Essay
on
Achirian Terrors
by
Andrew Spital
Isle of Man
1850

"The sober glass that shakers within
the mind,
forms a sad sediment of times most sand."
Byron.
Olfactory Insensibleness.

This affection holds a distinguished rank amongst the insensible diseases to which mankind is liable, and may be truly said to arise from the effect of habits and circumstances, rather than from original conformation, or accidental causes. If we trace this complaint to its source, we shall find that the spring of it is, an abuse of indigestible spirits and other disagreeable stimulants, which induce an insensible state of debility both of body and mind, and materially abridge the term of existence, by entailing on us a malady that might be altogether prevented by a proper exercise of the faculties in moderating the broodings to which our frail nature is subject.

It has been described by different authors under various appellations, such as

Peronism, Mr. Berson & Armstrong, Erminia à Poten, by Snowdon & Cotter, Encephalitis héméragique, by J. Trench, Erminia à Poten intermécécia, by Tachard.
Delirium, coma, tremor, by Mythoan;
Prima à Smalesont, by Klapp; La Fête des iroquois, Incéphaloptéridic lipphalace,
Delirium tremblant, by French writers;
Ostomama, by Rayzi; Delirium formes,
by Sutton; Delirium excrescentes, by Blake;
Delirium tromfaecies, by Glad;
Phrenexia potatorum, Delirium striata
cotatorum, Delirium potatorum eum
remoribus, etc. and many other forms,
by Roman authors. Much controversy
has taken place amongst the authors
on this disease respecting the
proper term for its designation, and
up to the present time, no truly approb
name has been suggested by anyone;
that, first employed by Dr. Cotton,
although not entirely free from objection;
not known to the profession, and
on that account has been generally
made use of since the publication of
his valuable essay.

This kind of delirium is described
as occurring in two distinct forms,
the one evidently connected, the other
vascular action in the membranes of
the form, and associated with great irritability; the other consisting chiefly of the last state, attended by exhausted nervous energy; yet, cases sometimes seem of a character so complex as to make it difficult to determine whether they belong to the one or the other. Hopefully, it is of importance with a view to treatment that a distinction should be made, as much as the predominance of the character of either form will indicate the propriety of employing more or less of that treatment which is appropriate to it. Thus when the disease arise as it most commonly does from the excessive use of alcoholic fluids, it may assume more or less of the features of either form, according as it is directly or indirectly produced by this cause; but if it be viewed as a consequence of inflammatory action only, or as proceeding from nervous exhaustion exclusively, the conclusion will in either case be only practically correct, and the practice founded upon it frequently injurious. The first
form of delirium constitutes the connecting link between that which is purely nervous, and that depending upon inflammatory action of the membranes of the brain, yet in some cases it may turn into, or form a slight grade, or modification, of inflammation of these parts, but that it always is strictly inflammatory is disproved by the fact that it will often subside spontaneously in a short time after its cause has ceased to act. The "Delnism Eronius" of some writers, or the delirious affection which is immediately consequent upon intaipication, is an example of this; it sometimes subsiding in a few hours, or in a day or two, when not injudiciously intermixed with it; but as this is only an occasional occurrence, it cannot be trusted to. This state of delirium, when directly produced, as it generally is, by intaipication, is not always characterized by terror at the commencement; but, when thus accompanied, it is often mistaken for the true form of delirium tremens, into which, however, it not
In frequent cases, chiefly among the cases in which it had originated
the second form of delirium is that which is usually denominated the
"true delirium tremens" by modern writers, and was at one time very generally
confounded with Phrenze until Dr. Phillips, who first gave a good
description of it, at the commencement of the present century, 19. In Johnston
and Armstrong's essays on the subject
and Dr. Collins & Ladd in their lecture
Treated of it as a distinct affection,
regaining a peculiarity treatment. Dr.
Blake in his treatise on the subject
has observed, that traces of this affection
may be discovered in the writings of
ancient authors, even as far back as
traces of Hippocrates, under the heads
of Jubile, Phrenzie, and Maniacal
diathesis. It has also been thought to
constitute a large proportion of the cases
known as "Hysteria" by the writers
of the sixteenth and seventeenth centuries,
and was described in 1778 by Stolle,
under the name of "Phrenzy" as pointed
out by Professor Sargent of this body. In Dr. Cole's lectures on surgery, that manifestation of it observed after external injuries, is stated by Dr. Blake to have been noticed, with an accurate reference to its chief, although apparently the predisposing cause, and in the means of cure which repeated observation has shown to be most successful. Caused by the former state of delirium is not only occasioned by the use of intoxicating liquors, but also by the excitement of the cerebral organs by intense or prolonged study, particularly when prosecuted under the influence of depressing causes. Dr. Johnson states, that he has met with it in young ladies, whose mental powers had been exhausted by this cause, and as the treatment which he found successful in it is essentially the same as that which is most beneficial in this affection, he was led to conclude that it was most probably the form of the disease, that he had observed.
Excessive general indulgences, intemperance, different debility affections, and other circumstances which tend to diminish the general strength, act also in some ease instances as predisposing causes.

The latter state of delirium which has been called "Delirium Formanitalia" by French writers, and "Delirium Frensis" by Rawdon, makes its appearance chiefly in persons of intemperate habit, yet this is not the only cause; it may be also occasioned by the immediate and long continued use of narcotics, especially Opium, or the drugged beverages prepared in Eastern countries, which when too freely indulged in may produce a state of the constitution favorable to the production of this malady. It has been seen to follow the use of Coffee & Tea in some cases, & one case has been recorded where the indiscriminate use of Tobacco brought on the disease. It is stated by Dr. Berridge (ed. Rec. Med. vol. 2) that an over indulgence in Issa produces the disease. & also that it has been seen...
to follow the use of beer in which
Inebrius Indicus had been infused
by some unprincipled Grocer, the presence
of which not only in this, but in other
cases, must probably tended to the
production of the disease. A slight
form of it, or merely tremors of the
hands and limbs, with different nervous
pains, and occasional illusions, will
sometimes appear after the habitual
use of spiritsuous liquors in small
quantities, without intimation having
been once produced, hence all persons
who from the nature of their occupation
have facilities of obtaining wine or
alcoholic spirits, are frequently affected.
The principal exciting cause concerned
in the production of this affection,
are, the too sudden abstraction of the
accustomed stimulus, after an habitual
or continued indulgence in it, a
contracted debauch, followed by
sudden privation, or by depressing
agents acting upon that state of the
nervous system produced by previous
intemperate habits and indulgences,
But notwithstanding their having been for a length of time relinquishe\text_emph\_d--longer or repeated debauches employed to remove the headache or stupor of Drunkards or the first form of the Delirium--great mental depression or despondency, particularly in young men leading a life of debauchery--the debility caused by the deplorable or cholera--sometimes consequent on intemperance--suffer to old--a course of mercury, and the preservanal state. (Dr. Bophard mentions having seen two cases arising from the last cause in females who were habitual drunkards, the disease ensuing a few days after delivery.) The use of intoxicating liquors and the neglect of sufficient food--the shock given to the system by wounds and operations. It had been repeatedly noticed that men who are in the habit of drinking freely, and at the same time eat largely of animal food, twice or even three times a day, rarely become the subjects of this disorder: but if they fall off in their appetite for this kind
of food, and still continue to take their usual quantity of beverage, their disease perhaps unperceived; they become disordered, and the disease soon sets in with its usual swiftness of operation. Numerous observations tend to show that Delirium Tremens is most common in individuals of a weak and debased habit of body, but, on the other hand, it is not infrequent in the strong and healthy. In these latter however, as for instance among the Irish or among the lower classes in London, it may be questioned whether the strength is not more opposed than real, and that before the disease appears, a state of debility has been induced by the quantity of beer and spirits they consume.

Practitioners have too generally concluded that the delirium of drunkards is always of the same kind, and have overlooked differences very generally subsisting between those immediately produced by intoxication (the first form of this affection) and that indirectly occasioned by it, the second form, or true delirium
Terminates, the occasional, or even a single indulgence in intoxicating liquor or excess will sometimes give rise to the former; a repeated, habitual or instinctive indulgence is requisite to the appearance of the latter.

The disease may also impinge on various acute disorders, such as, Acute Hemorrhage, Insipidus of the scalp, Erysipelas Genu, Phrenomania, Scrofula, &c., but, in all such cases its peculiarity and immediate supervision may be attributed to the invasion of the accustomed stimuli, which in contrast with the usual antiphlogistic treatment employed, would, in patients predisposed to delirium tremens by previous habits of intemperance hasten its development in Phrenomania especially. So many cases have been recorded, that doubts have arisen as to the propriety of calling them cases of delirium tremens. The delirium in such instances may resemble in its character that which accompanied by tremor, is observed in Atorrhoea, and it is to the disease occurring under these
circumstances, that this designation should refer. It is manifestly wrong, therefore, to include in the same class cases of delirium occurring in Pneumonia, the individuals being of temperate habits, and such cases do constantly present themselves. It appears that children are proportionately more prone to Pneumonia. Among Stockholmers has furnished us with some intimate data concerning this and other complications (Schr. jahrbücher, vol. 26, p. 23). And, what is remarkable, it himself manifest itself in them by the usual vital symptoms, although spreading and advancing to the last stages with astonishing rapidity.

In this respect an excellent criterion may be derived from the researches of Hering, who found that in delirious persons without heart affection, the proportion of the indications to the strokes of Palpitation in a minute was as 1½ 6, whilst in healthy persons it is as 1½ 4, and on the other hand in certain types of cerebro diseases as 1½ 2 and upwards / hearing. Still the
SYMPTOMS. The phenomena of delirium tremens vary remarkably, from the slightest forms of nervous tonic with spectral illusions, and accelerated pulse, to the most alarming state of vital depression, muscular agitation, and mental alienation.

The first form is especially characterized by a kind of resisting sense in the earlier stages, a parched and rough tongue, red at the point and edges, hot dry skin and flushed countenance. There is often also, but not always, trembling of the hands and sometimes of the whole body, with great irritability, constant watchfulness, or that restless sleeplessness which afford no relief.

The second form has been divided into three stages by Dr. Blake and other writers, its duration however, he reckoned that they are not always obvious or clearly defined; that they exist only in three cases which evidene
on the abstraction of the intoxicating stimuli, that the first stage is usually in those that more immediately follow intoxication, and consequently, in most, if not all, the first form have described, and that, in the form now being considered, it is but seldom brought under the auspices of the physician, medical aid being seldom required until the second stage is developed. The first stage frequently appears from two to eight or nine days after a protracted debauch, or prolonged fit of intoxication, and is commonly attended by slight febrile action and gastric disturbance, often aggravated by some accidental cause, external injury, or contingent ailment generally the immediate effects of excessive, but the length of time which elapses before the abstraction of the accutated stimuli, and the commencement of the symptoms, is often lamented. According to Dr. Black, the first indications of the disease are, a peculiar weakness of the pulse, coldness and clamminess
of the hands and feet, general debility, diminution of the animal temperature, trauzaa and occasional vomiting, particularly in the morning; great loss of appetite, and aversion from animal food; excessive perspiration from trivial exertion, frightful dreams, vertigo, and sometimes cramps of the extremities we complained of; the bowels are often constipated, but sometimes open, or such delayed, and the tongue is tremulous, furred, and moist. The peculiar timbre of the hands, is in most cases present in this stage; but in a few it is not remarked until the next. The spirits at the same time are much depressed, the patient sighs frequently; his countenance is anxious and dejected; he complains of depression of the spirits, is anxious about his affairs, and is either restless and watchful, or has short and violent slumber. This state seldom continues longer than a few days, and in the old and worn out, it does not; is generally of longer duration than in the younger and more robust.
in whom it may be followed by increased vascular action in one or two days.

The second stage commences with restlessness, a peculiar wildness of the countenance, and a fixed, anxious manner, marked susceptibility of the nervous system, great irritability of temper, acceleration and quickness of the pulse, and various mental illusions and hallucinations. The heat of the surface of the trunk increases, but the hands and feet retain the same coldness and clamminess already noticed. The mental delusion becomes more constant as this stage is developed, and is generally of a low or melancholic kind, with continued reference to the patient's failing health and solicitude, and anxiety respecting them. He sees objects which seem to press near or touch him, is continually haunted by frightful creatures, or occupied with most extravagant ideas, and is constantly endeavoring to avoid them. He will becomes altogether deprived of
sleep, the restlessness and quickness of manners increase; the countenance is more anxious; the tongue is more deeply stained; the thumbs of the hands and tongue continue without permission; the bowels are either constipated, or, if relaxed, the evacuations are very dark and offensive; the mime is scanty; the pulse soft and compressible; its small and ranges between 100 and 110; the pupils are contracted, but the eyes are hot intolerant of light; and the patient is talkative, constantly occupied with the objects of his delusions; he cannot be kept in one place, and often suffers a violent and angry. This stage usually continues from one to three or four days; when it terminates, either in a general mitigation of the symptoms, or in some profound collapse of the vital forces, thereby constituting the third stage. The third stage in the lighter or more favorable cases is ushered in with mitigation of the foregoing symptoms; yawning, despondency, and profound sleep which generally terminate the disease;
but in the more dangerous cases, the preceding phenomena become more severe, and accompanied by more complete depression of vital power, and increased irritability of mind. The patient makes violent and excessive struggles which are attended by very obvious perspiration. As the malady advances, and the meningeal, the coldness and clamminess of the hands and feet, which had been extending upwards during the second stage, spreads over the whole surface; and the pulse becomes still more frequent, small, weak, or thready, and sometimes even hardly be counted: the temperature in the hands, and often遍及的 whole frame, resembling more nearly that occasioned by loose cold, than the nervous points of some other affections. The perspiration becomes more and more cold, and exhales a peculiar smell, which is, as Dr. Hodgkin has remarked, between a vinous and allaceous odor. The countenance is commonly pale and anxious; the pupils very much contracted, the tongue loaded, and often
Browish at the centre and post, and occasionally red at the joint and edges; the patient talks incessantly, and with great rapidity; the delirium increases in violence; and the mind is excessively irritable, continuing so until shortly before death, when either a calm takes place, or the patient is carried off in a convulsion.

Such is the more common form of the delirium tremens; yet, it must be recollected, that the three stages into which it has been divided, are not always separated by any obvious limit, or even so distinctly defined as generally observed and stated; the phenomena often supervening in so gradual and continuous a manner, as to render it difficult to determine the end or commencement of each, without much attention to all the symptoms and to the history of the case. Sometimes it presents mere loose forms, in which the phenomena approach those characterising the former species, or the "delirium etnorum", in which the
vascular excitement generally, and that of the brain in particular, is greatly
and relatively of a more ethereal kind.
The second form is, however, sometimes
consequent upon the first, particularly
when treated by too rigorous depletion;
the vascular excitement of the one
passing insensibly, but often rapidly,
into the profound collapse involving
the latter stages of the other, and this
may even occur, although the delirium
at the commencement was not attended
by fever.

Diagnosis - The disease may be
mistaken for the first form, for fever
or inflammation of the membranes and
paralysis of the brain, for the delirium
of fever, and for congested convulsions
or insanity. It is to be distinguished from
the first form of this kind of delirium,
by its coming on a short time after
a protracted fit of intemperance, instead
of immediately upon it; by its being
tended indirectly, instead of directly,
by the same abuse of intemperating liquors,
and by the pulse being hard and resisting,
the face more flushed, the surface of the trunk hot and dry, the delirium more violent, and the patient more irritable, the tongue knotted & rough, and the vascular excitement comparatively greater and more intense, in the first form, than in the second; although occasionally a few cases of the latter approach these characters of the former. The same differences, but in greater degree, exist between delirium tremens and delirium, in which are wanting the cold, coccus, clammy & peculiar perspiration, the soft pulse, and the most tumultuous tongue, and hands. The impatience of light, and fulness of the vessels of the eyes, which accompany the latter, are not present in the former. The illusions also of delirium tremens are peculiar, and are accompanied with an anxious, fearful, and constant reference to some person which had previously interested the patient in a particular manner. He can recognize his friends, and return a rational answer to some questions, and when not irritated
to exposed, is more tractable, and manageable, than in phrenitis. Dr. 
Morton in his lectures mentions another 
mode of destruction, and probably a 
more rare, or than acute, to have been 
brought to light by Mr. Bence Jones 
in some highly interesting researches. 
Mr. Jones has shown a contrast to 
exist between the two forms in respect 
to the amount of earthy and alkaline 
phosphates excreted with the urine. 
In the latter, forms of delirium tremens 
there is a marked diminution of these 
phosphates; in acute inflammation of 
the brain a considerable increase.
Taking the average from three examples 
of each disease, the difference, was in 
proportion of 1 to 12, the extremes 
presented the extraordinary rates of 
1 to 23. Mr. Jones concludes that the 
"species of phosphates may be regarded 
as resulting from inflammatory action 
going on in the brain, while the diminution 
of the same phosphates in delirium 
tremens must be considered as caused 
by the positive influence of that disease.
Of formation of phosphporic acid, which in the healthy state is continually taking place. By the history of the case, this affection may be readily distinguished from the delirium of fever or typhus, it being the primary and the most prominent ailment; delirium generally supervening late in fever, in this disease there is a marked tremor of the hands from the beginning, and the patient in the last stage seems to search after objects, which he imagines he sees creeping over his bed, or floating before him. In the delirium of fever, the peculiar tremors are wanting, but there are subcutaneous tendinum and flaccidata from maniacal insanity it may be distinguished chiefly, as before stated, by the great frequency and stiffness of the pulse, by the corporal cold, and peculiar sensation, the tremulousness, by the history of the case, this being in acute, the other a chronic malady. Dr. Blake considers that we should perhaps arrive nearer a pathognomonic distinction in stating, that in cases
Of mania, the mental arrangement increases at the appearance of daylight, while the contrary is invariably the case in the disease in question; all the symptoms become more violent at night and undergo a sort of remission as the day begins to break; by which it would appear that confirmed madness is beyond the instincts of bodily excitation, while this disease is still within its control. The stimuli of light, or indeed of any excitant, seem of advantage in delirium tremens; but not so in the commencement of mania: its symptoms are invariably exasperated by such influence. Dr. Grimmett states (ib. Proc. Med. Vol. 2) that the expression of the countenance in these two diseases is very different, and may be readily distinguished by an experienced eye. At the same time, acknowledges, that the diagnosis is often very difficult, especially when there is no trembling. When it occurs in the less perfect state, the difficulty of distinguishing it from the mania sometimes improving
at that period may be considerable, the tremors, the greater frequency of the pulse, and more obvious and colder perspirations, will point out the nature of the affection, and will lead the physician to treat it according as the symptoms indicate a greater or less predominance of nervous exaction or vascular operation.

Prognosis — In a constitution not as yet much injured by the cause of the disease, a first attack or even a second or third generally terminates favorably, but its more frequent recurrences, particularly if it be attended by signs of vascular irritation, or ischemia of the brain, or by degree of the tongue, and its complication with some other disease, are circumstances indicating great danger. A want of correspondence in the pulse, and the superintervention of subacute tenderness, or convulsions, or low and muttering delirium, the pulse becoming quicker and smaller are generally unfavorable signs. When caused by fevers, it is also more
dangerous than when proceeding from intoxication.

On the other hand, a general mitigation of the symptoms, less frequency of pulse, moist skin or sound sleep, are indications of a favourable termination being at hand.

In all cases however, one prognostic should

be guided in a great degree by the

deepenent's strength, age, and previous

habits of the patient, whatever be the

treatment pursued.

Pathology – Post mortem appearances

done furnished only negative information

as to the nature of the disease. In the

tone delirium tremens, the membranes

of the brain swince but little change,

the single lesion consisting of slight

opacity of the arachnoid, especially

at the base of the brain and vicinity.

The pia mater is somewhat injected,

and sometimes effusion of fibrin is

observed in the cavity of the arachnoid,

and in the cisterns, and in many

cases no morbid appearances whatever

can be detected. In those cases which

have accompanied a distinctly followed
Intoxication, these appearances are more marked, and more manifestly inflamingatory, the capsule is often much congested, particularly those of the \textit{lien} \textit{intussusception}, the \textit{arachnoidal} thickened, and the \textit{serosum} more oblong, and occasionally seen longaneous. 

goldberg found a defect of lump between the membranes of the brain a common appearance, and an rejected state of the \textit{arachnoidal} is not unfrequent the internal surface of the stomach. generally, presents appearance of chronic gastritis, the mucous membrane being thinly thickened or softened or both, and the villi effaced. the thin is variously diseased, often enlarged, granulated, of a yellow or brown color, more or less altered by the fatty degenerates the lesions, however, of the stomach and liver, are coincidences only, or changes contingent on the habits of the patient, and not necessarily connected with the pathology of this disease.

Much discussion has taken place amongst modern writers, as to the
nature of this disease, in consequence of an clear distinction having been made between that form of delirium with tine, which is the result of vital, and particularly nervous exhaustion, and that which depends chiefly upon increased vascular irritant, or inflammation of the membra of the brain. Although numerous instances will present themselves in which the former as well as the latter pathological state exists, the one, however, predominating over the other, yet the fact of either being present, almost always, if not altogether, so, perhaps, in a little greater number of cases, should not be overlooked, as it has been fully demonstrated by post mortem appearances. It is most probably in consequence of having noted the changes observed principally in the first form, or in such instances of the second as approach it the nearest, that Dr. Chatteris and Dr. Bright have viewed this latter as the consequence of inflammatory action in the encephali and suboccipital. Dr. Copland is of opinion, that the
inflammatory irritation, although sometimes an attendant on the affection, is not necessarily connected with it, and certainly is not the pathological state which produces it; and that, when present, it is not the only condition which is requisite to the development of its pathognomonic characters. Exhaustion or depression of both the nervous and sensorial powers being equally necessary to its evolution. He considers it probable also, that the total and nervous depression is increased by the morbid influence produced by accumulated secretions of a vitiated kind in the bodily system, and on the digestive mucous surface. This conclusion he deduced from a careful comparison instituted between the symptoms, the agent controlling them, and the varied appearances observed upon dissection. From this it may be inferred that the pathological states in the delirium tremens, and in the delirium of typhus
One must consider different, the state of the blood, the presence of congestion, and the greater affection of the substance of the brain, and of the organic function in the latter than in the former, may probably occasion all the differences of symptoms which exist between them; the vital exhaustion being nearly the same in both, or perhaps greater in typhus, and the nervous disturbance being more prominent in delirium tremens.

At present we one state unacquainted with the intimate nature of the disease, but we know sufficient to direct us as to practice; to enable us to state that in delirium tremens, uncomplicated with other serious disease, such as inflammation of some important organ, unless circumstances be peculiarly unfavorable, unless the patient's constitution is extremely shattered, or he is very injudiciously treated, he will recover from the immediate attack. All that is known on this subject is as yet very unsatisfactory and obscure,
in wide field for further investigation  

**SPTMENT.** Moderate depletion is  

requisite in the first form of this disease  

by cupping, or leeches applied behind the  

ear, and below the occiput, cold washes  

or lotions, or the tepid or cold affusion  

to the head, whenever its temperature  

rises above the natural standard,  

the tepid bath, or the surface of the  

bodily to be splashed with tepid water;  

tractive or combination with cordials,  

if the nervous powers be much depressed  

of the attack, be occasioned by intumescence,  

depression and antispasmodic enema;  

and the leper ammonis acetate with  

pieces of ammonis, and Compirum gramineum.  

Preparations are very beneficial, and  

may be frequently repeated with safety  

but they should always be associated  

with stimulants and then action from  

by enema. When this affection is  

caused by atmospheric reasons, great care  

should be taken not to carry the  

deposition, although local, too far, and  

upon the first indication of the subsidence
Of vascular excitement about the head, moderate doses of opium ought to be administered in addition to the medicines before spoken of, with the view of preventing the consequent definition, quelling the contraction of the frame and inducing sleep. Salomnd, given in manuscript doses frequently repeated, will also powerfully condice to diminish the vascular excitement.

Dr. Ckland considers, that in cases of this form of the disease, in which the vascular excitement return is not as great as to require bleeding, it has been somewhat reduced by this practice. Emetics may be judiciously employed, and Dr. Blund confoms the result of his experience, in recommending emetics of sulphate of zinc, assisted by the administration of methes, and stimulant, with the application of cold to the head, while the surface of the body and extremities are clanged with tepid water. This treatment is, however, not so appropriate when the affection is the direct result of...
Intoxication, but when it arises from other causes, vascular depletions, with purgatives &c. Cold applications to the head, and a once showing use of stimulants are most suitable. I may here mention a case which came under my notice, during the last summer; the patient had a man of temperate habits, strong, and robust, and by occupation a farmer, he had come some distance from the country into town to attend an annual fair, and having indulged too greatly in spirituous liquors, which is commonly the case on such occasions, was suddenly attacked with all the symptoms of the first form of this disease. Dr. Dr. Blake, by administering the salicylate of lime, was administered, as prescribed by Dr. Blake, and subsequently improved with a decided beneficial effect.

During the first stage of the second form of delirium tremens, it is better, if possible, to cut short the disease by administering repeatedly, small doses of opium, with full doses of corrosive...
Spinals of ammonia and salicylic acid in Cephalic rigidity, or the accustomed stimulus in moderate quantity and at short intervals. Anodyne and stimulating liniment rubbed over the epigastric are very efficacious and, in some cases, a warm bath will precede the use of liniments with much benefit. Most writers consider the administration of purgatives, in conjunction with stimulants of great importance and at as early a period as possible. Dr. Rhim states that the use of opium should be preceded and accompanied by purgatives. Dr. Capleaud also remarks that in all cases of the disease he has seen, there has not been one that has not indicate the propriety of prescribing cathartics, in order to remove accumulated secretion from the quantity of very dark, offensive, bilious evacuations which they have; moreover, often not until after their repeated exhibition, and even in cases where the bowels had been open or relaxed. He has concluded that collection of vitiated bile in the gall bladder and
Mr. Colpe mentions three cases of delirium tremens (reprinted from the June 16, 1849) in confirmation of an opinion previously expressed by him, that sleep may frequently be obtained by freely imbibing the liquor with large doses of brandy, after opiates have failed in accomplishing this object. The cases are well selected and pointedly establish the truth of his assertions.
hepatic ducts have favored the suppression of this peculiar affection. Under this conception he has always exhibited as early as circumstances would permit, an active chologogue, fungatine conjunct with stimulants in order to prevent the depression which might follow copious evacuations. He has recommended a bals consisting of ten grains of calomel, with a much consentor, and a grain of opium in concorse of water, followed by a warm stomachactive and efficient draught, and in m horn or two by an hour. Dr. Blake always adopted the same mode of treatment, but he prefers a drop or two of castor oil, as in addition to its efficacy as a fungatine, it expels all through the medium of the bume system, and, therefore, becomes a resideration in this stage of the disease. In the second stage enlivened after the employment of the above measure, or if the patient be not cured until it has resumed, the treatment should be continued by the exhibition of the
Remedies already mentioned in the preceding stage. As soon as delirium tones are increased, or when either alone, or with stimulants should be administered in full doses and repeated according to its effect. Some practitioners are in the habit of combining calomel with their opium. Dr. Newton disapproves of this practice in cases of pure delirium formicæ, as he says it can produce no possible good, and is itself a source of great irritation to the nervous system in many persons; its combination with scopolium, which has been much praised by physicians of great judgment and experience, appears to be chiefly adapted to certain modifications of the disease. Dr. Knight of Baltimore, strongly recommends the warm bath at a temperature of about 90°, as it assists materially in transfiguring the patient, and promoting the effects of opium. Although opium should be administered in full and decided doses, combined as before stated, it should not be persisted in, unless sufficient time be
allowed to elapse after each dose, 
for, as Dr. Blaikiston has observed, if it 
does not succeed after its exhibition 
at first in a decided manner, it excites 
the intellectual confusion and damps.

Enormous doses of this medicine have 
been recommended by some of the 
American physicians. Dr. Brown one 
from a dramion to half a dram or 
even more, of the tincture of opium for 
a dose. Dr. Lackton prescribes from 
ten, to fifteen or even twenty grains of 
solid opium, every two hours, and states 
that four ounces of good tincture of opium 
having been given in twelve hours partly 
by mistakes, a sound sleep of twenty-four 
hours duration, and perfect recovery 
was the result. These are not solitary 
instances, of the extravagance of some 
American practitioners; nor indeed, 
was the practice of giving excessive dose 
of opium been limited to them. Three 
ten grains of solid opium given 
every two hours successively until a 
dramion has been continued, also, 
two dramions of Belladonna sedative solution
of opium administered every two hours without interruption until an hour or two
the patient were taken, in both of these
cases recovery took place. Dr. H. of Boston, gives us his experience of the
effects of long doses of opium, in eight
cases of this disease. He administered
to each patient, from twenty four, to
seventy grains of opium in forty
eight hours; four of these cases proved
fatal, one died after the sleep had been
prolonged, and expired in a state of coma.
This is sufficient to prove that smaller
doses of opium ought not to be
indiscriminately relied upon, and
above all, that this powerful medicine
ought only to be given in full doses
during the second stage, or that of
first nervous irritability.
Dr. Copland and Mr. Wright have of
opinion that long and frequently
repeated doses of opium in this disease,
-from the suppression of coma,
convulsions, or paralyses, and that
the effects of an moderate quantity
of this drug, very nearly resemble the
Phenomena of the last stage of the disease, particularly towards its close, this fact should not be overlooked and should lead us to distinguish between the consequences of an injudicious treatment, and the worst features of the malady.

Opiate, however, is generally considered as necessary to the cure of this disease, administered in a quantity which sound sense will dictate, and after accumulated and morbid secretion and excretions have been removed, the discharge of which might be impeded or interfered with by the immediate employment of this remedy. In this stage, particularly when the delirium is attended by much agitation or violence, it is necessary to obtain an influence over the patient's mind by verbal means. All irritating stimulants should be avoided, and the patient's wishes when not likely to prove injurious to him, be indulged. By thus ascertaining what is the natural, he will more readily submit to what is important, but he
ought not to be left at any time 
without an attendant, and if indulgent 
but firm treatment be adopted, coercive 
measures will generally be found necessary.
In most cases after the commencement 
of such remission, a remission of the constipa 
may be expected to follow, with a desire to 
sleep—sometimes however, accompanied 
by nervous insomnia. Opium should now 
be left off, to its base amount diminished, 
and the patient kept as quiet as possible. 
Afterwards it will only be necessary 
to support the strength by a light 
and nutritious diet, and gradually 
diminish the quantities of the restoratives 
that have been prescribed.
That state of the disease occurring 
after external injuries, or operations, 
has been impelled chiefly by the excessive 
intemperate habits of the patient. it 
requires the same treatment as employed 
in this stage and will be amply 
benefited by small elixirs containing 
moderate doses of laudanum, administered 
after the bowels have been sufficiently 
irrigated, and repeated according to
circumstances. The treatment was much relied upon by Dr. Robertson, but if it does not remove the disease, after sufficient time has been allowed for its operation, a moderate quantity of the patient's favourite beverage should be allowed him, as suggested by Dr. Coles. Of two cases recently reported in the Medical Gazette, vol. 7, p. 237, which confirm the view taken by Dr. Coles, as to the origin of traumatic delirium in that state of the constitution which intemperance induces, opium jujled in one, and quinine acid, which was tried in the other, was equally unsuccessful.

If notwithstanding the treatment before mentioned, the third stage should appear, little hope of recovery can be entertained, as most likely some effusion has become extruded to exhausted vital and nervous influence. Nevertheless, medical aid should not be withheld, especially if the patient has not received it in the earlier stages, or has been inappropriately
treated. A blister should be applied to the head (the hair having previously removed) and a drenching over the epigastrium, administering at the same time large doses of stimulants and anti-dysenterics, such as, ammonia, bitter, opium, balsam, etc. Mercury compounds containing caustics may likewise be rubbed upon the inside of the thighs, and the warm bath resorted to. Some other modes of treatment which have been employed may be briefly mentioned.

Since the introduction of chloroform as an anaesthetic agent, it has been frequently employed in this stage apparently as a last resource, when fever and all other remedies have failed, but, owing to the extreme exhaustion and derangement of the vital powers at this period, its administration as far as I can ascertain, appears to have been in every instance productive of the most unfavorable results. Nevertheless, I think it might be used with good effect in the earlier stages, in combination with
Alicie, as it would, by inducing a state of quietude, considerably augment the action of that important remedy, which, under other circumstances, must be much retarded by the excessive restlessness and agitation accompanying the affection. Dr. Solomon states that he has seen the most famous delirium overcome as by enchantment, and the disease pleased in a few hours by the use of a mixture of ammonia alone. Dr. Sommier of Rome (Bullet des Seiv. med. Apr. 1836) directs to the head and once, applies ice to the scalp, and gives carbonic acid, and subsequently, more ice. This method is obviously only suited to the first form, and from the experience he has given to the application, adopted by T. Finch, it may be inferred that he has never prescribed it in the true delirium tremens. Dr. Ad. Pinzon states, that he gave very large doses of digitalis (80 drops every three hours) after bleeding, and the patient recovered, but this was evidently a case of the first form of the disease. Dr. Pauli
informs us that he has prescribed from three drachms to six of Paris by-gale, in aromatic water, half a glass of brandy each morning, and two doses of the watery extract of plum at night, in forty-three cases, and only last one. (Petit Gazette 8th. 9th. 10th.)

Dr. Reyne, Dr. Blake & many others have insisted on the propriety of having become to moderate quantities of the stimulns to which the patient has habituated himself in the depressed periods of the disease, and especially in those cases which present the more marked signs of exhausted nervous and vital force. During the course of the disease, let it be no deception, if itt be provided, occasionally be offered, and ought to consist of brood of milk, eggs, or tapioca, the mixed with a little brandy or wine. When convalescent, the diet should be light and nourishing, with a suitable allowance of brandy or wine, according to the previous habits of the patient. The state of the digestive functions will
The American government is a democracy with a Constitution. It is divided into three branches: the executive, the legislative, and the judicial. The president is the head of the executive branch and is elected every four years. The Congress, made up of the Senate and the House of Representatives, is the legislative branch. The Supreme Court and other federal courts make up the judicial branch. The Constitution is the highest law of the land and the source of all other laws. The government is designed to prevent any one branch from having too much power.