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INEBRIATE CRIMINALS.

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BY T. D. CROTHERS, M.D., SUPERINTENDENT OF WALNUT  
HILL ASYLUM, HARTFORD, CONN.\*

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This class of inebriates are quite numerous in all the large cities and manufacturing towns, and are also prominent in seaports, and on the frontier of civilization, and yet, as a class, they have never been studied. They form a conspicuous element of the great understratum of the dangerous classes, and permeate all ranks of society, from the hovel to the palace. They occupy an uncertain and anomalous position in the estimation of the public, and are either regarded as debased criminals and paupers, requiring severe punishment, or as insane, and totally irresponsible.

A careful study of the literature of inebriety reveals the startling fact, that many of the theories and deductions of inebriety are based on the superficial observations of criminal drunkards.

To illustrate: The superintendent of an insane asylum

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\* Read before the Ninth Annual Meeting of the American Association for the Cure of Inebriates, Boston, September, 1878.

who has a number of this class under treatment, finding the alcoholic symptoms disappearing, and the criminality prominent, denies the disease-theory of inebriety. In the same way, the penitentiary and almshouse physician, finding only vicious symptoms in the inebriates under his care, reaches the same conclusion. The judge on the bench, the lawyer in court, and the daily press, each form a theory of inebriety which they put forth with confidence, and thus the public have the most complex and erroneous views. Up to this time, no general study of inebriety has been made which includes all classes, hence this confusion of both theory and treatment.

In much the same way the student of any phase of insanity, who has seen many cases of melancholy, or dementia, and who builds up a theory of cause, pathology, and treatment based on these cases, announcing authoritatively that it comprehended them all, would be in error. In this way, much of the literature of inebriety is based on the imperfect studies of particular classes, and especially the classes we are to consider in this paper.

What we need is a comprehensive study of the whole subject from a higher standpoint. The great underlying laws and principles governing this disorder are yet to be discovered. In a study of this class, two divisions naturally present themselves, with distinctive causes, which, although they run parallel, yet are quite different in many respects.

The first class are the inebriate criminals, which become so by conditions of surrounding and accidents, and from special external predisposing causes. Sometimes an inherited neurosis is present.

The second class always begin with physical degeneration of the brain and nerve-centers—either arrested development, or general perversion of function and structure. They are born criminals or inebriates. In the latter class, the criminal and insane diathesis is always present; in the former, the neurosis is not marked, but is frequently masked for a long time, then breaks out suddenly.

Before we enter upon a special study of these classes, it will help us to note some of the general symptoms which

appear to the ordinary observer. As a class, they are the "fast men, such as gamblers, speculators, traveling men, showmen, patent-right swindlers, dealers in alcohols and tobacco," etc. Lower down they are bar-room loafers, hack-drivers, low workmen, street-tramps, and beggars, etc. As criminals, they commit crimes against property, and rarely against persons; always acting under a diseased impulse, which ignores everything but the selfish gratification of the body. As inebriates, they drink impulsively, without any special exciting cause, or remain sober an indefinite time without special reason or purpose. Frequently they have strong mental and physical capacities, coupled with great defects, and with more or less power of concealment. Hence, they often take advantage of all those who come in contact with them. As a rule, they are treacherous, cowardly, and sensitive, full of impulsive delusions, and governed by no motives except the lowest, and those of the present moment. Audacity is another common symptom; cupidity, and strong dislike for work, and general disgust for regular living. Improvidence is also prominent in nearly all conditions.

As patients coming to inebriate asylums, they are almost always very much reduced in both mind and body, either having delirium tremens, or are on the verge of it. At first, they are extremely penitent, and give much promise of permanent recovery. But in a few days all is changed; they lapse, becoming low intriguers, exhibiting a wilful cunning and disregard for the rights of others that is deplorable. Abuse all privileges, drink and procure spirits for others, and respect nothing but force, and are most difficult and troublesome patients. Such are some of the general facts of the symptomology.

If, now, we inquire more particularly into the history and causes, we shall find the first group quite prominent: *Namely, those cases in which inebriety seems to spring from conditions of surroundings or accident, and from special external predisposing causes; always associated with criminality and often an inherited insane neurosis.*

One of this family group may be illustrated in the follow-

ing case: C. D., born and reared in a very careful manner, by strong-minded, exemplary parents, surrounded by every good influence which wealth and social standing could bring. His father was a banker and speculator, leading a life of more or less excitement, although perfectly temperate. His mother was neuralgic, and of a sensitive, excitable disposition. He was in no way different from other boys up to sixteen years of age, when his parents both died within a year, and he came into possession of a large amount of property.

He fell into the hands of some sharpers, who rushed him through a short career of dissipation, both robbing and entangling him with a gang of gamblers and thieves.

From this time he became an accomplice of gamblers and thieves and three-card monte men, alternately drinking, and associating with the lowest of this class. At twenty-two he served two years in prison for burglary. At twenty-six, twenty-nine, and thirty years of age, he served short sentences for swindling and drunkenness.

Then his friends placed him in an inebriate asylum, as a periodical inebriate. He did well until he regained physical strength, when he displayed the most audacious criminality. Reasoning and acting from the lowest motives, bringing in spirits and becoming intoxicated for the purpose of committing violence; when the drink craving was over exhibiting great penitence and all the time stealing and appropriating whatever he could find. All sense of right and wrong seemed absent. His entire study seemed to be to procure the fullest gratification of every emotion and passion. He drank constantly, and when restrained became revengeful, and was the center of intrigue, defying all efforts to control him, unless by physical force. He was not passionate, or very irritable, but fawning and penitent, and at the same time taking advantage of every opportunity to both drink and steal. He was discharged, and went back to his old circle of surroundings, and is now serving a sentence of five years for larceny.

*This is a strongly marked case, where accident of conditions and surroundings produced a criminal inebriate from an organ-*

*ization with large passions and only average moral and mental powers.* He may have inherited a weak, impulsive, nervous system from his parents ; this, with bad surroundings at a very susceptible period of life, would only follow a natural law in developing this way.

*Another case, with more marked predisposing influences, has fallen under my observation.* H. O.—Father a clergyman, and very eccentric ; mother very irritable and passionate, sometimes doing violence ; the grandfather on his mother's side was drunken ; some of his father's family were of doubtful reputation. Both parents dying when he was five years of age, he was taken by an exemplary farmer, and brought up in excellent surroundings and influences, and was in many respects a model young man ; a member of a church, with a quiet manner, and easy disposition, inclined to melancholy. At eighteen, he went to the city as a clerk in a large house. Here he fell into bad company, and drank, and finally proved to be a defaulter, and was sent one year to prison. On coming out he went back to the city and became a bar-keeper, leading an irregular life of drinking and general dissipation. From this time he became an accomplice of thieves, receiver of stolen goods, and traveled about the country in the interest of criminals, and apparently with no business. At length he was convicted of bank robbery and sentenced for five years. After serving this sentence, he was employed as an auction clerk and ruaner. Sometimes he would remain for months sober, then drink very hard, commit some violence, be arrested, and serve a short sentence. He was brought to an inebriate asylum, suffering from delirium tremens. Recovery was slow, and he seemed very penitent, giving much promise of permanent recovery. A few weeks later he was caught surreptitiously selling liquor to patients, which he had stolen from the railroad freight depot. All disguise was thrown off, and he boldly, from this time, defied all authority, stole, and planned all sorts of means to procure liquor and money, rarely drinking himself so that it could be noticed. He submitted to restraint, when it was sustained by force, without opposition, seemed to possess no delusions

except to gratify a malicious spirit and the lowest cravings of his nature. He was expelled, and on his way to New York was arrested for highway robbery, and sent to prison, where he died of consumption a few months later.

*This case was more positively the result of inheritance than the first. Had he remained on the farm he would probably have lived a correct life, and been a good citizen; but a change of circumstances and conditions made him a criminal inebriate. The diathesis was present, and its peculiar train of exciting causes developed it.*

A presentation of some of the more general causes at work will make our treatment of the subject clearer.

The conditions and surroundings which develop *Inebriate criminals* exist in all our large cities :

They are bad sanitary conditions, with irregular, unhealthy living, sleeping in bed-rooms insufficiently lighted and ventilated, and living on bad, unnutritious food, also in a bad mental atmosphere. Add to this the continual indulgence of all the impulses and passions, in surroundings full of the contagions of bad examples, and the result is inevitable. There is here a constant widening perversion from the natural standard of mental and physical health. Exhaustion and drinking begin early, followed by degeneration, which affects the entire organism. Ambition dies out except for the most selfish gratification. Criminality grows out of these surroundings as naturally as weeds spring up in a neglected garden. The evils they suffer from perpetuate themselves, and grow more and more rank. All effort to rise to better conditions of living and acting involve the exercise of powers which are either wanting, or are feebly developed, or long ago crushed out by the predominance of other elements. As criminals, they always lack the boldness of experts; usually they are followers acting under the guidance of others, and are sneak thieves, petty swindlers, gamblers—ready to engage in any scheme that will furnish sources of gratification to their passions, without much danger or special labor. As inebriates, they drink insanely for a time, governed by circumstances and conditions. If we examine this class more

minutely we shall find that they divide again into two groups, and as such may be studied practically in our asylums.

*The first class come from bar-rooms, and low haunts of every character; they usually are without any fixed employment, and have been reared in idleness.*

Originating in the middle and wealthy classes, or in those inheriting large amounts of property, they have grown up without any fixed purpose in life. Not unfrequently they have squandered their patrimony, and been placed in positions where all efforts to help themselves have more or less resulted in failures.

They are ordinarily marked by their weak mind and unbalanced judgment, suffering from neurosal and mental troubles, and filled with delusions of oppression and wrong at the hands of others. Conscious that society is at war with them, and its methods antagonize the full play of their passions, they accept the situation and never seek to change or vary the conditions. But they rapidly become beggars, criminal paupers, robbing their relatives and friends; also lapsing into communists, full of all the small vices, ready at any moment to aid in crime, or take advantage of any weakness, licentious and drunken at all times, and resorting to the lowest devices to gratify their impulses. Syphilis and general degeneration are common—improvidence, fawning, and audacity, are marked. In many cases they possess an average or superior brain power, probably coupled with a defective moral force, and general want of control. From accident of surroundings all the lower elements of nature are developed. They are more prominent as inebriates than as criminals, and often do criminal acts under the cover of apparent drunkenness. This class are the skeletons haunting their friends continually for money and support, rarely committing noted crimes, but always in centers of low dissipation.

*The second group are made up of clerks, traveling men, peddlers, gamblers, and swindlers of all kinds. They are higher up than the last class, and possess a degree of activity which is evidence of a more active brain-power. Quack doctors, police, lawyers, defaulters, and patent swindlers are of*

this class. They most frequently inherit an unbalanced organism, a distinct or obscure diathesis; and have a family history of insanity, epilepsy, inebriety, syphilis, criminality, cancer, and consumption.

Like the first class, they are largely the outgrowth of the surroundings, originating in bad sanitary and moral influences in early life. The worst phases of this class are seen on the frontier, as miners, speculators, and gamblers, or in business centers of large cities, as brokers, agents, and middle-men, who are ready, with any excitement or excuse, to defy law and order. As communists and railroad rioters they have attracted much attention for some time. Frequently they are filled with delusions of wealth and power, are superstitious of fate and chance, and alternate between hope and despair. Failure follows in nearly all circumstances of life, and is attributed to others, and the wrongs they suffer at their hands. While complaining bitterly of the dishonesty of others, they continue to cheat and drink in an aimless, impulsive way. Not unfrequently they use stimulents to conceal the real motive, and to shield them from the consequence of crime. During the past two years they have appeared in the temperance work in great numbers, and have been noted as defaulters in coffee-house enterprises, and as lecturers recounting their experience, and soliciting help to build up again, etc. With a degree of sharpness and low cunning that is rarely obscured by drink, they have found the various temperance movements of the day a field for the fullest play of all their talents, which they are not slow to occupy. They may be truthfully called the temperance tramps of the day. As inebriates they are noted for their marked periods of sobriety, and the unexpected insane-like relapse, which seems to be partially under the control of the will. After the fullest gratification of the disordered impulses, they stop short and seem to recover. They commit crime in this impulsive, unreasoning way, confusing courts and juries as to the motive present. In asylums and in prisons they are always the most hopeful, and are sure to create sympathy, and gather about them friends which they sooner or later victimize.



In both of these groups the surroundings and predisposition to criminality and inebriety are about equally developed ; sometimes one predominates over the other, and in some cases they exhibit much skill in concealing the one or the other ; chronic suspension or enfeeblement of the will and moral power is present in all cases. They never realize anything but the fullest gratification of all their faculties as the ideal of life, and criminality and inebriety are the best means to this end. Like all the other classes they suffer from neurosal disorders, such as exhaustion and chronic disease. *In the second general division, most of the cases inherit a special degeneration of the nerve centers. Either from a non-development or a general perversion of functions and structure, they are both born inebriates and criminals.*

This class are usually marked in every community ; their irregularities of living, and mental peculiarities, as well as physiognomy can not be mistaken. They appear as inebriates in all grades of crime, and are seen in prisons, hospitals, and work-houses, all over the world ; although they are not so commonly seen in inebriate asylums as the first class, yet they are frequently studied in courts of law, and insane asylums, as types of all *inebriates*. Not unfrequently they are moral imbeciles, that drift up and down the world like ships without a rudder or purpose. In a study of the general symptomology, the irregularities of life and want of physical development are prominent. They are commonly noted by a large, coarse frame, or an over-grown head and imperfectly developed body ; angular projection of the face, such as the eyes, nose, and mouth, out of all proportion ; the presence of moles or freckles, the hair thick and coarse, or thin and straggling, etc. The entire body seems to be stamped with signs of imperfect development and degeneration. In some cases all these external signs are wanting. This class of men are found in the lowest stratum of society, performing the most menial work, or higher up, they are soldiers, sailors, bar-keepers, and adventurers, highway-men, burglars, etc., following civilization like parasites, the most lawless and dangerous of men. They are also seen along the line of rivers, canals,

and on the sea-boards, etc. They are committed for crime against both person and property, and constitute over 60 per cent. of all the inmates of prisons and jails. Not unfrequently they occupy places of trust high up in society, and when tempted fall precipitately, and puzzle experts and judges to determine between insanity and criminality, and the measure of responsibility.

*The inheritance of disease is more marked in this class than all others.* Dr. Stevenson remarks, "There can be no question but that heredity exists in the mental as well as the physical world, and that the diminished stability of organism and perversion of physical function are transmitted with as much certainty as the germs of disease; that brain structures receive certain tendencies from inheritance, which bind it down or control its future, or that it has a certain capacity for impressions and energy of organism which goes with it always after."

This expresses clearly the doctrine of heredity which is now accepted as a well established fact. The inebriety of this class is of the same order of neurosis as insanity, and depends upon some molecular change of nerve tissues, which coming down from parent to child fixes the moral and physical character with much certainty. In other words it is a symptom of physical degeneration of the nerve centers, an outward expression of an inner condition of development like that which generates low and vulgar ideas, having their counterpart in brutal instincts and words; always connected more or less with diseased and undeveloped nerve structures. All this is confirmed by clinical histories of numerous families where, for generations, the criminal insane and inebriate neurosis has developed in one or more of the family.

Such persons possess a distinct neurosis, which manifests itself either in inebriety, insanity, epilepsy, criminality, or pauperism; or, very commonly, two or more combined in one.

This degeneration may not be tangible to any physical examination, but later, the autopsy and microscope often indicate distinct cell changes. Many of these cases are

purely psychical, marked only by special symptoms which are often in themselves very obscure, and sometimes associated with much intellectual vigor and genius, and display of great strength and weakness. The impairment or loss of the higher moral faculties, leaving the intellectual clear, is a field of much obscurity, and beyond the fact that such is the case, little is known.

With this brief statement of the general facts, which seem to indicate the condition of organism and origin of these cases, we shall pass to a special consideration of some of the groups. *First, are those in which the inebriety seems more prominent than the criminality.* They are seen quite frequently at inebriate asylums. Usually suffering from general exhaustion, they recover slowly, and entertain delusions amounting to delirium at times. They are very penitent during this time, and exhibit a humility and determination to reform that is almost abject. On recovery, they become sensitive, assuming, and boastful, and all the low criminal tendencies come out prominently. They interfere and meddle with a malicious spirit, creating trouble everywhere—are extremely slanderous and boastful, delighting in low stories, and low thoughts, complain bitterly of deprivation of their liberty, find fault with everything, and are changeable in disposition and insolent beyond measure. They are untruthful to an extreme degree, and have no respect for their word, or the judgment of others. They drink at all times and places, using all kinds of intrigue to accomplish this end. They will steal anything from their best friends, such as articles of clothing, furniture, and even food from their families and children to procure drink. Nothing can exceed the degradation and suffering which they relentlessly inflict on their nearest relations to gratify this one object.

In an asylum they are always running away, drinking and bringing liquor for others, stealing articles for the pawnshop, and often not drinking to intoxication, but aiding others beyond that point. They are often the agents of more designing men, who take advantage of their situation

when drinking to stimulate them to crime, which they are ever ready to engage in. In all situations they are continuously criminal in thought and act: and inebriates with every opportunity. After a wretched life from the station-house to the jail, or prison, and the low haunts of large cities, always hunted down like beasts of the chase, they become exhausted and suicidal, either dying by their own hands, or going into the insane asylums.

*The second class are more prominent as criminals than inebriates.* They are cool and calculating, totally destitute of any moral sense. Drink at times very hard, then remain sober under the press of circumstances, for a long time. As an illustration: one of this class drank nothing for over two years, (although in centers of great temptation,) that he might get in position to accomplish a crime. When this was over, he was very intemperate. Often they are victims of vicious, uncontrollable passions, and impulses, over which they are powerless. Epilepsy, insanity, and pauperism are common phases. They are wanting in pity, or lasting kindly sentiment. Have little or no natural reason to check them, and never seem to realize the evil which follows their acts, or the suffering they cause others. Turning against their best friends on the slightest pretext, they have no affection for any one except the most selfish—when this is broken, treat all as enemies.

Prudence is wanting in nearly every one of this class, and is only stimulated and controlled by selfish interest, or fear of punishment. In some cases, violent passions such as hatred, and revenge, seem to control, or be the motive-power in drinking. In the asylum, nothing but force, with locks and bars, will make any impression. Sometimes they remain sober for a long time and seem to recover, but the criminal cunning of their nature, and want of kindly sentiment, are always apparent. Often they cloak all their diseased impulses to accomplish some purpose, and exhibit great skill—appearing in the role of reformed men, gathering about them a wide circle of influences and credulous friends, then, all unexpectedly, victimizing them all, and

relapsing as both a criminal and drunkard. They are, in many cases, on the border-land of insanity, and both talk and act like the most insane of men—are unaccountably vicious and drunken; these extremes seem to follow each other with startling rapidity. Audacity is one of the most prominent mental traits of this class, and is always of a low grade—usually the blind impulse of a low, unreasoning man. These cases are usually the result of certain conditions of inheritance, from which recovery is difficult. They are sooner or later crushed out in the march of events.

There is another class not so prominent, but more familiar to managers of inebriate asylums, which combine many of the symptoms of both of these classes. Inheriting the unbalanced organism, and frequently the special criminality of the last class, they are, like the first class, creatures of the surroundings, and moulded by conditions of life and success. Always combinations of great ambition and weakness—impulsive and unreasonable at times, full of great expectations and constant failures. At one time drinking hard or committing petty crime, thoroughly discouraged and reckless, then buoyant with hope and daring schemes for the future. Without prudence or judgment they always fail, then resort to stimulants to drown their feelings, or in reaction from the change. They are sober men in the high tide of expectation, when all is clear, and the path smooth, but from the first obstacle or discouragement drink precipitately. When they come to the asylum are melancholy, and rave against fate, and after a time have high expectations of getting well, but never work for it, trusting it all into the hands of their friends. Although planning for the future they seem to be governed by the knowledge of their past failures, and relapse on the slightest temptation or source of irritation. After a few weeks residence in an asylum, they clamor to be released, and make all their surroundings very disagreeable, often relapse and get turned away, go to another asylum, and react the same scenes over. In the meantime try various methods for cure, keeping their friends buoyed up with hope that is never realized. At any time they are plunged into the

deepest melancholy, and not unfrequently commit suicide. If they commit crime, it is of a petty character and against property. They are usually filled with delusions that they can do what others cannot, and will escape where others fail.

These cases come from good families and surroundings generally; and are often sporting-men, and politicians, and followers of new movements and new creeds of religion, or active patrons of lotteries and games of chance, buyers of chances in Wall street, and pools at a horse race. If they win anything they drink in elation, and when drunken for a time grow melancholic, and want some one to help them get well. These cases end often in paralysis, epilepsy, and suicide. Such are some of the most prominent facts which a study of these classes reveal.

*We come now to the practical consideration of treatment. Here we find the management of inebriates passing through the same stages as that of insanity.* The care of the insane was for many years without system and classification, and this was and is one of the greatest obstacles in the successful treatment of this class. The testimony of writers and observers are unanimous in condemning the system which places all classes of insane together. The effect on the mind, by contact with others of a different form of disease, is not unfrequently the starting point of a condition more or less chronic. The general want expressed by all observers, is facilities for a more perfect classification, so that the surroundings shall aid and not *present* any obstacles in recovery.

In an examination made some years ago of the Alms Houses in New York State, the fact was demonstrated that a large per cent. of the inmates were born and bred in those places. From want of proper classifications, conditions of surroundings had sprung up which produced annually a large number of paupers, or so infected others that they could never rise from their surroundings. If this is true of pauper homes and asylums, where the lowest grades of mental and physical development are gathered; where the higher moral forces are blunted, and the susceptibility to surround-

ings lessened: if this is true of insane asylums, where the cloudy and distorted reason, and the confused intelligence, and consciousness of the present and past exist only in part, realizing its conditions and surroundings, what may we not expect in inebriate asylums, where the acute, sensitive brain and the impulsive reason responds to the conditions of surroundings as the needle follows the magnet?

If classification is the indispensable condition of the successful management of these institutions, how much more so in inebriate asylums? Here our patients suffer from both a physical and psychological disorder, requiring more than locked wards, or agreeable rooms.

We must add to our physical treatment and forced abstinence, protection from contagious moral forces that intensify and destroy all healthy growth towards the higher levels of life. The want of this proper classification diminishes the practical results of all our asylums, and gives credence to diverse theories and deductions. Our authenticated statistics of thirty-three per cent. as permanently cured should be doubled, and the public should recognize in inebriate asylums the most practical charities of the age.

In our struggle against the skepticism and credulity of an ignorant public, we are prevented from making proper classification by want of facilities and means. The acute and chronic cases are forced upon us, and we can make but little division except from some pecuniary standard. Our asylums must be self-supporting, and we cannot discriminate between the patients of a state institution or an endowed asylum. Hence the *acute, chronic, criminal, insane, epileptic, and pauper inebriates* are seen side by side in all our institutions. All the bad effects of contagion and the perils of temptation, with the difficulties of management, are increased to a high degree.

We are confirmed in this statement by the experience of all observers, that every asylum for inebriates in this country is suffering, more or less, from the presence of this criminal class. The liberty of these asylums, and the kindly appeals to the higher moral nature of the patient which they often



do not possess, or have feebly developed, make no impression, but rather gives opportunity for more easy deception and imposition on the good will of those about them. Appeals to the religious sentiment of this class not unfrequently give them a kind of education which they are quick to take advantage of in the future, developing religious imposters who never fail to use this power to their advantage.

If the restraints are imperfect, we lose the confidence and cooperation of the patient, and stimulate his mind into opposition and constant endeavors to thwart and destroy its effects. Unless our discipline is thorough and stimulating in all its parts, and rigorously enforced, we are educating these men into methods of intrigue, and building up contagious forces, increasing the difficulties of management, and lowering our reputation in the public estimation.

In 1873, before this association, I concluded a paper, on the management of inebriety in the Albany Penitentiary, as follows: "The sharp discipline of prison life, filling the mind with new duties and ambitions, employing the energies in physical labors, is particularly fitted to strengthen and develop the feeble impulses, and to control the diseased longings—this is the basis of reform. Military discipline, and occupation of both body and mind, indicates the most hopeful promise for the future."

These statements were based on the observation of criminal inebriates, and are correct, but do not apply to the management of all inebriates. If we admit patients of this class, we must have the means to enforce obedience, and make relapse almost impossible. They must be separated from others, and placed under a rigid military discipline, which will have care of all their habits and surroundings, punishing for all violations with certainty and exactness, and under no circumstances relaxing the military surroundings in less than from two to four years.

As in an insane asylum, the acute maniacs who are violent and destructive need special care and watching, while the harmless demented need but little more than shelter and food, so the criminal inebriate must have enforced conditions of



living and surroundings, while inebriates of other classes need, besides the physical treatment, the direction and guidance of an asylum.

There is another class of patients, called *repeaters*, who are compounds of criminals and pauper inebriates, although quite frequently wealthy, or having wealthy friends. They go from one asylum to another, like tramps, and bring odium on all, disobey the rules, are sources of infection and annoyance to the management, and are often taken as types of all others. Without facilities for classification, or means to enforce long residence or total abstinence, we are throwing away time and opportunity in all efforts to help or reform this class of inebriate criminals: There would be more hope for criminals in the present system of punishment in jails and penitentiaries, if the sentences were made for years instead of months. The English prison reports indicate a number recovered from inebriety, among those of this class, sentenced for a period of years. The danger of the present system is that short sentences intensify and fix their condition, isolating and building up a dangerous class, from which recovery is rare. This is owing to the imperfect system of classification, by which all are treated alike, and without regard to marked differences of intellect, development, and character.

We repeat, the inebriate criminal must be classified and treated by distinct methods. He must be separated from the ordinary patients of an asylum; and only by this means can we show the public the true value of our work.

The time has arrived when we must be estimated by different standards than that set up by the self-important lunacy specialists, or the superintendents of insane asylums, based on superficial studies of the pauper and criminal inebriate, or the authoritative dictum of the judge, founded on scientific quotations from books more or less obsolete; or perhaps the imperfect study of some case of a chronic character. The public must realize that inebriety cannot be understood and managed successfully except by continuous study in asylums, in the hands of competent men. The key which shall unlock the mystery of many of the wide-spread disorders growing out

of the use of alcohol will be found only after a long study of the entire subject.

We stop here, only adding that our work is a pioneer one, and that, stretching out in every direction, are divisions and topics of this subject which we must study and understand before we can build up model asylums, and manage them with the success that it is possible to attain.

A resumé of what we wish to make prominent is included in the following :

1. This class of inebriate criminals are numerous, and are generally studied as types of all others ; and, unfortunately, they furnish the basis upon which much of the literature of inebriety is founded.
  2. They are composed of several classes, more or less distinct, requiring a comprehensive study of conditions and surroundings.
  3. As patients in inebriate asylums they are extremely difficult to manage, often bringing odium upon the asylum, and receiving little benefit from it.
  4. In the treatment they should be classified and put under a strict military discipline, in which labor is a part of the treatment, and this continued for months or years.
  5. A removal and classification of this class in our asylums will increase the per cent. of recoveries largely ; also a more thorough study of the different classes of inebriety will reveal many facts, and clear away much of the confusion at present existing.
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In Venice it was a law that every one who deliberately violated the regulations of the health-board should suffer by death. This is the true principle of society, making the individual conform to the needs and welfare of the masses. A small-pox patient going about the street is looked upon with horror, but an inebriate who is a terror to his family, and a constant menace to good order and society, is hardly noticed. It is a sanitary measure of the highest importance to quarantine the inebriate, and protect society, and until we recognize this fact all our efforts at sanitary reform will be defective.

A NEW METHOD OF TREATMENT IN OPIUM  
INEBRIETY.\*

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BY J. B. MATTISON, M. D., BROOKLYN, N. Y.

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I invite your attention to details of a new method of treatment in opium inebriety. It is based on the power of certain therapeutical resources to control abnormal reflex sensibility, and accomplishes, largely, two cardinal objects, minimum duration of treatment and maximum freedom from pain.

It is a fact well attested by clinical observation that the ravages of opium excess are spent mainly on the cerebro-spinal and sympathetic systems, producing changes that give rise to great nervous disturbance when the opiate is peremptorily withdrawn—unless some mitigating measures be interposed, and which, even in the process of very gradual withdrawal, is seldom if ever entirely avoided.

A recital of the varied symptoms of opiate abandonment would be superfluous to you, to whom they are so familiar. Let it suffice, then, to say we regard them all, certainly, the most important—the aches, pains, yawnings, sneezings, shiverings, nausea, vomiting, diarrhœa, restlessness, convulsions, exhaustion, collapse, and general mental and physical distress, as indicative of great reflex irritation in those centers, and any remedial procedure having the power to counteract and control this morbidly augmented sensibility, must contribute vastly to the patient's comfort and cure. Heretofore, two methods have obtained in the treatment of opium inebriety. One, which may well be called heroic, the entire and immediate renouncing of the accustomed opiate, invariably gives rise to great distress of mind and body, to relieve which vari-

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\* Read before the American Association for the Cure of Inebriates, at their ninth annual meeting, at Boston, Mass.

ous remedies are, at the time, resorted to. Those not fully informed, and desirous of knowing the extent of this suffering, which is far from imaginary as some would have us believe, should consult a recent work by a German writer, entitled "Morbid craving for Morphia," in which are given details of twenty-four cases of hypodermic morphia addiction treated by this method, which the author, by a process of logic neither safe nor sound, declares to be the best. This statement we emphatically dispute. No treatment which entails such severe and dangerous suffering as in the cases cited can claim preëminence over one more humane and equally effective. A study of the resultant effects in the instances alluded to reveals evidence of marked distress, in six cases so extreme—dangerous collapse—that a temporary return to hypodermic morphia became imperative to avert a fatal termination. The other method, consisting in a very gradual decrease of the usual opiate, meanwhile toning up the system to make amends for the accustomed inebriant, secures the desired result at much less suffering, and I know of no reason why it should not be just as permanent. It is, however, open to the objection of requiring a much more protracted treatment, and, as time is often limited, this point becomes one of importance.

The plan we offer for your consideration is a mean between these extremes, accomplishing the good results of both, and consists in producing a certain degree of nervous sedation, and consequent control of general and reflex sensibility, by means of the bromide of potassium, ammonium, sodium, or lithium, though we refer specifically to the *bromide of sodium*, having used that exclusively in cases coming under our care. This method, which, so far as we are aware, is original with and peculiar to ourselves, is merely a new application of a well established principle, for the power of the bromides to subdue abnormal reflex irritability is so constant that it may be looked upon as an invariable sequel of such medication. Dr. Ed. H. Clarke, in his valuable treatise on the bromides, says, "Diminished reflex sensibility, however different physiologists may explain the fact, is one of the most frequent phenomena of bromidal medication that has been clinically

observed, and is, therapeutically, one of the most important." The testimony of other distinguished observers is to the same effect—Gubler, Guttman, Laborde, Voison, Damourette, Eulenberg, Claude Bernard, Brown-Sequard, Echeverria, and Hammond all giving evidence as to the power of these agents to impair the control of the spinal cord over reflex manifestations, and, at the same time, exert a marked influence over the general nervous system. Admitting that the symptomatology of opiate abandonment pertains almost exclusively to the functions over which the bromides exert so decided a control, we have in the treatment of opium inebriety a new field presented for the exercise of this valuable property, and the fact, proven conclusively by our experience, that it *does* exert this happy effect, fully supports the idea advanced as to pathology of this disease.

In speaking of the bromide of sodium, let it be understood that we refer entirely to the influence of the *continued dose*, by which we mean its administration three times in the twenty-four hours, at regular intervals, so as to keep the blood constantly charged with the drug. A most important difference, physiological and therapeutical, exists between the effect of this mode of exhibition and that of the single dose, or two or three doses so nearly together as to form practically one, for in the former case the system is constantly under the bromide influence, while in the other, the drug being largely eliminated in a few hours, the blood is nearly free from it a large portion of the time. Results obtainable from the continued use cannot be gotten from the single dose, and, as a consequence, its value is far greater in the disease under consideration.

Again, the action of the continued dose being somewhat remote, three to five days usually elapsing before there is decided evidence in this direction, much more desirable results are secured by its employment for several days *prior* to an entire opium abandonment, meanwhile gradually reducing the opiate, than if the withdrawal be complete and then reliance placed on the bromide to control the resultant irritability; for, in one instance, the maximum sedative effect is

reached at the period of maximum disturbance from the opium removal, and its counteracting and controlling effect is far in excess of that to be had from its employment subsequent to the lighting up of the nervous irritation. What, then, we style *preliminary sedation* forms a peculiar and most valuable feature in our administration of the bromide, and it is this particular point we commend to you, our experience having convinced us we have in it an unequalled means of obviating the suffering incident to the treatment of this disorder.

The value of the various bromides depends on their proportion of bromine. Bromide of potassium contains 66 per cent., sodium 78, and lithium 92 per cent. We should, therefore, expect a more powerful influence from the latter agent, and, according to Wier Mitchell, it has a more rapid and intense effect. Its price, however, is an obstacle to its general employment, being from 50 to 60 cents per ounce, wholesale, while the other bromides cost about the same per pound. Bromide of sodium being richer in bromine, and pleasanter to the taste, we prefer it to potassium.

Either of the bromides, in powder or concentrated solution, is somewhat irritant, sometimes provoking emesis, and, in any event, delaying its absorption. A practical point, then, is that it be given largely diluted. Dr. Clarke says, "There should be at least a drachm of water to each grain of the salt." We give each dose of the sodium in six or eight ounces of cold water, and have never known it to cause vomiting.

Another important feature relates to the time of its employment. The bromide is disturbed by acids and food in the stomach, delaying absorption, and causing elimination of bromine with irritation and eructations. It should, therefore, be given when the stomach is empty, and practically free from acid. We usually administer it at 10 A. M., 4 and 10 P. M., or half an hour before each meal. Given thus, largely diluted, it is probably absorbed in half an hour, and the effect of the continued dose rapidly secured.

To produce the requisite degree of sedation within a limited period, it is essential that the bromide be given in full

doses. I am convinced that failure in its use, in any neurosis, is very often due to a non-observance of this point. Our initial dose of the sodium is 60 grains, thrice daily, time and mode as stated, increasing the daily amount 30 grains each day, i. e., 70, 80, 90, grains ter die, and continuing it seven days, reaching a maximum dose of 120 grains three times in the twenty-four hours. It is then discontinued, but its sedative effect persists and somewhat increases for two or three days following, and then begins to decline. During this week of bromidal medication, the usual opiate is gradually reduced, so that on the seventh or eight day it is entirely abandoned. A decrease of one-third or one-half the accustomed daily quantity is made at the outset, experience having shown that habitués are almost always using an amount in excess of their actual need, and this decided reduction occasions little or no inconvenience. Subsequently, the opiate withdrawal is more or less rapid according to the increasing sedation, the object being to meet and overcome the rising nervous disturbance by the growing effect of the sedative—in other words, maximum sedation at time of maximum irritation.

Having secured the sedative effect desired, the object is to eliminate the bromide as rapidly as possible, and as the skin and kidneys form the only outlets, recourse is had at once to diaphoretics and diuretics. Of the former, hot and steam baths are to be relied upon. And, of the latter, digitalis, in infusion, or, if bulk be objectionable, Squibb's Fluid Extract combined with Potass Acet. and Spirits Æther Nitrosi. The bromide itself increases renal secretion, and, aided by the others, it passes from the system in a few days.

The bromide and opiate having been discontinued, restlessness, more or less prominent, persisting from 20 to 56 hours, invariably supervenes, but is greatly relieved by hot—not warm—baths, temperature 100 to 110°, 15 to 30 minutes duration, repeated as required. They are often signally effective. We have known a patient fall asleep, snoring vigorously, while in a bath.

Sleeplessness is always more or less prominent after opium abandonment. For the first three or four days, the



hypnotic effect of the bromide is sufficient. Afterward, chloral is most effective, in 20 or 30 grain doses at bedtime. If not sufficiently soporific, its efficacy may be increased by adding  $x$  to xxgtt of Squibb's Fluid Ex. Hyoscy., or Cannab. Indic. A peculiarity of this insomnia is, that it is most marked in the early morning. Slumber comes readily enough at night, but patient awakes at two, three, or four o'clock, and finds further sleep impossible. Often it is well to defer the sleeping draught until this time. This waking tendency gradually diminishes, and ultimately disappears.

Chloral, given during the early opium abstinence, has, with us, not acted kindly as a hypnotic, but produced a peculiar intoxication, though we have never noted the wild, maniacal delirium mentioned by Dr. Levenstein as occurring during this period in his cases. As soon as possible it should be discontinued, and sleep secured by a fatiguing walk, a half hour's warm bath, a light lunch, or glass of milk—one or all, before retiring.

For three or four days following the opiate withdrawal, the diet should be *exclusively* of milk combined with lime-water—one or two ounces, with one or two drachms respectively—every hour or two. It is very seldom rejected, and is preferable to beef-tea, or anything else. Afterwards, a full, solid diet may be resumed, soon as practicable.

While diarrhœa is the decided *exception* under this plan of treatment, we still deem it best to keep the bowels in good condition, and administer the first night, a mercurial cathartic sufficient for several full evacuations, followed, during the bromide giving, by daily laxative enemas, or doses of Hunyadi water.

Debility, of varying degree, due to the opium abstinence, and bromide relaxation, is among the sequelæ. It decreases with the increasing bromine elimination, aided most effectively by general faradization, 20 minutes morning seances daily, after the restlessness subsides, and strychnia  $\frac{1}{10}$  gr. thrice daily, combined with iron, quinine, phosphorus, digitalis, or cod liver oil, as most required.

The following formulæ are valuable:



℞. Strychnine, two grains; Muriated Tinct. Iron, five ounces; Tinct. Digitalis, and Glycerine, of each, two and one-half ounces.  
M. Dose—One to two drachms, three times daily.

℞. Strychnine, four grains; Dialized iron, five ounces. M. Dose, one-half drachm, *ter in die*.

℞. Strychnine, two grains; Dilute Phosphoric acid, and Syrup of Ginger, of each, two and one-half ounces. M. Dose—One drachm thrice daily.

℞. Pyrophosphate of Iron, 5 to 10 grs.. Quinine, 2 grs. at a dose.  
M. Pill, or solution, three times a day, if the appetite be slow in returning.

℞. Comp. Tinct. Quassia, one drachm; Tinct. Capsicum, ten drops.  
M. For one dose, diluted, 20 minutes before each meal.

Strychnia is not advisable *during* the bromide administration. Being decidedly antagonistic—one causing relaxation and deficient reflex excitability, the other, just the reverse—the desired sedative effect may be materially delayed if they be given together. Subsequently, it is the most valued general tonic at command, and may be continued in varied combination for weeks. With the strictly medicinal course are to be employed a full nutritious diet, out of door exercise, especially walking, and varied social enjoyments—in fact, anything that can exert a roborant effect on mind or body.

Surprise may be expressed, and objection made regarding the extent of the bromide doses, but the fact must never be overlooked that we are not to be governed in the giving of any remedy by the mere numerical amount of drops or grains, but by the effect produced. Again, I am led to think that one effect of opium addiction is a peculiar non-susceptibility to the action of various nervines, necessitating their more robust exhibition to secure a decided result. More, and most important of all, under the influence of certain abnormal conditions, doses which ordinarily are toxic, become simply therapeutic. The annals of medical literature abound with illustrations in support of this statement, and among the most striking may be noted the following: Dr. Southey read before the Clinical Society of London notes of a case

of idiopathic tetanus, which occurred in a boy ten years old. The first symptoms of trismus were observed two days after a severe fright and drenching due to the upset of a water-butt. They steadily increased up to the date of his admission to St. Bartholomew's hospital, upon the eighth day of his illness, when the paroxysms of general opisthotonos seized him at intervals of nearly every three minutes. Each attack lasted from fifteen to thirty seconds, and although between the seizures, the muscles of the trunk became less rigid, those of the neck and jaw were maintained in constant tonic cramp. The patient was treated at first with chloral, ten grains, and bromide of potassium twenty grains, every two hours, and, afterwards, with the bromide alone in sixty grain doses every hour and a half. When about two ounces were taken in the twenty-four hours, the attacks became less frequent, but at first each separate seizure was rather more severe, and upon the evening of the eleventh day, he was able to open his mouth better. On the thirteenth day the bromide was decreased to twenty grains every three hours, and on the fourteenth day, was discontinued altogether. When the bromide had been omitted for twenty-four hours, the attacks returned at intervals of an hour, and the permanent rigidity of the muscles of the neck was re-established. His condition now steadily became worse, so that on the eighteenth day of his illness it became necessary to resort to the previous large doses—one drachm—every hour and a half. After three such doses, the expression became more natural, and he was able to open his mouth again; but it was not till the twenty-fifth day of the disease that it was possible to discontinue the remedy. The patient remained in a state of remarkable prostration and drowsiness, sleeping the twenty-four hours round, and only waking up to take his nourishment for eight days, and passed all his evacuations under him. He subsequently steadily and rapidly convalesced. The bromide produced no acne or other disagreeable symptoms, and certainly appeared to exert marked inhibitory influence upon the tetanus.

Surely, under ordinary circumstances, no one would think

of giving such extensive doses of the bromide, but here, under the antagonizing influence of the intense reflex irritability, their effect was vastly beneficial, conducing, unquestionably, to the patient's cure.

Given, as we recommend, no effect is usually produced by the bromide before the third day. From the third to the fifth, an unpleasant taste is complained of; the bromic breath begins; the patient is disposed to drowse, and there is a growing indisposition to muscular exertion. From the fifth to the seventh, these symptoms increase—the tongue begins to furr; the odorous breath is marked; the drowsiness deepens into sound sleep, more or less prolonged, and the inaptitude for physical exercise becomes so decided, that patients generally take to bed on the last day. The following two or three days—during the period of maximum disturbance from the opium withdrawal—are characterized by a persistence of the symptoms alluded to. Patient remains, more or less restlessly, in bed; general relaxation is decided; the pulse is less frequent—usually about 60; the voice somewhat weakened; pupils dilated; the renal secretion augmented—though, sometimes, diminished; the saliva increased and rather viscid, and mild hallucinations of sight and sound—almost always of sight—occur, occasionally, for three or four days, accompanied with a peculiar aphasic tendency, as shown by substituting one word for another—Mediterranean for Mississippi, Brown, instead of Iowa, etc. This curious symptom may occur at increasing intervals for several days. Dr. Clarke refers to such instances. He says “they are hints of a distinct organ of language, and suggest the notion that, inasmuch as the drug we are considering paralyzes reflex, before it does general sensibility, language may be the expression or correlation of a peculiar reflex power.” After the ninth or tenth day the bromidial manifestations gradually disappear, so that within two weeks from beginning of treatment, patient is generally up, and the only prominent symptoms remaining are the debility and insomnia. Tonics, hypnotics, and vis-medicat. nature, effect speedy convalescence, and—where treatment is begun on entrance—patients are usually dismissed, cured, within a month.

More than one week's employment of the sodium is not advisable lest the hallucinations become unpleasantly persistent; and cases will present in which a minor degree of administration—five or six days—will suffice.

Marked general debility contra-indicates the bromide, and a tonic course should precede it.

Granted a case suitable for treatment, this method may be summarized as follows: Opiate reduced, at once, to one-half or two-thirds usual quantity. Subsequent gradual decrease and entire withdrawal in seven or eight days. Mercurial cathartic, first night, followed by daily laxative enemas or Hunyadi water. Bromide of sodium, 60 grain doses, increased 30 grains daily, *ter in die*, in six or eight ounces water, on empty stomach, continued 5 to 7 days. Restlessness following opium abandonment met by hot baths, 100° to 110°, ten to thirty minutes each, often as required. Bromide eliminated by diuretics—digitalis and nitre, and diaphoretics—hot and steam baths. Insomnia relieved by chloral, combined, if need be, with Indian hemp or hyoscyamus. Diet exclusively milk and lime water first three days of opium abstinence. Full diet resumed soon as possible. Debility removed by generous living, general faradization, strychnine, iron, quinine, etc., with out of door exercise and varied social enjoyment.

The following cases, among others, illustrate results: A. B., æ. 21, male, Conn., used morphia by mouth and hypodermically, at intervals, for years; regularly, one year; maximum taking 40 grains per *ore*, daily—20 grains morning and night; cause, periostitis. The effects were torpor of bowels and bladder; sexual weakness; profuse sweating; loss of memory; emaciation. On admission was using morphia once daily. Evening before took twelve grains; evening after, reduced to five. Calomel cathartic in outset, followed by daily enemas. Bromide treatment begun morning after entrance, and continued one week. Opiate gradually decreased and entirely withdrawn—last dose being three-quarter grain—early morning of eighth day—Sunday. Four hours later restlessness began, subsiding in twenty hours. Vomited once; bowels only slightly relaxed. Occasional hallucinations of sight and

aphasic symptom. Treatment—hot baths to control the restlessness; digitalis, nitre, and baths as bromine eliminations; chloral and cannabis indica as hypnotics; quassia and capsicum for the anorexia, with general faradization, strychnine, iron, and digitalis as tonics. Was up one and a half hours the following Wednesday, twelve hours on Thursday, out riding on Friday, and dismissed, cured, four weeks from day of entrance. Patient declared one day's former abstinence from morphia gave him more discomfort than he experienced during treatment.

C. D., æ. 42, physician, N. Y.: *ten* years' habituation; maximum daily taking, 18 grains morphia, hypodermically; cause peritonitis. The effects were alvine torpor for years, no evacuation without enemas; vesical and sexual debility; anorexia; indigestion; hemorrhoids—the hemorrhage sometimes profuse; mental depression; muscular weakness and emaciation; in general, a wreck-like state of mind and body. On admission, was pallid and weak. Tonic regime, exclusively—strychnine, iron, and digitalis with generous diet—for ten days. Morphia reduced almost at once to six grains. Sedative treatment secured desired effect and entire opiate withdrawal in eight days. During afternoon of last day's habituation—the final dose being one-third of a grain—had severe headache, of limited duration, relieved by hot sitz baths and cold to the head. Moderate restlessness followed, subsiding in forty-eight hours. No other symptom of note. No vomiting; no diarrhoea. Treatment essentially the same as preceding case. Patient made an astonishingly rapid recovery, and was dismissed, cured, in less than six weeks. In subsequent letters he said, "What an effectual work, \* \* \* and brief, too, as effectual. I never could have belived it possible before I experienced the practical demonstration."

I regard your method the one par excellence."

Such, gentlemen, are the details and results of the plan we proffer. We commend it to your consideration, our experience convincing us we have in it a valuable addition to the therapeutics of opium inebriety.

RELATION OF ALCOHOLISM TO OTHER  
FORMS OF DISEASE.\*

BY ELISHA CHENERY, M. D., OF BOSTON.

There are no guide-boards along the lanes of human life so utterly written all over with warnings as those which stand at the by-ways to such diseases as are brought about in violation of moral obligation—are self-induced—suicidal.

At a clinical lecture by Dr. S. D. Grose, in Philadelphia a lad was presented, suffering from constitutional syphilis. Having ascertained that it was a result of his father's irregularities transmitted by the laws of inheritance to the child, the Doctor denounced the disease as "the most terrible disease beneath the sun." We beg to differ from the venerable Professor, but only so far as to say, that when we consider the ravages of alcohol, the subtle nature of the poison, its wide diffusion, and its bareface and frequent repetitions, his term applies preëminently to the subject in question:—*that alcoholism is the most terrible disease beneath the sun.*

The term drunkenness, as used in a restricted sense, applies to heavy drinking from choice, and is under the control of the will. Inebriety, on the contrary, is remarkable for its impulsion to indulge, and that even against choice. It is thus a disease to drink induced by drink, and overcomes the moral force to let the intoxicant alone. But both drunkenness and inebriety are too complaisant towards the moderate use, as though it were not, like boyhood, the father to the man. The term alcoholism is used as embracing all degrees of drinking,—both the use of liquor and its effects. That persons may drink, though they should not get drunk,

\* Read before the Ninth Annual Meeting of the American Association for the Cure of Inebriates, held in Boston, September 10, 11, 1878.

is yet too popular an admission; it caters to respectability, not to health; assumes that heavy drinking is harmful, while the social glass and the table toddy, if not positively wholesome, are not positively evil. But he who would to-day deal a telling blow against the greatest evil of our time must, like a certain schoolmaster of a former generation, greenhide both big and little in the corner together.

That we must include little as well as much tippling is evident:—

1st. By the dictates of common sense.

2d. By the testimony of many able and excellent physicians and surgeons. The language of Sir Henry Thompson is: "I have no hesitation in attributing a very large proportion of some of the most painful and dangerous maladies which come under my notice, as well as those which every medical man has to treat, to the ordinary daily use of fermented drinks taken in the quantity which is commonly deemed moderate."

3d. By the practice of insurance companies. Dr. E. H. Sieveking in his "Medical Adviser in Life Insurance," declares: "For the purpose of life insurance the broad line may be laid down, that the habitual spirit-drinker, and especially one who is found to take strong drink early in the day, ought to be declined altogether." "There is scarcely a degenerative condition of the body that may not result from the abuse, or rather the habitual use of ardent spirits."

Dr. T. K. Chambers says: "I have not yet met with a forenoon tippler, even though he never got drunk in his life, without a condition of stomach which must inevitably shorten his days." He rejects all such from life insurance.

4th. By the excess of pathological changes observed in the bodies of moderate drinkers, who die from accident or otherwise, as compared with those who are known to be abstainers. Thus Dr. Wm. Aitken remarks: "The extent of the chronic changes in the various organs of these individuals is found to have been *far in excess* of what could have been rationally looked for in a like number of persons



of the same age, and of temperate habits, suddenly cut off while apparently in average health and vigor."

One of the worst cases of morbid changes I have ever met, was in a person with whom I had been acquainted for years, and yet never knew to be drunk. From such considerations we must count the moderate drinker in with those who use strong drink more copiously. Nor must the lovers of wine and beer be ruled out.

Alcohol produces its effect in three ways; by irritation, by nerve-poisoning, and by modification of the functions of the blood-globules, and the consequent altered nutrition of tissue.

For convenience, the subject of alcoholism may be distinguished into two parts—acute and chronic.

#### I. ACUTE ALCOHOLISM

Is chiefly limited by time—a few weeks—and excludes those cases which afford any considerable period for the repetition of the poison, and for greater molecular disturbances. The effects of the alcohol in acute cases are modified by the kind of alcohol, and the quantity and degree of concentration of the liquor used; by the amount of food in the digestive organs to retain and dilute it at the time the liquor is taken, and also the quantity of blood in the vessels; by the age, strength, etc., and particularly the predisposition of the person to any form of disease towards which the alcohol may be an exciting cause, and give the final impetus. The tissues to which the agent is directly applied, the circulation with the organs of secretion, and the nerves and brain are the parts most likely to be affected, while the nature of the affections are irritations, engorgements, and inflammation, and nerve-poisoning manifested in many ways. Small doses of weak alcohol of course only slightly anæstthesize the nerves of the mucous membrane, and excite an increased flow of the watery elements of the secretions, without, so far as I am aware, an increase in the essential elements of those secretions. Stronger alcohol irritates the parts with which it comes in contact, and diminishes their secretions. Congestions and



sometimes inflammations follow. Alcohol precipitates and destroys both the pepsine and the pancreatine, thereby thwarting the transformation of the food, provoking vomitings, crapulous diarrhoea, with catarrhal condition of the mucus membrane. It powerfully favors the onset of cholera and yellow fever wherever the special poisons exist. If there be little or no food in the stomach to delay the absorption of a large dose, the alcohol is suddenly precipitated into the circulation, and may destroy the functions of the blood-globules at once, just as it will destroy the functions of the yeast-cells,—agents having a similar physiology.

A few years ago I saw a man who loved liquor. He had had none for some time, and just at night, and before supper, he got a chance to drink some whisky out of a keg. He went only a few steps, lay down, became cold, bluish, covered with sweat, and died after several hours, presenting the series of symptoms of suspended functions of the globules, rather than those of nervous shock, as such cases have usually been supposed to be. Being poured point-blank into the liver, after its absorption from the alimentary canal, the functions of that viscus are disturbed, and inflammation is sometimes set up. I was lately called to a young man, who, having finished his day's work, went into a saloon and drank on an empty stomach. He was shortly after taken sick with symptoms of acute hepatitis, was carried home and ultimately died. In all bilious diseases alcoholic drinks are decidedly damaging. A few doses may determine cirrhosis or diabetes, and will aggravate these diseases if already under way.

The next in order are the lungs. The basis of derangements here lies in obstructed function of the blood-globules, the medium for the interchange of gases. Drunken blood-globules cannot do their work, and the circulation of the blood through the capillaries cannot readily be effected only as the normal physiological exchange of gases takes place; hence engorgement of the pulmonary circulation with obstruction of the right side of the heart follows, with what effects on the heart may easily be imagined. Without dwell-

ing here, let me say that such a state of the pulmonary circulation, together with the foul condition of the blood from lack of aëration caused by the presence of alcohol, must greatly favor tuberculosis and aggravate it when it already exists. Indeed, consumption reaps fearful harvests from the intemperate. A moment's reflection at this point will convince us of the unscience of the alcoholic treatment of tubercular cases, and also of the acute form of any other disease where depuration of the blood is a prime necessity.

Passing to the head, we find the capillaries becoming injected, and the brain forcing up into openings in the skull made for observations, and, after a time, growing pale and subsiding below the normal; thus, on the one hand, directly favoring congestion, inflammation of the membranes and the substance, apoplexy, and paralysis, and, on the other, cerebral anæmia, epilepsy, and delirium tremens. Acute mania is often produced in this way, which, after a time after the withdrawal of the liquor, disappears, or may drop into delirium tremens, or merge into chronic insanity.

A while since the writer had under care, at the same time, a young woman, knocked down by a bolt falling on her head, and a young man, knocked over by a charge of alcohol, taken for the relief of colic. Both manifested similar symptoms; were a source of anxiety; and were several weeks in recovering their equilibrium. Delirium tremens is usually the result of acute cumulative nerve-poisoning, in connection with in-nutrition, and deficient excretion of urea. Hence the rationale of its treatment by withholding the bane, feeding the patient, and encouraging the action of the kidneys, in which case opium is contra-indicated.

The last organs to mention are the kidneys. These may become engorged and give rise to acute albuminuria, or may pass into acute inflammation, with its attendant results.

## II. CHRONIC ALCOHOLISM

is a continuation of the acute, and may carry on and complete the inflammatory and functional changes which the acute has not had time to do. But it is especially char-

acterized by two sets of molecular changes of the tissues, viz: hypertrophy, or increase of connective tissue elements, and fatty metamorphosic degeneration of few or many parts.

This *fibroid change* is manifest in numerous situations, but is especially harmful as it occurs in the glandular organs, and in the brain and spinal cord. In the stomach we have thickening with contraction, resulting in damage to its glandular structures, as noted by Wilson Fox. In the liver, the gland substance is encroached upon by increase of Glisson's Capsule. Hence, cirrhosis, or the "gin-liver." Of twenty cases of cirrhosis, Dr. Flint found seventeen to admit intemperance. Dr. Wunderlich found two girls, sisters, eleven and twelve years old, presenting typical cases, and thought he had spontaneous instances. They both proved to have been schnapps drinkers. The repetition of small doses is thought to be more likely to originate diabetes than a few larger ones. In the kidneys the fibroid encroachment determines Bright's disease. Says Dr. William Roberts of England: "The abuse of spirituous liquors ranks high—probably higher than any other single circumstance—as a determining cause of Bright's disease. Dr. Christison is deliberate in the belief that three-fourths of the cases originate from this source. Dr. Goodfellow describes a case where the vapor of alcohol produced albuminous urine, and nothing would help the patient till he was removed from the impregnated atmosphere. Whenever he returned the disease returned also.

It may be that this increase of connective tissue in the glandular organs concerned in reproduction, may explain the barrenness of many, who, preferring to nurse the liquor bottle, are obliged to go without children. Sclerosis of the brain and spinal cord may also have its origin from this cause. The hardened condition of the brain of dead liquor drinkers, described by Dr. Peters of New York, and others, shows how wonderfully this poison may modify the delicate nerve tissue. Alcoholic paraplegia is to the point, as described by Prof. Leudet of Rouen, and others. The numerous cases of a kind of amblyopia, mentioned by Dr. Galzowski as occurring in Paris during the late Franco-Prus-

sian war, and arising from the use of liquors, particularly as food, show something of the evil it is capable of in this direction. It is a significant fact that nothing can be done towards a cure of such cases till the alcohol is abandoned.

*Fatty metamorphosis* is a backward step—a pulling down of the organism—in which the normal tissue elements degenerate into free oil globules. All parts are liable to this degeneration. A cock fed on corn soaked in alcohol will show the redness on his comb instead of his nose; will go through all the stages of fatty degeneration; will finish his days as a bloated toper in six or eight weeks, instead of several years, and on dissection will show fatty degeneration of every tissue, even of the bones themselves. As an eminent physician well said, "alcohol produces a decay of all the powers of life." It changes a young man to the physical condition of age. The heart and arteries are the most mischievous seat of this form of degeneration. Hence occur the weak, fatty heart; altered structure of the coats of the arteries, giving rise to weakened walls; aneurisms; ruptures of the arteries; apoplexy, etc. A remarkable case of calcareous condition of the aorta was dissected by the writer a while since. These changes play an important role in all forms of disease. They bare the bosom to all kinds of morbid causes, and intensify the risks whenever a disease sets in or a surgical accident occurs. Thus nearly all drunkards go down when taken with small pox, yellow fever, or the cholera. According to Liebermeister, three times the usual fatality follows when such persons take typhus fever. Typhoid fever, erysipelas, and the like, are all the more dangerous when occurring in alcoholic subjects. But I need not extend these remarks, for they are patent to every medical and surgical mind. Nor need I refer to the hereditary effects of alcoholism; to its effects on the nursing child; to its causative relation to insanity, etc., all of which are more or less known and recognized by the laity as well as the professional man.

That other diseases also tend to produce this, all will admit.

This of course is only a reference to some of the more

salient points suggested by my theme. Suffice it, the alcoholized man is not the man he was. His body, and his mental and moral faculties have suffered damage; and, by all the changes wrought in them by drink, is he unfavorably related to all other diseased conditions; and there is no relief. Drinking persons are more likely to be sick, their sicknesses to take an unfavorable course, and the hearse stands several years nearer their door than it does to the door of those who let the cup alone.

The poor inebriate is an object of pity. Though he looks fleshy, he is not well. His constitution is changed and his fat is alcoholic shoddy, which the crippled processes of elimination could not properly dispose of. If he be lean and thin, the same changes have taken place in the tissues, only the function of elimination has not been equally thwarted. In either case all the finer tissues are worm-eaten, so to speak, and are in a damaged condition, hence, when disease or accident occurs, the drinking man goes down while others live.

Still more. Though he reforms he cannot recover all he has lost. He has voluntarily sowed dragon's teeth; the harvest he must reap. And this is where many make mistakes. They think to leave off drink is to recover, but this is not so, as many a wretched man can witness. We will illustrate by one circumstance only.

There are constantly crowding into our insane asylums persons fifty to eighty years of age, who in early life were addicted to the use of alcoholic liquors, but who had reformed, and for ten, twenty, or thirty years, have never touched a drop. The injury which the liquor did their bodies seemed to have all disappeared, being triumphed over by the vigor of their full manhood; but when their natural force began to decrease then the concealed mischief showed itself in insanity, clearly demonstrating that the injury to their bodies was of a permanent kind. I have in mind, at this writing, a man belonging to a temperate family, among whom insanity never occurred. When a young man he fell into bad company, and began a life of drunkenness. Having squandered his estate and beggared his family, he radically reformed and was as steady and

regular as a man could be for thirty years, yet when age increased upon him, his mind wandered, and he entered the asylum. His daughter, at whose house he finally died, informed me that he appeared in his insanity just as he used to when he was drunk,—the same looks, the same motions of body, and the same mental hallucinations.

A few suggestions must close this paper.

1. These things being so, we, as physicians and promoters of good health, are bound to set our faces against every species of dram-drinking, by both example and active precept.

2. Acute alcoholism, being amenable to ordinary forms of treatment, is to be met with ordinary remedies, but first, by the suppression of the poison. Moral influences win their best trophies here. The drunkard is a sinner,—a sinner against soul and body. He must be met with kindness and persuaded to repent. He has fallen; but he can arise, for he is not bound down. Most likely he will fully recover. He should be instructed to see the subtle nature of the terrible evil. Light, love, and perpetual watchfulness, together with separation from evil associates, will usually be crowned with success. How encouraging the hope if he but turn his thoughts to heaven, and his heart to seek the help of God!

3. To be sure, all of the above means must be brought to bear on the chronic cases. But we have other elements to deal with here. The man's moral nature is still more disordered. His habits of mind are against him, and his force of will is broken. Such men may be made to see the evil of their course, to feel sorry that they have yielded to their appetite, and resolve that they will do so no more. Sometimes they may succeed, and especially so if the great grace of God can come upon them so that their minds turn into new channels of thought, and their feelings be mightily moved upon by better hopes. More times, however, all their good resolutions come to naught, and all the other efforts fail.

It must be borne in mind that such persons have not only fallen, but they are bound down. Their disordered minds are in disordered bodies, and no willing, or wishing, or pray-

ing, can put their minds into the bodies they once had. The man's desires and purposes may be good, but he finds "another law in his members warring against the law of his mind, and bringing him into captivity to the law of sin which is in his members,"—a very literal description of his case indeed. Here, then, is too practical a point to be ignored. Such men must have help of another kind. Their body must be restored as far as possible; and this is not a work of a few days or even weeks. A long time has been employed in pulling down the delicate structures, and a long time is necessary to their rebuilding, even partially.

Here then, gentlemen, come in the "Homes" you represent; and they are made necessary by the very mental and physical demands of the cases. If the chronic inebriate will go to such a home of his own accord, all right. If he can be induced to go there by the influence of friends, this is well. But if neither that nor other means suffice, let the law of the land put him there. The business is an earnest one, and must be met with a decision equal to its demands. The drunkard should be saved; and he can only be saved by separation from his cup—by removing the cup from him, or him from the cup.

Gentlemen, I will not further follow up the indications of the pathology of alcoholism, by going into your institutions, and saying how the drunkard should be treated there: for he must be treated. His are more than mental ailments. He is a sick man through and through. Theoretically, however, in addition to all mental, moral, and spiritual means, in addition to medicines and all hygienic measures, the chronic inebriate should not be treated as a loafer or a simple gentleman—he should have physical work to do. Good, solid, active labor of some kind will occupy his mind and greatly favor the removal of the dead and dying material of his body, and, at the same time, will stimulate the nutritive and reparative processes as far as may be, while it tends to develop a moral sense which is more than a mere sentiment.

On this point I must say one thing more. Of all means to this end, there is nothing to my mind comparable to a sea-



son on the sea, as, for instance, with fishermen in their longer voyages of three or four months. Here every thing is entirely changed from the life of the ordinary inebriate. Separated from his cups, engaged in the active pursuits of these hardy toilers of the sea, every circumstance is favorable to rapid invigoration of the body and of the nerves especially. The constitution of this class of toilers is the direct contrast of the inebriate, and I have never regretted advising a broken-down man to try this means for recovery. It would be easy for these Homes to establish an agency for this purpose at Gloucester, or some similar place, and secure situations with temperate companies, where the tortured mind of the student, the professional man, and the inebriate man of business, if they will, may voluntarily exile themselves for a while, as to a land of fragrance; and the poor man might support himself and bless his home, instead of lounging idly in the lap of charity.

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#### THE INFLUENCE OF TOBACCO ON THE EYE.

Recently several papers have appeared on the above subject, in which the authors assert, with great unanimity of opinion, that tobacco is frequently the cause of diseases of the eye. Disordered vision, which merges into amaurosis, and the general decline of sight, with nervous blindness, are mentioned as quite common.

Cases of delirium tremens have been noticed which ceased when tobacco was withdrawn. Facial paralysis and general neuralgia are often noticed. Atrophy of the optic nerve is a common result. All persons who use tobacco in any way, excessively, will have defective vision and color blindness. Myopia is also present, with changeable vision; at one time clear, then cloudy, or very sensitive when concentrated for any length of time on one object. Frequent congestions and weakness may be said to be present all the time. Nearly all the more common functional diseases of the eye are traceable to tobacco.



## Abstracts and Reviews.

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### DIFFERENTIATION OF DRUNKENNESS FROM COMA.

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BY JOHN MORRIS, M.D., BALTIMORE, MD.

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The frequent occurrence of blunders in mistaking brain-diseases for drunkenness, and the serious reproach they bring on medical men, render it necessary that more earnest attention should be paid to the subject than heretofore, and that a higher knowledge should be obtained of the character of the dangers incident to these accidents. Unfortunately, drunkenness has not, save in a few instances, been studied as a disease, and consequently the manifestations pertaining to it are very little understood. This ignorance is particularly unfortunate when it is necessary to distinguish between it and brain-troubles.

In starting out in this discussion, our first duty will be to enumerate the different conditions which may be mistaken for drunkenness, and the symptoms of which it is necessary to bear in mind in forming a diagnosis.

These are:

1. Fracture of the skull.
2. Concussion of the brain.
3. Cerebral hæmorrhage.
4. Embolism and thrombosis.
5. Uræmia, from Bright's disease.
6. Epilepsy.
7. Narcotic poisoning.
8. Heat apoplexy.

## 9. Hysteria.

We will take up these lesions one by one.

In cases of fracture of the skull, or where severe or stunning blows have been dealt, the greatest difficulty is met with in the diagnosis in the absence of any history of the case, for the reason that the coma in these instances is frequently profound, and simulates that of drunkenness. The smell of the breath should never be relied on as a test, for many industrious and useful workmen are in the habit of taking a certain amount of liquor during the day.

The temperature, the condition of the pupils, the breathing, should all be carefully observed, but the true rule is to keep the patient under close and constant watch, until a fixed diagnosis is obtained. It is also important, in these cases, to look closely for wounds and marks of violence.

Mr. Lawson, of Middlesex Hospital, relates an interesting case bearing on this point. "The patient was taken to the police-cell as drunk. He was medically examined, and recovered sufficiently from his apparent drunken semi-consciousness to be able to converse with those about him. After a few hours, however, severe cerebral symptoms came on, and he was transferred to the hospital, where he died on the thirteenth day from severe lacerations of the brain-substances, associated with extensive hæmorrhage, and with fracture into the lamboidal suture. A remarkable point in this case was the absence of paralytic symptoms, considering the severe laceration of the brain. With the exception of the loss of power over the sphincters, there was no paralysis whatever."

Cerebral hæmorrhage is more frequently mistaken for drunkenness than any other trouble, for the reason that the symptoms are similar in several stages of the two diseases. There is a stage of noisy violence and uproar in both, and also a condition of complete coma. In ordinary cases of apoplexy we look for paralysis of one side or the other, but this does not always obtain, if the hæmorrhage be into the pons, or lateral ventricle. We may have convulsions in both diseases, but usually they are more severe on one side of the body in apoplexy.

The state of the pupils cannot always be relied on as a differential test, although squinting as well as conjugate deviation of the eyes is a distinctive mark of apoplexy. Doctor Macewen, of Glasgow, says the ordinary opinion that dilation of the pupils is found in alcoholic coma is incorrect, but that contraction is the rule. He accidentally discovered, however, that if a patient was shaken or disturbed, the pupils dilated, but very soon contracted again. He therefore lays down the rule that an insensible person who, being left undisturbed for from ten to thirty minutes, has contracted pupils which dilate on his being shaken, without any return of consciousness, and then contract again, can be laboring under no other state than alcoholic coma. Strange to say, Dr. Reynolds has witnessed the same phenomena in patients suffering from acute softening. He says, in his system of medicine, that he has often raised the lids of patients in this condition, and exposed the contracted pupils to the light without arousing them; that there is no dilation or change to be observed, but if they be addressed loudly by name, or their toes pinched so that they awake, the pupils instantly dilate. The truth is, that in cerebral hæmorrhage the pupils present no fixed peculiarity. There may be a clot on one side of the brain, and yet the pupils appear normal. Their condition may even vary in different cases of the same lesion. Cases of ingravescent apoplexy generally commence with delirium or convulsion, and the coma comes on slowly and gradually. These are the cases that are frequently mistaken for drunkenness, provided the smell of alcohol be discovered on the breath of the patient.

Cases of embolism and thrombosis should not be confounded with drunkenness. In embolism, the coma is sudden and transient, and in thrombosis, the paralytic symptoms are so marked that an error can scarcely occur. Fatal cases of sudden coma, and paralysis, with partial recovery of consciousness and power, are met with, independent of drunkenness or brain trouble. A remarkable case of this character is reported in the *Lancet*, January 12, 1878, in which the only lesion found after death was hydatids of the pineal gland, liver and

peritoneum. The patient died in thirteen hours from the commencement of the attack. In cases of coma from uræmia, the diagnosis is not so difficult, inasmuch as we have some well-marked points for our guidance. This form of coma is generally preceded by convulsions. The breath has a peculiar unmistakable fetor, and the urine upon examination will be found to contain a large quantity of albumen as well as other deposits, indicating kidney disease. Occasionally, however, cerebral hemorrhage is present along with uræmic poisoning, and this complicates to some extent the diagnosis.

Another difficulty in diagnosis is that the urine may become temporarily albuminous from the inordinate use of alcohol. Dr. George Johnson mentions a case of this character, which occurred in the practice of his friend Dr. Baxter. "A man between twenty and thirty years of age was brought in one night by the police. He was unconscious and breathing stertorously. He appeared to be drunk, and a large quantity of vinous liquid was pumped out of his stomach. The unconsciousness continued, and it was then suspected that he might be suffering from uræmic poisoning. This suspicion was confirmed by the fact that his urine, drawn off by a catheter, was loaded with albumen. He was then put to bed, cupped over the loins, and a purgative was given. When Dr. Baxter visited the ward next morning, he found the man up and dressed, and clamoring for his discharge. He said he had been very drunk over night, but now he had nothing the matter with him; and he passed some urine, which was found to be in every respect quite normal. The temporary albuminuria was the result of renal congestion, caused by the excretion of an excess of alcohol through the kidneys." Epilepsy can generally be diagnosed without much difficulty, though if the patient is not seen during the attack, but only during the profound and prolonged coma which sometimes follows the paroxysm, the case may be mistaken for one of drunkenness. Epileptic coma, however, is usually of short duration, and if the tongue is bitten, or bleeding, or if hæmorrhagic spots be discovered beneath the conjuncture or skin, all uncertainty with regard to the case will be cleared up.

The coma resulting from the poisoning by opium is very similar to that produced by the administration of large quantities of alcohol. At one time it was believed that extreme contraction of the pupils was a distinguishing mark of coma resulting from opium, but this, it is known, cannot be relied on, inasmuch as the pupils are often found contracted, as I have before mentioned, in alcoholism, and also, as mentioned by Dr. Wilks, in apoplexy seated in the pons varolii. In cases of opium poison that I have seen, I have always thought that the breathing was much slower than in the coma produced by drunkenness, but in this I may be mistaken. The smell of opium is frequently to be discovered on the breath, particularly if laudanum has been taken, and this becomes an important feature, provided no history of the case can be obtained.

There are many symptoms in severe cases of heat apoplexy which might mislead an inexperienced practitioner, and cause him to believe his patient is suffering from the effects of drunkenness. Coma is very often the result of sunstroke, and great mental disturbance and outward violence are not unfrequent results of aggravated cases. I can remember several instances in which I was in doubt for a time in regard to the origin of the symptoms present in cases which afterwards proved to be heat apoplexy. There is one very simple diagnostic mark in sunstroke which is never absent, and which will greatly aid us in forming a judgment: it is intense heat of the head—a heat which is to be found in no other disease, save yellow fever. In the coma of drunkenness this extreme heat is never found—at least I have not met it in my own experience.

I have seen many cases of hysteria in women which at first puzzled me, inasmuch as the symptoms were similar to those induced by the action of alcohol. These cases are not so much characterized by coma as by a state of excitement and violent demonstration. The phases of hysteria are so varied, and the abnormal manifestations of this trouble so curious, that the ordinary practitioner may readily mistake neurotic trouble for the effects of alcohol; as, on the contrary, he may and does frequently mistake drunkenness for hysteria.

The puzzling cases I have met with are those in which there was a combination of whiskey and hysteria, a condition which, I may add, is of the most delightful character, and affording a train of the most original and beautiful manifestations. The methods of examination in coma may be summarized as follows:

*First.* An examination of the head and body for fracture of the skull and external injuries.

*Second.* Examination for hemiplegia, squinting, conjugate deviation or facial paralysis.

*Third.* Examination of the mouth and tongue.

*Fourth.* The legs and eyelids should be examined to see if œdema had previously existed.

*Fifth.* An examination of the urine both for albumen and alcohol.

*Sixth.* A stomach pump may be used in many cases with great advantage.

*Seventh.* A history of the attack and its general features should be inquired into, if possible.

*Eighth.* The pupils and breath should both be examined, and the temperature taken, though undue importance, as before stated, should not be attached to the evidences afforded by such an examination.

In conclusion, let me particularly dwell on the importance of close attention and watchfulness in all cases of coma supposed to be due to drunkenness. The system heretofore pursued has been most barbarous, both in this country and Europe, and is a reproach to our civilization. Dwelling on this subject, Dr. John Curnow pointedly says: "I must enter a protest against the routine treatment of drunkenness too generally followed, viz: emetics or the stomach pump, cold effusion, flecking the skin with a wet towel, and then the interrupted galvanic current. A patient having grumbled out a name, and perhaps an address, is turned over to a policeman, who speedily consigns him to a cold cell to sleep off his symptoms. It cannot too often be insisted upon that a drunken man is suffering from acute poison, and cannot be too closely watched."

All police stations should have a regularly appointed medical officer in charge, and every case of sickness, or aggravated case of drunkenness, should be put under his care. Certain instruments and appliances should be constantly at hand, and supplied at public expense, such as a stomach pump, galvanic battery, hypodermic syringe, test tubes, cupping apparatus, as well as mustard, apomorphia, etc. When these precautions are taken, and when inebriety is added to the list of diseases and its treatment taught in our schools, many lives will be saved and much unhappiness be spared to the community.—*Maryland Medical Journal*.

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#### MORTALITY FROM INEBRIETY, AND THE FACTS UPON WHICH IT IS BASED.

Dr. Kerr, of London, read before the Harveian Society, in February last, a second paper on this subject (mention was made of the first paper in the last number of this Journal).

The following extracts will show some of the facts and difficulties which must be considered in ascertaining the actual mortality from inebriety. "Though proposing to discuss only the direct fatality in persons killed by their now indulgence, it may not be altogether irrelevant to ask your consideration of the following facts:—1. The Government returns of the sickness and mortality of the European troops forming the Madras army in 1849 show that the percentage of mortality was, amongst total abstainers, 11.1 per thousand, amongst the careful drinkers 23.1, and amongst the intemperate 44.5. 2. If all drinking, limited and unlimited, be taken into account, and if all our 16,000 practitioners had a similar experience to myself, the records of my own practice point to a minimum annual mortality from alcohol of 200,000. 3. If the opinion expressed by Dr. Richardson, that our national vitality would be increased one-third were we a temperate nation, be well founded, we lost in 1876, through alcohol, 227,000 lives. 4. The death-rate in the general section of the United Kingdom Assurance Company, from which drunkards are excluded altogether, being fully seventeen per cent. higher

than in the abstaining section; this ratio, applied to our whole number of deaths in Great Britain and Ireland, supposing we had no drunkards amongst us, gives a probable annual mortality from what Sir Henry Thompson calls "drinking far short of drunkenness," of more than 117,000.

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"Not one of over a hundred practitioners whom I have asked mentions alcohol, unless in very rare cases, in his certificates of death. Three members of a family with whom I am acquainted died from intemperance—one at the age of sixty-six from alcoholic phthisis, the second at forty, from alcoholic gout, and the third at thirty-two, from the effects of an accident while drunk. In none of these cases did alcohol appear in the certificate. . . .

"It has been objected that to concurrent factors ought to be truly ascribed many of the deaths commonly credited to alcohol. I believe this to be erroneous. The phthisis or rheumatism of the intemperate is, more often than not, the direct product of the vitiation and devitalization of the blood by alcohol poisoning: and even when a person is laboring under an hereditary disease, he can often, if sober and careful, go on with tolerable vigor to old age, whereas, alcoholic indulgence may so exhaust his nervous energy and irritate his vital organs that his hereditary foe, which alone gets the credit of killing him, may be forced into rapid and premature growth in the hot-house of alcohol. By all means ascribe to non-alcoholic concurrent factors their due influence in the causation of death, but bear in mind that every person that dies, before he otherwise would have done, through alcoholic excess, must be regarded as an alcoholic premature death. . . .

"It has been urged that all evidence, except post-mortem pathological appearances, ought to be rigidly excluded. To this we demur. There are many causes of death, tetanus, for example, where, without the clinical history of the case, there are no specific pathognomonic signs, and in not a few post-mortem inquiries we are able to arrive at the actual or probable cause of death only by the method of exclusion. It is



true that the track of alcohol on the body is marked by a series of pathological footprints, the simultaneous occurrence of which at once raises a strong suspicion of the previous presence of this irritant narcotic ; but a case came under my own notice, recently, where a state of kidney, usually supposed to be peculiar to alcoholic excess, occurred in the person of a moderate water-drinker. Valuable as is the examination after death, on this alone we must not altogether rely if we aim at accuracy. When, in addition to post-mortem testimony, we have the clinical history, we have the most complete proof which can possibly be obtained.

"It has been contended that an inquiry into the extent of the mortality from excess in alcohol ought to be limited to hospitals and kindred institutions, where a methodical and accurate history of cases is recorded. From this view I strongly dissent. The hospital physician or surgeon is in a far inferior position for getting at the true habits of the patient than the general practitioner. The only skilled observer who is at all likely to ascertain the truth is the family medical attendant, who has probably long attended the family, and, it may be, officiated at the birth of the patient and known him all his life. In almost every conceivable case the usual attendant of the sick person must know more of the latter's constitution and conduct than the hospital physician, under whose care the invalid may happen to be for a few days or weeks, once or twice in a lifetime.

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*The National Quarterly Review* for April contains a very sensible review entitled "Temperance as a National Subject," and many other excellent articles which will amply repay perusal. Published by D. Gorton & Co., New York City.

*The Popular Science Monthly*, published by D. Appleton & Co., New York city, is one of the almost indispensable journals that brings the best and latest scientific thought of the day. Its value increases as we become more and more familiar with it.

Lectures on Electricity in its relations to Medicine and Surgery. By A. D. Rockwell, M. D. William Wood & Co. New York.

A Brochure of much practical value, as supplementing the larger works on this subject, and containing many new suggestions.

Hints in the Obstetric Procedure. By W. S. Atkinson M.D. D. G. Brinton, 115 South Seventh street, Philadelphia Pa.

An excellent little book, full of practical thought and suggestion, and one that will be deservedly popular with all who use it.

Evidences of the Senses. An Inaugural Address by W. G. Stevenson, M.D., President of the Society of Natural Science, Poughkeepsie, N. Y.

This is a very thoughtful discussion of the fallacies arising from a credulous reliance upon the evidences of the senses alone.

*The Report of the State Board of Health for New Jersey* for 1878, is a volume of much interest, and contains a number of very excellent contributions to science. The corresponding secretary, Dr. E. K. Hunt, is very well known for his excellent little book on Alcohol, and his many contributions to sanitary science.

*Truth and Fact.* A paper read before the Boston meeting of the American Association for the Cure of Inebriates. By Rev. John Willett, Supt. of Inebriates' Home, Fort Hamilton, New York. A popular presentation of many important facts, from which we shall make extracts for THE JOURNAL.

*First Annual Report of the State Board of Health of the State of Rhode Island*, ending December, 1878. An excellent report, with a sensible article on "The Dietetic Value of Alcoholic Beverages," by Dr. Garvin.

*The Brain*, published by McMillan & Co., 20 Bond street, New York, is a very valuable journal, and increases in excellence as it grows older.

## Editorial.

### SIGNS OF THE TIMES.

Whatever theories we may entertain in regard to the nature of inebriety, we must recognize the diseased conditions present in every case, and the physical means necessary to successfully meet them.

The study of sanitary science brings out more prominently the disastrous effects of inebriety, filling the public mind with alarm and anxiety, and alcohol was never so widely discussed, in all its relations to the individuals and society, as it is to-day.

The increased publication of books, papers, and sermons, advocating many different theories and opinions, together with the temperance revivals which have sprung up in all parts of the country, enlisting the press, and rousing up the church, followed by organized societies pledged to carry on the work, (all having one common purpose—the suppression of the evils attendant upon the use of alcohol)—are among the most significant signs of the times, and indicate clearly a great upheaval of opinion, to be followed by a wider comprehension of these evils and their remedies.

The establishing of inebriate asylums in the midst of opposition and incredulity has gone on quietly in the wake of this continuous agitation, and friends and influence have been won in their favor wherever the subject has been properly presented and its wants realized.

Narrow prejudice and ignorant opposition have only served to bring out more prominently the principles upon which they are founded, and behind all the clamor and sneer there is an under-current of facts (increasing every year) pointing distinctly to these asylums, for a solution of the many problems of inebriety.

Of over thirty inebriate asylums established in this country during the past quarter of a century, only four have suspended.

Considering that they were all experimental, and working without precedent, and without the sympathy and co-operation of the public, their success may safely challenge comparison with any other charity of the age.

It is a well recognized fact that the asylum treatment of inebriety is more difficult than that of insanity, and had these asylums not met a necessity as imperative as quarantine stations for infectious diseases, or hospitals for the insane, they would have all failed long ago.

The early management of insane asylums was marked by many imperfections, but the principles did not change. The conceptions of the work and the application of its principles may be defective, but the necessity and value remains the same.

*The necessity of hospital treatment for inebriety is established beyond all question.*

Within two years a very significant movement has begun, which is the commencement of a great revolution of public opinion in regard to this truth.

There have been opened in this country within this time, over a thousand temporary lodging-houses and eating-rooms for inebriates—places where the poor, homeless victim, after he has signed the pledge, can be taken and cared for until he is able to go out sober, and help himself.

Some of these places have five or six beds, others less. Most of them are free. Some charge a few cents, and trust the inebriate to pay. Many of them are connected with temperance coffee-rooms, and are scarcely known. Some of the temperance eating rooms have the names of benevolent people, who will give a room and bed to any poor worthy inebriate who is making an effort to get well.

In these places they recognize the value of physical aid, and the necessity of food and rest, before the diseased will can be restored. The pledge is first given, then the physical wants are supplied. The comforts of home and food are fur-

nished either free, or at a cost that is merely nominal, and often clothing is also furnished. Conversation, prayer, advice, the personal influence of some friend, watching and protection from old associations, and other temporary means, are employed.

Many of these places are managed by societies and reformed inebriates, others by women or churches. The Women's Temperance Union and the reform clubs seem to sustain the most of these places. In some cities single individuals are supporting little homes of this character, and the purpose of all—to shield and protect the inebriate—is one of the fundamental principles upon which inebriate asylums are based. Without any special notice, and almost unknown in the cities and towns where they exist, these initial asylums are rapidly forming public sentiment, and preparing for a larger and more enduring work in asylums properly organized.

The value of one day's restraint in these homes is the best evidence and most positive proof of the greater good to be realized from a longer time, with more perfect care and attention.

If good food and quiet rest will help to overcome the diseased impulse, it is only a step in advance to estimate the value of months of such surroundings, and the possibility of permanent recovery.

These homes are rapidly increasing in numbers. They follow the track of the great revivals, and are literally the first efforts of the masses to treat inebriety by rational means. From every one will go out an influence that will far transcend the individual good they can accomplish.

This is undoubtedly the beginning of a great Inebriate Asylum movement, which shall provide hospitals and homes for all who need them.

The public are ripe for some practical methods of reaching the disorder. A small number of asylums are at work like the vanguard of an advancing army. Practical men both in and out of these asylums recognize the possibility of making this vast tide of inebriety support itself in hospitals sustained by law and public sympathy. All the indications are

unmistakable, that behind this noise and confusion will be seen the reign of law and growth of homes and hospitals that shall meet the necessities of the inebriate. The medical profession are also agitating this subject, and from all sides come the most cheering proofs that the work of our association is scarcely begun.

T. D. C

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#### LEGISLATION FOR INEBRIATES IN ENGLAND

The Habitual Drunkards Bill, before the English House of Commons, to which we have often referred in past numbers of this JOURNAL, has passed that House and goes up for final action to the "House of Lords," with the certainty of becoming a law.

Nine years ago Dr. Dalrymple agitated this measure, and notwithstanding all the opposition and discussion which has centered about it, the English statesmen have, at last, recognized the necessity which it is designed to meet.

This law is simply to give authority to towns and incorporations to open inebriate asylums, receive patients, and have legal authority to hold them for certain definite periods.

Cities and counties may erect asylums and commit chronic inebriates to them in place of sending them to jail as at present; also, provide work and make it compulsory for them to support themselves. Power is given to hold patients who apply voluntarily for admission. This is copied after the law in Connecticut, where persons who, by persuasion or of their own free will, enter an asylum for treatment, can be held legally for a period not less than four months, nor more than twelve. All inebriate asylums are to be under the government inspection and be licensed. The Home secretary, inspector, or any of the judges of the courts may determine whether any person is held illegally. Such are some of the prominent features of the bill. It is approved by the British Medical Association and many of the leading men, and will meet a kindly reception by the public generally.

The success of this experiment will be watched very

closely, and the questions upon which so much conflicting testimony has come from this country will be tested carefully.

There are over twenty different asylums and retreats for inebriates in Great Britain, which have sprung up within a few years to meet a popular demand. Without legal authority to hold patients, and with no special system of treatment, the results have been imperfect and unreliable.

We look forward to the practical working of this law with great confidence, assured that this is the beginning of a new era in the rational scientific treatment of inebriety in England.

T. D. C.

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The tenth annual meeting of our Association for the Cure of Inebriates was held in New York May 13th and 14th, and although the attendance of members was small, the papers presented and the interest manifested indicated a decided advance both in this country and Europe. The proceedings and reports will appear in our next number.

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According to J. Chrichton Browne, there is a great intolerance to alcohol in persons under the influence of chloral. A single glass of beer will cause intense congestion of the face and head, with excitement of the muscular system, and conjunctival injection: this, he believes, is caused by paralysis of local vaso-motor centers.

An illustrative case came under our observation a few years ago. A strong, vigorous man in despair took an overdose of chloral. The physician gave brandy freely, and the patient died in maniacal convulsions.

The hint from this is, never give alcohol in chloral poison-

It is most sure to intensify the symptoms, and make recovery more difficult.

In inebriety there is atrophy of the nerve elements, and disjunctive association. The co-ordinating centers are disorganized, and the action of the brain irregular and uncertain. Tissue changes are arrested, assimilation and nutrition retarded, and is always followed by more or less anæmia.

## Clinical Notes and Comments.

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### RESULTS OF TREATMENT.

Dr. Day, of Washingtonian Home, makes the following clear and positive statement of results. Twenty-two years of experience in this work have demonstrated that the task is neither hopeless nor thankless; nor would it be if the measure of success had been lessened one-half from the known rate of percentage of cures. I know of no hospital, infirmary, or reformatory institution in the country—and I may as well say, in the world—in which the proportion of cures to the number of patients treated is greater than it has been annually in this Institution, from the date of its origin down to the present time.

A variety of circumstances beyond our control prevents us from making a fair and just exhibit of our success to the world. A man will go to the hospital or infirmary with a disease or a broken limb, and when healed, or made whole, there is no hesitancy or delicacy on his part, or with his friends and relatives, in making the fact generally known; sometimes, especially when the patient is of sufficient consequence, the community will acquire this information from the public prints. But it is different with the recovered inebriate, who, for his own or family reasons, shrink from a confession of his case, and while he rejoices, and is thankful and grateful for his cure, has a natural repugnance to acknowledging that he actually needed the treatment he received. Hence it is, that numbers of men are reformed at the "Home" who return to their families and to their business, giving joy to friends and neighbors, not one in ten of whom know how or where the sudden change was wrought. \* \* \* \*

As a rule, failures occur with persons who are willing to



be cured if it can be done without making any sacrifice or concession themselves towards effecting such a consummation. However honest their desires may be to live soberly, they have not strength of will sufficient to resist strong and repeated temptation. Is not this the case with transgressors of every physical, moral, and Christian law? \* \* \* \*

But even such cases are not without hope. Proper medical and dietary treatment may do much to build and strengthen their physical system, but what they need most is medicine for a diseased and weakened mind, and that is a curative agent not to be found in a drug store or a physician's medical case.

In most cases a longer lapse of time is required to effect a cure than the patient thinks he can spare from his business, or afford to pay for. The deaf, the lame, the blind, and the sick, who satisfy themselves with one or two visits from the physician, when their several cases require a patient and lengthened treatment, have just the same right to declaim against the efficacy of medicine and surgery, as the public have to charge us with failure in cases where we have been permitted to treat only for days, when we should have had weeks, and weeks when months were fairly required.

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#### TREATMENT OF OPIUM INEBRIETY AT FOOCHOW, CHINA.

In the first volume of the QUARTERLY JOURNAL OF INEBRIETY, page 89, Rev. M. H. Houston described the workings of a hospital for opium eaters at Ningpo, China, which was very successful. The following account of another asylum, which was evidently opened about three years ago, is given in the *Missionary Herald*, and is a free endorsement of Dr. Levenstein's method, mentioned in vol. 2, page 209, JOURNAL OF INEBRIETY. "Can the victim of opium smoking be rescued? It is commonly believed that, so terrible is his appetite, he is beyond help and hope. The asylum at Foochow has demonstrated the falsity of this assertion. Con-

nected with the hospital of our mission, under charge of Dr. Osgood, there is a separate building for the treatment of opium smokers, where about sixty patients are received each month. In response to an inquiry as to the method of treatment, Dr. Osgood sends the following account of his practice for the last two years, during which time about 800 cases have been treated:

"1. The total and absolute discontinuance of the use of opium from the beginning of treatment.

"2. A trusty attendant to be with the patient, day and night, for the first three days.

"3. Chloral hydrate for the first three nights if required.

"4. Good food, milk, raw eggs, brandy (in some cases), chicken-broth. (The above to be taken in small quantities, and frequently.)

"5. In diarrhoea, give two drachm doses, of a mixture of equal parts of tincture catechu and tincture ginger.

"6. Vomiting will frequently yield to bismuth, in fifteen-grain doses; and in some cases a single dose of calomel has acted like a charm. Ice would be of advantage in some cases.

"7. Throughout the entire treatment it should be remembered that the patient is below par, and requires tonics. Quinine and tincture of iron have a prominent place in our list.

"8. The patient should expect to suffer more or less for the first three days, and should make himself a prisoner for that time. By the fourth day there is usually marked improvement.

"9. Usually, by the sixth day, all desire for opium is gone. The patient then requires a change of air and surroundings, and tonics for a few weeks.

"The above is a rough outline of our treatment. Each case treated may require some change from the above.

"I believe that ninety-nine out of one hundred can be cured, if the patient has the requisite grace and grit. Out of eight hundred cases there has only been one death, and that was caused, I think, by apoplexy, and not by opium."

## THE PHYSICAL STUDY OF INEBRIETY.

The expressions inebriety, alcoholism, and drunkenness convey no definite idea of the physical condition, but merely suggest a class of symptoms, marked by a craving for alcohol and general irregularity of the habits of the patient.

To say that the patient fell into bad company, or that he is reckless, or revengeful, or is simply vicious, suggests nothing in the rational treatment to meet the case. If this is all, the jailer, or the clergymen, are the proper guardians of this class. But if to this we ascribe the condition of general ill health indicating anæmia, impaired digestion, both functional and organic disturbance, with delusions of himself and others, changed character, disposition, and temper, we have a case requiring the resources of medical science for both study and treatment. It is the great mistake of most writers that they do not recognize inebriety as a disease, and hence they never study the physical or psychical symptoms.

The student who wishes to know more of these disorders now termed inebriety, alcoholism, and drunkenness, will find a strange confusion of theory in all the text books of medicine. The most illogical vague presentations, that have no basis in clinical study—theories as to the causes and character of these disorders that convey false impressions, of the presence of vice and wilful neglect in every case.

The only real knowledge of the causation and progress of these disorders, must be obtained by actual study of cases, under observations every day.

Inebriety, alcoholism, and drunkenness must be studied as a physical disease, and its modes of invasion and progress carefully recorded, before we can understand its therapeutics and prevention.

T. D. C.

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Permanent cures would be the rule in all cases of inebriety if they were isolated in an asylum in the early stages; but after years of continuous drinking it is almost impossible to expect a permanent recovery. Restoration will follow in nearly every case, but relapses will be the rule and permanent cures the exception.

## THE ACTION OF ALCOHOL ON THE BRAIN.

Mr. Kingzett has made some late researches into this subject by maintaining the brains of oxen at the temperature of the blood, in water, or in water containing known amounts of alcohol. The extracts thus obtained had been studied in various ways, and submitted to quantitative analysis, while the influences exerted by the various fluids on the brain have also been studied. These influences extended in certain cases, to hardening and to an alteration in the specific gravity of the brain matter. Water itself had a strong action on brain matter, (after death,) for it was capable of dissolving certain principles from the brain. It was notable that water, however, dissolved no kepaline from the brain. Alcohol seemed to have no more chemical effect on the brain than water itself, so long as its proportion to the total volume of fluid did not exceed a given extent.

The limit would seem to exist somewhere near a fluid containing 35 per cent. of alcohol. But if the percentage of alcohol exceeded this amount, then not only a larger quantity of matter was dissolved from the brain, but that matter included kepaline. Such alcoholic solutions also decrease to about the same extent as water the specific gravity of brain substance, but not from the same cause; that was to say, not merely by the loss of substance and swelling, but by fixation of water. Many difficulties surround the attempt to follow these ideas into life, and to comprehend in what way these modes of action of alcohol and water on the brain might be influenced by the other matters present in the blood. On the other hand, it was difficult how any of the matters known to exist in the blood could prevent alcohol, if present in sufficient amount, from either hardening the brain (as it did after death) or dissolving traces of its peculiar principles to be carried away in the circulation; that was to say, should physiological research confirm the stated fact that the brain in life absorbed alcohol and retained it, it would almost follow of necessity that the alcohol would act as he had indicated and produce disease, perhaps *delirium tremens*. No doubt alcohol had a marked effect upon the connective-tissue elements

in the brain. He suggested as a useful method the submitting of a certain class of animals to the action of a definite amount of alcohol, and then examining their brains to discover what effect was produced. The investigation was of very great importance as regarded the treatment of drunkenness; no doubt in many cases where it was thought they had to do with merely moral evil, there was a fundamental change in the physical organization. "NATURE."

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#### PHYSIOLOGICAL ACTION OF ALCOHOL.

M. Rabuteau exhibited to the Society of Biology in Paris, lately, a specimen of alcohol obtained from potatoes. It consisted, according to M. B., of 50 per cent. ethylic alcohol, 15 in 1,000 of isopropylic alcohol, traces of propylic alcohol, and of two varieties of amylic alcohol. He has made experiments with these varieties of alcohol on frogs. He finds that a watery solution of ethylic alcohol, 1 in 50, produces no injurious effects on the frog; a solution of the same strength of isopropylic alcohol kills them in a few hours; a solution of same strength of propylic alcohol kills them in an hour, while a solution of the same strength of amylic alcohol kills them instantaneously.

Amylic alcohol is in fact poisonous to frogs, he states, when used in the proportion of 1 pint to 500 parts of water. The frogs were subjected to the vapor of the solution. He insists on the differentiation of the affection known as alcoholism into two varieties: Ethylism, characterized by the laughing jovialty of old Bacchus, and Amylism, or Polyalcoholism, which is characterized by the heavy stupidity arising from the modern whiskey.

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Inebriety entails upon the State an enormous pecuniary loss, and an amount of human suffering and misery which can never be fairly estimated; all of which will be prevented in the future to a large extent, when inebriety will be recognized as a disease and proper places provided for its treatment and cure.

### THE COCOA-LEAF AS A STIMULANT

The cocoa-plant (*Erythroxylan Cocoa*) of Peru, is used quite extensively among the miners of Potosi, for its effects as a stimulant and nutrient. It is chewed during the hours of work, and at rest, at the rate of from one and a half to three ounces a day. It gives brilliancy to the eye, animation to the features, and greater agility to the movements of the body. The circulatory and nervous systems are generally excited, producing a feeling of great satisfaction and contentment, without the languor and depression so common to other stimulants.

Taken as a tea in an infusion it causes wakefulness, retards hunger, and is used to diminish the paroxysms of breathing in asthma.

It is also a noted remedy in cases of great depression, and hypochondria and states of low nervous debility. It has been noted among the natives of Peru from very early times, and by them regarded as a restorative of vigor, and preventive of hunger and thirst.

It is supposed to have remarkable powers over the cerebro-spinal system. Chemically, it is found to contain three different constituents, viz.: an odoriferous substance, resinous matter, a fixed alkaloid, (cocoania) and a species of tannic acid. The alkaloid is prepared and for sale in New York. We shall look with interest to the results from a thorough study of its effects in the diseases it is claimed to benefit.

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### DELIRIUM TREMENS.

It is quite noticeable that the mortality from Delirium Tremens has fallen to a very small per cent. comparatively. The fatal termination of this disorder is the very rare exception to the rule at the present day. Dr. Balfour, of London, thinks this may be attributed to the avoidance of harsh forms of medication, particularly the use of tartrate of antimony, bleeding, purging, and opium. There can be no doubt that the effect of these remedies was disastrous in many cases. Even digitalis and capsicum, so often vaunted as remedies, are dangerous, and have often complicated and hastened the fatal termination. It is the experience of physicians who have seen a large number of cases, that the Turkish bath, and strong nutrients, such as beef-tea, hot milk, and gruel, with chloral, or bromide of ammonia, are the most effectual remedies.

Under no circumstances should alcohol be given. Beef-tea will very frequently have a marked narcotic effect; small doses of chloral given in the afternoon and early evening are excellent.

If the Turkish bath is not convenient, a hot water bath, with free massage after, will be a good substitute. In all cases avoid too free use of medicines, and trust to the recuperative powers of nature, aided by such external appliances as baths, and exact hygienic surroundings.

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Dr. Bock, of Leipsic, writes as follows on the moral effect of different articles of food and drink :

The nervousness and peevishness of our times are chiefly attributable to tea and coffee; the digestive organs of confirmed coffee-drinkers are in a state of chronic derangement, which reacts on the brain, producing fretful and lachrymose moods. Fine ladies addicted to strong coffee have a characteristic temper, which I might describe as a mania for acting the persecuted saint. Chocolate is neutral in its psychic effects, and is really the most harmless of our fashionable drinks. The snappish, petulant humor of the Chinese can certainly be ascribed to their immoderate fondness for tea. Beer is brutalizing, wine impassions, whisky infuriates, but eventually unmans. "Alcoholic drinks combined with a flesh and fat diet totally subjugate the moral man, unless their influence be counteracted by violent exercise. But with sedentary habits they produce those unhappy flesh sponges which may be studied in metropolitan bachelor-halls, but better yet in wealthy convents. The soul that may still linger in a fat Austrian abbot is functional to his body only as salt is to pork—in preventing imminent putrefaction."

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#### LACTOPEPTINE.

This valuable aid to digestion has been before the public for several years, so long, in fact, that there are probably few physicians practicing in cities who have not already tested it thoroughly. To these it is unnecessary to say anything in commendation. To the country practitioner, however, it may be well to again refer to it.



At first sight, the combination may not appear to be an effective one; it may be supposed that the action of the stomach upon the constituents calculated to aid intestinal digestion would be such as to prevent any influence being exercised, in any way, upon the alimentary bolus after it has been subjected to gastric digestion; that is to say, pancreatine would probably be *digested* along with other articles of food. Although we might come to some such conclusion *à priori*, yet experience teaches us that fats are more easily and completely digested and absorbed when *Lactopeptine* is taken after meals containing such articles of diet, than after taking any of the preparations of pepsin, even when combined with the acids, in connection with food. This fact is of the utmost importance in the treatment of wasting diseases, especially in children.

In the summer diarrhoeas of children we have found *Lactopeptine* of the very highest value. It is probable that weakening of the digestive powers is a very important factor in the causation of Cholera Infantum. We have found *Lactopeptine* a most important help in restoring these cases, when they have passed through the worst stages of that disease, as well as in warding it off when its onset seemed almost inevitable.

In the exhausting Vomiting of Pregnancy, we have found it of very great value in enabling the patient to obtain some nourishment from the food ingested, even if it remained but a short time in the stomach. In the nausea and indigestion and cardialgia, which causes so much annoyance, even if no great danger, in the later months of gestation, *Lactopeptine* has proved itself almost a specific.

The article is manufactured by the New York Pharmacal Association.

"I am so tired that both brain and body refuse to do their work! What shall I do to give me energy?"

The late Mr. Wm. Orton, President of the Western Union Telegraph Co., reiterated these words hundreds of times and went to Europe in search of vital energy. He did not find it there, and came back no better. A physician of N. Y. recommended him to take VITALIZED PHOSPHATES. He did so, and in less than two weeks was so well recovered that every one who met him in business acknowledged that he was the best and most energetic business man of their acquaintance.

Those among our readers who are fatigued, forgetful, nervous, go to the druggist and buy VITALIZED PHOSPHATES.



*Journal of Inebriety.*

JAS. G. BATTERSON,  
*President.*



RODNEY DENNIS,  
*Secretary.*

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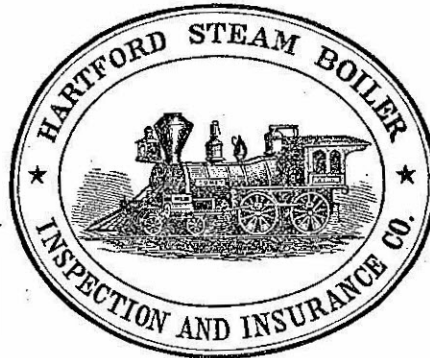
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*Journal of Inebriety.*

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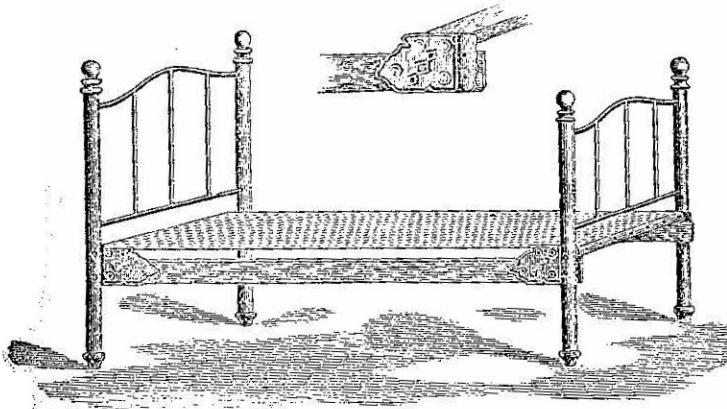
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SEE NEXT PAGE.

# WOVEN WIRE MATTRESS CO., HARTFORD, CONN.

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FROM THE REPORT OF THE EXECUTIVE COMMITTEE OF THE HARTFORD HOSPITAL, }  
April 10th, 1871.

The hospital is now supplied with the Woven Wire Mattress, with iron frame. There are many reasons why the wire mattress is peculiarly adapted to hospitals. This mattress with iron frame costs less than a good hair mattress. They require no covering but blankets to protect the patient from the wire. They are elastic and yield to the form of the body like a water bed. Every patient can have a perfectly clean bed when admitted.

They are free from vermin of every kind. They are durable, and never settle nor sag. The wire mattress has been in use for a long time in the hospital with perfect satisfaction, and aid much in the recovery of the patients by the cleanliness and comfort which they contribute to their occupants.

FROM THE REPORT OF THE EXECUTIVE COMMITTEE OF THE HARTFORD HOSPITAL, }  
April 12th, 1875.

The Woven Wire Mattress has been in use in the hospital during the last five years. They have exceeded our highest expectations. In order to have the full benefit, in a sanitary point of view, they must not be used with a mattress of any kind. They make a perfect bed in a hospital by placing two double blankets over the wire. In this manner over one hundred are in constant use with perfect ease and satisfaction to its occupant. By so doing, every patient on entering the wards is placed on a clean bed.

INSTITUTION FOR THE RELIEF OF THE RUPTURED AND CRIPPLED, }  
NEW YORK, Jan. 8, 1870.

I consider the WOVEN WIRE MATTRESS one of the most invaluable inventions of the day, as it contributes so largely to the relief and comfort of the sick. The wire fabric, of which it is formed, yields uniformly to the body, obviating undue pressure on the prominent parts of the emaciated patient. Two thicknesses of a comfortable are a sufficient protection to the patient from the wire fabric, and is all that is required for warmth in a temperature of sixty degrees. This light covering is readily removed and washed in extraordinary cases, and the facility afforded for changing the bedding obviates the necessity for disinfectants. This information may be used by the Company, wherever it will tend to the comfort of the sick, at home or in the hospital or for family use, as I consider the MATTRESS not only a comfortable bed, but a means of maintaining good health.

DR. JAMES KNIGHT,  
*Physician and Surgeon to the Institution*

CONNECTICUT INDUSTRIAL SCHOOL FOR GIRLS, }  
MIDDLETOWN, Ct., Feb. 24, 1876.

WOVEN WIRE MATTRESS CO.,  
*Gentlemen:* We last year furnished Eighty (80) rooms with the Mattresses of the Woven Wire Mattress Co., of Hartford, Ct., and find them in every way satisfactory and pleasing.

We expect to provide the same for our new "Allyn Home" when completed.  
MARY E. ROCKWELL, *Asst. Supt.*

BUTLER HOSPITAL, PROVIDENCE, R. I., Feb. 25, 1876.

WOVEN WIRE MATTRESS CO., HARTFORD, CONN.,  
*Gents:* We already have a supply of the Woven Wire Mattresses, some of which having been in use for six years at least. In comfort, convenience, and durability, they far exceed my expectations, and I consider them unequalled by any other device for the purpose.

Yours very truly,  
JOHN W. SAWYER, M. D.

INSANE ASYLUM OF NORTH CAROLINA, RALEIGH, N. C., March 27, 1876.

WOVEN WIRE MATTRESS CO.,  
*Gentlemen:* The use of the bedstead recently received from the Woven Wire Mattress Co., convinces me of their superiority over any iron bedstead with which I am acquainted for hospital use.

Yours truly,  
EUGENE GRISSON, *Supt.*

OFFICE OF THE SOUTH CAROLINA LUNATIC ASYLUM, J. F. ENSOR, M. D., *Supt.* }  
COLUMBIA, S. C., 7th April, 1876. }

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*Journal of Inebriety.*

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*Journal of Inebriety.*

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Respectfully,

J. S. JEWELL, M. D., }  
H. M. BANNISTER, M. D., } *Editors.*



*Journal of Inebriety.*

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ALBERT DAY, M. D.,

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P. S.—Public Temperance Meetings—always entertaining and instructive, inmates and graduates being usually the speakers—are held in the Chapel of the Home every Tuesday evening at 7.30 o'clock, and Sunday at 6 o'clock, P. M.

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The Institution is under the immediate oversight and control of the Executive Committee appointed by a Board of thirty Directors. The Superintendent and Matron reside in the Home and give their entire attention to the care and interests of the inmates, aided by the daily visits of the Attending Physician.

A monthly paper of eight pages is published by the Home about the middle of each month, devoted to the interest of the Institution and temperance generally. All communications and subscriptions for the paper should be addressed to THE WASHINGTONIAN, 566 West Madison street, Chicago, Ill.

Applications for admission, either personally or by letter, or any further information in regard to the Institution, should be made directly to the Superintendent of Washingtonian Home, 566, 568, 570, 572, West Madison street, Chicago, Ill.

N. S. DAVIS, M. D., President.

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*Journal of Inebriety.*

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We have a quiet, retired location, and patients come and go without the world knowing it.

We believe from our past experience that nearly all Opium cases can be cured, with but little pain or inconvenience to the patient.

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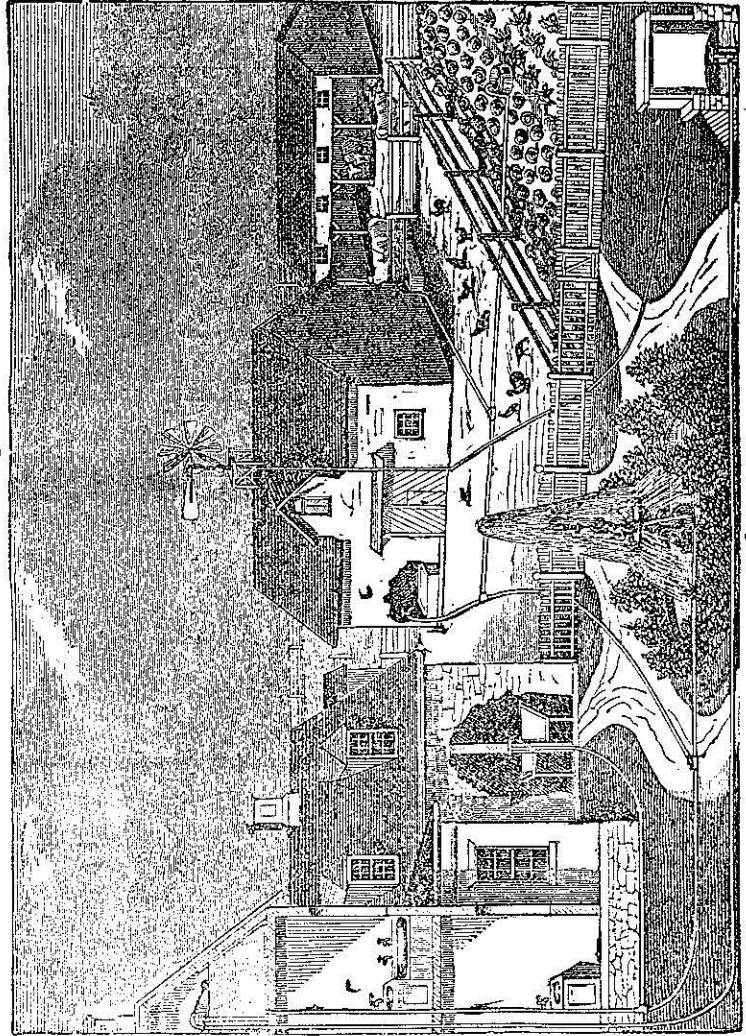
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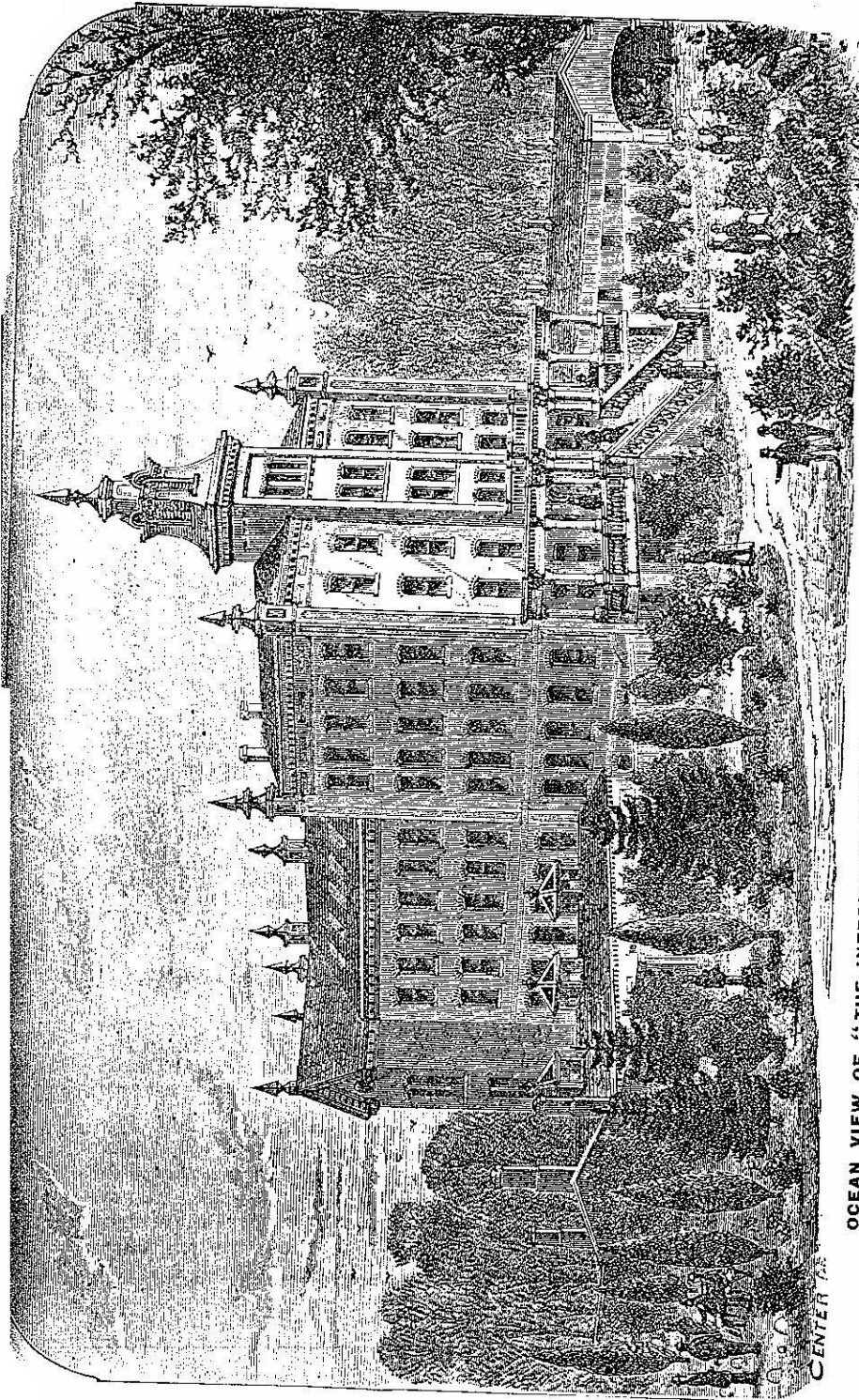
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OCEAN VIEW OF "THE INEBRIATES' HOME," FORT HAMILTON, N. Y. (INCORPORATED 1866.)

CENTER

# The Inebriates' Home,

FORT HAMILTON, N. Y.

This is the Best Constructed and the Best Furnished Institution  
for the Care and

## Treatment of Inebriety and the Opium Habit IN EXISTENCE.



VIEW FROM ENTRANCE OF PARK GROUNDS.

### The Treatment of the Opium Habit a Specialty.

*President and Consulting Physician*—THEODORE L. MASON, M. D., also President of the "American Association for the Cure of Inebriates," and the "Collegiate Department of the Long Island College Hospital." *Attendant Physician*—L. D. MASON, M. D., assisted by a staff of resident physicians. *Superintendent and Secretary*—REV. J. WILLETT.

THE BUILDINGS are constructed for this special purpose, and they are more complete and better adapted for the treatment of Dipsomania and the Opium Habit than those of any similar institution in existence. They are situated on one of the most attractive points on the Bay of New York, and stand on a high bluff within one thousand feet of the Narrows. The sea and land views are unsurpassed in extent and grandeur. The enclosed Park Grounds are extensive.

There are separate dining-rooms, lodging-rooms and parlors, billiard and bath-rooms. There is also a lecture-room for religious services, read-



#### THE TREATMENT OF THE OPIUM HABIT A SPECIALTY.

ings, concerts, etc. All the New York morning and several other newspapers and periodicals are regularly taken. For the treatment of the better class of female patients a floor is set apart, handsomely furnished, having separate approaches, effectually secluding the sexes from each other.

THE MANAGEMENT is systematic, thorough and adequate. There has been no change in the staff of medical or other active officers since the inauguration of the Home, eleven years ago.

THE CLASSIFICATION of patients originated with and is peculiar to this institution. Being determined and regulated upon a strictly commercial basis, it is made to depend upon the character of the lodging, board and other accommodations which the patients or their friends are willing to pay for, and is accomplished in such a manner as to completely isolate the boarders from the free patients in the County or State wards of the Home.

By this equitable arrangement we are enabled to offer board, washing and medical attendance at rates varying from \$7 to \$35 per week. Those paying \$14 and upwards, according to size and situation of quarters selected, are provided with a single apartment and a seat at table in private dining-room—the accommodations in the select rooms and the table being in every respect equal to those of a first class hotel. Rooms in suit may be had upon terms to be agreed upon.

REMARKABLE IMMUNITY FROM DEATH.—The total death-rate since the opening has been one-half of one per cent., or one death for every two hundred patients. The total deaths of legitimate cases for treatment in the Home have been only one case in eight hundred during the same period. The rest were dying when admitted.

TREATMENT OF THE SICK.—One of the essential characteristics of the institution is its ample provision for the isolation, when necessary, of new inmates from the convalescent patients until they are sobered down and the sickness consequent upon their late debauch has passed away. In the treatment of the victims of the Opium Habit the seclusion and repose of our hospital arrangements frequently prove to be essential to present relief and final cure. In connection with this department we have always at command a large staff of careful nurses, who are placed under the direction of experienced officers. Our hospital department is reduced to an exact system, and its discipline is thorough. Our methods of restraint and management in delirium tremens cases are of the most efficient and humane character. There is the absence of the straight-jacket and every other instrument of torture which tends to impede the free circulation of the blood, and thereby intensify the sufferings of the patient, and padded rooms are substituted by a commanding but nevertheless humane system of personal restraint.

THE RESTRAINTS.—Our system of restraint is compatible with the fullest liberty for each boarder patient to avail himself of all the recreation, amusement and enjoyment which the billiard-room, park and ball grounds, readings, lectures, concerts and musical exercises, etc., coupled with the society of intelligent and agreeable fellow-inmates, can impart; but this liberty does not embrace leave and license to go and come to and from the neighboring cities, villages, etc. Many of our boarder patients have consisted of former inmates of other kindred institutions, who have been placed under our care because our system of restraint to the grounds of the Home has commended itself to their friends when those confidential experiments have failed.

THE DISCIPLINE.—The established code of discipline is comprehended in the observance of "THE LAW OF PROPRIETY," as universally understood

THE TREATMENT OF THE OPIUM HABIT A SPECIALTY.

by gentlemen and ladies in the guidance and control of well-regulated family and social relationships. The Superintendent and officers lay it down as a rule that they can only govern wisely by avoiding any unnecessary appearance of authority, and at the same time maintaining mild but firm discipline whenever the occasion demands. What is most needed is a method of discipline which will inspire confidence and lead to self-reliance and the restoration of will-power.

\*\*\*  
**HOW TO OBTAIN ADMISSION.**

The design of the Institution is to treat patients, men and women, who have contracted the habit of inebriety, from whatever cause, whether from the use of alcoholic, vinous or other liquors, or opium, or other narcotic or intoxicating or stupefying substances, with a view to cure and reformation. Persons suffering from chronic affections, or other diseases than those immediately produced by inebriety, or the infirmities of age, are not received into this institution. Cure and reformation are the only purposes kept in view in the reception and detention of patients.

In order to prevent the reception of improper cases, the consent of the duly authorized officers is in every instance made a pre-requisite to the admission of a patient.

VOLENTARY APPLICANTS for admission may submit their request in the following form:

To the Superintendent of the Inebriates' Home, Fort Hamilton, N. Y.:

SIR:—Having unfortunately indulged in the use of \_\_\_\_\_ until such practice has become a confirmed habit, which I cannot control, and which I feel powerless to overcome without assistance, and being convinced that such aid can only be obtained by submitting myself to restraint, I hereby voluntarily apply for admission as a patient to "The Inebriates' Home for Kings County," stipulating that if I am received into said institution, I will remain a patient therein for such time as the officers thereof shall deem requisite for my benefit, not exceeding the term of six months, and pay, or cause to be paid, to said Institution three months' board in advance, at such rate as may be agreed upon; promising to obey all the rules, regulations and orders that may be in force in said institution at any time during my residence therein, and to submit to such restraint and treatment as the Superintendent thereof may deem necessary in my case. (Signed.)

INVOLUNTARY CASES.—In all cases where the inebriate declines to enter the Home voluntarily, the nearest relatives or friends may take action either before any Justice of the Peace having jurisdiction where he or she resides, (within the State of New York,) or by a process of any County Court or the Supreme Court of said State. Where there is no property at stake, summary proceedings before a magistrate are the quickest and least expensive measures to secure removal to the Home. This action is authorized by Section 2, of Chapter 797, of an Act passed June 18, 1873.

Where the case is urgent, the Supreme and County Courts have the power to commit temporarily to the Home while proceedings are pending.

Full directions, with the requisite blank forms, together with such information as may be necessary can be obtained on application to the Superintendent, at Fort Hamilton, N. Y.

☞ Two daily mails, and telegraphic communication to all parts of the country.

HOW TO REACH THE INSTITUTION FROM NEW YORK.

Cross the East River to Brooklyn on Fulton Ferry Boat and proceed either by Court st. or Third ave. Horse Cars; or, cross from South Ferry on Hamilton Avenue Boat and proceed by Fort Hamilton Cars.

# THE INEBRIATES' HOME,

## FORT HAMILTON, L. I., N. Y.,

Is the best constructed and the best furnished Institution for the care and treatment of Inebriates in existence.

### The Buildings,

which are new, were erected for and are well adapted to the special purpose of the Home. They are situated on one of the most attractive points on the Bay of New York. They stand on a high bluff within one thousand feet of the Narrows, and the park grounds are extensive.

### The Management

is systematic, thorough, and adequate. There has been no change of Superintendent or in the staff of medical or other active officers since the inauguration of the Home.

### The Classification

is more perfect, and the beneficial results are fully equal to those of any other kindred institution.

### Boarder Patients

are classified according to accommodations required, and the charges are proportionately adjusted. Their department is divided up into several floors, each containing such accommodations as the patients or their friends are willing to pay for. There are separate dining-rooms, lodging-rooms and parlors, billiard and bath-rooms. There is also a lecture-room for religious services, readings, concerts, &c. Several daily journals and periodicals are regularly taken, a library is in process of accumulation, and all the appointments for the exercise and the amusement of patients, and which contribute greatly to their cure, are provided.

### Female Patients.

For the treatment of the better class of FEMALE PATIENTS an entire floor is set apart, handsomely furnished, having separate approaches, effectually isolating the sexes, and under the charge of the Matron and Assistant Matron, together with a staff of efficient female nurses.

### Remarkable Immunity from Death.

The total death-rate of all the patients who have entered the Home since the opening, upwards of nine years ago, has been one-half per cent., or one death for every two hundred patients, and the average time of residence in the institution has been upwards of six months. The total deaths of legitimate cases for treatment in the Home has been only one-eighth per cent., or one case in eight hundred, during the same period. The average annual death-rate in our large cities ranges from two to three per cent. of the population.

Patients are received either on their voluntary application, or by due process of law. The charter confers power to retain all patients entering the Home.

For mode and terms of admission, apply to Rev. J. WILLETT, the Superintendent, at the Institution, Fort Hamilton (L. I.), N. Y.

THE

# Quarterly Journal of Inebriety

---

THIS Journal will be devoted to the study of Inebriety, Opium mania, and the various disorders which both precede and follow. The many forms of Neuroses which arise from the action of these toxic agents are increasing and becoming more complex, requiring special study, and as yet, are comparatively unknown to the profession.

This Quarterly will be a medium for the presentation of investigations and studies in this field; also the official organ of the

*American Association for the Cure of Inebriates.*

publishing all its papers and transactions, and giving the practitioner a full review of the literature of this subject.

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