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This Journal will not be responsible for the opinions of contributors, unless
indicated by the Association.

A PLEA FOR A MEDICAL JURISPRUDENCE OF
INEBRIETY TO KEEP PACE WITH THE
CONCLUSIONS OF SCIENCE RE-
SPECTING THIS DISEASE.

BY EDWARD E. MANN, M. D., NEW YORK CITY, PHYSICIAN TO
PENNSYLVANIA HOSPITAL FOR INEBRIATES AND NERVOUS DIS-
EASES.

[Read before the New York Medical Legal Society, March, 1884.]

Society in general to-day are more willing than formerly to accept the conclusions of science respecting the disease of inebriety. This is due to the more intelligent attention given to inebriety by means of institutions devoted expressly to its treatment that have been established in our own country and abroad. We have no work in which the various forms and degrees of inebriety are treated in reference to their etiology, the legal relations of man; no work entirely devoted to the legal relations of inebriates. We need a complete and methodical treatise on inebriety in connection with its legal relations, in which the subject shall be treated in a spirit corresponding to the present condition of the science of inebriety.

The principles of law which have been laid down regarding the legal relations of the inebriate were framed long before we had obtained any accurate ideas respecting the disease of inebriety, and therefore great injustice has been done to the subjects of this disease under the name of Law. Instead of kindness and consideration and good medical care and treatment and efficient nursing, the inebriate has received beatings and ostracism at the hands of his friends and acquaintances. We would premise our further remarks by laying down a general proposition which we hope may prove the cornerstone of a medical jurisprudence of inebriety, viz.: *That the disease of inebriety should be regarded as exempting from the punishment of crime, and, under some circumstances, at least, as mitigating the civil acts of those who are afflicted with it.* The difficulty in determining who are really the subjects of disease must be met by drawing a sharp line between the various forms of drunkenness and the *disease*, with its essential psychic and physical signs, between the individual who apparently chooses to indulge in alcohol, and who is irresistibly impelled by the cravings—often periodical—resulting from a morbid irritation of the cortical sensory centres of the brain to indulge in alcoholic stimulants; and to frequent fits of intoxication as against the crude and imperfect notions that even high legal authorities have entertained of the pathological character of the disease of inebriety. We would place before them the results of more extensive and better conducted inquiries, the offspring of the steady advancement of medical science. The day, we think is gone by when the accumulated results of experience in this department of science can be successfully contradicted by men utterly destitute of any knowledge of the subject on which they tender their opinions with arrogant confidence; and the day is not far distant, we trust, when such men only shall be considered capable of giving opinions in judicial proceedings relative to inebriety, as are physicians eminent for their knowledge of the disease of inebriety, and who have particular knowledge and skill relative to this particular disease. The single fact

of the presence of mental disease should be sufficient to annul criminal responsibility, and dipomania is eminently a mental disease. We think we fairly state the known facts of science and the current facts respecting the disease of inebriety, when we say, that clinical investigation of facts reveals generally an inherited neuropathic condition; an abnormal state of the nutrition and circulation of the brain and nerve centres; great irritability of the cerebral cognitive centres; morbid fears and dreads, morbidly colored perceptions, conceptions, and misconceptions; timidity, irresolution and irritability of manner and speech, all of which are foreign to a healthy person, all these are the psychical characteristics of the neurasthenic stage of inebriety. We have here all the signs and symptoms of an abnormal condition of the entire nervous system demanding stimulants which constitutes the disease—inebriety. We have here a morbid psychosis, a disease of certain parts of the brain, resulting from some morbid irritation of the cortical sensory centres of the brain or from special molecular changes in the centres, perverting brain function, a condition markedly hereditary and evoked outwardly by great nervous irritability or restlessness; unnatural sensations, an uncontrollable desire for alcoholic stimuli, and a disposition to frequent fits of intoxication.

There is a departure from a healthy structure of the nervous apparatus as in mental diseases generally. The inebriate is simply the subject of a disease, in which normal function is acting under abnormal condition, and we should recognize this fact both as to medical and moral treatment and in reference to the legal relations of the inebriate. The pathological evidence in favor of these facts which I have stated, was at first slender, has been yearly increasing, and is to-day conclusive and unanswerable. There is a modified mental responsibility in this disease, as in other forms of mental disease, and the common law should be modified to recognize the teachings of science. The code should contain

a provision like the following, respecting the disease of inebriety:

*By reason of their impaired responsibility, punishment cannot be inflicted on those who commit penal acts in a state inherent in the disease of inebriety, which either takes away all consciousness respecting the act generally and its relations to penal laws, or in conjunction with some peculiar bodily condition, temporarily impairs the subject of this disease, while partially or completely insensations to wicked acts. Responsibility should be withheld in that condition, in which either a consciousness of the criminality of the offence, or the free will of the offender, is taken away by disease. If we say that the disease of inebriety is a form of mental disease, and that an act done by a person in a state of mental disease, or any condition of mind in which the person is involuntarily deprived of the consciousness of the true nature of his acts, can be punished as an offence, we then protect the inebriate satisfactorily. Please remember that by the very nature of the disease (the great diagnostic mark of which is the irresistible *impetus* and *craving* for stimulants), the person is invariably deprived of the consciousness of the true nature of his acts. In this case, the will is overborne by the very force of the disease. The man's free will is taken away from him by the superior force derived from disease exactly as in the periodical insanities. There is no truer periodical insanity than dipsomania. The reflective and perceptive powers of the mind are markedly affected by this disease. The mind in dipsomania has no power to examine the data presented to it by the senses and therefrom to deduce correct judgments; neither can it perceive and embrace these data. The mind does not possess its ordinary soundness and vigor, and the existence of delirium at any period of this disease would seem to throw some degree of suspicion on any contracts entered into during such disease, and on the testamentary capacity of the mind. We should, however, be decided regarding this point by the circumstances that attend the making of a will, the previous intentions of the testator and the*

nature of the case. The testamentary capacity, therefore, of an inebriate is to be determined, in a great measure, by the nature of the act itself. Whether inebriety should be considered a valid reason for disease when concealed from the parties previous to the marriage, we would say, that in our opinion each individual case ought to be decided solely on its own merits. We are inclined to place the inebriate on the same footing with one who labors under hallucinations. He does not enjoy the free and rational exercise of his understandings, and he is more or less unconscious of his outward relations; ergo, none of his acts during the paroxysms can rightfully be imputed to him as crimes. The acts of an inebriate certainly proceed from a mind not in the full possession of its powers and oftentimes excited by unfounded delusions, and an enlightened sense of justice revolts from even regarding them in a criminal light.

With reference to the suicide of inebriates we think that their views of persons and things are greatly confused and distorted, and that such persons are in such a degree of perturbation that they are unfitted for mature, correct, judgments; and that if their suicidal designs were in any given case to be frustrated and the patient cured, it is not at all unlikely that we might hear the declaration that such a one was entirely unconscious of having attempted such an act. Suicides and homicides by those affected with the disease of inebriety, are done in a dream-like state of partial unconsciousness in which the patients rarely know what they are about. There is a very doubtful mental condition at the moment of the act, so that a jury are amply justified in acquitting such a person as "not guilty, on the ground of insanity." I grant that it is often a difficult task to determine exactly the mental condition of an inebriate at the moment of his committing a criminal act, but I am inclined to believe that nearly always, such a person is deprived of his moral liberty. With respect to dipsomania, which term I would restrict to periodical attacks of inebriety, we have a true periodical insanity, characterized generally by excitement or depression

and the irresistible craving for stimulants, which craving is allayed only by complete and deep intoxication. Succeeding this paroxysm of drinking is an interval during which the patient is rational and lucid, although there may be transient or inausatory excitement during this lucid interval. In these intervals the dipsomaniac is as capable of transacting business as a person ever is in a lucid interval. There is a complete intermission of the disease and this may last for weeks or months, but I think there is a weakness and irritability induced in the mind by numerous and frequent attacks or paroxysms, which unfit it for extraordinary efforts even during the lucid interval. Self control is more easily lost, and there is a want of capacity for new or sustained mental effort or responsibility felt by the patient himself. We do not think that these cases of periodical drinking or dipsomania are, during their lucid intervals, either completely responsible or completely irresponsible for their civil or criminal acts. The mind cannot be affected of course, except through the brain, but as I have repeatedly before various societies detailed the pathological changes in the brain induced by alcohol, I shall not allude to them in this paper further than to remark that of course such degenerative changes are directly related to the manifestations of the moral and intellectual powers of the subject of the disease of inebriety. The late eminent Dr. Ray graphically described the course of this disease, years ago, in these words: "With a full knowledge of the dreadful consequences to fortune, character, and family, he plunges on in his mad career, deploring, it may be, with unutterable agony of spirit, the restless impulse by which he is mastered." It is, I think, a fact not generally known, that Esquirol distinctly recognized the disease of inebriety in its continued and periodic form, and termed it *dipsomania* and attributed it to the influence of pathological changes, absolved its victims as not morally responsible. (See note in Hoffbauer, § 195, and *Maladies Mentales*, II, 80.) Esquirol says, "this craving is impetuous and irresistible," that "dipsomania obeys an impulse which

they know not the power of resisting," that they are "true monomaniacs." He also says,—and I invite the attention of the legal profession to this emphatic statement of the founder of psychological medicine—that we shall find in these cases "all the characteristic features of partial madness." Esquirol relates the case of a merchant about forty years of age who became gloomy and disquieted respecting business, neglected his business, became irritable and ill-tempered. His tastes and habits changed, he commenced a course of inebriety, and neither the thimies of affection nor the authority of his father availed anything. This was during the winter. At the approach of spring the drink craving ceased. He resumed his regular and sober habits and applied himself to business and showed a return of affection toward his family. In the following autumn appeared the same phenomena and the same spontaneous cure in the spring. During the two following years the disease ran its course with its paroxysms and intermissions, until Esquirol finally cured him. The same distinguished authority relates the case of a lady who, after being mediocrity for about six weeks, which condition is generally the antecedent stage of active insanity, with weakness of the stomach and indispotion to take the least exercise, was suddenly seized with the strongest craving for spirituous drinks, together with sleeplessness, agitation, and pervasion of the affections (these latter being peculiarly distinctive of mental disease). For six years, Esquirol says, these symptoms made their appearance annually and continued two months, the perfect analogue of other periodical insanities. Marc, another celebrated authority on mental diseases, in "De la folie, etc." (p. 605) says, "that dipsomania sometimes occurs in women at the turn of life, as it is called, as a result of the important changes which at that period, take place in the female constitution. He has met with many examples of it in women who previously had exhibited all the virtues of their sex, and especially temperance." After this affirmation and description of the disease of inebriety, by these

celebrated men of profound study and extensive observation, together with the authoritative utterances of such men as our late Dr. Ray; Sir Thomas Watson, J. Milner Forbergill, Dr. R. W. Richardson, Dr. J. Crichton Browne, Dr. Alex. Priddie, Dr. Francis E. Anstie, the late Dr. Forbes Winslow, Dr. A. Mitchell, and Dr. Norman Kerr of England; the late Dr. David Skae of the Royal Edinburgh Asylum, and Dr. David Brodie of Edinburgh; of Dr. Hagström, and Dr. Magnus Huss of Sweden; Dr. Al. Magnus, physician to St. Anne Hospital, Paris, and Dr. Dujardin-Baumez, and Auzige, of Paris; and Dr. Kraft-Ebing in Germany, who have all been trying to bring about a coöperative public sentiment and legislation and all of whom recognize dipsomania as a distinct form of mental disorder, it betrays, it seems to me, the height of ignorance and presumption to question the existence of such a disease. It is greatly to be regretted, that even in the nineteenth century there is a most deplorable ignorance of the mental operations of those afflicted with the disease of inebriety. There is certainly, either a constant or a periodical morbid condition of intellect or loss of reason, coupled with an incompetency of the person to manage his own affairs, and this certainly should constitute unsoundness of mind, in the legal sense. In the Austrian code of 1803, section 2, hb. c. Inebriety "is made a ground of exculpation from responsibility, when not produced with a view of committing the crime." In the Prussian Landrecht, p. 11, title 20, section 22, "it is intimated, that a criminal act, committed in a state of drunkenness which originates in fault, is punishable for the fault only." In the Bavarian code, Art. 121, "inculpable disorder of the senses, or of the understanding," which includes inebriety, is mentioned as one of the grounds that exempt from responsibility. "The Zurich project of 1829," says Ray, "declares that one who commits a crime, in a state of inculpable drunkenness of the highest degree, is punishable in the same manner, as if he were under legal age." In the present penal code of France, inebriety does not absolve from the ordinary punishment of crime.

Their code is, like our own, very deficient on this subject, as they practically decide that inebriety, being a voluntary and reprehensible state, can never constitute a legal or moral excuse.

In England inebriety does not afford any relief from the ordinary consequences of crime. In the disease of inebriety, and in that form of it (*dipsomania*) which is periodical, we desire to impress the fact that the act of drinking cannot be called a voluntary act at all. It is done in obedience to the *blind, irresistible* craving for the alcoholic stimulus. It is, properly speaking, an involuntary act that unintentionally, and automatically oftentimes, leads to the commission of crime when such overt acts are committed. To constitute crime, there must be moral liberty and an intention to commit crime; the dipsomaniac acts in obedience to a *vis a tergo*, derived from a brain condition that he cannot resist. The dipsomaniac never willfully deprives himself of reason. We wish to point out that by the present code of this State, that even if dipsomania or the whole disease of inebriety, be admitted as a form of insanity, the points submitted to the jury for their determination, will be whether the prisoner is capable of distinguishing between right and wrong. If they conclude that he is, they will return a verdict of "guilty," notwithstanding the fact known to every man conversant with the insane mind, that three-fourths of all the insane are perfectly able to distinguish between right and wrong, and the fact that this test is about a century behind the times as regards our present knowledge of mental disease. This absurd legal test of responsibility was introduced into the code of New York with the confidence which ignorance of disease usually inspires, by those who are evidently utterly unacquainted with the phenomena of insanity or of the actual operations of the insane mind. When will the law of the land cease to confound the unconsciousness of right and wrong with the powerlessness, through cerebral defect or disease, to do right? The insane and many inebriates act as the result of the morbid notions in the mind that spring

INEBRIISM FROM A PHYSICAL OR EXPERIMENTAL-PHILOSOPHICAL STANDPOINT.

BY DR. HENRY HOWARD, MONTREAL, CANADA.

Governmental licensing prohibition to the Inebriation, Longue Point, near Montreal, forming medical Superintendent of the Provincial Lunatic Asylum, President of the Montreal Medical-Gynaecological Society, honorary member of the American Association for the Cure of Inebriates, member of the Society of Medical Jurisprudence and State Medicine, author of the *Philosophy of Inebriation, Crime, and its Responsibility, etc.*, &c.

That society is fully alive to the great social evil of inebriism is evident from the fact, that every day we have the questions brought before our notice in one form or another.

Religion in all its varied aspects, working with all its might by means of temperance societies, teetotal societies, bands of hope, male and female temperance lecturers, lady preachers, and salvation armies; and in them we have the strong arm of the law and all the forces of the legislature; all have united to crush out inebriation, by means of prohibitory laws that enriching the few by monopoly, and all have shown how incompetent they were for the work they had undertaken. Intemperance has not diminished; it exists just as much today as it has ever done; and will continue so long as society remains under the false impression that every man, if he would, could be temperate. We have always in every case the *tyranny of ignorance* that admits of no reply, and man can do all things by the grace of God. It is useless to point out to these religious teachers that those in whom we have the right to expect the grace of God in the greatest abundance, because of the means used to obtain that grace, are very frequently inebriated. The ready answer is, "there, He did not respond to the grace of God; if he did, he could have controlled his intemperate desires." It is equally useless to point out the fact that men, in proof of their desire to overcome their love of alcohol, voluntarily combine themselves

in lunatic asylums, and in inebriate asylums, for months and years, and during that time are most devout in their religious duties. We receive the same answer: "He did not, in time, respond to the grace of God." The physical scientist says inebriism is due to some abnormal state of the physical organization. The reply he gets: "It is the Devil." This caps the climax: there is no use to attempt to argue further.

Now all this dogmatism is just so much proof of the *argu-mentum ad ignorantiam*, and is the result of a false philosophy, the dogmatic *a priori* or speculative, which is not only the basis of all religious thought and teaching, and very properly so, but unfortunately it has been made the basis of morality and social order, for which it has proved itself entirely unfit.

To arrive at truth in the supernatural order, no doubt but that dogmatic philosophy is the only philosophy by which we can attain that end: but it does not lead us to truth in the natural order,—very far from it. If we would attain to truth in the natural order, we can only do so through physical science or natural experimental philosophy: a philosophy, as yet, but little recognized by the human race, and opposed most strongly by all the teachers of dogmatic philosophy, those philosophers who have kept humanity quarrelling at their feet for thousands upon thousands of years.

Yet natural or experimental philosophy is the true philosophy upon which to base social order and morality, and I fear that we who are laboring in the cause of the cure of the inebriate, and the improvement in our social order, will make but slow progress till the people are educated from the basis of experimental philosophy. Before we can convince society that the inebriate is a diseased man, deserving of our pity, not of our anger, the people must learn that all the universe is matter and its phenomena, that matter is one only differing in degree, and that all matter is indestructible, that all matter has its special physiology, and that upon that physiology is dependent the peculiarity of the phenomena. Thus mind is the phenomenon of matter; if the matter is normal, that is physiological, the psychosis will be sane, or there will be an

equilibrium between the nerve centers, so that intelligence will govern actions, and the actions will be moral because governed by intelligence, for morality and intelligence are synonymous terms, a temperate man is temperate, or in other words a moral man is moral because of the physiology of his physical intellectual organization, and if mental matter be either teratological or pathological, then mental phenomena will be similar, leading to abnormal actions, to immoral actions, whether it be inebriism, theft, or any other immoral action.

It is thus and thus only that we can learn and understand that inebriism is due to some abnormal state of man's physical intellectual organization, just as any other disease is due to some physical defect of our organizations, and it would just be as logical to prohibit the sexes from speaking to each other, because of an immorality which is a greater social evil even than inebriety, bad as it is, as to make a law prohibiting the sale of alcohol because of inebriism. Acts of parliament never have nor never will make society moral, and legislators who talk about prohibitory laws know well that no action of theirs, nor tinkering of acts of Parliament, will ever arrest inebriism.

We then who, from experience, believe in the medical treatment of the inebriate, must take a broad view of the question: we must see that it logically leads us to recognize the philosophical truth that every man is what his physical intellectual organization makes him, and that a moral social order is dependent upon the proper cultivation of men's physical intellectual organizations, and in this physical culture we must never lose sight of the facts that man is formed by his physical forces, and how these forces are so often antagonistic to nature's forces, that come from without, which antagonism very frequently terminates in destroying the equilibrium of man's physical forces.

Our duty therefore is, while not neglecting the cure of the inebriate, to do our best, for the sake of morality and social order, to have the basis of our education changed from dogmatic to experimental philosophy.

QUESTIONS OF THE COMPETENCY OF INEBRIATE JURORS.

BY T. D. CROFTERS, M. D., HARTFORD, CONN.

The following facts were submitted to me for an opinion, and I am convinced that they open up a field of great medico-legal interest. The case is not settled, and the many personal interests involved make it advisable to omit names and dates.

John Lane was placed on trial for the murder of one of his most intimate friends. The prisoner was a man of previous good character, who had served with honor in the late war. Five years after his army service he was injured in a railroad accident, and from that time a marked change of disposition was apparent. He had been a periodical inebriate for the past six years, and during the paroxysm of drink was either excessively hilarious and happy, or intensely morose and irritable. Many other changes were noticed in his general character and habits, both during the drink period and when free from it. The murder was committed during the paroxysm of drink, and was prominent for the apparent coolness and premeditation manifested. No motive could be found, and his conduct for a long time after arrest was that of a low criminal. Then, as the trial came on, he manifested great sorrow, and seemed heart broken at the crime; was in tears most of his waking hours, and showed the deepest penitence. The trial was protracted to twenty-one days, and the jury was out fifty-two hours, finally agreeing on a verdict of guilty. The prisoner was sentenced to be hanged, when the counsel for the defense found the following history of two of the jurors:

A. P., a merchant of good reputation, had been a periodical inebriate for many years, drinking at home in secret

These periods came on suddenly, and were noted for continuous stupor and a general demented condition. During the trial he wrote to his physician that his "old spell had come on, and he must have some brandy or he would go crazy." The physician arranged with the officer in charge of the jury to supply him freely with spirits at night. From this time he drank to stupor before going to bed, and was given brandy through the day in moderate quantities. He appeared very dull and heavy in the jury box, and talked very little with other jurors. During the time of consultation he was generally stupid, and expressed himself facetiously in favor of hanging. He was recognized by the other jurors, to be under the influence of spirits, but, except at bedtime, was not thought to be drunk or unconscious. At the close of the trial he drank continuously to great excess, at home, for four days, then recovered. He stated to his physician that he could not recall any part of the evidence on the trial beyond a certain point. That he was filled with the desire to drink, and all his thoughts were centered on the object of getting spirits and not being noticed by others. The inquiries he made about certain parts of the trial confirmed his statements of no memory of those events.

The physician found that his memory was half-way distinct of the evidence of the morning, but in the afternoon it was generally a blank, and totally eclipsed at night, after supper, until next morning.

The second juror, B. B., was a farmer who had drunk moderately for many years, and to excess, at night and at home, occasionally.

He was a sensitive, nervous man, who was dyspeptic and considered much out of health. On the fourteenth day of the trial he complained of great weakness, and was given spirits by the officer. He ordered three quart-bottles of whisky a day, which was given him during the remainder of the trial. He drank one before noon, and another during the afternoon, and one at bedtime. He frequently treated his fellow jurors, several of whom drank once or twice per day with him, and

also the officers in charge. He was during the day very stolid and heavy, except when alone with other jurors, when he was talkative, and attempted to be very witty.

This hilarity would merge into heavy stupor after supper. That would last until next morning, and require much effort to shake off. He complained to other jurors that he did not know what had been said the day before, and asked them about it. Like the former juror, he pronounced, early in the case, soon after he began to use spirits freely, that the prisoner was guilty and must hang for it. During the final consultation he was either stupid or hilarious, and did not discuss the merits of the case except to say that the prisoner must hang for it. At the close of the trial he was also sick at home for a few days, and complained that he could remember but little of the testimony of the trial.

The other jurors recognized that both of these men drank to excess, but did not think they were intoxicated until after the day's work was over.

These were the general facts, and the counsel for the defense claimed a new trial on the ground of intoxication, misconduct, and incompetency of those jurors.

In support of this claim he cited the law as laid down by the decisions of courts in many cases, and then the following:

1st. That all scientific evidence sustained the conclusion that the use of alcohol in excess destroyed the capacity of any one to discriminate facts, and the proper conclusions and inferences from them.

2d. That any form of spirits taken in quantities of a quart or more, in twenty-four hours, must of necessity be an excess.

3d. That this excess would not of necessity be marked by stupor or great emotional changes, termed intoxication.

4th. That both theoretically and practically the use of alcohol would disturb the normal reason and judgment, and make the person more or less incompetent to realize the relation of truth, no matter what the evidence might be.

5th. That periodical inebriety was an insanity in which the person was unable to perform duties requiring memory,

judgment, and mental concentration; the mind having only one dominant thought and impulse, and that was the procuring and enjoyment of spirits.

6th. That a person in these paroxysms was powerless to control his mental operations; and, as a juror, was incompetent to realize any facts of evidence, or to appreciate their relation to the case under consideration.

7th. From evidence it was clear that one juror was suffering from a paroxysm of periodical drinking, and the other was drinking continually to excess for the last week of the trial. That both were more or less oblivious to the testimony, and were unfit to decide upon the guilt or innocence of the prisoner.

8th. From facts based in part on their statements and course of conduct, during and after, the inference was clear that they could not and did not remember any of the testimony in defense. Both commenced to drink to excess at the close of the testimony for the prosecution. Both drank from one to three quarts of brandy or whisky each day, and were fully intoxicated at night after the trial.

9th. These men were, therefore, incompetent and practically demented, and could not be trusted to determine any issue, or make comparison of facts.

This the prosecution answered by a general denial, and cited decisions of court to show the law concerning spirits in the jury room, then answered:

1st. The statement that persons who drank to excess were always incompetent to reason correctly was only a theoretical inference, and not an established fact in science. That no rule could be laid down as to the quantity of spirits which would be an excess in all cases, because of the great variation in each case.

2d. That such excesses must be marked by symptoms of stupor, intoxication, and such other changes that would be positive, and beyond all dispute.

3d. That so far no evidence was in print to show the mental failure of periodical inebriates unless they were intoxi-

ated and otherwise demented. And that as long as none of these common or ordinary symptoms were present it would be wrong and unjust to infer imbecility, or unfitness for ordinary duty.

4th. The facts, as they understood them, simply showed that two jurors became ill, and one was given spirits by order of the physician; the other, being a weak man, and accustomed to use spirits, was allowed to procure a regular supply daily while the case lasted. That under these circumstances spirits were simply medicines which took the place of food, and were not unusual in the jury-room of tedious, protracted trials.

5th. That all evidence of their want of memory and general oblivion in the court-room to the facts of the case beyond a certain point rested on vague statements, and could not be sustained by any evidence or course of conduct that had been observed.

6th. The officers in charge acknowledged that both jurors had drunk during the latter half of the trial, but had not been intoxicated, or by acts or words appeared different from others. That nearly all of the jurors had used spirits with benefit, as far as the officers could determine. Hence the prosecution opposed the application for a new trial, on the ground that neither scientific conclusions nor actual facts sustained the inference that these two jurors, or others on this jury, were in any way incompetent to perform their duties, with fair judgment and common sense.

The judge decided against the motion, but fortunately the Governor commuted the sentence to State prison for life.

This case involves many questions which only physicians can settle, by an appeal to facts accurately observed. The law and its workings will always be confused and followed by injustice, until medical men take up the study of inebriety from a scientific point, and show its nature and character, and the laws which control it.

HYGIENIC TREATMENT OF INEBRIATES.

BY JAMES C. JACKSON, M.D., PRESIDENT OF DANVILLE HILLSIDE SANITARIAN, N. Y.

There are two classes of drunkards to be found in the United States—one class are drunkards because of their training and education; the other class is born with a tendency to drunkenness. Let me call attention first to begotten drunkards. These are peculiar. At the time of their conception the father and mother were habituated either in their foods or drinks to the use of some form of stimulants; not necessarily were these alcoholic or fluid in their nature. Stimulants are substances which contain in their constituent elements properties that when taken into the human stomach by eating or drinking have a specific effect on the nervous system, exciting the heart to undue action, and through it the whole circulatory system, inasmuch that the person thus affected takes on an unnatural condition of the vital organs, by which he is subjected to extraordinary activity of such organs. This condition, continued long enough, becomes habitual, and under it no person can go into the procreative act without carrying over to the offspring a constitutional diathesis or habit of body, or, in other words, a tendency or predisposition to the use of stimulants.

The child thus made up has in him a need for stimulation in order that the vital organs may perform their work to the best advantage, and there will be failure in their action unless this need be supplied. The child may linger along, being feeble; but if his habits are such as are common to the children of our country, he will die unless help is given him through stimulation. A physician, if called to such a child, would almost surely discover the need of extrinsic aid being furnished, in order that the vital organs might perform their functions with sufficient directness and vigor to result in good health and continued life.

Under such circumstances, how is a person to be kept from becoming a drunkard? That is a problem which science and morality, separate and together, have been unable to solve hitherto, and will be unable so long as persons permit themselves, while under habitual stimulation, to beget and give birth to children. It is not at all necessary, in order that a child's organization shall have such illness-crazy as to call for and require stimulants, that either of the parents shall be drinkers of alcoholic liquors. It is enough that through food eaten or medicines taken, stimulants are constantly introduced into their circulation. Nature in her great organic processes knows nothing of nor cares anything about the particular substances a person uses whereby his whole system is extraordinarily excited. It answers all evil purpose that this excitement of the nervous system is created and constantly kept up. A married pair can give birth to children in whom shall inhere a tendency to demand stimulation to that degree that a clamor for it is set up in the very center of their bodies, just as surely by the eating of stimulating food as by the drinking of stimulating drinks.

Of begotten drunkards the numbers in this country are larger by far than are the numbers of trained and educated drunkards. There are but very few children now-a-days, who have not in them a natural desire for stimulants. Denied these in every form, they put forth but feeble growth, and in many ways show inefficiency in the performance of those bodily functions which must be fully and fairly exercised in order to the production of good health.

Here, then, is an evil of great magnitude which is not touched at all by any temperance movement yet inaugurated, and herein lies the secret of the imperfect success of all such movements. Little or nothing is gained as respects the arrest and overthrow of intemperance while the children who come into the world have not only a natural liking for liquor, but have also what may be called a natural need for it. Every generation repeats the story of its predecessor. As the child grows up his liking for stimulants takes on the form of a need for them. When puberty is reached, the boy,

whose activities are then drawn upon more largely and decidedly than at any previous period, finds that to answer to the simple nutrient wants of his system, so far as masculinity is concerned, does not meet his necessities. He may be in good muscle and so of good size of body, but there is a defect in him not to be overcome by force of will when he is called upon to show large, well-directed, and successful energy. He lacks just at this point the agency by which energy alone can be developed, and if he cannot have and he fails. It is this cry in his body for stimulation, for something to invigorate him and make him feel strong, that sets him to drinking; and this clamor is just as likely to be manifested if his father and mother are total abstainers from all intoxicating drinks as though they indulged habitually in them. Total abstainers from these drinks who do not abstain from other stimulants, may use them to a degree and in a measure that will produce quite as deleterious effects on the nervous system as would be produced by drinking alcoholic beverages. So the child born of parents who are pledged to the entire abstinence of intoxicating liquors, may have a natural desire or need for alcoholic stimulants as truly as the child born of parents whose nervous systems have been habitually excited by alcohol.

The object then to be sought must be, not the exchange of stimulants, but the abandonment of them altogether. Then children will be brought to birth with no tendency in them to the use of stimulants, and then they can be trained up and reared along a line of sobriety and abstinence from all stimulants, which will make it quite out of the question that they should even use intoxicants in any form.

There is a process by which a child with an inborn need for stimulants in order to make his organs perform their natural functions, can be reconstituted. That process involves freedom from taxation of the nervous system for years after his birth. The child has to be cared for and looked after like a young animal. The developments that need to be made in him are such as affect the nutritive nervous system. He should be kept free from all cerebral

excitement. He needs to be cured for by judicious and wise nurses. He cannot be permitted to eat or drink, nor do or be, as children usually are.

If he were thus related to life he would die; but if he can be kept free from all unnecessary excitement of brain and be handled with close watchfulness, he first three or four years of his life, his relations to vital development will become greatly changed, and from that point on, the reconstructive processes, so well begun, will proceed to completeness. He will ultimately reach a condition of his nervous organization where he will no longer need stimulation. Till that is accomplished, attention must be given to him, or with no stimulants administered in his food or drink he will fade away and die. It is most unfortunate that a child should be made up in a state of dependency upon factitious aids, but where such dependency exists, reconstructive measures can be instituted and made effectual. This I have proved on this Hillside to the satisfaction and joy of a great many parents. The better way, however, is to forestall such an issue as this and not have children begotten when the parents are under a bodily habitude of subjection to stimulation.

For a long time I have been convinced that the present temperance reformation is radically inefficient. The unphilosophical aspect of it will have to give way before a broader and more effective effort or we shall have to keep it up forever, having in each succeeding generation as many or more persons becoming drunkards as in generations preceding.

The second class of drunkards—those who are made so by education and training—are persons not born with a constitutional necessity for the use of stimulants. As children they do not in our country constitute a very large class. They never need be drunkards. The temptation to drink is not in their bodily constitution. It lies in society in some or other of its forms of association. Thrown into good and upright relations from childhood, they will not become drunkards. They will not even drink liquors moderately. As they develop into intelligence and moral sense they will see that the use of stimulants for purposes of exhilaration, or of

inervation of the nervous system, is not good for them. They will be ready to join the total abstinence ranks, and when they have joined them, they will stand true.

But out of this class there is a certain number who do become drunkards. These lack the early training and right association and proper surroundings. They eat highly stimulating foods and drink stimulo-ascetic drinks, like tea and coffee, until they have created in them an abnormal desire for things that are exciting. No person can habitually eat largely of flesh meats, cooked as meats are in most families, and drink such beverages as are there easily imbibed, without afterwards coming to have a longing for stimulation. Young persons come to have a want for something stronger than tea or coffee, and many of them have opportunity at the home tables to indulge in the milder forms of alcoholic drinks. So they go on from bad to worse and from worse to worst. Out of this class a certain proportion become drunkards, and once they are habitually inebriated, their restoration to permanent sobriety is as difficult as though they belonged to the first class.

Their cure does not lie with certainty in any movement which simply makes its appeal to the moral sense. A drunkard may be said to have no moral sense. He has a physical sense and he has a social sense. His physical sense tends directly to keep him a drunkard. His social sense may work for his recovery. He may be so situated that social influences shall operate to induce him to sign a pledge that he will not drink any more, and here and there may be found one out of a great many who will keep such a pledge, not by reason of any inherent strength which he himself has whereby to keep it, but by reason of the outside influences which affect him and the watch-care which is had over him.

If thinking men and women will take pains to investigate this matter as thoroughly as I have done, they will see that a very large proportion of the whole number of drunkards in this country is made out of the class which is born with a liking for, with a tendency to, and with a need of the use of stimulants.

HINTS ON THE PROGRESS AND TREATMENT
OF INEBRIETY.

DR. N. BOB BRADEN, M. D., M. D., PHILADELPHIA, ORIGINATOR AND PHYSICIAN AT THE PENN. PENITENTIARY, AND TO THE SEAMAN'S RETREAT ON STAGAN ISLAND, MEMBER OF THE AMERICAN MEDICAL ASSOCIATION, ETC.

How greatly has psychology progressed in this century. Not only have specialists in mental disease been assigned a place amongst the most respected of scientific men, and their hospitals are no longer called asylums or reformatory prisons, but the foolish stigma that the public previously attached to insanity has in so great a degree abated that we naturally cease to reflect. What then has brought this change? Surely we all believe the various forms of insanity are about the same to-day as a score of years ago, and that under the same treatment the same large number of cures could then have been effected as we may now see recorded in the annual reports of the superintendent of any one of our modern hospitals.

The advancement made by the psychologist would not have been so great and universal had it not been for the power of popular opinion. And why? Formerly when an individual was attacked by mental disease he did not seek hospital treatment until his infirmity had become confirmed, if not indeed incurable; whereas now the department of early treatment is as fully recognized as that of surgical cases; and the friends of the afflicted one, no longer prejudiced against hospital treatment, hasten to admit him of it, while it is not yet too late; and as a consequence, the hospital receiving a larger number of recent cases, their ratio of cures is greater, and many are restored to a life of usefulness who

in former times would have gone on to the death of the hopelessly insane. May we not hope that inebriety may yet yield to this almost overwhelming progress of psychology?

We have seen what has been done for the insane. Let us do the same for the inebriate.

The friends and relatives of those who have no confidence in the work should not deter nor induce us, except to renewed labor, neither should we yield to discouragement if our first efforts and experiments are unrewarded with success. I believe there is a cause for all exciting things and conditions. What then is the cause of inebriety? For it is here we must combat the monster who will otherwise overcome us. In truth, might we attempt to stimulate or absorb the reward while the spirit—as we call it—faints—as it is disturbed; and likewise in the treatment of inebriety we must, as we would with any other disease, combat with its source of cause, if we would successfully attempt its cure or eradicating. It is not my purpose to review or enumerate well-known causes but rather to erect one or two landmarks at points where I have known an obscure cause to exist, together with a simple note of the treatment adopted and the result.

In the reported cases of insanity we find inebriety most prominent, but an important point to which I would call your attention is that, where insanity and inebriety co-exist, the latter is not always the cause of the former. Such would be the popular opinion. I may say it is fashionable in such cases to take it as a matter of course, and determine at once that inebriety caused the insanity, and without making the same investigation into the real cause as would have been done had in-briety not been present. There is here a double error, the observance of which may result not only in overlooking the actual cause of the insanity, but likewise that of the co-existing inebriety itself.

Indeed, where the diseases are both present the inebriety may be and certainly is, sometimes, the result and not the cause, of the prevailing mental disease. I have at this

in several cases. In one instance, when a patient was confined in an asylum, and only being of a slight degree of his insanity, where, on a careful study of his case, revealed the two important facts that insalivation, though recent, had existed previous to the next day, and was denuded its immediate cause, and that the actual cause was disordered digestion,—simple treatment for which applied to cure both the insanity and indigestion.

All asylum physicians must be familiar with parallel cases respecting other forms of what we may here call moral insanity. If a patient brought to an asylum has been observed in the street vice versa, that goes as the cause of his mental aberration; and while I doubt not such diagnosis may sometimes be correct, I will say that in all my hospital experience I have seen as much of such vice resulting from insanity as vice versa.

One of the first conclusions I arrived at from my observations in hospital practice, however, was that the most of our patients were melancholy, and that most of those who were morose had of dyspepsia. It occurred to me at once that it might be the sovereign remedy for this great part of our patients, and accordingly began its use. This was some years ago, before we had the fine and reliable preparations of pure and saturated pepsin, but we had the benedictin elixir, and wines. We tried them faithfully but vainly, and finally concluded there was nothing in pepsin.

Some months later, however, I determined to make another trial, but reserved first to be sure of the quality of the pepsin, and induced a Yaman chemist to attempt his production from the stomach of a recently killed hog, which resulted, however, only in his own disgust.

I then went to the apothecary myself and saw them kill a healthy hog, the stomach of which I carried home, and when I had begun pharmaceutical experiments on it, I found it yet retained much of its natural warmth.

The process was tedious, but the result entirely satisfactory, both pharmaceutically and therapeutically. And from

that day to this I have had the greatest faith in pepsin. We then tested our former preparations of wine and elixir of pepsin, and found that they contained no pepsin, while further investigation established the fact that alcohol and wine were incompatible with pepsin, and destroyed its power of digestion.

Here, then, is one point gained in the treatment of melancholy. If alcohol destroys pepsin in the chemist's jar, it will do so in the human stomach. In addition to the dyspepsia, so frequently attendant upon melancholy and melancholia, we have, as a natural consequence, imperfect nutrition and debility, and in searching for a remedy, I have found nothing better than quinine, except the one preparation made by The Pennsylvania Chemical Manufacturing Company, and known as Phero's Quinine. In this article we have both the hypochondria and melancholy, indicated by the symptoms of almost every case of melancholy and continued melancholy, namely, the genuine, an active and permanent stimulant, and in the pepsin, the best-known remedy for dyspepsia. There is another class of persons in whose treatment I have found quinine of inestimable value, especially in the work of suppressing melancholy, and it is in the interest of this large and important branch of society that I wish in conclusion to implore your most earnest sympathy and protection.

I refer to those, the most worthy and industrious of business men, whose natural strength of body is unequal to what is required of it, that is to say, insufficient to enable them to perform all the labor that their ambition tempts them to undertake.

How often do we see an active business man, just beginning to collect a fortune, become so interested and absorbed in that one object that he forgets, or at least neglects, every other thing, including his health, and even his regular meals. Going to his counting-house early in the morning, he remains the whole day under exhaustive mental strain, perhaps without food, or at best with a trifling lunch, intending to follow his accustomed and pernicious habit of dining in the evening.

Soon he finds that he is returning home without his usual appetite—that his health is impaired and his strength failing. Yet does not his ambition to acquire wealth abate; nay, it becomes more and more intense. At this crisis,—yes, my friends, it is a terrible crisis for him, but a splendid opportunity for his physician—at such a crisis, I say, he is too easily and too often persuaded to take a little stimulant, and straightway falls a victim to the seductive hand, alcohol. Hunger and fatigue seem to yield to his influence, and the deluded gentleman, finding he can yet accomplish much more work, quickly resorts for new strength to the nearest wine-house; and hurries back to his office, when his course should be towards home. Indeed, he should be in his bed and under medical treatment, for he is now on the high road in hottest race for gold or death, and gounded on to the latter by inebriety.

298 Race street, Philadelphia, Oct. 22, 1853.

During the past ten years paralysis among inebriates has been more frequently observed, and it seems to me well to mention briefly this peculiar and generally fatal disease, because this seems to be the exciting cause which requires our special attention; and I refer to it because it has been generally overlooked. Alcoholic drinks tend to the production of fibrous or fatty degeneration of the various tissues of the body, and thus, as a consequence, the membranes of the brain and spinal cord become thickened, and the organs within wasted. This, of course, would give rise to what might be called a general paralysis of the body and mind. But besides these general results, we often meet with more direct effects on the spinal chord, and to this I particularly refer.—*Dr. Dorr.*

The medical profession are slowly coming out of the superstitions of the past and accepting no remedy on its past reputation alone, but demanding the evidence and proof of its value.

ALCOHOLIC INSANITY.

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(Continued from Jan. No. of Journal.)

Dr. L. C. Grey informs me that he has found that in the earlier stages of alcoholic paresis the ideas of grandeur, etc., are more logical, the patient giving a reason for his grand ideas, whereas in idiopathic paresis the patient is stupid, dull, and illogical when questioned as to his delusions.

Alcoholism may be associated with insanity from other causes, as syphilis or blows on the head. In the report of cases already alluded to, one case in four has had syphilis, and one case in six had received some form of head injury. In such cases, it will be our duty to determine whether the relation of the alcoholism to the insanity is causative or simply contributive. It is enough for us to know that alcoholic intoxication is not infrequently the first or initial symptom of an insanity not directly due to alcohol, and thus establish our treatment and qualify our prognosis in a proper way.

In the consideration of the various types of alcoholic mania, it will be necessary to allude at least to dipsomania or ornomania. Magnus refers to it as "a peculiar form of instinctive monomania." It is an irresistible impulse that drives a person to alcoholic intoxication at stated or irregular periods. The attack is preceded by a condition of melancholia, anorexia, insomnia, and general restlessness. After the debauch, or during it, the special effects of the alcohol on the mental and physical condition become manifest—tremor, hallucinations, sleeplessness, coated tongue, loss of appetite, and other symptoms of gastric derangement. The "irresistible impulse" is the characteristic feature of this

special form of mania. The genesis of that impulse, and the views of various writers as to its pathological origin, the province of this paper will not permit me to touch.

The point to be made here is, that the hallucinations and delusions are simply the result of the alcoholic poisoning.

The person again and again yields to the insane impulse, until death, either by some intercurrent disease, or disease resulting from his alcoholic excesses, relieves him from his sad heritage.

Chronic alcoholism or chronic alcoholic intoxication is a condition analogous to poisoning by other substances, as lead, tobacco, etc. It is thus defined by Magnus Huss: "The name *chronic alcoholism* applies to the collective symptoms of a disordered condition of the mental, motor, and sensory functions of the nervous system, these symptoms assuming a chronic form, and without their being immediately connected with any of these (organic) modifications of the central or peripheral portions of the nervous system, which may be detected during life or discovered after death by ocular inspection; such symptoms, moreover, affecting individuals who have persisted for a considerable length of time in the abuse of alcoholic liquors."¹

These symptoms are insomnia, attacks of giddiness, headache, tremulous animum; hallucinations, especially of vision, muscle twitches; muscular weakness and trembling, especially in the lower extremities; tremor being marked in the tongue; attacks of dyspnoea, sense of choking or suffocation, due to a spasm of glottis; in cases of profound alcoholic coma, paralysis of the glands, with complete collapse, has followed and anæsthesia has been performed to prevent death by salivation. Hyperæsthesia of integument, formation, prickling or stinging sensations, anæsthesia, especially of lower extremities; delusions may exist, but they are feebler than in delirium tremens, and there is this marked

¹ Chronic Alcoholic Intoxication (March).

² Medizin Chirurgisch. Transactions, 1837. Geo. Sampson, Esq.—Munich, Chronic Alcohol Intoxication.

³ "Alcoholic Anæsthesia," with cases.—Mason, 1831.

feature, the patient is conscious of his hallucinations and illusions, and admits them, and is not prejudiced by them.

It is important to speak of chronic alcoholism in this connection, because all the effects of chronic poisoning by alcohol may co-exist, in whole or in part, with all the various forms of mental deterioration, in the production of which alcohol is a factor. Having a knowledge of the various symptoms of chronic alcoholism, we can readily distinguish them, and treat them independently of the co-existing mental conditions.

We have thus reviewed the more prominent types of insanity with which alcoholism is associated, either in a causative or contributive relation. Our fitting remarks in reference to the prognosis and treatment will be confined to chronic alcoholic mania.

The prognosis includes the duration of the attack, the possible restoration, or not, of the patient to mental as well as physical health, and the probability of a relapse.

The duration will depend upon the dietetic, hygienic, and medicinal conditions to which we subject the patient. I believe that under improper treatment, and for the want of proper treatment, an attack may be indefinitely prolonged, and eventually lapse into incurable insanity. The period, even under favorable conditions, will vary from a few weeks to several months, and Blandford reports a case where two years elapsed before recovery took place. This form of insanity, I believe, has no special period of self-termination. The tendency to chronicity is very marked, and under unfavorable conditions the insanity may continue indefinitely.

The prognosis as to the final recovery of the patient from his present attack is, as a rule, far more especially if it is not anticipated by many similar attacks, and it is very surprising and satisfactory how often, in a comparatively short time the patient may recover his mental as well as physical health under proper treatment.

On the other hand, if there is a history of many similar attacks or periods of insanity, and especially if there is evi-

dance of serious organic changes of the nervous system, the prognosis becomes exceedingly grave, and should the patient survive his present attack he will probably drift into that form of incurable insanity in which, as Abakovsky says, "the mental deterioration is so great that he remembers not a little in mental symptoms a person who is in the last stages of senile dementia."

However favorable our prognosis may be, it should always include the possibility not only that the great probability of a relapse so that while we may encourage the friends to look for a recovery in the earlier attacks, our prognosis for the future cannot be favorable. When acute insanity has resulted from alcohol, the tendency to relapse is very great; we are dealing with persons whose volition is weakened by previous attacks, and also with every relapse are shown, but surely approaching the inevitable and invariable condition, complete alcoholic dementia, indeed according to the authorities, this condition in alcoholics may be developed quite suddenly without preceding illness, excitement, or sleeplessness, or attacks of acute alcoholic delirium. How many periods of alcoholic mania may precede that which terminates in the incurable form of dementia is undefinite. I now have a case under observation for the last thirteen years, during which time the patient has been either in the mania or the insane asylum some twenty-five or thirty times at various periods for attacks of alcoholic mania. The cause of his dipsomania was a stroke; his attacks of drinking came at intervals varying from two or three days, the shortest to several months, the longest, all his attacks of dipsomania were followed by alcoholic mania, always more or less chronic, varying from twenty-eight days, the shortest, to sixty-one days, the longest period of duration. He is going well at the present time, May, 1883, and has not had a relapse for several months.

But our prognosis will not end with our opinion as to the recovery from his present condition, or not, for to our forecast of his future state. His friends will desire to know what his relation to social and commercial circles should be

If he recovers from his present condition, and we should be candid, for upon our opinion may rest most important results, both to the patient and those about him, I think the view of all who have ever had such cases to deal with is not to place them in any position of responsibility or trust at least not until a long probationary period has passed because the more act of sodomy would be apt to precipitate them, through mental anxiety and a sense of responsibility, they cannot feel equal to any advantage. Therefore, should such cases be ever restored sufficiently to again enter commercial or social life, it should be only in a secondary position, more or less inferior to constant espionage of friends. But even such a case would be an exception to the rule; the majority, the large majority of these cases continue to relapse, until death relieves them from their hapless condition, or they become rabid among the chronic insane and are injured the rest of their lives in an asylum.

The *prognosis* of alcoholic insanity we are now considering the more chronic forms, may resolve itself into place of treatment method of treatment including proper restraint, mechanical, hygienic and hygienic measures and health time of treatment.

As to the first place of treatment, we have to choose between the home of the patient, the lunatic asylum, or the insane asylum, as to the former, we may exclude that as a most improper place, even under the most favorable circumstances. As regards the lunatic asylum, while eminently a proper place as regards treatment, the difficulty would be, while committing the patient as a lunatic to retain him after his mental condition is recovered, whereas in an insane asylum he would be re-committed at the end of a regular period of commitment on the ground of habitual or periodical drunkenness, and thus held an indefinite length of time, and all reasonable danger of relapse from too early dismissal from the asylum might result, although comparatively restored as to his mental condition. In addition to the very important advantage, the insane asylum has all the advantages that

pertain to the insane asylum, as regards restraint, skilled nursing and experienced medical officers.

The method of treatment will include the use of alcoholic stimulants. Whether or not these shall be used will depend much on each individual case; some may be very much benefited by the use of stimulants and even positively harmed. As a rule, I have found that when stimulants are indicated, the malt liquors are preferable to spirituous liquors. Bass's ale, Guinness's stout, or lager-beer when a milkier form is required. The value of the malt liquors, in addition to their greater food properties, is due to their moderately stimulating qualities combined with milked-securative or even hypnotic properties. The quantity as well as the form of the stimulant used and whether or not it is to be used, each case must determine for itself. The bulk of the malt liquor or its tendency to produce vomiting or diarrhœa that, in some cases, interfere its use.

As regards diet: nourishing, easily assimilated food must be given, recollecting that, as a class, these patients suffer from malnutrition, and that the channels through which we propose to introduce food into the system are, at times, fitted very improperly to do their work. The gastric and hepatic functions are sluggish and defective, and will require assistance in the form of proper medication and properly prepared food.

It is needless to add that all co-existing diseases—malaria, syphilis, or tubercular—should receive the special treatment indicated for such conditions.

A California member of Congress has introduced a bill to prohibit the importation of opium except in the form of extracts and tinctures. The offense is punishable by a fine of five thousand dollars and imprisonment for a term of five years. Of course no such measure can be made practical, but as a hint to guide the recognition of the danger from opium, it is very significant.

Abstracts and Reviews.

THE OPIUM PSYCHO-NEUROSIS.

The January number of the *Medical and Surgical Clinician* contains a very suggestive discussion of this subject by the editor, Dr. C. H. Hughes.

After expressing some doubts about the terms used to designate opium taking, he remarks that when small quantities of opium or alcohol cause delirium, it is a good evidence of psychopathic tendencies. He says that the use of opium and alcohol saves many cases from fatal systems, by directing their morbid energies to other channels, and affording an outlet for insane and erratic impulses. In comparing the effects and action of opium and alcohol he says that the changes of brain substance, as the increase and final shrinkage of interstitial tissue found in epileptics, do not exist in opium cases, although distinctive nerve changes are present, which are probably characteristic, but as yet are unillustrated. Opium cases, the inclination can be traced back to brain and nerve perversions, and ancestral disease. When once they have felt its effects, its use cannot be stopped. In other cases its use for a long time leads on to a need of its anaesthetic effects. They are ready to do anything to relieve this morbid feeling, and alcohol is often a substitute.

Inebriates may recover by their own efforts, but opium cases never. All who claim to have stopped in this way cannot be depended upon. They never show any cessation of passion except for this drug; to crying fits or perversions. Opium paralyzes the sexual appetite and many of the lascivious passions, such as anger, mania, etc., and may for a time exalt the better feelings. Opium, its victims are

1890-91 by Park, Lewis & Co. of Detroit, is a valuable book, and one worth every should be used in all cases.

The *Neurological Pathology* of Park, Michigan, under the care of Dr. Keitt, has excellent facilities for treating neuritis and opium cases.

Journal of Neurology, by Keith & Co. of New York, is regarded as a special in many cases of opium and alcoholic pathology by many physicians in different parts of the country.

Madness has now a place among the standard medical books used in hospitals and asylums, for all forms of digestive ailments and particularly derangements coming from excesses of spirits and opium.

Professor H. K. Barn of Kentucky, and Dr. Hullock, formerly of the Lexington asylum, are about to open an institute and dispensary in the suburbs of Louisville. We extend to them our best wishes in this great pioneer field of the coming century.

The *Travellers Insurance Company* of Hartford, Conn., deserve the gratitude of the public for their gift of a fine picture of the Partholol statue, as well as the million and more of money given to the heirs of the dead, and the disabled underwriters, during the year.

The *Printer's Review*, published at No. 2 Nassau street, New York, is a bi-monthly devoted to original papers of the highest order and value. It is essentially a journal for scholars, and we urge our readers to become subscribers, and thus come in contact with the most advanced thought and thinkers of the day.

The *Medical Journal*, a monthly, and the *Scientific American*, a weekly, both published in New York, are invaluable to all professional men, and give clearer ideas of the march of human progress than the daily newspapers, and bring their readers into closer sympathy with the great struggling currents of humanity.

Crain's Case's Toluolol's naphthalin has a peculiar value that can only be appreciated by a practical test in all cases of debilitated brain and nerve energy. It may be called a specific in most cases.

The *Popular Science Monthly* for March and April contains many papers of great interest to every professional man, and no one can hope to become familiar with the current scientific thought of to-day unless he reads the *Popular Science Monthly* of New York.

Nation's Hypophosphite is furnished to any physician who will pay the expressage of a sample bottle, and in this way its value can be tested beyond question. We have used it for a long time in children with the most satisfactory results, and commend it from the experience of every day.

The inaugural address of the Hon. Clark Bell before the Medical-Begal Society of New York shows a most gratifying progress of that society, and reflects great credit on its president, Mr. Bell, who has filled this place for many years. The journal of this society under the care of Mr. Bell has already won a place in scientific literature most enviable.

If the public could realize that alcohol was always a toxic agent capable of destroying life, and only tolerated by the system when taken in small doses, a change of sentiment would soon take place.

If it was understood that even small doses had an injurious action on the organism which was not perceptible at the time, but would appear later in the progress of the case, the consumption would also be reduced. The notion that it is valuable in snake bites is declared by Dr. Hinkle, in the *Scientific American*, to be a mistake, and more injury comes from the overdose of alcohol given as an antidote than from the poison of the snake.

Lord Shaftesbury, chief of the banacy commission for fifty years in England, asserts that over fifty per cent. of all insanity comes from inebriety.

Editorial.

DEATH FROM THE PUNISHMENT OF
INEBRIETY.

A chronic inebriate, who had become obnoxious by his drinking, was punished by receiving twenty-five lashes in Delaware lately. A week after, erysipelas and gangrene set in, and he died. The physician, writing me the facts, asks, very pertinently: "Was not this a case of judicial murder? Can anything be nearer barbarism, than the torture and death of the victim, under the plea of forcing him to be temperate." The same question roused great public interest in England in a noted trial at the beginning of this century. Col Wall, the commander of the English garrison at Goree, south of Cape Verde, was arrested and put on trial for the murder of a sergeant, whom he had ordered to be punished by whipping, for some trivial offense. The testimony indicated that the punishment was excessive, and the victim was an inebriate, and died from gangrene, which came on from the wounds. The surgeon testified that the prisoner never recovered from the shock of the injury, that erysipelas and gangrene followed, and no stimulants had any effect. The defense urged that the victim drank before the punishment, and was given brandy freely after, and his death was due to this, rather than the injury. The jury found the prisoner guilty, and he was hung. This was in January, 1802. (See *Brownes's Annals of State Trials in the Nineteenth Century*.) If this Delaware judge had lived in that day, he would most likely have been indicted for murder, and the most advanced views of science to-day would have fully sustained such a charge.

An inebriate, who had been a man of character and super-

rior intelligence, was found on a doorstep in New York, in a state of partial dementia, from intoxication. In the effort to get him to a station-house, the policeman struck him many times with his club, and severe bruises were found over his arms and back. Soon after gangrene came on, and death followed in a few days. The poor victim explained, most truthfully, that he tried hard to walk in obedience to the orders of the policeman, but could not, and the officer clubbed him to break down a supposed willful spirit. He was literally murdered by the policeman. An attendant in an insane asylum, in a struggle with a maniac, where his own life is in peril, inflicts injuries which result fatally, and immediately public sympathy is roused, and punishment demanded. No circumstances of his being alone in a large ward of violently insane men, where prompt, decisive action, is the only security for his life, is allowed in defense; he must be punished as one who has full power and capacity to use the least restraint, and the utmost gentleness to accomplish the purpose. The inebriate on the street, who in most cases is stupidly demented, and whose principal maniacal symptom is delusive stubbornness, is arrested and dragged to court with violence, pounded, and clubbed, as a willful, dangerous man, struck on the head, and over the neck and spinal column, and dies soon after of apoplexy, or is found dead in the morning in bed. The bruises inflicted during arrest are apparent to the inspection of the officer, but they have no meaning to him, and the death is put down from natural causes.

Literally, murder has been committed, and death is as positively the result of the blows of the officer's club or hand, as it would be from the balls of a pistol. The officer can have no defense for his violence. His life is not in peril from the victim, or the surroundings; cases seldom or never occur in which he cannot summon aid, and effect the arrest without injury to the prisoner; yet such cases are common in every large city in the country, and are really murders, which the community never recognize. The greiest apparent brutality of the attendants at insane asylums, are as

nothing compared with the violence displayed by officers of the law in the arrest of inebriates.

The proof of this can be found in the statistics of deaths of inebriates at the station-house or jail, soon after admission. Apoplexy, heart disease, pneumonia are the most common terms signifying the cause of death. Who will determine how many of these cases are due to direct trauma and violence? It is beyond all doubt that inebriates are more susceptible to injuries which result fatally; that he is suffering from states of degeneration that cannot resist or repair injury to the organism.

In view of these facts, it is only justice to demand humanity to the victim, and protection from violence and death, due every one, and more especially those who are sick and defective. The legal punishment of inebriates is most disastrous in all its consequences, and no evil of to-day calls louder for reform and change than this.

A TRANCE CASE IN COURT.

The following case is significant of an advance in the recognition of insanity and its medico-legal relations. An advance demanded by necessity and justice, that will revolutionize the present legal views of this widespread malady.

A salesman and partner of a large manufacturing house in Connecticut, who had been for years a moderate drinker, and at long intervals had drunk to excess for a day or more, started in his usual health on a business trip. Sixteen days later he was found at a hotel in Philadelphia, partially unconscious from spirits. He recovered and came home, but a blank in his memory had occurred of eight days' duration. He could remember nothing from a certain point in Boston up to recovery in the hotel at Philadelphia. His books showed that up to this time in Boston all his transactions had been of the usual order. But after that date he had sold enormous bills below cost in Albany and New

York; also that he had signed the firm's name to some disastrous contracts, of which he had not the slightest recollection. Action was brought to compel the firm to carry out these contracts, and was defended on the ground of intoxication, insanity, and unaccountability of the salesman. The plaintiff proved that the defendant was not stupid or bilious, while conducting the details of the contract; that he showed ordinary business sagacity, and seemed perfectly sensible of the nature and character of his acts, giving reasons for the sale of his goods at lower prices, and manifesting caution in the contracts made. They admitted that he was drinking brandy quite freely, but seemed in no way intoxicated, insane, or unconscious of what he did, and giving no hint of other than full possession of all his faculties and reason. On cross-examination it was admitted that the plaintiff realized the unusual gains and advantages he was securing from the purchase of goods and the contracts made, and wondered why the defendant took such a course of business. The defendant showed that these transactions were not memorable by him in any way; that were it not for the records of them in his own hand-writing in his order-book, he would deny their occurrence.

Also, that these blanks of memory were not unusual, having taken place several times before, but were not noted by any conduct that attracted attention, or any business transactions which were unusual. These blanks usually followed a short period of excess when he was out on the road, and his friends frequently mentioned little events which he could never recall. On a former occasion he had collected quite a large sum of money for the firm, and could not recall any circumstances associated with it. At another time he was unable to explain what had become of a large sum of money which he had collected; it was ascertained that he had deposited it in a bank, but could never recall any event or memory of it. His family physician testified that his health was impaired, that he had suffered from malaria for years, and he had repeatedly treated him for insomnia

and mental. He considered these blinks obscure phases of insanity, and that a person in this state was unaccountable and could not realize the nature of his acts.

It appeared from other evidence that his drinking dated from the childhood of prison life during the war, and that for many years an excess of spirits was followed by loss of mind and occasionally blindness or deafness, which would pass on in the hour of sleep. During the last five years these attacks of memory had appeared, followed by a period of sleep and recovery.

It also was in evidence that the sales of goods and contracts were unusual and unexplainable on any ordinary business sagacity or concern. The judge charged the jury that whatever this condition of memory might be, claimed by the defendants, it could not lessen the legal responsibility.

That the plaintiff had no way of determining the mental condition of the defendant as long as he did not exhibit any of the well-known symptoms of insanity, imbecility and unreasonableness. The defendants had put in a defense based on a mental condition unaccepted legally, which, however correct, could not at present be recognized, without a great injustice. The law must wait until science had proven clearly that this was a form of insanity, a defect had shown its bearings and practical applications. The jury found for the plaintiff, but the judge gave in his charge his opinion, and sooner or later it will be hardly recognized as explaining many of the unaccountable acts now so puzzling to court and jury.

INTEMPERITY IN RUSSIA.

In a letter from Dr. West-hell of Moscow, the following facts are mentioned: From 1869 up to January, 1883, the revenue returns on brandy and other spirits consumed in the empire had increased seventy-eight per cent. The amount of beer had also increased very largely. Of brandy alone, millions of barrels had been brought into the country, and supposed to

be consumed by the people, it would average about ten quarts to every man, woman, and child in the empire. The government is just now awaking to the magnitude and danger from this source. The nobles are mostly confined to the lower and working classes, and are developing a degree of lawlessness and misery that perils property and the empire itself. The church does not interfere on the ground that it is a state question, and the government has ordered a drink census to be taken in each province, and requested the scientific societies of St. Petersburg and Moscow to determine the best plans to reach and check this evil. In the meantime a Moscow physician has published the brochure of *Saltator*, which appeared in 1818, with notes and additions, quoting from America and our a-sectation and temperance. Thus signs of progress and movement are apparent over all the Slavonic world. The disease of intemperance must be recognized and its prevention sought from a knowledge of the laws and forces controlling it.

PAROLETTERS FOR NOTING PROGRESS.

We are in constant receipt of papers, letters, and protests against the obscure theory of intemperance. Some of these are very contributions and others are severe and harsh. Not only clergymen and moralists, but physicians write in a state of childish alarm, and condemnation, of what they do not understand. A state of mental infatuation is doing to the past is apparent in all the scolding echoes of old errors, pressing the certain birth of new and larger truths. Applicants, arguments, and personal lies, beyond the journal in this edition, are but fragments of the barometers of progress, signals of the disturbance of old theories and ideas of truth, evil, and the need of a certain recasting of science and the burial of many present beliefs. Against such innovations there has ever been an eternal combat, no matter what the advantage was of how thoroughly it was supported by truth. Only a few, ever, will come now, facts, simply stating that they

be well founded while the vast majority contest and deny everything which conflicts with the present order of events.

It is the same old battleground and the same fight with the same energy and the fiercer the conflict the more rapid the advance. Thus notwithstanding every fresh onslaught which greets all the new truths concerning the disease of insanity and its curability, there is progress positive and cheering.

To all our correspondents and friends who are alarmed and troubled at the facts, we suggest the Apostle's prayer, "God is good and truth is mighty." Become sinners and study and test the facts you so positively doubt and contest.

THE WASHINGTON ASYLUM FOR INEBRIATES.

This institution has been organized for some years, awaiting and from Congress and other sources, to go into practical existence. Public sentiment has not been educated up to sustain such enterprises, and the few pioneer efforts in different parts have roused such fierce opposition as to strip much enthusiasm in this direction. This projected institution has been quietly perfecting its plans, waiting for the time of recognition, with a confidence that could not be mistaken, and which now promises to be realized at an early day. The report of the Superintendent of House of Washington, for 1883, calls attention to the fact that over ten thousand persons were arrested for inebriety during the year, and at least four thousand more were arrested for crime associated with inebriety, and from this urge that an inebriate asylum is an absolute want of the age. The sanitary officer of the same department urges this want as follows:

"I wish to call your attention to the very urgent necessity of an asylum in this city where inebriates can be cared for. There is no institution in this District where this class of persons can be sent and confined against their will. It has been clearly demonstrated that it is useless to send them to any of the hospitals, for as soon as they get sober they refuse

to remain, and as they cannot be detained they return to their friends, and in a short time it is a repetition of the process, and finally they are turned over to the police authorities and sent to the workhouse, where the downward course is more rapid than before, and in the end they fill a drunkard's grave. If there was an institution in this city where this class of persons could be confined, there is no doubt but what many would be reclaimed and become good and useful members of society.

Following up this a bill has been introduced into Congress to appropriate eight thousand dollars to establish and maintain an asylum for inebriates in the District. This bill has the full support and endorsement of the leading men of the District, and will undoubtedly pass. It is understood that several large donations are expected on the appropriations of Congress and the permanency of the work.

Gov. (Gore and D.) Howard are to be congratulated on the result so far, of their energetic, unflinching and practical operation a work that will go down into the coming centuries as a shining, beaming charity. The demand for Inebriate Asylums is being a recognition on the field of necessity, that even find another door of relief.

STATE ASYLUM FOR INEBRIATES IN OHIO.

A bill has been introduced in the Legislature of Ohio to establish an asylum for inebriates, which is of more than passing interest. It provides for the appropriation of one hundred thousand dollars for the purpose of buying a large farm, erecting buildings, and conducting a workhouse hospital for inebriates, who come under legal notice either for drinking or petty crime.

The inebriate shall be regularly committed, the same as to prison for a term of not more than three years, except in case of escape and recapture when said term shall be extended to five years.

Persons who come voluntarily are held under the same rules,

of the committee, and in doing a paper, the same address a

to the same point as the employer of single industrial
... the most common form for which tends to be the
... of which the central labor district. The system is
... of the kind of business, and the associated
... of the government who receive these of this day and
... of the system, but the help received from the private
... of the kind of. The superintendent and general man-
... of the industry, and the other five thousand dol-
... of the kind of discharge of their duties. The state is
... of the kind of in income to pay the expenses.

It is necessary to state that a very widespread sentiment
... of the enterprise and the high will under the
... of the kind of law at the early day. The Hon-
... of the kind of England and many other prominent cit-
... of the kind of the movement and its success is based
... of the kind of general character of this bill is good ev-
... of the kind of its benefits will establish an system that will
... of the kind of given town in the future, and as a citizen will be
... of the kind of the State.

INDUSTRIAL HOSPITALS

If we consider the care and treatment of injuries are most
... of the kind of. Science shows that the hospital is
... of the kind of even out and needs even appearance of art and
... of the kind of hospital, also that he can be cured and re-
... of the kind of health and healthy living. This is the real tem-
... of the kind of the twentieth century. All the present
... of the kind of efforts to solve the problem points in this direc-
... of the kind of. There is a demand for a wider knowledge of
... of the kind of health and the fullness of the industry. All efforts to
... of the kind of to determine the fullness of the industry, as they are
... of the kind of in the face of these laws. On the front line of
... of the kind of at the heart of the industry. The aim of the
... of the kind of and effective classes in the wounded and dying.

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that come back from the death, those where the spirit and
... of the kind of the best elements of human life. Hos-
... of the kind of and a man's are possible for the many, but the spirit
... of the kind of is neglected. He is held responsible as a criminal who
... of the kind of voluntary he comes wounded and crippled of his own free
... of the kind of will. The injury, then, and other classes, are cared for with
... of the kind of the aim of restoring the wife health again, but the indigent
... of the kind of is often neglected. Where a worse than Anderson the same
... of the kind of remedies make recovery impossible. He is astonished and
... of the kind of never goes back to support the family. The joy of battle is
... of the kind of waning, and the stream of wounded and dying industrial
... of the kind of increases every year. Charity, which is ever seeking, may
... of the kind of help to occupy, passes by on the other side of the muddy
... of the kind of and misrepresentation in a prosecution follow him until
... of the kind of the grave opens all. Hospitals for this class are needed all
... of the kind of along the front of this great age of conflict and change.
... of the kind of Needed not only as a demand of humanity, but as a factor
... of the kind of of economy and selfish gain for civilization. Needed to help
... of the kind of the waste of human life and the burdens and losses which
... of the kind of come from it. No other voluntary work comes nearer to
... of the kind of the means and homes of every community. No other work
... of the kind of is so closely related to the social and commercial interests of
... of the kind of the hour. No other work is so positively supported in both
... of the kind of theory and practice, that has not been universally accepted.
... of the kind of The demand for such hospitals comes from the fantasies of
... of the kind of all classes and conditions of society.

Injury has been recognized as a great physical evil for
... of the kind of over four thousand years, and yet its causes and nature
... of the kind of were unknown until the last ten years. At first science has
... of the kind of gathered on the borders of this realm, and the meaning of
... of the kind of all the varied phenomena of this dark realm is slowly
... of the kind of coming to light. The causes and conditions which produce
... of the kind of the injuries in the past are the same in part today. It is
... of the kind of the same eternal bond of the law of cause and effect. The
... of the kind of injuries is the result of the same forces which form the
... of the kind of actions of the planets.

Clinical Notes and Comments

NEED OF AN INEBRIATE ASYLUM

Dr. Wm. J. Hall of Macon, Georgia, President of the State Medical Society, in his annual address before that organization at Atlanta, made the following eloquent appeal for an asylum for inebriates:

"I would invoke your earnest attention to the importance, your absolute necessity, of having a law enacted establishing an inebriate asylum within the borders of our own State. Who can estimate the benefits that would accrue from such an institution, properly organized and managed? The cure and reformation of drunkards is one of the most vital questions of the day. In the inebriate we have a combination of the ignominy, the moral imbecility and often of the criminality. There are more inebriates in the country than criminals, — they are more dangerous and injurious to the welfare of society. Though legally the inebriate is a responsible person, yet so far as the care of himself is concerned, he is the most irresponsible of beings. Intemperance is not only a local but a national evil. As we are powerless to prevent it, is it not our own sacred duty as physicians, who are custodians of the health and comfort of those entrusted to our care, to *advise* that some suitable retreat, some quiet home, should be provided for these unfortunates, where, with proper care and suitable treatment, they may be reclaimed and again become useful members of this grand old Commonwealth? As Georgians we can point with pride to our State institutions. We have established, and in successful operation, an asylum for the deaf and dumb; an institution for the care and education of the blind, itself an enduring monument to the wisdom of its founders; — an insane asylum which has

dispensed its blessings to thousands of that unfortunate class; and I fondly hope that the day is not far distant when a home for inebriates will be found in our State. Let us then, my brethren, make a united and determined effort to induce the General Assembly to vote an appropriation sufficient to establish such an institution. Let a memorial urging its necessity and importance be presented to them and I can not permit myself to doubt that our efforts will be unrewarded."

ALCOHOL ON THE HEART

Prof. Martin in a paper read recently on the above subject, reached the following conclusions:

The experiments were upon the isolated mammalian heart, and upon a man previously a total abstainer. "First, from a Mariott's flask dehydrated blood was fed to the heart, then blood containing absolute alcohol, and after this good blood again. The results of these experiments demonstrate: 1. Alcohol in the above doses has no influence on the pulse. 2. As regards the work done by the heart in a minute, blood containing one-eighth per cent. of alcohol has without effect, at least for five or ten minutes, but blood containing one-fourth per cent. of alcohol nearly always, and that containing one-half per cent. always, greatly diminishes the work done. If the supply of alcoholized blood be not too long continued, the heart can be recovered by feeding anew with pure blood. 3. The diminution of work is due to an alteration in the elasticity of the cardiac muscle, in consequence of which the heart swells out so that even in its systole it nearly or quite fills the pericardial bag. Hence in diastole it cannot dilate farther to receive a fresh supply of blood. 4. If the pericardium be removed, the above doses of alcohol are without effect on the work done, at least for a considerable time; the heart, however swells enormously, and beats in a quite unphysiological manner, never obtaining its ventricular cavities in systole."

ALCOHOL IN THE BODY.

Several important points have overlooked the fact that the chemical bases of alcohol in the body are yet unknown. One of a large mass of theories and experiments two views are prominent, one urged by Luffmann, Peron and others, that alcohol remains in the system from thirty to forty hours and then is eliminated in part through the various excretories, lungs, kidneys and skin etc. That at no time it aids in tissue construction.

The second view urged by Anstie, Dope and others is that alcohol remains a long time in the body, and is finally consumed by combustion, although a large part of it is removed by the excretory organs, the same as it was taken. They also agree that it in no way builds up tissue. Both of these theories are supported by eminent men and a great variety of experiments. The former view that alcohol is thrown off unchanged from the system seems at this time to have the largest support by eminent authorities. The question of the real value of alcohol is practically settled in the negative by nearly all European authorities. In the affirmative that it is a food, Pr. Hammond seems to stand almost alone as his defender. It is conceded as an established fact that alcohol in the body decreases the power of endurance and the capacity to resist heat and cold, and leaves the organism more susceptible to disease and less able to resist degeneration.

Eminent authorities are united in pronouncing alcohol injurious in all cases of indigestion and of hepatic and particularly in functional nerve disturbances and neuralgia. Its value in the early or later stages of consumption is disputed, and yet clinical evidence seems to point out its danger and limit its power even here. It is clearly evident that alcohol and its effects on the body are on about the par of scientific inquiry, and the facts and evidence are demanded for every claim of the past concerning it. Opinions and theories are of no weight or value; so far, the evidence is all negative.

but science makes every one to bring forward all the proof that he can find, and further on a verdict will be rendered that will settle the question forever.

Inebriety among American women is undoubtedly becoming more pronounced every year. Although it is more covered up than in other countries, yet its increase is apparent in the great demand for narcotics and the sale of beer and wine by stores, also in the divisions of saloons into general and family cottages, with separate rooms for each. Among the better classes of women wine and spirits are less openly used, and social drinking more rare. The same is true of all classes except those of foreign birth, who still cling to the old custom of public drinking. The same general causes govern women that are involved among men only, varying in degree, hence women do not use alcoholic spirits as men do, but undoubtedly they consume all forms of narcotics in excess of other classes. Their peculiar sensitive organization remains unaffected as a relief from the strain and exhaustion to which they are constantly subjected, and this is a source of great peril to the future American race.

Employment and occupation of both mind and body are more essential in the treatment of medicine than the most elaborate medication. Rest is one of the great considerations, but cannot be betwixt, change of purpose and move must enter into and fill up the hours of treatment. The patient will nothing to do, becomes more and more susceptible and the morbid growth of delusions and hallucinations is encouraged. He must have a line of duties from morning to night, both of exercise and care, which will be a tonic to the organism.

These must be carried out with military exactness, and varied from time to time to prevent dullness.

The mind must be treated with the same care and skill as the body. The removal of one of the causes, alcohol, must be followed by thorough restoration of the body.

COCA CLINICALLY.

After the removal of alcohol in the treatment of the inebriate, a stage of profound exhaustion and neurasthenia comes on. An unmasking, as it were, of a nameless variety of neuralgias, and states of irritation both physical and psychical which tax therapeutic resources to its utmost to meet. Functional changes and perversions that are intense, complex, and very changeable, associated with organic lesions, both obscure and well defined, not only difficult to diagnose but more difficult to treat. These are termed in general states of brain and nerve exhaustion, and the usual remedies are quinine, strychnine, electricity, baths, nutrients, and other general remedies. The materia medica is constantly searched for tonics that will lessen this neurasthenic stage, and enable the patient to regain in some measure his lost control of mind and body, and rise above the mental depressions so common and agonizing. Our experience with coca in many cases seems to indicate that it meets these wants more positively than any other drug now used.

Through the kindness of Park, Davis & Co., of Detroit, we were supplied with the fluid extract of coca leaves, a preparation of known purity and value. The results of its use in these cases may be summed up as follows:

1. After the removal of alcohol, coca given in doses of from one half to one ounce every four hours was speedily followed by the most characteristic symptoms of improvement.
2. Its action on the brain and nervous system was that of an exhilarant and slight narcotic, relieving depressions and lessening irritable nerve conditions. In cases of organic and functional lesions of the heart, an increased steadiness of pulse-beat, and diminution of pulse irritability was apparent.
3. The psychological depressions and neuralgias so common in this stage were lessened and disappeared altogether in most cases, especially for some time after the use of the drug.

4. Both the appetite and sleep, in all cases where it was given freely, improved rapidly, and the future of these cases seemed to have less complications and more positive recoveries.

5. No evidence was brought out that would indicate it destroyed the cravings for alcohol in cases of dipsomania; but it was clear that given freely in these cases it lessened the intensity and duration of the attack. The conclusion which was indicated by this study was that coca was a tonic of great value in inebriety, and more nearly a specific than any other remedy now known.

Dr. Woodbury mentions in the *Medical Times* a curious case of inebriety with marked catalepsy, which was received in the Pennsylvania hospital. The patient was unconscious and perfectly rigid, supporting his body on his head and heels, and when the arms were forcibly placed in any position they remained so. His eyes were dilated and rolled up; sometimes a rapid circular motion followed. The application of the faradic current quickly restored the patient to consciousness and muscular control. He stated that this condition followed from a single glass of brandy.

An instance of sudden death from delirium tremens, which followed in four weeks from the time alcohol was used first, is mentioned in the English papers. The patient was the daughter of an inebriate, and was excessively nervous, suffering from neuralgia, but never had used alcohol. She was married August 10th and began to use brandy at once, dying from delirium tremens September the 13th.

Recent studies into the causes of color-blindness indicate that the moderate or immoderate use of alcohol or tobacco is one of the most common factors, and is most often associated with this disorder of the eye. Also that of all substances, both alcohol and tobacco seem to have a peculiar affinity for the retinal nerves, diminishing their sensibility and power of distinguishing colors.

NATIONAL WOMEN'S TEMPERANCE UNION.

This association has organized a department of hercility, to be under the care of Mary Weeks Burnett, M.D., of Chicago, Ill. The object is to gather facts bearing on this subject and give instruction through means of tracts and lectures to the members and the public. A plan of holding special conventions in which this subject and hygiene be made the sole topic has been lately tried with the most encouraging results. A four days' session is arranged at some point, under the auspices of a large local society. Delegates and members of all neighboring societies, and leading ladies of the place, are invited. Three sessions a day are provided; in the evening session men are invited. Each meeting opens with a lecture by some physician on a special branch of these topics, and is followed by an informal discussion in which questions and answers are most prominent. Two days are devoted to general hygienic subjects that have a bearing on the cause and cure of inebriety, and the remaining two days are spent in discussing the heredity of this subject.

This association has seven hundred branch organizations and it is proposed to reach every one of these with this kind of instruction. Several conventions have been held, and much interest and enthusiasm has been manifested. This work gives promise of more real progress than any other temperance effort. We shall take pleasure in noting this new phase of the study of inebriety.

Dr. Anstie in an experiment showed the following: Five minims of brandy was diluted with an equal quantity of water into the pharynx of a healthy white mouse, of the average size at 2.40 P. M., and at 2.51 P. M. the animal was dead—eleven minutes of alcoholic influence metamorphosed life into death. A large rat was treated to the same amount of spirits into the peritoneal cavity, and in three minutes respiration ceased.

LICENSES STATISTICS.

The following very significant extract is made from Dr. Wells' paper in the March number of the *Proctor's Medical Review* entitled "Our Experience in Treating Disabled Spirits."

Attention should here also be called to a most significant and notable circumstance in connection with this matter, and that is, while the number of persons who take out licenses under the internal revenue to retail liquors in the different states and territories, is continually increasing—163,523 in 1879-80; 170,640 in 1880-81; 168,720 in 1881-82; 187,871 in 1883—the number of those who take out similar liquor licenses in those states where prohibition has been enacted on the constitution, or placed upon the statute-book, appears to increase in an equal or greater proportion. Thus, in the state of Maine the number of such licenses in 1880, was 737; in 1881, 820; in 1882, 918; and in 1883, 1,054. In Kansas there were 1,132 in 1881; 1,400 in 1882; and 1,898 in 1883. In New Hampshire there were 747 in 1880, and 1,066 in 1883. Iowa, 3,065 in 1880; 4,104 in 1882; 5,001 in 1883. Vermont on the other hand shows a decrease from 508 in 1880 to 454 in 1883. As illicit dealings in malt liquors, by reason of their bulkiness, is more difficult than in the case of spirits, it would seem as if one effect of prohibition of all retail sales of all liquors must be to discriminate against beer, and in favor of whisky drinking, but the record of licenses for the sale of malt liquors in the prohibition states does not show a decrease but rather a marked increase in the number granted.

In Canada the statistics indicate a comparative consumption of distilled spirits largely in excess of that in the United States, and approximating two gallons per capita.

To a large extent the increased consumption of alcohol is symptomatic of the increased prevalence of neuropathic constitutions—of a rapidly increasing class who feel an insatiable nervous craving for some excitant or stimulant.

and that the whip was to fling it over the weakness. But what when alcohol is no remedy for such diseased conditions? If only a doctor's the same evil in a vicious circle. The cause of it what is it reflects the user is worthy of the most severe consideration, but the sapientious hold of legal drinkers would be appalling. It generally recognized in its power and menacing import. The heredity of dipsomania is insisted upon by all authorities. They are deprecate that parents considered to stimulants always bestow upon their posterity inherent defects, exceedingly liable to develop alcoholism, insanity, or idiosyncrasy at times skipping a generation to break out later as a distressing malady.

The wide spread disease the result of moral and physical vice is not self limiting; by inheritance or example, fresh recruits are daily augmenting this inglorious army, who for the sake of a temporary "God's paradise," thus hazard every hour in life both for themselves and their posterity. Must certainly some measure should be projected to counteract this immense evil and a large share of the responsibility would seem to rest on physicians. The effect of intemperance in its immediate and remote relations upon families and succession of families should be traced and recorded. Already some institutions work on this scheme, but the general practitioner must do a large share of the work, for who else is ordered, and has opportunity for such public service?—*Wm. T. Kerr.*

The coma from alcohol is quite distinct, and can be differentiated with much exactness. It may be confounded with opomania, epilepsia, apoplectic or opium coma, and other conditions of unconsciousness. A careful study of the minute symptoms will indicate the differences.

The inebriation which follows in many cases of inebriety, arises either from cerebral congestion, or cerebri-vascular distension. When delirium follows the withdrawal of alcohol, the latter condition is undoubtedly present.

DIAGNOSIS OF INEBRIETY.

Dr. Cunnings, in an essay before the Connecticut Medical Society, makes the following reference to this subject:

"In the early stage of inebriety the diagnosis of the disease is extremely difficult. There are no physical signs upon which the examiner can rely. He must draw all the facts on which to form his opinion from the applicant himself or his friends, neither of whom are likely to conscientiously confess the truth. The applicant himself, as a general rule, is ignorant of the fact of disease, and will account for his personal habits in some other way. Fortunately, if he is not thoroughly posted in regard to the symptoms of the disease, he will unwittingly betray the truth by the revelation he will make of his habits.

First of all, it must be borne in mind that the inebriate is a chronic deceiver, and cannot be depended upon to tell the truth.

His testimony is not to be relied on even under oath when there is a motive to deceive unless there are corroborating circumstances to sustain it. Impairment of the moral perceptions is one of the first symptoms of the disease, and is also an obstacle to a correct diagnosis.

An inebriate never sees himself as others see him. If he did there would be more hope in his case.

The heredity of the applicant should be carefully inquired into. No man is a good risk if he uses alcohol in any form or to any extent, if he has an inheritance of inebriety, insanity, epilepsy, or any other form of neuroasthenia, no matter what man's present habits of indulgence may be, he will not be able to adhere to a temperate use for any great length of time. It is a recognized fact that *heredity of all the diseases* who use alcoholic liquors between twenty and thirty become inebriates; and the inference that persons of such a heredity who indulge in alcoholic stimulants will become inebriates, amounts to almost a certainty. Careful inquiry will elicit the fact that such persons use alcoholic drinks be-

excess they find them because the effect, if not the taste, is agreeable. A man may like beer because it relieves his thirst, or he may like beer because it gives him an appetite for his next meal, or he may like beer because it gives him the sake of his social life, or his company of friends, for the sake of his social life, or his company of friends, and it may not be a symptom of insanity. But when it is evident that the man drinks because the specific effects of alcohol are especially agreeable to him, he must become a total abstainer, or it will be only a question of time when he will become a confirmed inebriate.

A positive dislike or aversion to the use of alcoholic drinks at certain intervals, and a strong desire for them at other periods, is often a characteristic of the inebriate diathesis. When an admission is made of an occasional indulgence to excess, it is very important to know why it is occasional, or what the occasion is. If it is periodic, or at somewhat regular intervals, it must be regarded as evidence of disease.

An abnormal desire for alcoholic drinks, however manifested, is an evidence of disease. If the diseased condition has more been established, it is always liable to return, and the percentage of exceptions in favor of permanent cure is so very small that a period of abstinence for one or more years does not make the applicant a safe risk. Men who have had alcoholism, dyspepsia, or delirium tremens, and have returned to such an extent as to be total abstainers, for any considerable period, go down very rapidly if they return to their old habits.

Under such circumstances their prospect of life is very low; not more than four or five years, at most, in the majority of cases.

Dr. Lumier, of France, wrote that sixty per cent. of all idiots and imbeciles in Europe come from drunken ancestors. Dr. Michel claimed that on the continent a much larger proportion of insane and defective classes came from inebriate parents.

Primo dice hard. The same superstition shadows and haunts every advance of truth disputing its progress.

DIAGNOSIS BETWEEN INEBRIETY AND GENERAL PARALYSIS.

In the recent work of Dr. Hamilton, a Medical Jurisprudence, occurs the following table copied from Thomey:

Inebriety: complicated with insanity and paralysis, head-ache, active hallucinations affecting all the senses, disordered vision, delusions, delirious conceptions depending upon hallucinations, ideas of persecution, tendency to suicide, civil insensit, consciousness of degradation, embarrassed speech, depending somewhat upon lean—upon stainings of the masses of the face especially upon tremulousness of the tongue; feebleness, flit, marked of the inferior members—equal on both sides; trembling of the hands and the arms, more marked in the morning; torticollis, sciampis and startings of the tendons fore-arm; pupils nearly always dilated; anesthesia of the extremities of the limbs, extending generally in the superior limbs to the elbow, and in the inferior to the knee. Sleep disturbed with dreams, sometimes sleeplessness; diminution of appetite, acid eructations, vomiting of mucus in the morning; diminution of the generative functions, frequently, rarely cured or modified; occasional supererogation of delirium tremens.

In general paralysis the following are the prominent diagnostic points: generally no headache, carelessness of the understanding, rarely hallucinations, ideas of grandeur and contentment, embarrassed speech depending upon the feebleness of the conceptions and paralysis of the muscles of the face, feebleness of the inferior members, more marked generally upon one side than the other, nothing appreciable in the superior limbs, sometimes default of coordination, pupils often unequal, often contracted, sensibility normal or obtuse over the whole surface, sleep generally normal, appetite augmented, augmentation of the generative functions, progress of the disease ordinarily rapid, always fatal, tendency to convulsions, and to epileptic form attacks.

From "Not used at the supreme court of a New England State at the close of this atrocious century of progress, Science, Philosophy is a vice and sin, as declared in the Bible, and affirmed by the laws of all nations against heretics, heresies, and sustained by all teachers of morals, and all professors of human conduct."

"I should also feel positively injurious in diseases of the Heart, a variety of pains, and affections of the kidneys and urinary organs, and in every degeneration of the heart, and in every disease of the vascular system. These diseases are easily treated, and always aggravated, by the use of opium, or any of its derivatives."

I. New York, July in 1883 there were fifty-four murders and four suicides. Of the murders forty-five were females, and the suicides ninety-eight were females. Not one of these cases received any attention from the law, or were supposed to be other than wicked, willful crimes.

Lord Hale, the celebrated English jurist in the last century pronounced that "there were witches, and the law does afford it, and the best wisdom of all nations had passed laws against such persons." This was an argument proving, such persons and crimes to exist.

The old custom of drinking a glass of oil before using alcohol is founded on chemical principles, by this means the alcohol is more readily absorbed in the stomach, and acute intoxication is delayed.

The Female Constitution *Factor* for medical men, published at New York, is justly considered the most valuable addition to the medicine of every physician. It is a blank sheet for writing, such a form as to be readily available for every physician. These who use it, once can never be troubled with it, as it becomes a part of the working capital needed every day of life.

Bromidia and Morphin in Delirium Tremens.—Dr. J. F. GOLDMAN Huntsville, Ala., writes: "Case I.—Mr. W. R. W., aged thirty-five, a healthy, strong man, had been drinking hard for a number of days, resulting in delirium tremens. I put him on a sol. morph and tr. valerian, one ounce each, tr. valer. vir. (Newwood's) one drachm, teaspoonful every hour till sleep. I then went to bed, and to sleep, confidently expecting my patient would do likewise. But in this I was doomed to disappointment. Messenger came early in the morning with the information that my patient had been wild all night and slept none. I then prescribed bromidia two ounces, sulph. morph. two grains, teaspoonful every hour till sleep. The result was most happy. My patient fell into a sound sleep of some twelve hours duration, from which he awakened, and went at once to his place of business, a well man."

Case II.—J. S., aged forty, strong, muscular, and vigorous, found him reading the borderlands of horrors, with every symptom of delirium tremens. I put him at once on the Bromidia and morph. treatment with the same result as in case I—sound sleep and perfect recovery. Since treating the above cases, I have relied implicitly on the bromidia and morph. and have never been disappointed.

Legal and Injurious.—In the U. S. Circuit Court in Maryland, it was, on the 10th of March 1884, adjudged and decreed that a perpetual injunction be issued against Louis H. Welter, and eighteen others, restraining them from imitating the labels of the Rumford Chemical Works manufacturers of Horstford's Bread Preparation, and also from using their old bottles. The defendants were required to bring into court all fraudulent labels, and all imitation powder, for destruction. It was decreed that the Rumford Chemical Works be entitled to receive the profits which have been diverted from it by reason of the infringement, and the defendants were ordered to pay all costs. Thus is another victory scored for the Rumford Chemical Works, who, not long since, caused several parties to be heavily fined for violating the injunction of the Supreme Court restraining all persons from offering for sale "Aoid Phosphate" (so called) in any package which shall be a substantial or colorable imitation of Horstford's Acid Phosphate.