A very sensible state supreme
applying the sense of unity
in simple elements testament.
Delirium tremens.

"Delirium Tremens" is a name given to that form of nervous poisoning which is occasioned by the long continued excessive use of stimulants. This name has been objected to by some who say, that as the tremors are not always present, it would be more correct to give it the name of Delirium e potu, or Delirium ebrietatis. Others have objected to the term on the ground that the delirium cannot tremble, hence they think that it would be better to say Delirium cum tremore, or tremefaciens, for although the tremors may be wanting, the Delirium is always present.


"Natan" says that he does not see why "Delirium febr" should not be found fault with on the same grounds as "Delirium tremens."
Delirium tremens as it is quite as incorrect to say that Delirium is fierce as to say that it trembles - The names delirium è furo or delirium Echinivatis, are open to objection, for though the disorder is most commonly connected with the habitual use of stimulants, nevertheless it is asserted that this disease may be brought on by the too free use of other narcotics such as opium or by overstraining of the nervous system from other modes of being excited - In the whole then I think that it would be foolish to attempt to change a name so universally established, for any new term, which would only tend to complicate rather than to simplify the understanding of this subject.

For many years Delirium Tremens or Phrenitis or Encephalitis were associated together or were treated in the same manner, being considered to be one and the same disease - Dr. Blake says that under the heads of Phrenitis, mania or, this affection is mentioned in the writings of the ancients as far back as Hippocrates - Dr. Suttie, a more recent writer on this subject, first drew the attention of the profession to this disease & designated it "Delirium tremens" - He says that till about the middle of the 19th century no distinction was made by many practitioners between this disease
this disease - Phrenitis. Under the term Phrenitis delirium was divided into Idiopathic, or Sympathetic. The former arising from primary affection of the brain, the latter following febrile affections. This theory led to great error & caused brain fever, acute & chronic inflammation of the brain & its membranes, together with a form of mania, which very much resembles delirium, to be confused together. The mistake is a serious one because the remedies which were used, such for instance as blood letting, not only were not required, but were positively injurious. "Watson" says that in a predisposed subject, this affection of the nervous system may actually be brought on by the abstraction of blood. After a time physicians began to see the difference between these two diseases "Phrenitis, & Delirium tremens" from the difference in the symptoms, as well as the action of the remedies used in both these cases.

Let us inquire then, what are the symptoms most frequently accompanying a case of Delirium tremens. Many plans have been devised for classifying the symptoms, or dividing them into as many stages.

The division which St. Todd adopted was as follows...
1. Delirium tremens or Delirium Ebrioreum
2. Delirium tremens from alcohol or Delirium e prævia
   The former occurs in habitual drunkards, while the latter occurs in a person drinking for the first time.
   The former arises from a poison a compound from $P$ alcohol, $Y$ perhaps morbid matter generated in the system, the latter from poison of alcohol interfering with the healthy action of the brain. This division is similar to what is generally known by the names:
   1. Delirium tremens — or the trembling delirium of drunkards.
   2. Delirium Ebrioreum — occurring in a person drinking for the first time.

I think that as far as the names go Dr. Todd's are the more correct, it would be preferable were not the latter to universally established.

Others have divided the disease into Hypoesthesiun & Hyperesthesiun — Sthenic & Asthénic — Dr. Bird's species were — Simple — Inflammatory — Pyrexial — Epileptic —

It is my intention to stick to the old term which is so generally known — "Delirium tremens" — divide this into Sthenic & Asthénic — I shall also separate the Deliriuni e prævia of Dr. Todd or Delirium Ebrioreum of other writers from Delirium tremens & endeavour to show as clearly as possible in what they essentially differ.
Let us follow the progress of a case of delirium tremens, mark the symptoms as they successively come on.

It might fairly be supposed, judging from the name which this disease has received, that in every case of delirium tremens, muscular tremors would be the chief characteristic; in many works on this subject, this is asserted to be the case. Experience, however, will show that this is rather the exception than the rule. When, however, the tremors are present, they will be observed by telling the patient either to hold up his hand, or to protrude the tongue, when this symptom will be seen.

The disease is commonly ushered in by the patient having a boiling of food, he suffers under mental excitement, delirium, nux vomica, head aches, or sometimes vomiting is present, or cramp of the extremities, which are colder than the rest of the body, he has an anxious, abrupt, bustling, incoherent muttering, sight seeing, uneasy manner, timid suspicions of misguided conspirators. He appears to transact business with dull, detached spirits; all around him see that he is undisposed though he exists himself to prove that he is quite well. The pulse is sometimes quick sometimes natural.
natural, though generally cold, soft and flabby; the skin is not very hot though sometimes purplish or the tongue is generally furred; but moist or either pale, creamy or remarkably clean. The patient does not complain of thirst—the bowels may be open; sometimes you find the urinary functions unimpeded, together with Hepatic icterus or irritability of the stomach— which may or may does result from Chronic Gastritis. The symptoms, if treated at once, may subside here, but if allowed to go on the patient will become maniacally violent, as though suffering under brain fever. Restless and impatient, he is unable to follow out a train of thought or correctly to perform an act. In muttering delirium he frequently speaks in broken and confused sentences about common things. He is anxious about his affairs; his conversation relates to the objects which press most forcibly on his mind. He is very forgetful, but knows or recognizes friends around him, sometimes fancying they are his enemies who intend to do him injury. He is troubled with vasilia or Hallucinations, imagining that he sees all kinds of animals crossing his bed, such as cats, rats, spiders, toads or reptiles which he snatches at or avoids.
he thinks he sees a horse's head coming through the wall of the room, human figures when there are none, that he is drawing ribbands from the ends of his fingers, or attempts to escape from huntful objects - alarming occurrences as fires, rotteness, or the like, he believes to be taking place, or looks suspiciously behind his pillow, or curtain, would get out of bed if not restrained, but is easily persuaded to lie down again, being pleased or satisfied by gentleness or seldom meditates harm to himself or others. Devils of different sizes or colours frequently dance before him & torment him. He generally sees the more mischievous than the rest, which he fancies is playing him all kinds of tricks. There are the kinds of Hallucinations which are generally represented by the patient. If you put questions to him about his disease, he will give answers to the purpose or in an agitated manner. He will do whatever you bid him, but directly after will wander back to the imaginary scene around him. In some cases there will be convulsive twitchings of the muscles & pain is frequently experienced at the epigastrium. The face will be observed to be altered.
be either red, or pale & dully looking, with hay and
countenance & sometimes there will be twitchings
of the masseter muscles. The rapidity of his
thought will attract attention. The pupils will
not be contracted unless much opium has been
given, or very decided achaastic symptoms
have supervened — Dr. Solly says that the pupils
are generally contracted in the early stage of
dilated in the latter. The state of the bowels
is various, but most frequently constipated or
the stools bilious. The patient is bothered in
perspiration, especially in the upper part of
the body, which is clammy & occasionally
offensive in odour — the pulse ranges from
70 to 120 which is generally soft, but this depends
much on the state of the state of the patient,
for in the most severe cases where the twitching
of the flexor tendons at the wrist & constant
squeaking of the bed clothes make it very
difficult to take the exact state, a pulse
which seems soft, will be found if cessation
of the twitching of the tendons be obtained, to be
difficulty hard & full — He does not complain
of bodily pain although his appetite is small & his
stint by no means ingrate, not even for spirituous
liquors,
liquors, he will take medicines, or anything you give him generally readily, sometimes however, it is quite the reverse & you cannot get him to take anything - The urine resembles that of a patient suffering under chorea - It is generally scanty, high colored & contains a large quantity of albumin, the phosphates are diminished, smaller in quantity than in Phrenitis, the sulphates are increased & the amount of urea is so great that No. 70 causes an instantaneous crystallisation - The S.G. varies from 1000 to 1050 - These are the symptoms most frequently met with in this disease, lasting a few days, unless in the chronic form when they may last for many days, terminating in a profound sleep from which the patient awakes in a sound frame of mind & though weak regains his natural physical & mental soundness with wonderful rapidity - If the disease be aggravated however, more alarming symptoms will be encountered - The respiration becomes difficult, sudden loss of consciousness & delirium may come on, the bowels may be unconsciously expectorated & the eye continued delirium, subsultus tendencium or sticking of the bed clothes, terminates either by recovery of consciousness or sensuality,
o duration which is followed by quiescence or sleep from which the patient awakes in a convalescent state, or if complicated with a cerebral injury, Pneumonia, Fever, erysipelas, Pneumatom (which is rare) or it is frequently fatal, terminating in convulsions, coma or apoplexy with effusion into the ventricles or on the surface of the brain, which when extensive is the forerunner of death. If the expiries without a struggle by apoplectic amnestic of the cerebral functions — Should the patient recover to a degree, he is left a mere wreck for life.

We have now followed a case systematically through the mild, the more severe, or the worst stages & observed the symptoms as we went on. It is now my intention to remark what classes of people most commonly fall victims to this disease, which is more common in the summer than in the winter months.

People in the tropics or returning from them seem very subject to this disease, especially men between the ages of 35 & 50 years. London clay men or coal heavers at the docks frequently are attacked. The malady is rare among women, who are more subject to that from which "Dannen" has named.
has named "Delirium Convulsivum".

"Dr. Root" says he has seen as many cases of delirium tremens amongst females as males. "Boyer" says that out of 276 patients from only 45 were women.

Now this ratio of less than one in 4.5 is remarkable for the size of the large terms have a far greater proportion of patronage from the female population than what you would suppose from this statement. Their more sensitive character would make them more liable to this disease.

What is the difference between Delirium Frenlic, or Delirium Convulsivum, or Delirium s. potu of Dr. Todd? "Watson" seems to consider them both to be the same disease, but "Peadie" says that the latter arises from a single fit of intoxication engaged in by a person of a peculiar temperament, most commonly reduced by a depressive emotion, with perhaps hereditary mental deficiency.

The symptoms of the disease are as follows:

In some the skin, especially of the scalp, hot & dry; the face is flushed, the conjunctiva injected, giving the eyes a red & fiery appearance.

There is a sullen, fierce & determined aspect. The tongue is dry & brown, the pulse strong & quick. There is excited mental derangement.
occasionally muscular tremors or either loss of appetite or the contrary - If the appetite be increased, the patient is ravenous and will eat anything that is given, even to such excess that sickness is the consequence. This seems to be beneficial to the patient, for recovery very frequently ensues almost immediately. The desire for more drink is very great, which if obtained is apt to excite indecorous demands or perhaps the perpetration of violent or criminal acts. This is a case of active poisoning by alcohol. It may be brought on by an accidental circumstance leading to an act of intoxication. It happens once in a lifetime, or it may come on at particular periods as in dipsomaniacs or orinomaniacs. The attack may be overcome by withdrawal of the stimulant, the administration of purgatives, emetics, sedatives, or confinement under one or two firm-minded strong attendants.

The character of this disease is well marked, and the distinction therefore between it and delirium tremens is easily drawn.

In the former the mental derangement is severe, in the latter depressed. In Delirium Strium, the conjunctiva is red and injected but not so in Delirium Tremens. In the former the
that is dry or hot, in the latter cool or moist. The tongue dry or brown in the former—pale or furred or clean or red in the latter, the pulse also is stronger in the former than in the latter. With these distinctions together with the history of the case there can be little fear of making a mistake.

What are the chief causes then of the disease known by the name Delirium tremens?

In nearly every case, the habitual excessive use of alcoholic drinks is the cause. I do not think that a diminution in the quantity of the stimulant is necessary to excite this disease, as it often occurs that the quantity taken has been greater just previous to the attack, than the amount usually consumed, or when the quantity is diminished previous to an attack, it is because the same effect is produced by a less amount of the stimulant.

I think that it has been clearly proved by Dr. Riddell that the abstraction of the whole amount of stimulus cannot be considered the exciting cause of the disease, as confined by the statistics of gaols where many hundreds of confined drunkards are suddenly deprived of the whole of their accustomed stimulus yet few cases of this disease occur—
disease occur. In referring to his paper I find that in the	
Carlisle prison the number of commitments during the last	
fifteen years is about 600; although three fourths of	
these are consequent on drunkenness yet no ill result
has ever followed the sudden abstraction of stimulants from	
habitual drunkards, who have been drinking to excess up	
to the time of being placed upon prison fare. -
Dr. Scott of the Dumfries gaol speaks in similar terms.
But of 5539 prisoners two thirds of which were committed
for acts of intemperance, only five cases of delirium	
tremens are found on the register of disease & four out of the	
five were admitted to the prison with the disease & then.
Of the eighth it is believed to have been affected before admission,
being admitted the following day as suffering under delirium	
tremens. - Dr. Scott mentions one case of a debtor who, up to the	
of incarceration in the Dumfries gaol was in the practice,
of taking in an average, one bottle of spirits or upwards of	
three ounces of laudanum daily, though every drop was with drawn on admission into the gaol, no bad	
symptoms followed, this individual had been twice	
previously the subject of this disease. - Dr. Scott also
days, that during the time of the construction of the	
Dumfries railway, a very large number of labourers	
were committed to prison, who had led a very dissipated	
life for many months, although deprived of liquor from	
the moment of
the moment of apprehension, not one case of delirium occurred.
"Dr. Gibson of the Glasgow prison speaks in similar terms
for out of 1510 cases of habitual drunkards who were committed
only 8 cases occurred, though all stimulants had been
suspended."
"Dr. Simpson" of the prison board of Edinburgh says that out
of 500 habitual drunkards committed each year, on an
average from two to three cases occur per annum. In most, symptoms of the disease have been evident
on admission, after which all stimulants were withdrawn.
With statistics such as these "Dr. Raddi" most clearly
proves that the withdrawal of the stimulant will not
be succeeded by bad consequences.
In a few cases, opium or other poisons belonging
to the class of narcotics or sedatives, are said to
give origin to this disease.
"Dr. Laycock & Carter both assert that opium, Indian
hemp, tobacco etc. or gambling, intense study, protracted
anxiety or other exciting causes may bring on this disease.
I must say that I have searched almost in vain
for any published cases to verify this statement. I
feel rather inclined to think that they are so
few, as almost to make the assertion doubtful; though no doubt something very similar is produced
in the case of opium eaters. Other narcotics may
greatly assist the action of alcohol in hasten or the
disease; but whether the use of tobacco, for instance,
without the aid of alcohol ever caused delirium
tremens I have yet to learn. The following cases
I have found published.

Waterman mentions a case of a medical man of temperate
habits finding himself on the brink of an attack
from suspense or apprehension about some speculations
which he had entangled himself

Dr. John of the Middlesex Hospital mentions a case quoted
by Dr. Gordon, of a man having an attack of the
disease consequent on abandoning the use of tobacco,
which he had formerly used largely. I believe the man
was an American.

I found another case, predisposed by the use of alcohol,
of a Roman Catholic Irishman, who is said to have
had a fatal attack of the disease—from mental
anxiety, originating in having eaten figs, just on a
fast day.

Another, of a tailor, the cause being disappointment
in not getting a bill paid.

Another, of a mother, who had a dispute with
her son about a suit which he wished to wear,
which she would have, had not been properly aired.
These are the kind of cases which are hinted, the
Sodium
Fusil \( C_{10}H_{16}O_2 \) = the oil of potato spirit
as an example of the disease being brought on by the use of tobacco - the rest being anxiety as the exciting cause. The accounts are so vague that little faith can be put in them or any other. I think they must have been more than predisposed by the use of alcohol.

Distilled spirits long on this disorder sooner than wine, and wine sooner than beer. The disorder is far more common in the northern parts of Germany & Sweden than in our own country & it is supposed to be on account of the pinnacus composition of the alcoholic liquors which are in general used - Dr. Pass of Stockholm speaking of the composition of the potahse brandy, which is the most general beverage of these nations, says, that it is composed of discolored or decayed potatoes, shells, or this mixed with mildewy grani & other poisonous vegetable products such as spruce wye, loblion frequently mixed with bad barley & the seeds of Raphania laphanistrium, which latter was thought by Rioneus to be the cause of the disease, is prepared in copper vessels & then this poisonous mixture is served out to the lower classes of these two nations -

Dr. being called to see a patient exhibiting symptoms similar to what I have described, on enquiring into the previous history of the patient should be made & if you find his habit of life to have been
intemperate, this together with the symptoms, which generally occur with marked uniformity, can leave little doubt as to the disease.

There is however one if not two diseases which might be mistaken for delirium tremens by an inexperienced eye, I speak of Encephalitis & Delirium tremens, the latter of which is a febrile attack of a typhoid nature attended with delirium, which in a habitual drunkard follows on the receipt of an injury & very much resembles delirium tremens, but which really is a symptom of the sympathetic fever occurring in these cases.

As regards the former, which was for so long a time confused with delirium tremens, I think that it will be better to name the characteristic symptoms

In Delirium tremens

We generally find a soft pulse, moist & creamy tongue, skin moist if not bathed in perspiration, the face is generally but not always pale & dirty colored, tremors sometimes present, headaches are uncommon, the alkaline or earthy phosphate are diminished.

In Encephalitis

We find a hard pulse, rough tongue which is generally parched, skin hot & dry, face flushed
tremors rarely present, intolerance of light or sound, contracted pupil & pain in the head. It will be seen that these symptoms are as nearly diametrically opposite as they can be. If these two diseases were to be combined as they sometimes are, particular attention must be paid to these distinguishing characters. Should there still be any doubt, but I scarcely think there could be, it would be the better plan to act cautiously & treat the case as one of Encephalitis, thereby guarding against the worst, but the results should be watched carefully, so that if the remedies are not of service, you might at once change the course which had been pursued. It is in those doubtful cases that many practitioners have recommended the use of Calomel or antimony in combination with Opium.

Many opinions are held as to the essential nature of Delirium Tremens—

Watson says that it consists in nervous irritation.

Cope of the Middlesex hospital says it is a hepatic derangement.

Doughty includes it among his cases of acachnitis.

Stiles Pinck considers it to be a first degree of paralytic celebritis.

Dr. Heigh-Goldby viewed it as a febrile affection, a species of acachnitis.
We know that the liver attracts even a larger quantity of alcohol introgressed into the system than the brain; as proven in cases of Cachexia or "Quinsy" of the brain. Therefore, we may fairly expect to find more or less abnormal emolument of this organ in cases of Delirium Tremens.
to inflammatory action & serious encephalitic mischief —
I must say that I think there is a great deal of truth in
what G. Coffee Esq. of the Middlesex hospital says with
regard to the bile — He says that the disease is caused
by poisoning of the blood by chemical alteration in the bile
or urine or that some of the elements of one or both are
carried through the circulation — His reasons for so
thinking are as follows — He says that the disease
gives way if he has always succeeded in obtaining sleep
under the use of calmel purgation, that improvement
is invariably consistent with the passage of numerous
dark offensive & deeply bilious evacuations —
The disease is sometimes characterised by sickness
& bilious diarrhea — A large number of the worst
cases, present symptoms of poisoning by urea.
Epileptic fits sometimes occur exactly resembling those
occurring in patients labouring under albuminous
disease of the kidney, in which cases the urea
disappears from the urine & Dr. Christianison with others
have repeatedly detected it in the circulating fluids.
Dr. Edward C. Fox Physician to the Royal Infirmary
Bristol says —
That Post & after lui Vierordt have proved that
moderate use of alcohol causes an absolute
diminution in the amount of CO₂ excreted —
That the cachemeron material is slowly but surely increased in the blood which sometimes contains as much as 30 per cent more of the matter than in health or says that it is easy to understand how unfit this dark cachemeron fatty blood is for the nutrition of any organ of the body. This he thinks may originate the disease consequent on a want of due supply of red arterial blood & hence malnutrition of the brain.

On making a post mortem examination of a person who suffers from Delirium tremens, effusion of serum mixed with albumin in the ventricles & at the base of the brain is found & also under the arachnoid which is thickened, greasy & sprinkled with spots or streaks of a milky color, especially in cases where the patient has had several attacks; the membranes are injected, tissues pale, convolutions shrunken & the coats of the vessels altered. The muscular tissue of the brain is remarkably pale, soft & flabby — Mr. Tolgy says he has invariably found the hemispherical ganglia & cortical substance of the brain pale & bloodless. "Piddie" says there is generally great vascular fulness — The stomach may be inflamed.

In the next place it is my intention to examine the various modes of treatment pursued by different eminent practitioners in Delirium tremens. I need scarcely say that these are many & various.
For many years & even at the present day it is the popular opinion among medical men - if the critical state can be procured, delirium tremens can be cured & as opium or some of the preparations are well fitted for the purpose of procuring sleep, opium has been looked upon as the specific.

Dr. Suttow says that a case where the pulse is found high cannot be cured except by opium.

Dr. Lyt of Kings College London says that opium or the preparations of opium in full doses must be given, say two or three grains of the solid, or from 3ps to 3f of laudanum followed at intervals of from one to two or three hours by a grain of opium or from 20 m to 3ps of laudanum.

He says that ammonia may be combined in doses of from 5 to 10 grains or the accustomed stimuli of the patient may be given. If there be inflammatory symptoms, cautious abstraction of blood followed by opium & full full doses of tincture emetic, or the preparations of opium & antimony. He says are the proper remedies & cold to the head with counter irritants may also be used in these cases, the bowels being kept moderately opened, but avoiding strong purgatives.

"Dr. Watson" says opium is to be fearlessly given.
till sleep is procured. He prefers using morphine to opium, but says that solid opium, acetate or nitrate of morphia, laudanum, the black drop, Rattay's sedative liquor, or Colomel & opium combined will any of them do equally well. He also recommends that the accustomed stimulant of the patient be given in cases when sleep cannot be obtained by the opium alone. He recommends that nourishing diet be given to towards recovery. He thinks that a blister at the nape of the neck is useful. 

"Dr. Congan" of the New York Hospital, who divides the disease into Asthenic, Atenic or a Mixture stage, that is, the first with opium & stimulants, the second by bleeding rests to the head & in the other stage he only gives saline mixtures.

I need not quote more instances of those who follow the opium & stimulant plan of treatment, suffice it to say that Dr. Siddie has proved that giving the accustomed stimulant, or giving alcohol to a patient already alcoholized, is the same as adding coals to fire, unless the patient were actually sinking, the powers of life being impeded by a cause of slow poisoning, when the only alternative would be to give some diffusible stimulus to sustain him & maintain his ordinary condition of body. He also showed that the stimulus only increases the
determination of the blood to the head. I think that it is satisfactorily proved that the withdrawal of the stimulant is followed by no bad consequences. Why then use such a remedy, which is not only a dangerous one, but, should a patient recover in spite of such treatment, only places him in the same position as he was previous to the attack & is apt to leave the impression on the mind of the patient that alcohol is indispensable to a healthy condition of body. With regard to the opinion "Piddie" showed that it is apt to occasion engorgement of the veins, especially of the larger the dose the greater the engorgement & consequent compression of the brain & that too in a disease, if not approaching to mania, at least where there is excited action of the meninges & overloading of the vessels generally. These two remedies must necessarily then be both very dangerous ones & most objectionable, especially as the opium must be given in large doses, even to obtain the required sleep, which is only a forced one at best, & small doses of opium in very many cases only increases the delirium. Opium, if it does not of itself bring on this disease is known guilty to hasten it in habitual drunken so that this treatment greatly resembles the spirit.
If the homœopathic dogma "Similia similibus curantur" then death follows this treatment, which is sadly too frequently the case, the register statistics of death by delirium tremens in England & Wales being 250 per annum, which ought not to be so great if the treatment by opium & stimulants is to be rigidly adhered to as the universal remedy, the cerebral functions are depressed & at length overwhelmed & subarachnoid effusion is the result, sleep is obtained but it is the sleep of death.

Dr. Graves in his clinical lectures says, that by treatment he had a patient die of subarachnoid effusion & adds that it was from the too early use of opium. He now gives tartar emetic alone to overcome the cerebral excitement & then by degrees uses the opium along with it & finally he gives opium alone. As quin as his formula for tartar emetic opium combined

Antim. Tart gr iv
Sinct. Opium 3j
Aqua 30 z

Signs a table spoon ful. Every second hour. I have seen cases treated with opium & though only one was a casualty nevertheless I felt convinced that it was only the wonderful conservative power of nature
that resisted the evil influence of the agent.

The opium early produces sleep before the third day,
even though the quantity taken may be large, it either
increases the excitement of the circulation or delays a
sleep which would naturally occur as the normal
result of an improved condition of the brain nervous
system, indicating diminished cerebral excitement
and hence the natural termination of the disease which
will take place spontaneously in cases where no
opiate has been used, or even when the patient
has been left alone, nothing given at all — or else
precipitates the patient into a forced sleep
from which he may never awake.

It is not actually necessary that sleep should
occur in the early stage of the disease, in order
to insure a favorable termination of the disease,
if it were, there might be some excuse for
giving opium, or rather chloroform, which I believe
has never been known to fail in producing sleep.

It is evident that this stimulant opiate treatment
is not only an injurious but a dangerous practice
so that the proper way of proceeding would be
to induce or not to force the desired sleep —

"Dr. Wall, of Boston, says that delirium tremens runs
a natural course, or is a self-limited affection —
A fishermen has been largely successful in directing the disease by many or more hydral of the disease. The main point is to give proper and rigorous treatment to all cases. Of the cases, the mortality of one in ten was found to be 1 out of 16 cases treated. By past experience it has been found that out of 16 cases treated by the fishermen, 10 cases were cured in the first instance.

<table>
<thead>
<tr>
<th>Gluonic Ectatic</th>
<th>Gluonic Ectatic</th>
<th>Gluonic Ectatic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It has a large number of cases with the advantage of the disease. The fishermen has been largely successful in directing the disease by many or more hydral of the disease. Of the cases, the mortality of one in ten was found to be 1 out of 16 cases treated. By past experience it has been found that out of 16 cases treated by the fishermen, 10 cases were cured in the first instance.
with success after giving opium as far as was safe.
Surgery to the City of Dublin Hospital recommends Dr. Hare had
used it internally with success — D. Curlin of the London
hospital used it successfully when opium & morphia
had failed & remarks that chloroform is only useful
in Delirium Enecium being a dangerous remedy in
delirium tremens — McCall of the Whitworth & Hardwick
hospitals confirms this statement & says that ebihic cases are
produced by direct influence of stimulants
are connected with active congestion of the brain.
He says that the treatment should be careful
application of cold to the head, purgatives & perhaps
leeches. If these fail he says opium must not be
given & chloroform may be used & when opium has
failed in asthenic cases he says it is useful.
I do not think that chloroform is a cumulative
agent for it passes off by the lungs. Nevertheless
it cannot be a safe remedy when given either
internally or by inhalation in a disease where the
brain is in its excited state, from its action on that
organ.
Dr. Wood of Philadelphia gives some very remarkable
statistics — he says that he gave opium till
sleep took place or a decided narcotic insensibility
trusted that by this treatment he has reduced the mortality from one in eight to one in thirty nine. We have however the statistics of Dr. Ware of Boston to set against this.

"Dr. Laycock" speaks in a similar way to Dr. Ware, for he says that in the summer season of 1858 he treated 28 cases without opium or stimulants and yet he never witnessed a fatal case, when narcotics had not been administered.

"Dr. Dunglass" of Philadelphia in the American Intelligencer of May 1842 says that he is of opinion that the best way of treating delirium tremens is without opium, spirit or quinine. He gives an emetic of the patient be seen while under a debranch or any particular excitement for its administration - a state of tranquility in the chamber is afterwards enjoined, preventing the intrusion of too much light or noise. As soon as the stomach will retain it, a nutritive and easily digestible diet is given, the bowels being kept open by gentle cathartics. The following are statistical accounts of patients treated in this manner in the Roman Lunatic Asylum at the Philadelphia Hospital.
In the year 1840

Admitted | Cured | Died
---|---|---
Intoxication | 25 | 25 | —
Delirium tremens | 48 | 47 | 1

The fatal case was not seen by Dr. Dungham; the patient dying on the morning after admission & she had been treated in the city for nearly a week previously.

During the year 1841

Admitted | Cured | Died
---|---|---
Intoxication | 19 | 19 | —
Delirium tremens | 36 | 36 | —

Cases admitted between November 1844 & Feb 7th 1845

Thirty two cases admitted & all cured.

The cures seem to have been permanent, as the dismissed rarely or never returns to the wards & as they are all pensioners, his subsequent attacks they would have been forced in their destitution to have done so. With evidence such as this to put against Dr. Wort's statement I think then I am quite justified in preferring the latter which is certainly the more rational plan.

Many other modes of treatment are followed, some of which are modifications of the ones already quoted.
In the Report of March 8, 1862.

Morgan Mackenzie M.B. has inserted some cases where Digitalis had proved injurious, and I must say that I would not like to give any more than doses of this drug recommended by Dr. Jones.

In the same paper, Dr. Kinnear speaks highly of Capsicum as a remedy in this disease. Dr. Forss & Mr. Forrester also recommend using 3/4 of Cayenne pepper to a pint of boiling water, which is strained when cool and made palatable with sugar & citric acid. This is followed by perspiration, sleep, which however I think will be as easily attained by exercise without the risk of gastric irritation which Cayenne would be likely to produce.
Tartar Emetic, opium & stimulants, the latter of which I think should have been omitted. - Tartar recommends a stimulant narcotic plan of treatment - he contains opium with camphor, spirits of ammonia, or camphor mixture, using the warm bath, applying friction to the epigastrium & shaving the scalp, which he then stimulates with volatile liniment. - "Dr. Elms" of Philadelphia gave Tartar Emetic in very large doses, finding that vomiting relieved the disease. - "Dr. Dodd" gives quinine mixed with camphor, the latter of which he says counteracts the bad influence of the former & promotes a sedative action. - In cases of great depression he prefers quinine & quinine in the proportions of quinine over a ton or two to forty to thirty drops of laudanum. - "Biddle" gives Antimonia Tart: ni doses varying from 1/4 to 1 grain. In all cases where the bowels do not contra indicate it, often he uses digitalis & ipecacuanha.

Digitalis has been used in half ounce doses of the tincture, by H. M. Jones &" of Jersey, & is highly recommended by him as well as by N. Hallard, Williams & Webster, all of whom have used it in extraordinary large doses with the best results. - W. J. Wade, M.B.

William Cumm M.D. & R. have found diluents & confinement to be sufficient in most if not all cases, which they have treated. - Beef tea, soda water &c is given...
with the view of diluting the alcohol in the system & allowing its elimination. This is the eliminant plan of treatment. "St. Ruth" merely puts his patient in a dark cell & leaves the disease to work itself off spontaneously. This is certainly a "do nothing" plan, but it is far more reasonable than adding a narcotic which checks the separation of morbid matters from the system, which generate the disease. Bleeding has been recommended, but I think that it would be a dangerous remedy, diminishing the colouring matter of the blood & increasing the quantity of water, both of which deteriorations Denmark thunas has a tendency to produce.

I think that we have now hastily noticed each plan of treating this disease, which is in use. We have seen that by the opium & stimulant plan the statistics as well as common sense are adverse. Out of 241 cases treated without opium & stimulants, only 12 died, five of which were complicated with intestinal disturbances. Morphia necessarily must be a dangerous remedy in this disease & were it not, our object should not be to force but to induce sleep. Bleeding & all the other remedies which I may have quoted are out of the question save those which have been called eliminants. Here are what I wish to recommend...
I would divide my cases into two classes viz. 

Sthenic & Asthenic the former occurring in robust, strong & plethoric men - the latter in more or less ill fed, weak & anemic persons. Whichever class my patient might belong to, I should put him into the largest & best lighted room which I could procure, the doors & windows being carefully shut & guarded. The light is necessary to allow the patient to see distinctly all surrounding objects, as he is very apt, especially when there is a bad light, to form wrong impressions & to exaggerate many objects around him, which clear vision would prevent. He sometimes will mistake some object, which he does not distinctly see, for an imaginary enemy, or some dreadfu[...]

...t will try to escape by the door or window, hence the necessity of keeping these closed, as dreadful accidents have happened in this way & he might if not watched escape into the street. Restricted by means of a straight jacket it is very injurious & has been known to cause convulsions by nothing but struggling for liberty, at all times it puts the patient very much, so that it is better, when it is possible, to have an attendant to sit by the patient than to have recourse to any such mean - The size of the room is important, as space...
should be allowed for the patient to advance & retreat from imaginary illusions, to arrange or rearrange furniture & to carry out the various schemes which he has in his head, examining papers & all of which it will be prudent to allow him to do, preventing a long & painful scene of impatience & favouring the return of tranquility, favouring the action of medicines & moderating the tension of muscle, all of which will help to induce the voluntary (natural) sleep. The attendant will relieve him of apprehensions & prevent his escape. Now as to treatment - in either delirium or asthenic forms attention must be paid to the nourishment of the body as the refusal to take food is frequently as difficult to combat as the sleeplessness. Buffy tea, or mutton broth with lemonade, water ad libitum & other delicacies should be poured in.

I believe that this disease arises from a form of nervous poisoning, occasioned by materiae sent through the circulation to the brain - the treatment by medicines should be with a view of eliminating that poison from the system which prevents the natural termination of the disease - opium & stimulants are dangerous in all cases of delirium tremens & if made use of, delay the natural termination of the disease. "Sleep" which would otherwise spontaneously occur - these
then should be about the last remedies you could think of administering. If you be called to see a patient who is under a delirium, unless he were actually vomiting, I would administer an emetic with a view of emptying the stomach of any delirious matter which may be there. The bowels should be kept open, if necessary, castor oil or jalap prescribed. In delirious cases antimony as prescribed by Dr. Boddie will be found useful but in asthenic forms this drug would be found too depressing. I would therefore prefer the use of from 1 to 20 grs. of Specrantha which would reduce the heart's action, produce diaphoresis & increase the secretions generally. The warm bath is one of our most useful agents, tending to equalize the circulation & to promotequietude followed by refreshing sleep. The bath should be of about an hour's duration & persevered with even after the delirium has subsided. If much vascular excitement should exist the douche & cold to the head are beneficial remedies. Under this treatment the person is eliminated from the body in the most efficient & rapid manner possible & sleep together with a good recovery are the result. The sleep thus obtained is not the forced sleep which follows the use of opium nor is itget with such risk to the life of the patient: it is a refreshing one, the normal termination of the attack;
indicating the improved condition. Sodas may be made
use of with great benefit, especially to the asthenic patient,
for the disease is one of weakness if not of exhaustion
+ intoxication or anaemia will greatly hasten the recovery.
In some cases there may be inflammation of the
mucous membrane of the stomach from the direct
influence of the alcohol, in these cases counter
measures such as mustard or ice should be applied
to the epigastrium & cooling drinks administered.
In cases where these remedies have failed leeches
have been applied to the epigastrium & creosote has
also been used with benefit.

In complicated cases it is proper to attend to the
most prominent disease first but few are
the cases where this eliminative plan of treatment
may not be put in practice, for the warm bath
at least may be made use of in almost every
complication which may occur.

The chief difference in the treatment of the chronic &
esthetic forms is that while in the former your
remedies should all be eliminative without so much
heed to the condition of your patient in the latter
you should rather study the condition of his body,
forming in beef tea & the like support & rather
leaving the poison to eliminate itself.

Percy Boulton