 8. Staircase, leading the patients to the first floor.
 9. Yard.
 10. Bath.
 11 and 12. Work places for sawing stones, or twining ropes.
 13. Wash-house.
 14. Door.

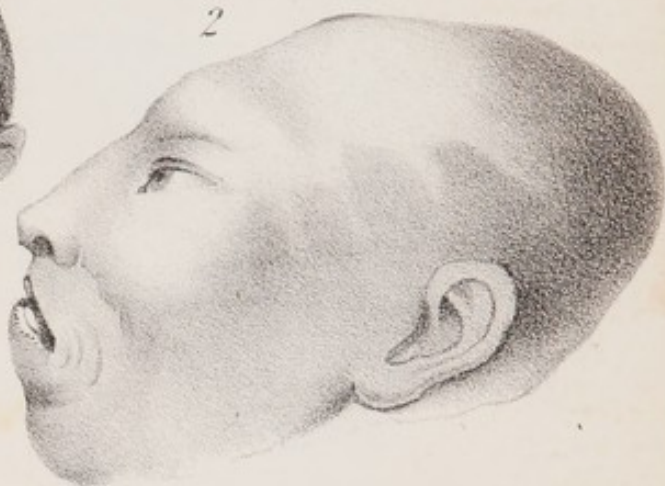
The figure at the upper end of the plate is the plan for the second floor.

- 15, 16 and 17 are inhabited by the master and matron of the house; 15 may serve, at the same time, as a committee room.
 18. Large sleeping rooms with two rows of beds.
 19. Iron grate, which separates men and women, but allows them to see each other.
 20. Fields and gardens.

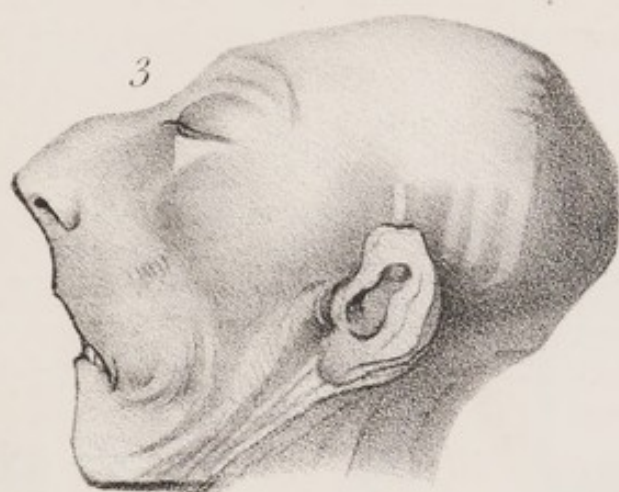
Fig. 1.



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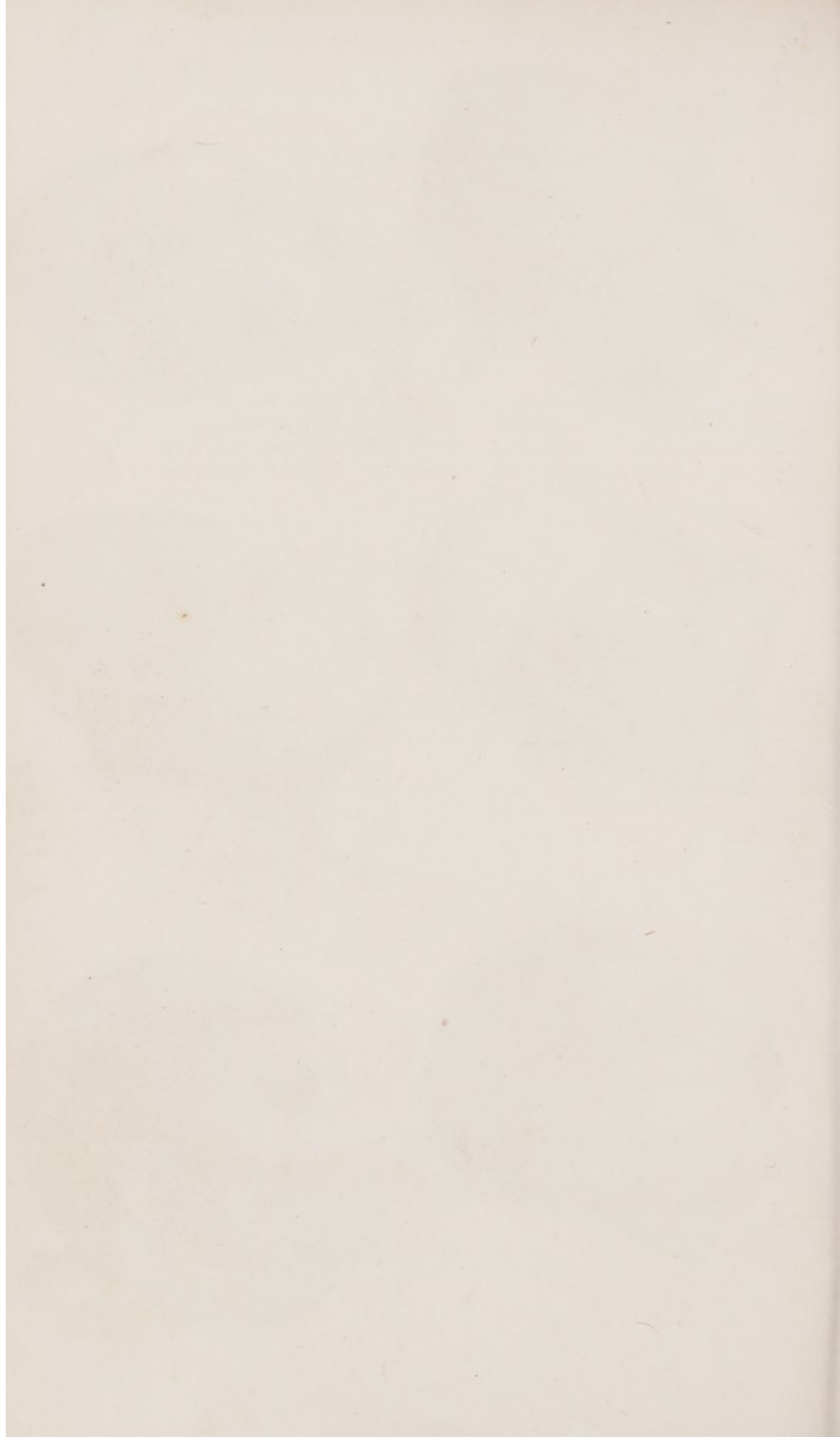


Fig. 1



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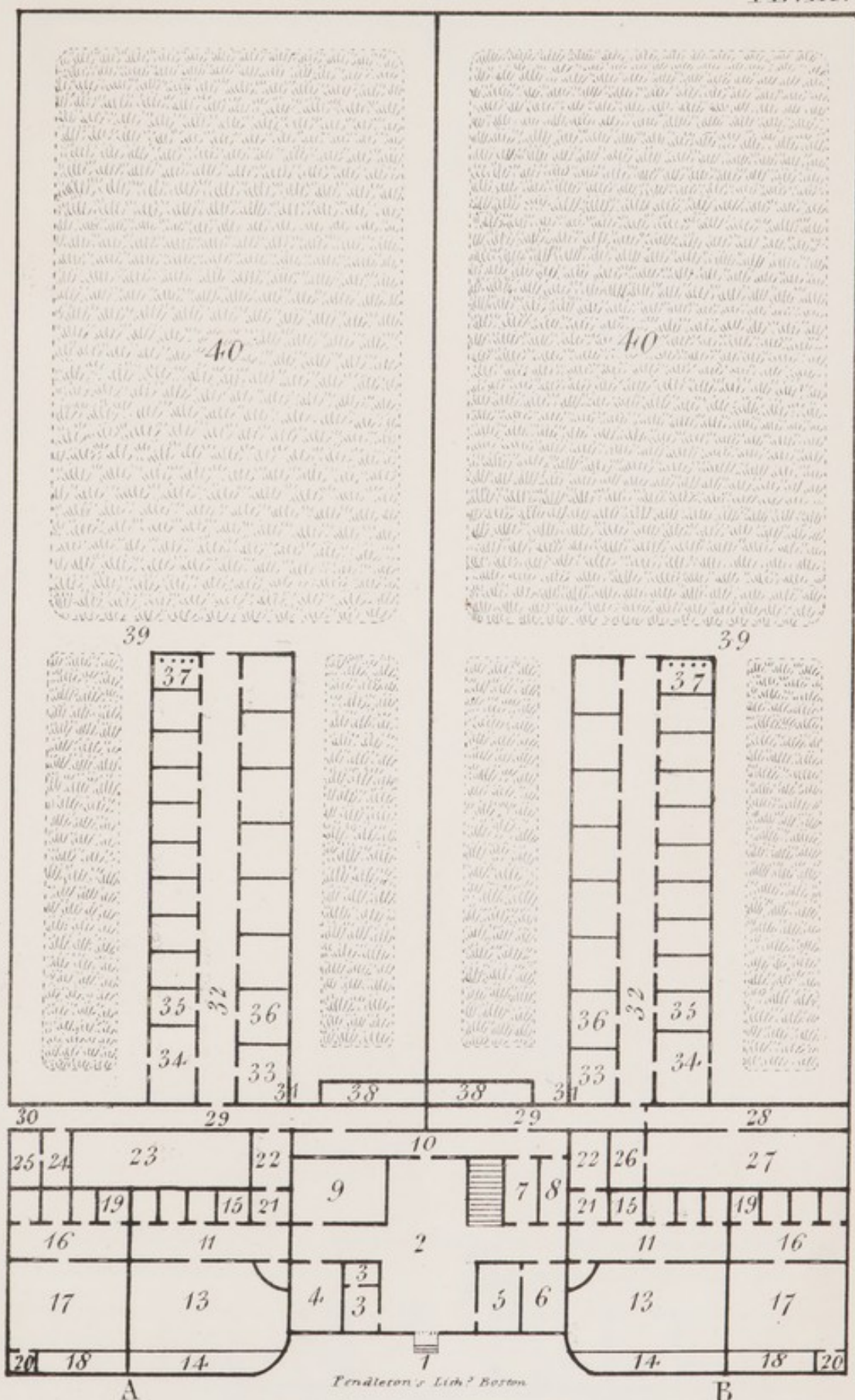
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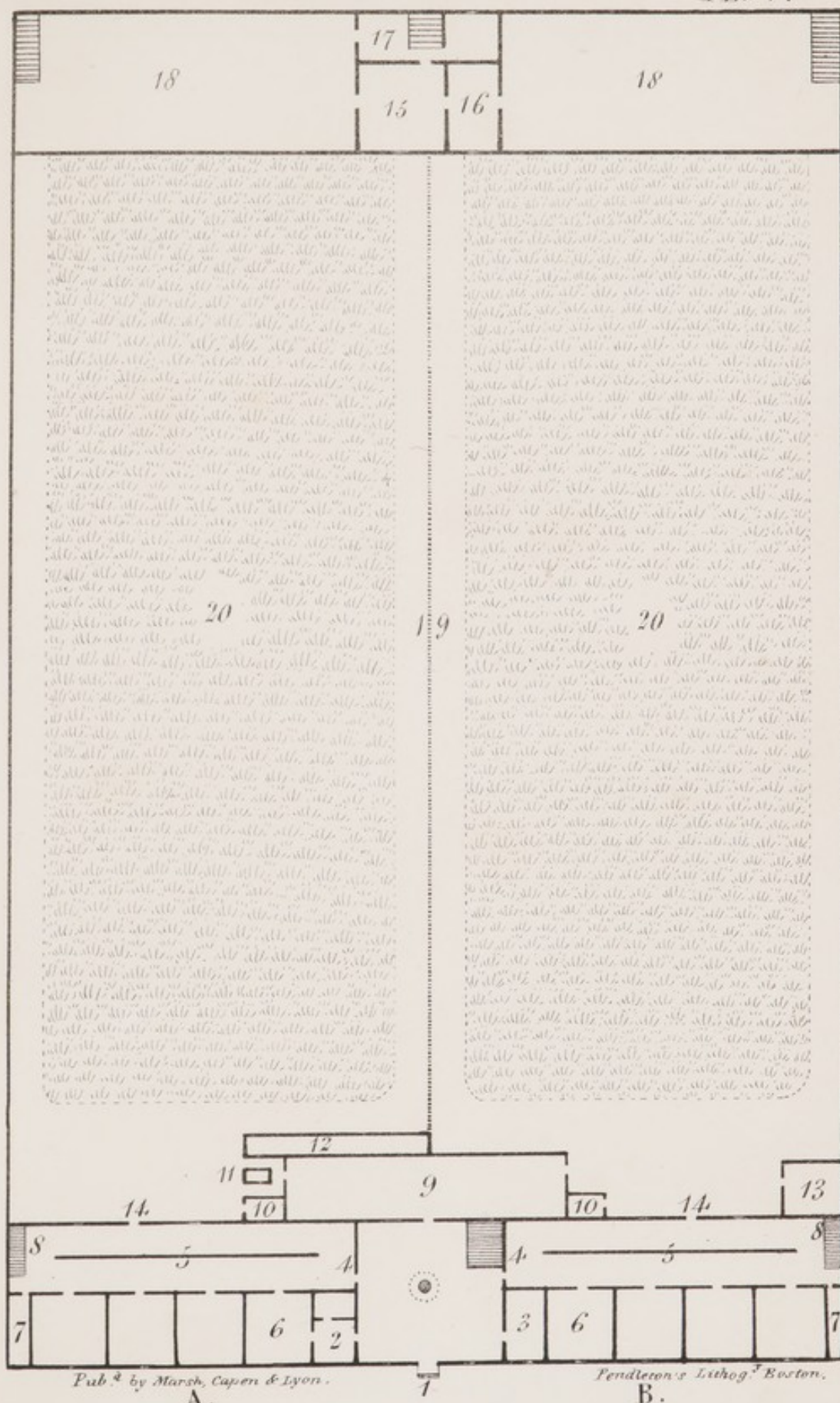
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Pub. by Marsh, Capen & Lyon.

A.

Pendleton's Lithog. Boston.

B.



