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T. D. CROTHERS, M. D., Editor,
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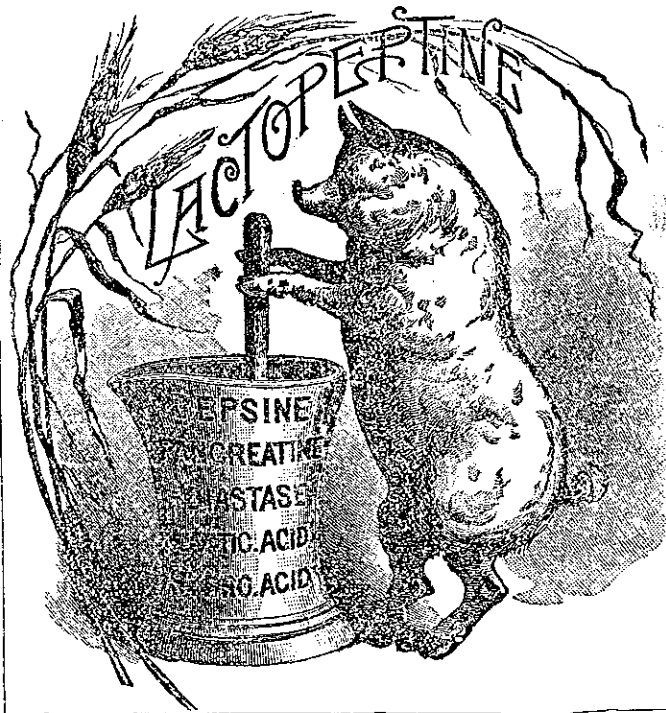
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THE MEDICAL JURISPRUDENCE OF INEBRIETY.*

BY JOSEPH PARRISH, M. D., BURLINGTON, N. J.

BEFORE entering upon the discussion of the subject we have in hand, it is essential to an intelligent view of it, that we agree upon the meaning and application of terms. The words, Drunkenness, Intoxication, Alcoholism, Inebriety, etc., are so carelessly and interchangeably used, that I shall confine myself to *Inebriety the Disease*, as distinguished from other forms of alcoholic effects, and especially from the daily drunkenness of the saloon and the street. The typical inebriate comes into the world, with the "mark of the beast upon his forehead," or it may be with a vestige only, of an ancestral taint, which inclines him to seek indulgence in intoxicants of some kind. In other words, he is born with a decided alcoholic diathesis, or with a positive tendency to form one. That is to say, that where the hereditary impulse is not sufficiently potential to impart a complete diathesis, it leaves only an inclination or tendency to free indulgence, which, if continued in excess, will grow into a constitutional demand, as imperious and exacting, as in the other case.

* Read before the Medico-Legal Society of New York, at its Annual Meeting held December 14, 1887.

Such persons are moved at times by a *passion* for indulgence, which is beyond their control. It comes at intervals, it may be of weeks, or months, during which periods of time they not only have no desire for alcohol in any of its forms, but a loathing and disgust for them. It is not the taste or appetite for them that is to be satisfied, but the effect. They long for a condition of oblivion, of forgetfulness of self, and of all selfish and annoying cares and troubles and moods. Neither have they any desire for convivial companionship. The glitter and glow of public resorts, where liquor is the prime factor of wrong and ruin, have no attractions for them. They are not tempted by such displays. The temptation, with which they are tempted, is within. It is subjective. It circles in the stream that gives them life. It may be likened to a battery that is hidden somewhere in the cerebral substance—connected by continuous fiery wires, with a coil in every ganglion, from whence they continue to extend—attenuating and distributing, as they go, reaching after the minutest nerve fibrils, which need only a throb from the inborn impulse, to transmit a force that quivers in every muscle, and burns in every nerve, till the victim is suddenly driven from himself, into the ways of unconscious debauchery. Technically, it is a brain or nerve storm, which dominates all other conditions, and leaves the patient, for the time, without any power to control his own acts.

Dr. J. M. Howie of Liverpool, England, says, that such a man possesses no power of resistance, "That he drinks as naturally as a fish swims, or a dog barks!" Dr. I. B. Hurry, also of England, describes the craving for drink as "coming in the form of a paroxysm, which runs a more or less cyclical course." He calls it "uncontrollable drunkenness!" and quotes Dr. Hutcheson as saying, "That this sort of mania differs entirely from drunkenness, the diagnostic sign of the disease being an irresistible propensity to swallow stimulants in enormous doses, whenever and wherever they can be procured." This form of inebriation is often, if not usually, found in our most useful professions—men of

letters and culture, of refined tastes and manners, who scorn the low-lived friendships of the groggery, and who vainly strive for liberty.

Dr. Norman Kerr of London, the faithful friend of the inebriate, and eloquent advocate for legislative aid in his behalf, has used the following most impressive language. "The struggle of the intemperate for freedom, is a combat more terrible than any other fight on earth. It is more arduous than the most celebrated of those, the praises of which have been from remotest ages immortalized by undying verse."

It remains yet to notice a most important and prominent symptom of inebriety, which, together with periodicity, constitutes its real pathognomonic sign, namely, loss, or suspension of consciousness and memory, without sleep or stupor, during which the patient acts automatically, being without knowledge of his actual condition, at the same time appearing to be, and to act, naturally. I have had numerous cases of the kind, of which the following are examples.

G. A., a young gentleman who resided about fourteen miles from the city, left home to visit friends, and attend to a few errands, agreeing to return by an early evening train. He called on his friends, attended to his business, accomplishing all that he intended to do on leaving home, but did not take the early evening train to return. Instead of doing so, he unfastened a fine looking horse and vehicle from a hitching post on the sidewalk, mounted the carriage, and drove safely to his home, fourteen miles away. He crossed the river by a bridge, avoided collision with vehicles of all sorts on a crowded thoroughfare, paid toll at all the turnpike gates through which he passed, and reached home in safety and in good season, with the horse in good condition, showing that he had not been abused by fast driving. He was taken to the stable, and the young man retired to his room. In the morning having slept off the effects of a few potations of whisky, he met his family in the breakfast-room, having no knowledge of having reached home in the way he did, and

was surprised to find in a morning paper an advertisement for the horse and wagon. Ashamed and humiliated by the discovery, he proceeded at once with an attendant to answer the advertisement. The owner, being a physician and taking in the situation, was thankful to find his favorite horse un-abused. The two gentlemen shaking hands and congratulating each other upon the safe and satisfactory issue of a bold and reckless experiment, with abundant apologies on one side, and full forgiveness on the other, separated, having left for you and for me a record of an interesting case of cerebral automatism, to become a part of the proceedings of this society.

Another, Professor W——, a Christian gentleman and scholar, a popular and successful teacher. The passion comes to him unbidden, and even without previous thought on the subject, and sometimes suddenly. He may be engaged in his study preparing to meet his class, and there comes over him a seeming cloudiness which darkens his mind, and he seems lost to things about him. Without seeming to know why, he leaves his study and his home, seeks the village near which he lives, takes a few drinks of whisky, casts aside all sense of self-respect, all care for the opinion of others, resists all appeals to stop and stay, and with a recklessness unknown to him in a state of sobriety, abandons himself to his cups and their consequences. During his carouse, he hires a horse and buggy, drives into the country, visits friends, dines or sups with them, remains till the next day, returns to the village, pays for his horse and carriage, settles his saloon bills, and when quite himself again goes to his home, seats himself in his study, resumes his preparation for his classes, without remembering anything that was done during his absence. The interval between the cloudy feeling in his study and his return, sobered, mortified, and overcome with self-reproach and remorse, is a complete blank.

My friend and colleague, Dr. Crothers of Hartford, Conn., has brought to light a number of similar cases, and published

them in a valuable brochure which every student of this subject should read; it is called "Cerebral Trance, or Loss of Consciousness and Memory in Inebriety."

The phenomenon of unconscious cerebration, of which I have produced two examples, is seen, and sometimes in a more marked degree, in the disorder known as Somnambulism, which has no connection with alcohol as a factor, and yet its exhibition of amnesia under remarkable conditions, leads to the suspicion that both disorders may be traced to a want of equilibrium in the same nerve centers, or in those that are closely allied to each other, by which, in both, there is impaired consciousness. Dr. Clouston tells us of one Simon Fraser, a highly neurotic subject, who had been a sleep-walker all his life, and did all sorts of things in accordance with his illusions and false beliefs, during his somnambulistic state. He once went up to his neck in the sea of Norway, and did not awake. At last one night, while in a somnambulistic state, he seized his child to whom he was much attached, thinking it was a white animal, and dashed it against the wall and killed it.*

From Dr. Crothers' pamphlet we learn of a record made by Dr. Forbes Winslow, "Of a somnambulist, who while walking about, his night dress caught fire, and with excellent judgment and coolness he threw himself on the bed and extinguished the flames, resumed his walk, and next morning had no knowledge or memory of the event, and wondered greatly how his dress became so charred."

Another exhibit of cerebral automatism, whose consciousness was either obliterated or suspended, is the most remarkable case of the Massachusetts farmer. His rye harvest had been carefully stored; and when the threshing season came, he arose from his bed, went to the barn, climbed to the mow, and threw down a flooring of sheaves, threshed them, raked the straw away, and deposited it in a place provided for it, swept into a heap the rye, and after repeating

*A full account of the case and the trial, is given in *The Journal of Mental Science*, Vol. XXIV, p. 451.

this act four times, returned to his house and bed, and in the morning was surprised to find that he had threshed several bushels of rye while in the state of automatism.

Epilepsy has some likeness to inebriety in the same direction of unconsciousness, and alcohol may or may not play any part in the rôle of ætiology. The fact being now established that inebriety is a disease, characterized by periodicity, unconscious cerebration, amnesia, with automatic conduct, as if in a normal state, taken together with the fact of paralysis of will during the attack, constitutes a series of morbid phenomena that are worthy of special study. The eminent physicians, Dr. Hulings Jackson of England, says "that the force of automatism depends upon the disposition of the man. He might have a train of murderous thoughts which he would proceed to execute, or he might have conceived the most absurd and irrational theories, which would have involved him in crime, for which he would have been punished, and of which he was thoroughly unconscious at the time." While it seems to be true that the feature of automatism has not been described as belonging to the natural history of inebriety until within the past few years, it is quite clear that the constitutional susceptibility to the alcoholic impression which has been so strongly and yet so readily formed as to create a diathesis, and consequently a necessity, has been abundantly confirmed. Not only has the confirmation come from modern observers, but from the last century we may name Blackstone of England, Montesquieu of Europe, and Rush of this country, who have borne testimony to the dogma. In Blackstone's Commentaries, vol. iv, p. 26, under the head of drunkenness, that distinguished jurist says: "It hath been observed that the real use of strong liquors, and the abuse of them by drinking to excess, depends much upon the temperature of the climate in which we live." And quoting the distinguished president of the legislature of Bordeaux, and author of a standard work on jurisprudence, Montesquieu, he says, speaking of the German nation, that "a German drinks from *custom founded*

on a constitutional necessity." This is a remarkable statement, seeing that it is in opposition to the common opinion then held, doubtless, as now, that the custom of drinking to excess brings on a fixed habit, which sooner or later terminates in death from some form of alcoholic disease affecting the viscera of the body. To transpose this sentiment to accord with the accepted truth of the present day, it should read thus:

A necessity exists in some persons which is not the result of previous excess, but an inborn necessity which prompts the use, and thus establishes the custom. Now, in conclusion, we notice the relation between inebriety, somnambulism, and epilepsy, as having a unity of source in their trinity of form, to which, severally and together, may be applied that principle of law to which I shall in a moment refer. *Paralysis of will* is a striking feature in each of these conditions, which holds preëminence of station during the reign of the dominating force already referred to. What now is the spirit and true meaning of law as applied to a condition of unconsciousness and loss of will or will power? I read it thus: "As punishments are, therefore, only inflicted for the abuse of that free will which God has given to man, it is highly just and equitable that a man should be excused for those acts which are done through unavoidable force or compulsion."—*Blackstone*.

If the facts that I have stated are admitted to be true, and if the law I have quoted be applicable to the conditions represented by the facts, then the conclusion must be evident that inebriates should not be punished for acts committed while in a state of involuntary unconsciousness any more than somnambulists and epileptics are, for the same acts, under like conditions.

THE SCIENTIFIC STUDY OF INEBRIATE
CRIMINALS.*

BY T. D. CROTHERS, M.D.,

Superintendent Walnut Lodge, Hartford, Conn.

The question of the sanity or insanity of an inebriate criminal in court has so far been decided on theory, law, and precedent. Medical testimony is made to conform to legal theories and court-rulings, irrespective of all other conclusions. Courts have dictated to science what the test of responsibility should be, and given definitions and explanations of abnormal conduct, requiring the medical witness to bend his views to such theories. Not only has the law laid down arbitrary lines, as if they were fixed principles of nature but it has assumed to decide all questions of brain health on the same basis, accepting scientific evidence only so far as it sustains such theories.

Medical testimony in courts indicating insanity, that is not sustained by overwhelming evidence, comes under the suspicion of prejudice in the prisoner's favor, or incompetency of the witness. The practical results from such errors is a degree of confusion, injustice, and great wrong, that is a sad reflection on the intelligence of both the medical and legal professions. My object is to call attention to the *inebriate criminal*, and to indicate the scientific methods by which such cases are to be studied, and to show some errors which have followed from the failure to understand the facts in these cases.

The inebriate appears in court as a criminal, the crime is admitted, and the question is raised of his mental soundness. It is asked: Did the prisoner at the time of committing the crime realize the nature and consequences of his acts and conduct? Had he the power of self-control to have done

* Read before the Medico-Legal Society, New York, Dec. 14, 1887.

otherwise had he so willed? Was the inebriety and crime voluntary and with motive? or involuntary and without motive? From the answers to these inquiries, the mental health and condition of the prisoner is determined.

The scientific expert who is called to answer these inquiries should approach the problem without any knowledge of the legal rulings and questions of responsibility of such cases, held by courts. His province is simply to examine the facts, and the conclusions which they seem to indicate which are in harmony with the laws of nature

As a scientific expert of the phenomena of the mind and its morbid manifestations, he is not called to determine questions of legal responsibility, but must point out the facts, show their accuracy and meaning, no matter what the consequences or conclusions may be. This cannot be ascertained from newspaper reports, statements of counsel, or slight examination of the prisoner. Such a study to be accurate should begin and follow a general order of facts, as follows:

1. Legally the crime is first studied, but medically this order is reversed. First, study the history of the criminal, then the crime. Often a history of the criminal distinctly indicates the nature and character of the crime. The *heredity* of the inebriate criminal should be the first object of study. From a knowledge of the defects and diseases of the parents, of their strength, conduct, and character, a general conception can be had of their descendants.

2. A study of the prisoner's early growth, culture, training, nutrition, surroundings, and occupation, reveals many facts indicating the brain capacity or incapacity to act normally.

3. The inebriety of the prisoner still further points out his mental condition. The origin, duration, and character of the drink impulse are most important facts for minute study.

4. The nature and character of the crime, the associate circumstances, including the inebriety, all bring additional evidence pointing out the actual mental state of the prisoner.

From a systematic study of this kind, the prisoner and his crime will appear clear and distinct. Not as an outburst of vice and wickedness, but as the natural sequence of a long progressive march of physical events. Inebriety and criminality are not accidents, but the products of causes, the outcome of conditions, which have grown up in obedience to laws, that move on with progressive uniformity. This is illustrated in the history of every case, which can be followed along a continuous chain of events, dating perhaps from heredity, degenerate growths, up to inebriety, then to crime. Both the crime and inebriety are but symptoms of disease and degeneration, culminations of events whose footprints can be traced back from stage to stage. Attempts to apply dogmas of free-will, and show at what point powers of control existed or were lost; where consciousness and unconsciousness of events joined, or where sanity and insanity united, is to attempt the impossible. To the scientific man, the knowledge required to determine these facts extends far beyond the widest range of human intellect.

In the efforts to determine the mental soundness and brain health of a prisoner in court, there are certain general facts already established that will serve as a foundation from which to date more minute and accurate studies.

1. The inebriety of any person is in itself evidence of more or less mental unsoundness. Alcohol used to excess and to intoxication is always followed by changes of brain circulation and nutrition. Degrees of mental impairment and paralysis always follow whether recognized or not.

2. In a large proportion of cases inebriety is only a symptom of slow, insidious brain disease, particularly general paralysis, also of many forms of mania, dementia, and other brain degenerations.

Here, notwithstanding all appearances, the inebriate is diseased and unsound mentally.

3. When crime is committed by inebriates, growing out of the inebriety or associated with it, the probability of mental disease and some form of insanity is very strong. In-

briety always favors and prepares the way for the commission of crime.

4. Whenever it appears that persons have used spirits to intoxication for the purpose of committing crime, this is evidence of a most dangerous form of reasoning mania, requiring the most careful study.

From these general facts, which should govern the expert in such cases, I turn to indicate the great injustice which has followed in some late prominent trials, from the failure to realize and apply these principles.

Peter Otto, a chronic inebriate, shot his wife in a drink paroxysm. On the trial the insanity of the prisoner was raised. Several medical experts testified to his sanity, and explained his unusual conduct as that of a simulator. He was found guilty and sentenced to death. An appeal was taken, and a year later I examined this case. Beginning with heredity, the prisoner's grandfather on his father's side, and grandmother on his mother's side, were both insane; the former died in an asylum. His father was a paroxysmal inebriate, and a morose, irritable man, who died in Andersonville prison. His mother, still living, is a passionate, half insane woman, being irritable and suspicious, and drinks beer. One of her sisters died insane. The prisoner's early life was one of great wretchedness and neglect—in the street and saloon. He was ill-nourished, and drank beer at home and wherever he could get it. At ten he was injured on the head, and was treated in a hospital for several weeks. At puberty he drank to intoxication and gave way to great sexual excess. Later he was married in a state of great intoxication and unconscious of it at the time. For ten years before the crime he drank to excess as often as he could procure money to pay for spirits. He grew quarrelsome, suspicious, and very irritable, and at times acted wildly. He had the common suspicion of his wife's infidelity without any reasonable basis. He had tried to kill himself on two different occasions, by the most childish means. He was injured again on the head and complained of bad feelings ever after. He was

arrested on six different times on complaint of his wife and mother for violence when intoxicated, and was confined in jail from ten to sixty days. Two months before the murder he was placed in jail suffering from mania. The jail physician called his condition alcoholic insanity. The murder followed, while drinking to great excess, and grew out of a quarrel with his wife. He made no effort to run away or conceal himself. In jail he developed religious delusions of frequent personal conversations with God. Heard voices and saw lights which he interpreted as God's messages to him. His appearance and conduct indicated great mental enfeeblement. My conclusion of insanity was sustained by the history of the heredity, growth, surroundings, inebriety, general conduct, and delusions. A special commission of physicians decided that he was sane and fully responsible, and on this conclusion he was executed.

The *second case* was that of Charles Hermann, a chronic inebriate, who, while under the influence of spirits, threw his wife down on the floor, cut her throat, and placed the body on the bed. That and the two following nights he slept in the bed with the dead body, going out in the morning and returning at night, acting as usual, drinking, and manifesting no excitement or consciousness of what he had done. Three days later the body was discovered; he described all the circumstances of the homicide, gave no reason or explanation, except that she would not stay in when he wished her.

The defense was insanity from spirits, and alcoholic trance. This was denied by the medical witnesses for the people. From my study of the case the following facts were undisputed:

1. Hermann was a German forty-two years of age, a butcher by trade. No hereditary history was obtained. He was very reticent, and could give no clear history of his past.
2. About twenty years ago he began to drink to excess. When under the influence of spirits he was sullen, irritable, and suspicious of every one, his character and conduct was changed; he had suspicions of his wife's infidelity. When

sober no reference to this delusion was made; he seemed to be a kindhearted man.

3. For the past five years he has greatly changed in every way. He did not work much, tramped to Chicago and back, drank at times to excess, was very quarrelsome with his wife and others, when under the influence of spirits. Was rarely stupid when intoxicated, but was heavy and dull. A week before the murder he drank more than usual.

4. The crime was committed automatically and in the same way he had been accustomed to kill animals. He seemed oblivious of the nature and character of the crime, and made no efforts to conceal it, or escape, but went about as usual, apparently unconcerned. This same indifference continued up to his execution. As in the former case, a commission decided that he was not insane, and was responsible. Both his inebriety and the peculiarities of the crime were ignored in this conclusion.

Case three was Patrick Lynch, a periodical inebriate, who killed his wife in a similar indifferent manner. The defense of insanity was urged, and opposed by the same confused medical testimony. A marked history of heredity, embracing insanity, inebriety, and idiocy, was traced back two generations. The prisoner grew up in bad surroundings, was an inebriate early in life. At the age of thirty he was a periodical inebriate, with a drunk period of twelve or fifteen days, during which his conduct was markedly insane. He killed his wife by striking her on the head with a board, under no excitement and perfectly cool, then went to the station and gave himself up, giving no reason for the act. He had not quarreled with her or exhibited any anger. He had delirium tremens three times at intervals before the crime was committed, and had manifested marked changes of character and conduct. When sober he was very kind; when drinking he was treacherous, violent, and dangerous. He was found guilty, but finally sent for life to prison.

The *fourth case* was that of William Enders, an inebriate, who rushed out of his house and shot a passing stranger,

without a word or provocation. The history of epileptic and alcoholic heredity was in the family in both parents. His early life was in a poor-house, and later an errand boy in a hotel. At twenty he was an inebriate, with distinct drink paroxysm. These were attended with intense delusion of persecution.

The crime was committed during one of these attacks. The defense was insanity, but the jury decided him guilty, on the testimony of the medical witnesses for the prosecution, and he was executed.

These four cases are not uncommon or different from many others appearing in court every week. I have presented them to show both the failure of medical testimony, and a correct legal conception of such cases. The medical testimony in such cases fails in not making an independent research in each instance, to ascertain the facts, no matter what the conclusions are. The physician goes into the court-room with the expectation of giving a semi-legal opinion, along some line of theory and law; he attempts to mark out conditions of responsibility and fails, hence his testimony is confusing and worthless.

In each of these four cases, the medical evidence was founded on theory and not on the facts of the case. The legal treatment was also imperfect and unjust for the same reason.

The teachings of all scientific research, are in unison today, concerning the disease of inebriety, and also that this disease of inebriety may merge into criminality. It is obvious then when they are found associated, only a full, exhaustive inquiry and study of the facts can determine the sanity of the case.

The questions of the sanity and insanity of inebriate criminals, must be decided by an appeal to the facts, gathered by scientific experts; and not from any theological or judicial theory, however ancient in history or universally accepted by lawyers and scientists.

The question of responsibility in any given case, must be

answered exclusively from its scientific side, apart from all legal conceptions and tests in such cases. The inebriate criminal belongs to that obscure class of border line cases, who must be treated both legally and medically from the facts in their history.

From every point of view it is apparent that the present treatment of the inebriate criminal is far behind the scientific teachings of to-day. The time has come to put one side all mediæval theories of the vice and voluntary nature of inebriety, and study each case more thoroughly and from a wider range of facts, estimating the degree of sanity and responsibility by physiological, pathological, and psychological methods.

The use of a stimulant is often necessary for a day or so, or longer periods after a patient is admitted to an asylum. We find it rarely necessary to continue it longer than a week or ten days, gradually decreasing the quantity, and at the end of that time total abstinence may be safely practiced for an indefinite period. I have seen several instances, both in private and asylum practice, where the judicious use of ale alone, without other medication, has arrested in a few doses the tendency of the patient to acute delirium, and restored him to a safe condition of sleep and mental soundness. And, even in cases where the delirium was marked and the insomnia persistent, the judicious use of stimulants has put the patient on the road to recovery. Ale will often succeed where whisky or other forms of alcohol do not answer. After a night or two of rest, the mental and physical condition of the patient meanwhile improving, we may begin reduction and carry it on as speedily as the case seems to warrant, and in a few days the patient will be convalescent. If the case is one accompanied by severe injury, it may be well to continue the stimulant until the period of debility or shock has passed, or the exhausting drain on the system has been arrested.

DR. MASON.

THE MEDICAL JURISPRUDENCE OF INEBRIETY.*

BY CLARK BELL, ESQ.

President of the Medico-Legal Society of New York.

In a discussion like that proposed before the Medico-Legal Society, in which the question is to be considered by such able medical men from the medical side or standpoint, it has seemed to me that it would be of interest to both professions, as well as to laymen, to have the inquiry made as to those relations which attach by law to inebriety, as well in the civil and domestic relations of the inebriate, as in regard to crimes committed by persons while acting under the influence of intoxicants, or while in a state of intoxication.

What, then, is the present legal status of the question?

I shall briefly state (but have neither opportunity nor space to discuss) what I believe to be the law upon the subject; citing and grouping authorities—the civil side first, and the question of criminal responsibility second.

I. CIVIL RELATIONS. 1. *Intoxication* was regarded by the common law, when complete and characterized by unconsciousness, as a species of insanity. Lord Coke's fourth manner of "*non compos mentis*" was, "4. By his own act as a drunkard." †

Delirium tremens, which results directly from habits of intoxication, is in law considered to be a form of insanity, and this has been repeatedly held by the courts. ‡

It has always been a well-settled rule of law that no person can make a contract binding upon himself while he is

* Read at Medico-Legal Discussion on Inebriety in New York, November 14, 1887.

† Coke Litt., 248, a; Beverly Case, Coke, 124; Buswell on Insanity, § 295.

‡ *Macconchey v. The State*, 5 Ohio St., 77; *Carter v. The State*, 12 Tex. App., 500; Buswell on Insanity, § 158; *Erwin v. State*, 10 Tex., 700.

wholly deprived of his reason by intoxication. This would be true as to deeds, wills, all instruments, and obligations of every kind.*

This rule is not changed where the intoxication was not procured by the other party to the contract, but is voluntary on the part of the drunkard.†

By the common law, as well as by the New York statute, a testator must, at the time of the execution of a will, be of "*sound mind and memory*," and it is as requisite to have the presence of a "*disposing memory*," as a "*sound mind*."‡

(b) By common law and by statute law an intoxicated person is thereby rendered incompetent as a witness. The statute law usually classifies such intoxicated persons as lunatics, and the provisions frequently apply similarly to each, and to both.§

(c) In the marriage contract, which in some is treated on different grounds from all other contracts, from the necessity of the case and consequences upon consummation, the sound general rule has been, that if the party was so far intoxicated as not to understand the nature and consequences of the act, this would invalidate the contract.||

2. The analogy between lunacy and total intoxication, or even habitual drunkenness, is doubtless most marked in the statutes of the various States, regarding the care and custody of the person and estates of lunatics, idiots, and habitual drunkards.

(a) By English law the Lord Chancellor, as the direct representative of the Crown, has always exercised the right

* *Prentice v. Achorn*, 2 Paige, 30; *Pitt v. Smith*, 3 Camp., 33; *Cole v. Robbins*, Bul. N. P., 172; *Morris v. Clay*, 8 Jones (N. C.), 216; *King v. Bryant*, 2 Hayw., 394; *White v. Cox*, 3 Hayw., 78; Buswell on Insanity, § 393.

† *Wigglesworth v. Steers*, 1 Hen. & Man., 70; *Barrett v. Buxton*, 2 Aiken, 167.

‡ N. Y. Rev. Stat., art. 2, chap. 6; Parr 2, § 20, 5th ed.; *Forman's Will*, 54 Barb., 274; *Van Gysling v. Van Kuren*, 35 N. Y., 70; *Aiken v. Weckerly*, 19 Mich., 482; *Lowder v. Lowder*, 58 Ind., 538; *Converse v. Converse*, 21 Vt., 168.

§ N. Y. Rev. Statutes; Genl. Stat. Minn., 1878, c. 73, § 9, subd. 1; *Connolly v. Lynch*, 27 Minn., 435.

|| *Johnston v. Browne*, Ferg. Const. Law Rep., 229.

of assuming the custody and control of the persons and estates of all those who, by reason of imbecility or want of understanding, are incapable of taking care of themselves.

Writs *de lunatico inquirendo* were issued in cases to inquire whether the party was incapable of conducting his affairs on account of habitual drunkenness.

The Supreme Court of every American State would doubtless have the right which the Court of Chancery exercised under the law of England in the absence of any statute law. This must be so in the nature of things in American States; the principle has been exercised and adjudicated on in Kentucky, in Maryland, Illinois, Indiana, and North Carolina.*

The Legislatures of the various States have vested this power by statutory enactments in various tribunals, for example in New York, by the old law in the chancellor; in New Jersey in the Orphans' Court; in South Carolina equally in the law and equity side of the courts, and now in New York, where the distinction between law and equity has been abolished, in the Supreme Court, which exercises it.

It will be observed that in many of the American States the habitual drunkard, even, is classified and treated under the same provisions, and in the same manner as the lunatic and the idiot, notably in Pennsylvania, New Jersey, Maryland, Illinois, New York, and many other States.

Taking New York as a fair illustration of the principle, it has been held by the courts, that all contracts made by habitual drunkards who have been so adjudged in proceedings *de lunatico inquirendo* are actually void.† And that the disability of the habitual drunkard continues after the committee has been appointed, even when he is perfectly sober and fully aware of the nature and consequences of his acts.‡

* *Nailor v. Nailor*, 4 Dana, 339; *Colton v. v.*, 3 Md. Ch., 446; *Corrie's Case*, 2 Bland's Ch., 448; *Tomlinson v. Devore*, 1 Gill, 345; *Dodge v. Cole*, 97 Ill., 338; *McCord v. Ochiltree*, 5 Blackf., 151; *Lathan v. Wiswall*, 2 Ired. Eq., 294.

† *L'Amoureux v. Crosby*, 2 Paige, 422.

‡ *Wadsworth v. Sharpsteen*, 5 N. Y., 388.

It has also been held that *habitual drunkenness* being established, it is *prima facie* evidence of the subject's incapacity to manage his affairs.*

We may then assume, in considering the medical jurisprudence of inebriety, that the law has always regarded and treated intoxication as a species of mental derangement, and has considered and treated the habitual or other drunkard as entitled to the special care and protection of Courts of Equity, in all matters relating to his civil rights, his domestic concerns, his ability to make contracts, his intermarrying and disposing of his property, by deed, gift, or devise.

The law has gone farther, for it has thrown around him its protecting arm and shield, when it is satisfied that he has become so addicted to drink as to seriously interfere with the care of his estate, and the courts have then come in and taken absolute control of both person and estate of drunkards, in their own interest and for their presumed good.

Medical men should keep in mind the distinction running all through the law between insanity and irresponsibility. The medical view, that irresponsibility should follow where insanity exists, has nowhere been conceded by the law, and this distinction must be borne in mind in the subject here under consideration.

II.—CRIMINAL RELATIONS.—This brings us to the second question: The relation of the inebriate to the criminal law for illegal acts, committed while intoxicated, which seems more harsh in its practical effect than the principles which govern him in his civil and social relations to society and the State.

This seeming hardship, however, is due to the capacity of the drunkard, considered objectively, for wrong-doing. In the one case his position as a civil agent is that of a unit of society merely — one who is, as it were, to be "saved from himself"; in the other case, the criminal aspect of the drunkard, it is the weal of society which is to be conserved and protected.

* Tracy *in re*, 1 Paige, 580; 1 Rev. St. (2d ed.), Ch. 5, tit. 2, § 1.

1. That form of intoxication which results in the total or partial suspension of, or interference with, the normal exercise of brain function, is regarded, at law, as mental unsoundness, and sometimes amounts to a species of insanity. It has been held at law, to be a voluntary madness, caused by the willful act of the drunkard, and the decisions have been uniform, that where reason has been thus suspended, by the voluntary intoxication of a person otherwise sane, this condition does not relieve him from the consequences of his criminal acts, or, more carefully stating it, from acts committed by him in violation of law, while in that state.*

(a) There are decisions which go to the length of holding, that the law will not consider the degree of intoxication, whether partial, excessive, or complete, and even that if the party was unconscious at the time the act was committed, such condition would not excuse his act; and, in some cases, judges have gone so far, as to instruct juries, that intoxication is actually an aggravation of the unlawful act rather than an excuse.†

But the better rule of law now undoubtedly is, that if the person, at the moment of the commission of the act, was unconscious, and incapable of reflection or memory, from intoxication, he could not be convicted.

There must be motive and intention, to constitute crime, and in such a case the accused would be incapable from intoxication of acting from motive.‡

* *Kenney v. People*, 31 N. Y., 330; 27 How., 202; 18 Abbott, 91 *Loneragan v. People*, 6 Park., 209; 50 Barb., 266; *Freery v. People*, 54 *id.*, 319; *People v. Porter*, 2 Park., 214; *People v. Fuller*, *id.*, 16; *People v. Wildey*, *id.*, 19; *Dammaer's Case*, 15 St. Tr., 522; *Frost's Case*, 22 St. Tr., 472; *State v. Toohey*, 2 Rice Dig. (S. C.), 105; *People v. Rogers*, 18 N. Y., 9; *State v. Thompson*, *Wright*, 617 (Ohio); *Swan v. The State*, 4 *Humph.*, 136; *Com. v. Hawkins*, 3 Gray, 463 (Mass.); *Cluch v. State*, 40 Ind., 264; *State v. Thompson*, 12 Nev., 140.

† *People v. O'Connell*, 62 How. Pr., 436; *People v. Robinson*, 1 Parker Cr. Rep., 649; *Rex v. Carrol*, 7 C. & P., 145; *Dammaer's Case*, *supra*; *Frost's Case*, *supra*; *State v. Thompson*, *supra*; *United States v. Forbes*, *Crabbe*, 558; *Blk. Com.*, 26; 1 *Coke*, 247.

‡ *Buswell on Insanity*, § 446, note 6; *People v. Rogers*, 18 N. Y., 9 *Denio*; *Cluch v. State*, 40 Ind., 264; *Kenney v. People*, 31 N. Y., 330.

(b) The reasons upon which the rule of law rests, may, with great propriety, be considered, and should be carefully studied, before any attempt at criticism is made.

1. The law assumes that he who, while sane, puts himself voluntarily into a condition, in which he knows he cannot control his actions, must take the consequences of his acts, and that his intentions may be inferred.*

2. That he who thus voluntarily places himself in such a position, and is sufficiently sane to conceive the perpetration of the crime, must be assumed to have contemplated its perpetration.†

3. That as malice in most cases must be shown or established to complete the evidence of crime, it may be inferred, from the nature of the act, how done, the provocation or its absence, and all the circumstances of the case.‡

In cases where the law recognizes different degrees of a given crime, and provides that willful and deliberate intention, malice, and premeditation must be actually proved to convict in the first degree, it is a proper subject of inquiry whether the accused was in a condition of mind to be capable of premeditation.§

Sometimes it becomes necessary to inquire, whether the act was done in heat of passion, or after mature premeditation and deliberation, in which the actual condition of the accused and all the circumstances attending his intoxication, would be important as bearing upon the question of previous intent and malice.||

(c) The New York Penal Code lays down with precision the provision of law governing the question of responsibility in that State as follows :

* *People v. Garbutt*, 17 Mich., 9; *Commonwealth v. Hawkins*, 5 Gray, 463.

† *People v. Robinson*, 2 Parker Cr., 235.

‡ *Buswell on Insanity*, § 450; *Buswell v. Commonwealth*, 20 Grat., 860.

§ *Buswell on Insanity*, § 450; *Hopt v. People*, 104 U. S.; *Penn v. McFall*, Addison, 255; *Keenan v. Com.*, 44 Penn. St., 55; *State v. Johnson*, 40 Conn., 136; *Harte v. State*, 11 Humph., 154, and cases cited in note to *Buswell on Insanity*, § 450.

|| *Kelly v. Commonwealth*, 1 Grant (Pa.), 481; *Patte v. The State*, 9 Humph., 663.

§ 22. *Intoxicated persons.*—No act committed by a person, while in a state of intoxication, shall be deemed less criminal by reason of his having been in such condition. But whenever the actual existence, of any particular purpose, motive, or intent is a necessary element to constitute a particular species or degree of crime, the jury may take into consideration the fact, that the accused was intoxicated at the time, in determining the purpose, motive, or intent, with which he committed the act.

(*d*) Voluntary intoxication, though amounting to a frenzy, has been held not to be a defense when a homicide was committed without provocation.*

(*e*) *Delirium tremens*, however, a condition which is the result of drink and is remotely due to the voluntary act of the drunkard, has been held to be a defense to acts committed while in the frenzy, similar to the defense of insanity.†

(*f*) It has been held that, when inebriety develops into a fixed and well-defined mental disease, this relieves from responsibility in criminal cases, and such cases will be regarded and treated as cases of insanity.‡

(*g*) It may now be regarded as a settled rule that evidence of intoxication is always admissible to explain the conduct and intent of the accused in cases of homicide.§

(*h*) In crimes less than homicide, and especially where

* *People v. Rogers*, 18 N. Y., 9 (reversing 3 Pack., 632); *Kenny v. People*, 31 N. Y., 330; *People v. Robinson*, 1 Pack., 649; 2 *id.*, 235; *People v. Hammil*, *id.*, 223; *People v. Batting*, 49 How., 392; *People v. Eastwood*, 3 Park., 25; 14 N. Y., 552; *State v. Harlow*, 21 Mo., 446; *Shanahan v. Conn.*, 3 Bush, 463; *Rafferty v. People*, 66 Ill., 118; *Charci v. State*, 31 Ga., 424; *Humphreys v. State*, 45 *id.*, 190.

† *O'Brien v. People*, 48 Barb., 274; *Real v. People*, 55 Barbour, 551; 42 New York, 270; *Willis v. Com. (Va.)*, 22; *Albany Law Journal*, 176; *Maconnehey v. State*, 5 Ohio, § 77; *Carter v. State*, 12 Tex. Ap., 500; *Buswell on Insanity*, § 153; *Erwin v. State*, 10 Tex., 700.

‡ *Loneragan v. People*, 6 Park., 209; 50 Barb., 266; *O'Brien v. People*, 48 Barb., 274; *People v. Williams*, 43 Cal., 344; *U. S. v. Drew*, 5 Mason, 28; *State v. McGonnigal*, 5 Harling, 510.

§ *Loneragan v. People*, 6 Park., 209; 50 Barb., 266; *People v. Hammil*, 2 Park., 223; *People v. Rogers*, 18 N. Y., 9.

the intent is not a necessary element to constitute a degree or phase of the crime, this rule does not apply.

The practical result, however, in such cases, and in those States where the latter provision of the New York Penal Code has not been adopted, is to leave this whole subject to the judges who fix the details of punishment. This is a great public wrong, because each judge acts on his own idea, and one is merciful and another harsh. If it is placed by law in the breast of the judges, it should be well-defined and regulated by statute. Lord MacKenzie well says: "The *discretion* of a judge is the law of tyrants."

3d. It will be observed that the law has not yet judicially recognized inebriety as a disease, except in the cases of delirium tremens — above cited — and hardly even in that case.

It is for publicists, judges, and lawmakers to consider the claim now made, that science has demonstrated inebriety to be a disease.

If this is conceded, what changes are needed to modify the law, as it at present stands, so as to fully preserve the rights of society, in its relation to the unlawful acts of inebriates, with a proper and just sense of the rights of the inebriate himself?

This contribution is made from the legal standpoint purely, and is designed merely to open this interesting discussion for both professions, to which such names as Dr. Norman Kerr, Dr. T. D. Crothers, Dr. Joseph Parrish, Dr. Charles H. Hughes, Dr. T. L. Wright, Dr. E. Conrad and others will contribute the medical view, a discussion which I hope may arrest the thoughtful attention of the students of the subject throughout the world.

The treatment of inebriety by the pledge, prayer, and will-power alone, is revolutionary, and outside the ordinary range of nature's laws and forces. The methods of treatment suggested by science, in asylums, and by the use of positive physical means, are along the line of natural laws, and are reconstructive and permanent.

SEMI-ANNUAL MEETING OF THE ASSOCIATION FOR THE CURE OF INEBRIATES.

The association convened in the parlors of Dr. Shepard's Turkish Bath Institute in Brooklyn, N. Y., November 9th. Dr. L. D. Mason was called to the chair. Dr. Crothers, after some explanatory remarks, offered the following resolution, which was passed:

Resolved, That section fourth of the by-laws of this association, which requires of each member of this association an annual fee of five dollars, be changed to two dollars, which will include a subscription to the *Journal of Inebriety*.

The following names were proposed and unanimously elected as members of this association: Dr. Calvin T. Barber, Assistant Physician at Kings County Home, Brooklyn, N. Y.; Dr. L. W. Baker, Superintendent Cottage Home, Baldwinsville, Mass.; Dr. C. H. Shepard, Brooklyn, N. Y.; Dr. R. M. Griswold, Manchester, Conn.; Dr. E. P. Thwing, Brooklyn, N. Y.

Letters of regret in not being able to attend this meeting were read from Drs. Parrish, Day, and many others. Dr. Crothers read a report of the London Congress on Inebriety. Dr. Mattison read a paper on "Cocaine Toxæmia," giving cases and symptoms where this drug had produced poisonous effects, and concluding that it was both dangerous and uncertain in all cases. He believed that nitrate of amyl and morphine were the only antidotes discovered so far. An interesting discussion followed. A paper on "The Pathology of Inebriety," by Dr. Kerr of London, was read by Dr. Crothers. Dr. Shepard read a paper on "The Influence of the Turkish Bath in Inebriety," urging that its therapeutics be tested in inebriety as promising great practical results. In the discussion which followed, a hearty indorsement was given to the paper. Dr. Griswold read a paper on "The

Influence of Malaria in the Causation of Inebriety," showing that the poison of malaria, by its action on the brain and nervous system, predisposed the body to inebriety in many cases. Several illustrative cases were given by different members in the discussion which followed. Dr. Crothers read a report on the inebriate asylums of New Zealand. A paper by Dr. Searcy on "Why Men Drink," was read by Dr. Shepard. Dr. Mattison read a plea for asylums for opium inebriates. Dr. Crothers read by title a paper on "Sexual Insanity in Inebriety"; also a paper by Dr. Wright on "Alcoholic Palsy," and one on "Inebriety the Result of American Nervousness," by Dr. Thwing.

An invitation was received from the Medico-Legal Society to attend a meeting in the evening, in which the Medical Jurisprudence of Inebriety was the theme.

The meeting then adjourned.

INEBRIETY TWO CENTURIES AGO.

The verdict of juries on cases of inebriety have not changed much, as the following note from the history of Block Island would indicate: In 1680, the record runs, one Samuel Arnold, one of his Majesty's subjects (a trader, who drank to great excess, and had an attack of delirium tremens or horrors), being sick and out of frame, not being in his right senses, departed his house. The next day he was found dead in the woods.

The jury that was impaneled recorded the following verdict:

"The jury being engaged, came into the wood where the said Samuel Arnold's corpse lay, and having silently viewed the corpse, do unanimously agree that he, being griped with the pains of death, ran from his house, being out of his senses, to this wood, and died a natural death."

REPORT ON ASYLUMS FOR INEBRIATES IN
NEW ZEALAND.

BY D. MACGREGOR, ESQ.,

Inspector of Asylums, Wellington, New Zealand.

There is a class of cases with regard to which popular feeling is being largely modified by our widening conceptions of nervous disease and social duty. Drunkards are now regarded as not vicious and criminal, but as the victims of disease and hereditary neuroses. The lunacy returns of New Zealand are greatly increased by the admission into our asylums of persons in various stages of alcoholic poisoning. Many and many so-called lunatic is cured for the time being, by careful feeding and judicious purgation in a week, and our recoveries are high in consequence. How most wisely to deal with these people is just at present one of our most perplexing and urgent problems.

The practice of sending these cases to the asylum is open to grave objections on two main grounds. First, it is the most expensive way of dealing with them, for, besides the cost of the two medical certificates, they needlessly cumber our most expensive institutions, and divert them from their proper functions; secondly, a needless stigma is affixed for life to the man who has been officially declared a lunatic, and the prospects of his children, especially of his daughters, are ruined thereby.

I believe the time has come when the social organizations of temperance, backed by the influences of morality and religion, should be supplemented by systematic action on the part of the State. Our magistrates go on gravely, year after year, sending drunkards to gaol just long enough to let them get sober, careless of the fact that in all our large towns there are persons against whom as many as fifty or sixty previous convictions have been recorded.

I believe that the time has come when the State, instead of dealing with drunkards in this indiscriminate and irrational manner, should in its turn, like the medical profession, and even the general public, reflect the most enlightened ideas on this subject. What it has to deal with is a progressive enfeeblement of will and accompanying cerebral degeneration, caused by excess in the use of alcohol. No hard-and-fast line can be drawn between the man who is still capable of reformation by the effort of concentrating his attention on the consequences of his conduct, and the man who has gone so far on the down gradient that his own will is powerless to arrest his descent, and must therefore be supplemented by compulsion. The difference between the two classes is one of degree only. There is no sudden irrevocable plunge before which persuasion and moral influences can alone be permitted, and after which State compulsion must be applied. The truth is that the limit of freedom in regard to this vice is like the debatable margin between day and night. Who shall say when one begins and the other ends? or shall forbid us to despair of the sun and have recourse to gaslight, with its inevitable evils and discomforts, until the exact point of transition has been determined? The State must boldly resolve to do rough justice here as elsewhere, by placing in one class those whose self-control has not hopelessly gone, and it must proceed tentatively by the method of experiment to discover them. They are a large class, from whom it must be remembered that our gaols, our hospitals, and asylums are being steadily recruited, and under the present practice must continue to be so. Yet at this stage many of them can be plucked like brands from the burning. They know as well as the most earnest preacher that there is only one end to their course. The evil is that their brains are so saturated and sodden with poison that they have lost all sense of moral perspective, and all argument and persuasion are useless. There is but one rational method of dealing with them, and the fetich of the liberty of the subject stops the way. They must be deprived of free-

dom and removed from their usual surroundings for a sufficient time to let their systems get rid of the poison, and made to work until the will has had a chance to recover its tone.

To fix in a practical way the definition of this first class of drunkards is the great difficulty. Mere accidental or casual drunkenness, not the outcome of long-continued indulgence, must be eliminated under observation after sentence, so that a rough separation may be effected of all those whose sodden systems and weakened wills require simply imprisonment, and compulsory work, say, for one month at least. In their case actual disease has not yet supervened, and punishment is still rational as giving force to failing motive.

The second class will consist of those in whom degeneration has gone the length of actual disease, revealing itself by an explosion of "delirium tremens." These must, in the first instance, be taken into a remand ward attached to each of our larger hospitals. From there they should be removed on recovery to gaol, where they should be kept at work, on a liberal diet, for at least three months.

The third class ought to consist of those in whom the degenerative process has gone so far that, even after the more immediate effects of the poison have been got rid of in remand ward, their minds are still so affected as to enable a doctor to give a certificate of insanity. These drunkards, and these only, should be admitted into our asylums, and once there they ought not to be set free like ordinary patients as soon as they have become sane. This, which is the existing practice, simply leads in our asylums to the same absurdity as I pointed out in our gaols. Time after time the discharged lunatic comes back, only to be made fit for another drinking bout, causing great expense to the State every time. Such persons ought to be kept at regular work for such a time as will give them some chance of recovering their impaired volition.

But it will be said this is quite impracticable; people

will not send their friends where they can be treated in such a fashion. I grant it is so at present, and will continue to be so so long as we allow our fear of trenching on the liberty of the subject to stultify our State dealings with drunkards.

The fourth class, Dipsomaniacs, I would define to be those persons whose insane drunkenness, whether caused by hereditary taint or latent insanity, disappears with the withdrawal of alcohol, "which, even in small quantities, produces it."

These persons at present constitute a class by themselves, distinguishable—but, of course, only roughly distinguishable—from the previous classes. Such persons are sent to our asylums by order of a Judge of the Supreme Court. The Act requires that they shall be kept "in a ward or division thereof in which lunatics are not detained." There is not one of our asylums in which this provision of the Act can be carried out. Feeling this difficulty, the Government have determined to make suitable arrangements for the reception of this class at the New Farm Asylum at Porirua. Here it is intended to gather these cases from the whole colony, for it is utterly impossible to afford special accommodation at each of our asylums. It is further intended that the patients shall work regularly on the farm, instead of being allowed, as heretofore, to live in destructive idleness. The number of dipsomaniacs confined in our asylums last year under a judge's order was six.

Some inebriates seem to be born with a natural instability and debility of the nervous element in the individual, lessening his vigor and power to bear the strains of life. He comes into the world with weakened powers of endurance, and early falls a victim to the surroundings.

CRITICAL NOTE ON INEBRIETY.

BY ALBERT DAY, M.D.,

Superintendent Washingtonian Home, Boston, Mass.

Lately a meeting was held of distinguished gentlemen and ladies at a private residence on the Back Bay, for the purpose of discussing the question whether or not it is expedient for the State to establish an asylum for inebriates. I do not propose to discuss the question of a State asylum either *pro* or *con*, but to briefly mention a statement made by one gentleman, as reported in the daily papers, which is as follows:

"Ninety-five per cent. of those who leave the institution (Concord Reformatory), go out with a firm resolve to do right, and if they back-slide it is because of the influences to which they return." He did not favor sending confirmed drunkards to state's prison, but in reformatory institutions he believed that the presence of thieves and other criminals would only reveal to the intemperate man the depth to which he had fallen and spur him on to reformation. . . . In conclusion the speaker said that he did not oppose the proposed asylum but regarded the whole idea as an experiment.

Now it seems to me the gentleman cannot be well informed in regard to institutional treatment, either in this country or in Europe. The fact is, such treatment of the dipsomaniac or inebriate has long since passed the experimental stage. We have on record the testimony of the best observers and thinkers in the civilized world, that a vast number of inebriates are diseased men, either inherited or acquired. Very much of the intemperance we observe is the sequence and not the antecedent of a diseased mind, or not a well developed mental balance. They may be men of talent, bright and ingenious, and, as the world calls them,

"good fellows." They often excell in the arts, in literature, and often in statesmanship. They may shine as bright stars in fashionable society; and who does not know that a large number each of the above-named classes are occasionally found in a state of beastly intoxication. Always, when they recover from this condition, they will take a most solemn oath that they will never drink again; and they are in earnest about it; they mean just what they say at the time, but in a few weeks or months they yield again to the degrading tempter. They cannot tell why they did so. It is as much a mystery to them as to their friends. Now there is in such cases a mental defect, an insensible cerebation which destroys all mental alternatives. There is no choice but to drink. What do these facts teach us? They teach us this simple fact, that in the presence of temptation and opportunity, the will of the dipsomaniac is imbecile and helpless. It teaches that dipsomania is really and truly a form of insanity. It is a disease just as much as other forms of mania which require certain conditions to develop the mental alienation or true insanity. Dipsomania, when aroused from the condition of latency by the presence of temptation seems not only stronger than any special sense, but stronger than any healthy mental faculty or power. It is uncontrollable. Of course I could not in this brief communication attempt to consider the various aspects of the special nervous dipsomania in its strictly mental attitudes and relations.

I wish to refer to one statement quoted; that is, that to lock up the dipsomaniac with thieves and other criminals, would "spur him on to reformation." Why not then mix up all forms of mania and place them all in some prison, with the hope of curing one class at least? With all due respect to the gentleman making this assertion, I consider it one of the most absurd ideas that could well be fabricated. It is well for all to observe that the world moves slowly but surely. Once was the time when flogging was considered a necessary pharmaceutical agent in the treatment of the insane. These things were practiced in the past like a

thousand other cruelties. We draw the mantle of charity over these things and call it ignorance.

In the class we are now considering there is no intellectual incapacity. The want of balance is not in defective intelligence, but it is in the redundancy of nervous irritability. The desire for drink is the attainment of the welcome rest and repose to a shattered system of nerves which the anæsthesia of alcohol affords. The plans which the inebriate resorts to in order to overcome his appetite for intoxicants are innumerable, and are known to himself only. But they demonstrate his weakness and the imbecility of his will in the direction of his desires, while they also prove his anxiety to escape from the thralldom of his morbid predisposition. I hope the time will soon come when the community will see the true pathology of inebriety and in time eradicate its baneful influence from our race. But it never will be done by cruel treatment or imprisonment, but by rational, humane laws, such as all enlightened communities may now observe.

In England, where moderate drinking prevails, and a conservative spirit antagonizes all changes and reforms in the profession, a very lively interest has recently been manifested in the scientific study of the inebriate and his malady. In striking contrast to this the average American medical man refers this topic to the clergyman, content with his dictum and advice. The phenomena of a purely scientific problem (the inebriate and his malady) being discussed and determined by laymen alone, will soon pass into history as one of the great delusions of the past.

No court will allow a witness while intoxicated to testify to any facts. Yet if this witness commits a crime in this condition he is held literally responsible. If the marriage contract is entered upon in this state it may be set aside, but a business contract is binding.

HOT AIR BATH IN INEBRIETY.*

BY CHARLES H. SHEPARD, M. D., BROOKLYN, N. Y.

Let me call your attention to a small stone that seems to have been rejected by the builders in constructing a method whereby they could combat disease. That figurative stone is the hot air, or Turkish bath, as it is known in its common application. It is now coming to be recognized that inebriety is a disease, but its treatment has heretofore been too much relegated to the moralist instead of the physician to whom it properly belongs. The moralist has given us theories as to its cause and cure, but the theories have brought us no advancement; the disease still remains to vex their patient souls. The medical profession, however, place this subject in its true light and give a hope to the world that in a short time there will be a better way to handle this whole matter! Certainly intoxicants are the parent of untold, and often times of unknown, disease. Dr. Wright most forcibly says: "Drunkenness is in every essential particular a condition of civil death, and it would seem best that it should be so construed by the law of the land." Society should be protected from the habitual drunkard, and especially should he be protected from himself. It may be pertinent to inquire why our fair land should be so cursed by this hideous malady. To my mind the bane of the age is excessive alimentation, leading up to a desire for stimulants, which is naught but a morbid craving, and in ignorant hands stimulation is supposed to ward off its consequences. On the contrary, and in reality, the use of stimulants at such times induces a condition of internal inflammation that increases the desire for further stimulation, and also the inability to properly dispose of whatever

* Read at the American Association for cure of Inebriates, at the November meeting, 1887.

aliment may be present, thus effectually rendering a bad matter worse. We well know that nothing will so speedily subdue the nervous storm as the ever convenient and alluring alcohol. It is sought to give insensibility to nerve agony, and secures for a time, rest and repose, but the wear and tear of this oft repeated nerve strain is frequently shown in paralysis and sometimes insanity. Perhaps the most serious effect of alcohol is its direct tendency to interfere with nutrition, and by promoting growth of cellular tissue to compromise the integrity of the brain tissue where the poison is not readily thrown off, and where it soon destroys not only its co-ordinating power, but degenerates the brain substance. Inasmuch as the mental and moral character of the individual depends upon the action of the brain itself, we cannot look for good results when there is any impairment of its substance; on the contrary, we often see the worst results from such a condition. The impairment of consciousness is only one of the many forms by which the influence of alcohol is felt, and suggests the question whether we have any process whereby its elimination may be successfully secured. We also know that with the inebriate there is a lack of fine moral sense, not infrequently amounting to obtuseness, and that this condition is far reaching, affecting even the progeny, thus making it hereditary. If there is a process whereby the blood itself can be purified, we may, with every reason, expect the brain tissues to participate in the advantages derived therefrom, and consequently we will have greater clearness of perception followed by a quickened moral sense. The irresistible impulse of our modern civilization, from infancy to old age, is push, and the mental and physical powers alike suffer in the long run. The free use of alcohol is accountable for a large measure of this condition. Can we not teach the people to give more time to rest and recuperation and less to stimulation? If it is wished to place the inebriate in the condition most favorable for cure, it is important that there should be institutions created for that purpose. Granting that inebriety is a disease, our efforts should

be to eradicate that disease, and in order to do so, there must necessarily be desirable surroundings as well as control over the patient. The model institution is yet to be built, wherein the hot-air bath shall hold a pre-eminent position, where narcotics shall be entirely disallowed, even though it may be an improvement on inebriism to have one's system saturated and senses blinded by narcotism, and where there shall be enough control to prevent any dallying with the tempters. The theory of the action of the hot air bath is very simple. Like the action of the sun's rays upon Bunker Hill Monument when shining upon one side and causing it to lean toward the other, so does this agent act gently and yet powerfully. The primary action of heat, which is the one essential thing of the Turkish bath, is to relax the tissues of the body and thus invite a more perfect circulation to every part of the system; by a more active circulation every sense is quickened—the secretions are more thorough, the excretions more perfect, the blood is better supplied with oxygen—the skin assumes its natural roseate complexion indicative of the improved condition, and each and every function, whether it be that of the lungs, liver, spleen, or bowels, comes in for its share of the general benefit—in a word, it opens every pore of the skin, and hence, the most perfect sewage to the body. The secondary action is that of profuse sweating—where water from the blood and debris or used-up tissue and poison held in solution are rapidly thrown out of the body. According to recorded observation, "the quantity of blood in the body is lessened by the free excretion which takes place through the skin and lungs; the body weight is reduced, and the work of the heart in this way lightened, at the same time that its substance is better nourished by the improved quality of the blood supplied to it. The peripheral arterioles of the body too, become dilated and filled with blood, thus affecting a corresponding emptying of the blood vessels of the internal organs. Lastly, as a result of the alternate warm and cold douching, the vaso motor energy of the vessels is increased, thus rendering

them more capable of resisting any strain thrown upon them." Thus it will readily be seen how quickly congestion, wherever it may be located, is broken up and the offending material thrown out through the pores of the skin. Under such conditions absorption and elimination have their most perfect opportunity and equalization crowns the work. It must be apparent that alcohol is soon eradicated from the system under such favorable conditions, and that torpidity gives place to activity. Furthermore, no living tissue or vitality can be abstracted by the process — nothing is thrown off but what the system is better without. One bath has been frequently known to relieve an intermittent pulse, giving a smooth regular action to the heart, indicating a well balanced circulation. What known drug can do this in the space of half an hour? And another great advantage in favor of this treatment is that there is no poison left in the system to work its way out, as is sometimes the case when drugs are administered; per contra, the individual is left in a calm and quiet frame of body which necessarily reacts upon the mind. It could not be maintained that the hot air bath would renew brain or other tissue where there has been actual lesion, but it will place under most favorable condition for repair what is left and then adjacent or collateral parts will do their best to carry on the work of the injured part. By placing the patient in an institution of the kind mentioned, we at once completely remove the cause of the disease, and then with the bath we have only the effects to treat. In the instance of insanity the hot air bath has in a large number of cases brought relief to deranged conditions and given harmony to disturbed mental functions, and this where the cause was present, for we know that this disease obliterates the patient intellectually, and leaves the physician in the dark in reference to the cause or the effect of the malady. It must therefore be evident to every medical mind that the remedy which will effect every organ and create in it an action to throw off diseased conditions is the only one to meet such cases. With how much more reason must we expect

even better results in cases of inebriety, where the cause of the disease is eliminated and the advantages of treatment are more perfect. The mucous surfaces of the inebriate, and, in a minor degree, those of the moderate drinker, are in a chronic state of inflammation. The effect of the hot air treatment is to reduce that inflammation by purifying the blood, thereby relieving that immoderate craving for stimulants, that only perpetuates and increases the disease instead of giving relief. During my long experience in the administration of the Turkish bath, many persons who had been more or less under the influence of alcohol, have expressed to me in most unqualified terms the benefits that they had derived from its use, particularly those who came after a debauch. In fact, this has been thoroughly demonstrated, as the experience of all bath establishments will testify. Place man or boy in a clean suit of clothes throughout, and he will not only take good care of the clothes, but also of himself, and behave more discreetly than before. In like manner if you thoroughly purify a man, as is done by one of these baths, he at once realizes that he is a cleaner man and on a higher plane, his senses are more acute, he is in his best condition, he respects himself so much the more, and is less liable to return to his base practices. It is stated as a fact that in no country has inebriety been found coexistent with the bath. Temperance and cleanliness are its handmaids. This treatment has had but a limited trial in this country, though it has been successfully used in a multitude of cases in Great Britain, particularly at Dr. Barter's establishment near Cork, in Ireland. The only demonstration in this country was at Binghamton, during the first three years of its administration, in which time not a death occurred among the patients. Dr. F. R. Lees, in his "Text-Book of Temperance," says: "In the case of persons having latent cravings for drink, we know of few things more efficacious than a short course of that peculiar method of cleansing, which, borrowed from the Orientals, has been recently introduced into many cities—we mean the Turkish bath. Who, suffering from morbid

accumulations incident to town life, that has ever tried these processes, has not felt a wonderful increase in the vital elasticity of his frame! It is as though a heavy weight had been lifted from the bent spring of life, permitting fuller and freer play to the vital machinery and creating a feeling of sympathetic purity in the soul." The true physician stands before the community in the light of a teacher as well as a healer, and his opportunities for usefulness are large and often far reaching. Probably no class do more charitable work than the men of this profession. In no way can they do more good than in encouraging both by example and precept, those institutions that have for their object the welfare of the community, and no institution of modern times promises so much to the mass of the people as the genuine hot-air bath. Sanitary science is of incalculable value to each and every one of the community, for it deals with that which is vital to the well-being of the whole, but the hot-air bath is sanitary science, refined and brought to the individual; indeed it is the perfection of sanitary science. As a prophylactic, it stands at the head of all remedies. As a disinfectant, none with it can compare. As a luxury, it enters upon a field of unapproachable delight. The more it is popularized, the nearer it will come within the reach of everybody, and the more widespread, necessarily will be its blessings.

The inebriate and his malady is only a link in the endless chain of degeneration whose march is along a progressive line, that can be traced by the eye of science.

The student of inebriety is like an astronomer, observing and cataloging the phenomena of the stars; he places on record his observations and seeks to have them tabulated so that future observers may correct and confirm them, and point out the laws by which they are governed.

WHY DO MEN DRINK?*

BY J. T. SEARCY, M.D., TUSKALOOSA, ALA.

This is a fundamental question. A scientific, that is a satisfactory, answer to it would solve, largely, if not entirely, the perplexity that the world has worried over ever since men began the use of alcoholic beverages. Why do men like and use such beverages? What is there in the effect of alcohol in the system that causes the pleasant feeling for which men take it? Give a satisfactory answer, and we not only explain moderate drinking, but also drunkenness and inebriety.

The recent advances of physiology, particularly in the field of nerve and nerve-center functions, apparently opens up an avenue along which lies the solution.

The effects of alcohol admitted into the general circulation modern physiology and pathology declare to be principally upon the nervous system. Functions, in other words, that are now known to belong to these structures are those most affected by it. The phenomena of sensation, of reason, and of volition, are now shown to be the receptive, the adjustive, and the emissive acts of the cerebrum. The effect of the drug for which it is taken is particularly that on sensation, while in the circulation it creates a greater or less pleasant effect on the sensations, or on the sensating organ, and this pleasant effect is the secret of its use.

If there is any physiological explanation of sensation, or any positive location of this faculty, we will find an answer to our question in that direction.

Physiology now points, by crucial tests from many directions, to the cerebrum as the organ of all conscious action;

* Read at the November meeting of the American Association for the Cure of Inebriates.

that is, all that kind of functional action that reaches the degree or grade of being designated as sensation or consciousness, is cerebral. It is true it is declared by some that other causes of a lower position and a lower grade have also functions that partake of this quality, but they do not reach the grade that are usually called sensitive. Action, cellular action, is the function of nerve structure. In the cerebrum, physiologically speaking, this is conscious action. In lower centers it does not admit of this designation. Nerve fibers convey action, motion, to and from the centers, and nerve centers receive and emit motion. There is no substance or fluid transmitted; it is solely cellular motion. Whatever therefore affects, acts upon them so that they cannot perform cellular motion, disturbs or arrests their function. It entirely arrests their functions if it entirely arrests their power of functionally moving, or being moved by motion that comes in along nerve-fiber lines from other organs and parts of the body. If it only partially fixes them, they partially move — move less, are less easily moved — action, that comes to them, less easily begets functional action in them.

The physiological explanation of sensation or consciousness, then, is, it is functional cellular action of the cerebrum. The recent "kinetic" philosophy of the day, which declares that "every phenomenon is a mode of motion," is in accord with these statements. Every sense is a mode of motion excited in the sense organ, the cerebrum, by motion from without the body, transmitted along nerve fibers as nerve motion, and received as motion. The reception or "sensation" is "a mode of motion."

A little alcohol in the circulation abates the cerebral function of sensation, and much in the circulation wholly suppresses it. Alcohol holds this property in common with other anæsthetics. The man is wholly anæsthetized with alcohol, when cellular action in the cerebrum is suppressed. Different grades of disturbed, irregular action are witnessed, according to the amount or strength of the alcohol solution in the blood. The very rational explanation offered for this,

or these effects, is, the alcohol coagulates, hardens, stiffens the delicate colloidal structures of this organ, in the same way it acts outside the body. Alcohol more or less stops, *cessates*, the molecular motion, the cellular action. This may also be supposed to vary according to the delicacy of the structure, which will vary in different individuals, in children and weak females be more delicate than in the adult man.

The alcohol, in proportion to the strength of the blood solution and in proportion to the delicacy of the structure, different in different individuals, hardens the structure of the cerebrum, so that it cannot be put in motion by the actions that come to it along nerve lines outside itself; that is, *feel* at all or so much, the actions from the different sense organs, or from other structures. And also; its other functions, beside the receptive, are impaired; reason and volition are impaired also.

We can now, I believe, come back to our original starting point, and in the only satisfactory way ever yet offered, approach the answer to the question, Why do men drink?

It is a very satisfactory feeling to feel less. It is the feeling of comfort. Consciousness of disturbing action— or, physiologically expressed, cerebral disintegrating or disturbing action, discomfort, or pain, is the result of disturbing action from other outside sources, from other structures of the body. Very few men feel well; that is, always feel nothing disturbing within them. Between the perfectly healthy man's brain and body there is the condition of perfect equilibration. Harmonious action is going on everywhere within him; no disintegrating, disturbing action from any source reaches his cerebrum to put it into disintegrating, disturbed action. The body within, however, is in constant cellular action, its vitality consists in this, all the structures are undergoing ceaseless change. His environment without is also undergoing ceaseless change. This harmonious condition of action of the healthy, well-feeling man has numberless sources of disturbance. There is no stand-still line. Sooner or later disturbing action is sure to set up from

within or from without. Most men have some discomfort always. They don't know what it is to feel well. A hyperæsthetic, over-sensitive brain may often be a cause for this constant discomfort. The expression to feel well is only a relative one; the man feels less, feels better at one time; feels more, feels worse at another.

If we have a drug that will so *fix* the cerebrum that it will feel less, we have an agent that will produce in him what he will call "a happy" condition. This condition is temporary, it lasts only as long as the drug is in chemical contact and union with the structures. The hardening is a temporary condition and is followed by one where the structures are injured, softened, more sensitive, more easily pained, hyperæsthetic. In this way to abate present discomfort or pain, or rather to abate the sense of it, is of course comforting and pleasant; or more, if the discomforting action does not reach the degree of pain, to be rid for the time being of sense of all bodily actions, even of actions that are normal, is a sense of repose, a "dolce far niente" state, that is, while it lasts pleasant.

To tide over a period of pain is the object with all our narcotics and anæsthetics. This is to me the only philosophical explanation of their action. But theory and practice all point to an after condition of the cerebrum following the use of the drug, where it is more sensitive, hyperæsthetic, made so by the drug — more sensitive to pain and discomfort and less capable of strong or continued thought, or of active volition in the accomplishment of purposes. Certainly such a condition is one of injury.

Abatement of present discomfort or pain is a very evident indication for the use of such a drug. It must always be administered though with the knowledge of its physiological effect and its pathological injury.

The constant use of such drugs as beverages, particularly alcohol, tends largely to the degeneration of brain structure and function.

AMERICAN LIFE AS RELATED TO INEBRIETY.*

BY EDWARD P. THWING, M.D., PH.D.

President New York Academy of Anthropology.

At the recent international congress, held in London under the auspices of the Society for the Study of Inebriety, brief reference was made to certain factors which contribute to make the study of inebriety in America specially serious and urgent. I have been desired to recall, record, and expand those unwritten utterances. Novelty and originality they may not possess, yet old truths in a new light may be helpful to us in the interpretation of the pathological and psychological phenomena of this disease.

Although there are abiding factors the world over, in America we have elements to study which are peculiar and unique. By America is meant the American Republic, the States and Territories bounded by the seas, the lakes, and the gulf. It will be my aim to show that the sixty millions of this vast country are placed under those physical, psychic, political, and social conditions which combine to make life *more vividly intense and exacting* than anywhere else on this planet, and therefore are more susceptible to the malady of inebriism.

This region has been called "the intemperate belt," because, as my lamented friend, the late Dr. George M. Beard of New York, has said, "Inebriety, as distinguished from the vice or habit of drunkenness, may be said to have been born in America; has developed sooner and far more rapidly than elsewhere; like other nerve maladies is especially frequent here. It is for this reason, mainly, that asylums for inebriates were first organized here." Here also the total abstinence societies of modern days began.

*Read at November meeting of the American Association for the Cure of Inebriates.

Why? because of the abnormal nerve sensibility which the feverish rush of life here has developed, a physiological condition, that will not tolerate stimulants.

Dr. Beard says that it is a greater sight than Niagara, which is presented to a European coming to this land, to behold an immense body of intelligent citizens, voluntarily and habitually abstaining from alcoholic beverages. "There is perhaps no single fact in sociology more instructive and far reaching than this; and this is but a fraction of the general and sweeping fact that the heightened sensitiveness of Americans forces them to abstain entirely, or to use in incredible and amusing moderation, not only the stronger alcoholic liquors, but the milder wines, ales, and beers, and even tea and coffee. Half my nervous patients give up coffee before I see them, and very many abandon tea. Less than a century ago, a man who could not carry many bottles of wine, was thought effeminate. Fifty years ago opium produced sleep, now the same dose keeps us awake, like coffee and tea. Susceptibility to this drug is revolutionized."

Dr. Beard makes the ability to bear stimulants a measure of nerves, and asserts that the English are of "more bottle-power than the Americans"; that it is worth an ocean-voyage to see how they can drink. A steamer seat-mate poured down, almost at a swallow, a half tumblerful of whisky with some water added. He was a prominent minister in the Established Church, advanced in years, yet robust. He replied to the query, "How *can* you stand that?" that he had been a drinker all his life and felt no harm.

The same relative sensitiveness is shown in regard to opium, tobacco, and other narcotic poisons. The stolid Turk begins to smoke in early childhood, when seven or eight; everybody smokes, men, women, and little ones, yet the chief oculist in Constantinople says that cases of amaurosis are very few. A surgeon whom I have known, Dr. Sewny of Aintab, after years of extensive practice in Asia Minor, has yet to see the first case of amaurosis or amblyopia due solely to tobacco. But Americans cannot imitate Turk, Hollander,

and Chinese. Heart and brain, eyes, teeth, muscle, and nerve are ruined by these vices, yet the frightful fact remains that latterly the importation of opium has increased 500 per cent.! The "tobacco heart" and other fatal effects of cigarette smoking are attracting the attention of legislators as well as physicians, and the giving or selling this diminutive demon to youth is made in some places a punishable offense.

Physical, psychic, political, and social conditions combine in the evolution of this phenomenal susceptibility. Nowhere, for instance, are such *extremes in thermal changes*. I have seen in New England a range of 125°, from 25° below to 100° above, in the shade. The year's record at Minnesota has read from 39° below to 99° above, a range of 138°. Even within twenty-four hours, and in balmy regions like Florida, the glass has shown a leap from torrid heat to frosty chill.

No wonder then the greatest fear of some is the *atmosphere!* They dread to go out to face Arctic rigor or tropic fire, and so get in the way of staying in doors even in exquisite weather of June and October. They make rooms small, put on double windows, with list on the doors, and build a roaring furnace fire in the cellar, adding another of bright anthracite in the grate. The difference between this hot, dry, baked air within, and the wintry air without, is sometimes 80°. It is estimated that the difference of temperature inside and outside an English home averages 20°, and that within and without an American dwelling is 60°. The relation of this to the nervousness of the people is apparent.

The uniform brightness of American skies favors evaporation. The Yankee is not plump and ruddy like his moist, solid British brother, but lean, angular, wiry, with a dry, electrical skin. He lights the gas with his fingers, and foretells, with certainty, the coming storm by his neuralgic bones. Hourly observations were conducted for five years with Captain Catlin, U. S. A., a sufferer from traumatic neuralgia in care of Dr. Mitchell. The relation of these

prognostic pains to barometric depression and the earth's magnetism was certified beyond doubt, and was reported to the National Academy of Science, April, 1879. Even animals in the Sacramento valley and on the Pacific coast are unwontedly irritable while the north desert winds are blowing, and electricity seeking equilibrium, going to and from the earth. Fruits, foliage, and grass, towards the wind, shrivel. Jets of lightning appear on the rocks and sometimes on one's walking stick. (*American Nervousness*, p. 147.)

But *psychic and social factors* cannot be ignored. Someone has said that insanity is the price we pay for civilization. Barbarians are not nervous. They may say with the Duchess of Marlborough that they were born before nerves were invented. They take no thought of the morrow. Market returns and stock quotations are unknown; telephones and telegraphs; daily newspapers, with all their crowded columns of horror and crimes, are not thrust upon them; and the shriek of the steam engine does not disturb their mid-day or their midnight sleep. Once a day they may look at the sun, but they never carry watches. This bad habit of carrying watches is rebuked by a distinguished alienist, who says that a look at one's watch, when an appointment is near, sensibly accelerates the heart's action and is correlated to a definite loss of nervous energy. Every advance of refinement brings conflict and conquest that are to be paid for in blood and nerve and life.

Now, it is true, that watches are occasionally seen in England. Sun-dials are not in common use in Germany and Switzerland. But the "American Watch," is an institution. Not the Elgin, the Waterbury, or any particular watch, but the worry and haste and incessant strain to accomplish much in a little time—all this symbolized in the pocket-time piece, is peculiarly American. It was an American who, at Buffalo, I think, wanted to wire on to Washington. When told it would take ten minutes, he turned away and said, "I can't wait." He now uses the Edison telephone,

and talks mouth to mouth with his friend. Dr. Talmage says, "We were born in a hurry, live in a hurry, die in a hurry, and are driven to Greenwood on a trot!" The little child, instead of quietly saying to its playmate "Come," nervously shouts, "Hurry up!" You cannot approach the door of a street car, or railway carriage, but what you hear the same fidgety cry, "Step lively!"

Said a New Yorker to me, "I am growing old five years every year." Can such physical bankrupts, whose brains are on the brink of collapse, bear the added excitement of drink? The gifted Bayard Taylor was but one of thousands who burned a noble brain to ashes in a too eager race of life. Reviewing sixteen months he notes the erection of a dwelling house, with all its multitudinous cares, the issuing of two volumes of his writings, the preparation of forty-eight articles for periodicals, the delivery of 250 lectures, one every other day, and 30,000 miles travel. The same story might be told of other brain-workers who never accepted the "gospel of rest."

The *emulous rivalries of business life* and the speculative character of its venture cannot be paralleled elsewhere. The incessant strain they impose increases mental instability. Bulls and bears, pools, corners, margins, syndicates, and other "words that are dark, and tricks that are vain," represent the omnivorous passion for gambling. Millions may be made or lost in a day. No one is surprised if a Wall Street panic is followed by suicides.

Legitimate business may, by its methods, exert a pernicious influence on the nervous system in still other ways, as for example, in the depressing influence from specialization of nerve function, as indicated by Dr. J. S. Jewell, where one keeps doing one petty thing monotonously year after year and so sterilizes mind and muscle in every other direction.

Turning to *educational systems* in America, we see how unphysiological they are, and calculated to exhaust the nervous energy of youth, many of whom have inherited a morbid

neurotic diathesis. Of twenty-seven cases of chorea reported by Dr. William A. Hammond of Bellevue Hospital, eight (about one-third) were "induced by intense study at school." Dr. Treichler's investigations as to "Habitual Headache in Children," cover a wide field, and show that continental communities suffer from similar neglect of natural laws. Here it is more notorious.

Not to dwell on these points, we may say that the *stimulus of liberty* is a productive cause of neurasthenia in America. It is stated that insanity has increased in Italy since there has been civil and religious liberty guaranteed. *A post hoc* is not always a *propter hoc*. But it is obvious that the sense of responsibility which citizenship brings; the ambitions awakened by the prospect of office, position, power, and influence; the friction and disquiet, bickerings and wranglings, disappointment and chagrin that attend the struggles and agitations of political life do exhaust men, and more in a land where opportunities for advancement are abundant as in America. While writing these words, news is received of the sudden death of a prominent New York politician, comparatively young, directly traceable to disappointment in carrying out a scheme on which his heart was set. Chagrin acted like a virulent poison on a system already unstrung by the severe political struggle in which he was defeated.

Multitudes contract the vice of drunkenness or develop the full malady of inebriism under the continued pressure of these political campaigns. The patient of a friend of mine had, for two years, been kept in working order. He was living, however, on a small reserve of nerve force. A few days before election, he was drawn into a five minutes eager discussion, and became entirely prostrated, more exhausted than by months of steady work.

Other nations have their measure of liberty and aspirations for social and political eminence to gratify. But nowhere have men the exhilarating possibilities of position, wealth, and influence, that this republican community offers.

The history of the last half century, as related to this fact, reads like a romance. But liberty, like beauty, is a perilous possession, and it has been truly said "the experiment attempted on this continent of making every man, every child, every woman an expert in politics and theology is one of the costliest of experiments with living human beings, and has been drawing on our surplus energies for one hundred years."

Finally, *American life is cosmopolitan.* A curious observer noted nine nationalities in a single street car in New York, one day. I repeated the fact to a few of my students who were riding with me through those same streets. Looking over the ten or dozen passengers on board, one of them at once replied, "Well, here are *five* nationalities represented here."

In one aspect, these importations, particularly English, German, and Scandinavian, are compensative and antidotal. We may hope, with the author before quoted, that "the typical American of the highest type will, in the near future, be a union of the coarse and fine organizations; the solidity of the German, the fire of the Saxon, the delicacy of the American, flowing together as one; sensitive, impressible, readily affected through all the avenues of influence, but trained and held by a will of steel; original, idiosyncratic; with more wiriness than excess of strength, and achieving his purpose not so much through the amount of his force as in the wisdom and economy of its use."

This hope may be realized in the future and in the highest type of American manhood. It is a bright, optimistic view of things, but we have to do with the present and the evils of society as they exist. We have to face the fact that our civic life is growing at the expense of the rural; that our cities are massing people by the hundreds of thousands, among whom, on the grounds of contiguity, association, and psychic sympathy, evil influences become more potent to undermine the welfare of society; that we have to encounter in America the drink traffic in its belligerent aspects, as

nowhere else, not only politically and financially organized most thoroughly, but ready it would seem to use fraud, violence, or assassination if other means fail, and that we have anarchism stirring up discontent and firing the passions of the desperate classes, who understand liberty to mean license, equality to be the abolition of all the diversities of position and property which intelligence, temperance, and industry have made, and will make, to the end of time.

We have had a practically unrestricted importation of the refuse population of Europe. Of every 250 emigrants, one is insane, while but one of 662 natives is insane. Add to all these facts the conditions of American life already enumerated as related to the development of neuroses, particularly inebriety, and we have material which makes the study, as was stated at the start, serious and urgent.

Some of us are studying the matter historically and philosophically; some, in the asylum, clinically; some of us, in the dissecting room and laboratory with scalpel, microscope, and reagent. Writers like Dr. T. L. Wright and Dr. T. D. Crothers, are illuminating the subject in its pathological and psychic relations. We have more to learn about heredity and environment; more about the physical basis of the will, and its disintegration through disease and wrong doing; more about inheritance of ideas, mental therapeutics and kindred themes. To the discussion of topics like these, the New York Academy of Anthropology has devoted attention, and I close this paper by inviting the individual co-operation of my English friends in a work so alluring in its features, and so humane and beneficent in its fruits.

The punishment of an inebriate by a fine, when he has a wife and family dependent on his earnings, is terribly cruel in most cases. The suffering falls on the family; the wretchedness of the man is transferred to them, forcing them into greater peril and sorrow. The inebriate is not deterred from drinking again, but his wife and family are made more helpless and less able to aid him in any possible way.

PERSONAL RESPONSIBILITY AS AFFECTED BY
ALCOHOLIC INFLUENCE.

BY T. L. WRIGHT, M.D., OHIO.

I will speak of the responsibility for crime committed when alcohol enters as a factor in its inception — as well as a common incitement to crime — from two points of view only: First, when nerve *function* is impressed and embarrassed by alcoholic influence; and, second, when nerve *structure* is affected through alcoholic influence.

1st. As to nerve FUNCTION, I am not assuming anything when I say that it is the universal verdict of science, that accurate knowledge is wholly dependent upon accurate consciousness; that is, consciousness healthy, not morbid in kind; and complete, not fragmentary or deficient, in degree.

Now, what is consciousness, and what are its conditions? "Consciousness," says Wundt (*see Ribot, German Psychology, p. 247, et seq.*), "psychologically, is a unification, although itself a unit." There is no organ or "center" of consciousness. The entire organism is essential to its existence. "Thus, perception, representation, idea, feeling, volition, form the continuity called consciousness, of which only tautological definitions can be formulated. . . . Taken as a whole, the act which physiological psychology seeks to interpret — "and upon which the question of responsibility is pending" — embraces the following moments: First, impression; second, transmission to a nerve center; third, entrance into the *field* of consciousness (large but vague "perception"); fourth, passage to the particular *point* of "apperception" (definite, no longer vague); fifth, voluntary reaction; sixth, transmission by the motor nerves."*

Careful authorities agree that alcohol is a poison, the

* Ribot, pp. 245-248.

most obvious effect of which is to induce paralysis. This was pointed out by Dr. T. W. Poole of Ontario, in a work published in 1879. Prof. A. B. Palmer of Ann Arbor, Mich., discusses the same thing in the *JOURNAL OF INEBRIETY*, July, 1884. Doctor Sidney Ringer of England, declares that alcohol is not a stimulant as comparable with its radically depressant properties. He says that the ultimate effect of any considerable quantity of alcohol is paralyzing. Doctor C. H. Hughes of St. Louis, in a letter to the writer, upholds the same doctrine and believes it to be of very great importance.

But it is not necessary to rely upon authorities in this part of our discussion. Everybody is familiar with the staggering gait and the distorted countenance of the drunken man — evincing partial paralysis of the muscular system. Everybody is aware of the confusion and incoherence of thought which demonstrate the repression in functional power of the nerve centers of rational thought. Everybody is cognizant of the lying and treacherous propensities of the drunkard — showing a partial paralysis of the nerve centers which preside over the manifestations of the moral nature — and falsehood is the corner-stone of the whole edifice of crime.

Universal paralysis when complete, is death. But universal paralysis when incomplete, is disorganization of function. It is absence of completeness, in the essential details of all the departments of a sound individuality. How can a man, handicapped by deficiency and incapacity of nerve throughout his whole organism, rightfully judge and discriminate in difficult and involved questions? The consciousness of sound, for instance, is one of the most simple and plain of all. And yet the mind must be alive to the distinctions and qualities of *pitch*, *intensity*, and *timbre*, in order to determine the quality of sound with accuracy. These several properties depend upon the "number, amplitude, and form of certain atmospheric vibrations."

In regard to the capacity of a drunken man, by an act of volition, to raise himself above the level of his drunken

state — and upon the possession of which capacity the question of his responsibility turns, it is only necessary to say this: Since the beginning of the world, no example has been known of a drunken man improving upon the condition and phenomena of his drunkenness. In every other possible relation, the same mind steadily improves and advances upward; but the “drunk” of threescore years and ten is, in all its essential features and exhibitions, the “same old drunk” that was characteristic of the individual at the age of twenty or thirty years. In other words, *the drunken man is not his own master*. Alcohol dominates him, and guides him in its own ways.

2d. As to nerve STRUCTURE, alcohol interferes with the co-ordinate or coequal nutrition of the physical structures, which enter into the composition of the human body. Substantial growth in certain directions, is morbidly increased, and the result is, that a relationship is established amongst the several bodily parts which is not symmetrical. The particular structure which mainly takes on inordinate and unhealthy growth, is the fibrous or fibro-cellular substance; or, as it is called in medical parlance, tissue. It is therefore proper to inquire specifically: what is the fibro-cellular tissue, and what is its office? As I wish to be plain, rather than technical, I will say in general terms: It is that gray, dense structure in the body, which holds and binds the entire organism together, giving to it shape, tenacity, and elasticity. It enters into the substance of the liver, giving it strength and form. It enters into the mechanism of the kidneys, giving them strength and form. It enters into the texture of the brain, giving it strength, tenacity, and form. And so likewise, it enters into the substance of every organ and structure of the body — of the muscles, bones, lungs, heart, skin, and so on, giving all of them strength, protection, tenacity, and form. And besides, this same fibro-cellular tissue binds — through its modifications in shape and position, as by ligaments, bands, leaders, etc., — the various portions of the body, into one grand and harmonious whole.

In every organ of the body, the fibrous tissue is liable to be substantially modified and permanently changed in form through the toxic power of alcohol.

It is not surprising, therefore, that Dr. Bartholow declares that "few structures escape the deformative influence of alcohol when it is habitually taken into the system. The kidneys, the stomach, the liver, and the brain, all exhibit," the doctor continues, "an increase in the substance of the fibro-cellular tissue which is found within them." And Dr. Sieveking of London, in his work on Life Assurance, says: "there is scarcely a degenerative condition of the body that may not result from the habitual use of ardent spirits." I economize space by declaring, that the authorities are a unit on this point.

When, therefore, the complexion becomes muddy, and the eyes tinged with a greenish hue; when the appetite and spirits fail, and an incessantly recurring jaundice colors the skin of the habitual tippler, we know that the liver is becoming structurally injured through the mischievous effects of alcohol upon the cellular tissue which enters into its structure.

When we perceive the habitual drinker — previously of good report in most respects — beginning to steal; or, when we perceive in him some surprising lapse in decency and public morality, we know that the fibrous tissue within the brain is being injured by alcoholism. We know that nerve cells are being squeezed and oppressed by the intrusion of a foreign substance; and at a later stage we know that nerve corpuscles are being transformed into fat, or are absorbed altogether; that brain fibers are torn in sunder, and that the blood-vessels of the brain are strangled and obliterated. We know that in a few months the scene will close upon a paralytic dement — imbecile and driveling.

Such is a partial description of the power of alcohol carried to its logical conclusion. While a portion of habitual inebriates, only, reach this woeful end, it is yet proper to understand its occasional reality; for the tendency of *habitual*

drinking, even though called moderate in degree, is always, to some extent, greater or less, in this direction.

But in impairing the constitution, the worst effects of alcohol must take place within the brain. The cellular structure within the brain, at first morbidly and inordinately increased in volume, at length begins, by little and little, to contract. To illustrate: After a severe burn is healed, the scars are apt to appear prominent, in the form of unsightly welts and ridges. These scars are one form of cellular tissue. But in time, these prominences will disappear. The scars shrink, very considerably, becoming, at the same time, very hard and tense; and not infrequently, by drawing portions of the body out of their natural relationships with each other, they produce serious inconvenience and deformity. A similar contraction in the overgrown fibrous tissue of the liver produces the "hob-nail" liver of the habitual drunkard.

In a manner exactly parallel, the redundant fibrous substance in the drunkard's brain shrinks, and it involves and strangles some of the brain's blood-vessels. Thus, nerve cells and nerve centers perish through lack of nutrition—their blood supply being cut off. This contraction of the fibrous structure within the brain may even tear nerve fibers apart. And in many other ways it imposes modifications, and, of course, degradations, on the mental and moral activities.

Usually these lapses and defects in mental and moral action are referred to a willful disregard for the principles of good sense and good morals. But the microscope will dispel that misapprehension. It will disclose physical degeneration in nerve cells, nerve fibres, and nerve centers, sufficient to explain some misconduct as the child of disease, rather than of criminal will.

After a time the damage to the central nervous tissue (when not excessive), becomes assimilated, or adopted, by the constitution. That is, the human constitution becomes modified. It takes on new and inferior characteristics; and occupies a plane of existence lower than belonged to its orig-

inal nature. The important point is: this bad constitution is liable to be reproduced in posterity. Quite likely the newly-transmitted constitution will differ in the forms of its exhibition from its parent. It may take on some of its kindred forms. There may be, for example, defective intelligence, as imbecility; or defective physical structure, as hare-lip, or club-foot; or a defect in one or more of the senses, as deafness, and, of course, dumbness; or, there may be defect in the brain centers of co-ordination, through which the moral nature, and the sense of personal identity, and the ideas of duties and responsibilities, are exemplified. Through defects in the physical instruments of the moral nature within the brain there is apt to be developed, through heredity, the criminal constitution.

The property of alcohol of inflicting physical unfitness upon body and brain, opens a field of disaster whose extent is absolutely unlimited.

I have stated a few of the effects of alcohol upon the human body and human mind. It is for others to make specific deductions, and draw conclusions from them, with reference to their bearing upon the personal responsibility of the inebriate.

NOTE.—1st. Inebriates often claim that they can recollect nothing of a criminal act—being drunk. This is within the range of possibility. The deficiency in all the senses, owing to the partial paralysis of all the senses, is liable to obliterate the normal idea of personal identity, and substitute for it an abnormal idea. Considerable modifications in the sensibilities, may eventuate in modifications of the general sense of relationship which the sound mind sustains towards all things exterior to it. Hence, although there is a modified sense of identity, related to the modified sensibilities, this is not always recognized when the senses resume their natural purity and perfection.

2d. So, too, partial paralysis, when universal, of necessity overcomes the finer sensibilities, and leaves the grosser ones comparatively unaffected. That is, it destroys the humanitarian sensibilities,—those that are super-added to the sensibilities of the brute, and which distinguish human nature from brute nature. What follows? The man does not willfully and wickedly act *like* a brute, but he *is in reality*, a brute, through loss of his humanitarian sensibilities. His conduct is, *perforce*, that of a tiger,—a saurian—a dog—or possibly of some less sensible, if not less cruel, of the lower animal creation.

COCAINE TOXÆMIA.*

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

At a meeting of the N. Y. Neurological Society, November 5, 1886, Dr. Wm. A. Hammond, in the course of "Some remarks on Cocaine," expressed his disbelief in the toxic power of that drug, declaring "he did not believe any dose that could be taken was dangerous." In a paper by the writer on "Cocaine Dosage and Cocaine Addiction," read before the Kings County Medical Society, February 15, 1887 — reprint of which may be had if desired — evidence was presented to prove this opinion a mistaken one. This proof, furnished by forty different authorities — English, French, German, Austrian, Russian, and American — cited more than fifty cases to support the assertion that there is a danger, near and remote, in the use of this drug on some patients, that does not warrant such reckless disregard of care as the opinion referred to implies.

The cases noted more or less in detail showed that cocaine caused toxic symptoms, so marked in four as to be fatal. The amount of the drug used varied from a small fraction of a grain to twenty-four grains, and was applied to the eye, ear, nose, throat, larynx, teeth, gums, stomach, bowels, bladder, uterus, urethra, and under the skin. The symptoms noted were nausea, vomiting, headache, deafness, blindness, loss of taste and smell, profuse sweats, cold perspiration, lividity, gastric cramp; frequent, feeble, irregular, intermittent, uncountable pulse; shallow, gasping, irregular, difficult, convulsive, suspended breathing — artificial respiration required in some cases; gait, speech, and swallowing greatly impaired; rigid muscles, palpitation, sense of suffo-

*Read before the American Association for the Cure of Inebriates, November 8, 1887.

cation, and great constriction about chest; loss of motion and sensation in arms and legs; general numbness; intense restlessness, extreme prostration, giddiness, faintness, feeling of impending death; unconsciousness, convulsions, paralysis, hallucinations, mania, delusions, delirium, — death.

Summarizing, it was asserted:

Cocaine may be toxic, sometimes, deadly, in large doses.

It may give rise to dangerous, or even fatal symptoms, in doses usually deemed safe.

The danger, near and remote, is greatest when given under the skin.

In further proof of these conclusions, added evidence of over forty cases is herewith appended.

Two more cases of fatal effect from cocaine have been reported — one, in dental practice, in Poland; the other in France — but the writer has not yet been able to secure the desired details.

Dr. Samuel T. Earle, *Maryland Medical Journal*, noted these cases: "Mr. Z. presented himself for the treatment of hæmorrhoids. Found on examination one external and several small internal hæmorrhoids, which I decided to remove by the clamp and cautery. March 5th, I proceeded to do the operation. I injected in the subcutaneous tissue around the anus about one drachm of a four per cent. solution of cocaine, which amounted to about two grains of the drug. In about five minutes after the injection, and before I had taken any other step in the operation, he complained of strange feelings in his legs, accompanied by a twitching of the muscles. In a few minutes more these twitchings amounted to decided general tetanic convulsive movements, which involved all the muscles of the trunk and extremities. By the time these convulsive movements had become general he complained of fullness in the head and soon became unconscious, remaining so for about five minutes. As the convulsive seizures gradually subsided, he regained his consciousness, but that, too, only gradually. For instance, would answer me, look bright, and said he felt all right, but

in a few seconds more would complain of fullness in his head and become drowsy. This occurred several times before he recovered entirely. Altogether the attack lasted about half an hour. His pulse was weak, although could not be felt very well on account of the convulsive movements. Pupils slightly dilated. The following day found the patient doing very well, only complaining of some soreness in his muscles."

Case 2. — Female: operation for hæmorrhoids; cocaine to produce local anesthesia. "I injected a solution of the drug containing altogether about five grains of muriate of cocaine. In about fifteen minutes, without any premonitory symptoms, except a little nausea and faintness, she was seized with violent general convulsive movements, which were so strong, and so much more pronounced on the right side, on which she was lying, as to turn her over on her belly. She had opisthotonos, entire loss of consciousness for about five minutes, after which it gradually returned, and seemed entirely restored at the end of fifteen minutes. Asphyxia; muscles of the lower jaw violently convulsed; pupils unevenly dilated after consciousness began to return; mouth drawn to the right side; speech decidedly thickened for some moments after her return to consciousness; respiration very labored, and at the height of the attack was arrested for some seconds; pulse very feeble; cutaneous surface decidedly blanched where not purple, until after consciousness began to return, when it alternately became flushed and pallid; she now broke out in a profuse sweat. There was great prostration following the attack and a disposition to sleep. She recovered entirely after several hours, and only complained of feeling tired. This patient had never had any nervous attack of any kind previously, and both patients were remarkably robust and healthy."

Dr. J. Howell Way — *Medical News* — asserts his personal experience with cocaine was "an experiment which proved a very dangerous one, and came very near terminating fatally." At 6 P. M. he injected one quarter grain

Squibb's cocaine under the skin of his forearm. No result ensuing, the injection was repeated in fifteen minutes. At 6.30 general symptoms not having appeared, one-half grain was taken, making one grain within half an hour. In ten minutes systemic effects began: he became restless, respirations thirty, shallow and sighing; pulse 120; had aphasia and increasing præcordial oppression.

"It was now 6.50 P. M. Twenty minutes had elapsed since taking the half grain injection. My pupils were dilating slowly; mental faculties perfectly clear and collected, no pain in head or other part of body; respirations reduced to normal frequency, but very shallow and sighing; pulse 140, quick, feeble, and barely perceptible at wrist. I walked about the room for three or four minutes, when I grew weak and exhausted, and was compelled to lie down on the lounge.

"At 7.20 P. M. my condition was almost that of collapse. Mental faculties perfectly clear and natural; pupils widely dilated; mouth dry, and a sensation as of the presence of a foreign body in the pharynx; respirations shallow, sighing, and reduced to eleven per minute; pulse elevated to 180, very feeble, fluttering, and extinct at wrist; extremities cold; body was warm to the touch, but my own sensations were those of intense cold. I was placed in front of a large fire and my body enveloped in heavy woolen blankets while my feet and hands were briskly rubbed.

"A sense of impending dissolution came over me — not a feeling of fear, but a conviction that my physical condition was such that death was almost inevitable. My mind remained perfectly clear, and I gave my attendants all directions as to my care. I took frequent doses of ammonia and digitalis — the former seemed to be of very great advantage.

"At 7.30 P. M. my condition was worse, and myself and attendants were momentarily expecting my death. My extremities seemed to lose all power of either motion or sensation. I struggled against this with all my will-power, and would call for frequent doses of ammonia, which would give me (so it seemed) sufficient strength to move. Painful

emesis occurred twice, each time being attended with the ejection of about two ounces of white, frothy matter which soon evaporated, leaving only a faint white residuum. Respirations were now only nine per minute, and exceedingly shallow; carotid pulse faintly beating at 200; radial pulse entirely imperceptible; and no impulse of heart-beat felt on palpation. Mind still clear. Suffered no pain.

"I remained in this state for about half an hour, during which, in addition to frequent small doses of ammonia and digitalis, I inhaled three drops of nitrite of amyl. A marked improvement in the cardiac action was now noted. Respirations increased to fourteen per minute, pupils contracted to normal, and skin became moist and warm. At 10 P. M. the radial pulse returned, was full, and reduced to 140. Respirations were of normal frequency, and of almost normal vigor. Improvement continued. At 11 P. M., respiration normal, pulse 120. Suffered at this time from a dull, aching pain in lumbar region of spine and sense of great weakness and prostration. Half an hour later very copious diuresis took place.

"At 1 A. M. was entirely well save the feeling of exhaustion naturally following so great a derangement of the vital functions. Was now removed to my room, and slept soundly until 8 A. M. During the day I suffered much annoyance from the very dry state of my pharynx and also from muscular weakness. Both these inconveniences disappeared during the following night."

Dr. Bullock — *Boston Medical and Surgical Journal*, — reports the case of a man, aged twenty-four, in which he used forty minims of a four per cent. solution, by spray and injection for local anæsthesia prior to tonsilotomy. Three hours later patient was suddenly seized with very severe headache, vertigo, nausea, flushed face, difficult respiration, and delirium. "When I first saw him he was tossing about in bed in a half-unconscious condition, muttering to himself. I was able without much difficulty to rouse him sufficiently to answer questions, after which he quickly relapsed into his former condition.

"He complained of tingling sensations in the extremities, dryness and constriction of the throat, 'burning sensation' in the stomach, nausea, and intense headache. The pupils were widely dilated, there was some cyanosis of the face, but not of an extreme degree, respiration varied from ten to fourteen, pulse was 126 and very weak. I at once administered one ounce of brandy, and a few minutes later twenty drops of tincture of digitalis. This was vomited fifteen minutes later.

"I then gave a sub-cutaneous injection of five grains of carbonate of ammonia, and applied hot sinapisms to the chest and epigastric region. A little later I again gave some brandy and digitalis, and this time it was retained. In about twenty minutes the pulse grew stronger, beating 115, and the respirations became less labored. I kept on administering brandy and digitalis at frequent intervals, and at 5 P. M. had the satisfaction of seeing the patient drop off into a quiet sleep. Pulse was 105 and quite strong, and respiration eighteen, while the cyanosis of the face had nearly disappeared. He slept quietly until 9 P. M., when he awoke and stated that he felt much better, but still had some headache. Pulse was ninety-five, and respiration twenty. He soon went to sleep again, and slept quietly the greater part of the night. The next morning, the 16th, he complained of a good deal of numbness and tingling in the extremities, intense dryness of the throat, and blurred vision. These symptoms gradually passed off during the day."

Dr. A. N. Blodgett — *Boston Medical and Surgical Journal*,—cites the case of Dr. R., age 23, well and strong, to whom he gave subcutaneously, for local anæsthesia, three minims of a twelve per cent. solution. "Thirty seconds after the injection was made the patient began to complain of a feeling of great depression, a sensation of coldness, and of faintness. It was thought at first that these sensations were due to fright, or to an undue amount of apprehension as to the action of the drug; but this proved to be erroneous: The patient rapidly became cyanosed, the breathing changed

to a sighing character, the pulse was 140 and weak, the face was bathed in cold perspiration, there were short periods of profound collapse with unconsciousness. The patient was assisted to a couch, where he soon became quite helpless. Stimulants were administered, the heat of the surface was maintained, and the body warmly covered. At the expiration of a quarter of an hour the finger on the pulse showed a commencing improvement in the patient's condition. With the restoration of the organic functions, came a mild form of delirium, the patient talking incessantly upon all possible subjects, and apparently not realizing that he had been in any abnormal condition. Soon the pulse was reduced to eighty per minute, and the skin became warm. The delirium gradually subsided, and the patient slowly returned to his natural state."

Dr. McIntyre — *St. Louis Medical and Surgical Journal* — reported the case of a man aged 40, to whom half a grain was given subcutaneously to remove results of a rum debauch. It caused partial paralysis, slow, difficult breathing, pulse 140, and complete inability to talk or swallow. "Patient was in a serious state for some time."

Dr. Stickler — *Medical Record* — injected five drops of a twenty per cent. solution prior to opening a small cyst. It caused vertigo, headache, nausea, diarrhoea, and insomnia, which persisted for three days.

R. Steer Bowker, reports this case: One drachm of a six per cent. solution was instilled prior to and during enucleation of eye. Thirty minutes after the first cocainizing "she became very faint, face blanched, lips cyanosed; felt very sick, pulse rapid and feeble." She rallied, but two and a half hours later the doctor was hurriedly summoned. "On my arrival, she was better, though faint, with cold extremities and rapid pulse. Hot brandy and water and she was soon all right. I used less than four grains, and yet I think it would have taken but little more in this case to have caused a fatal result."

Dr. James Magill recorded the case of a guardsman of

fine physique in whose foreskin he injected one grain of cocaine prior to slitting the prepuce for phimosis. In fifteen minutes patient was so extremely pallid, and complained of such precordial pain, with very slow, irregular intermittent pulse that the operation was deferred. "This grave condition lasted twenty minutes."

Galezowski reported the case of a girl, aged 12, in whom the instillation of fifteen drops of a two per cent. solution caused severe headache, marked malaise, tottering gait, and difficulty of speech, as if tongue were paralyzed, persisting thirty hours.

Adams Frost noted a lad, aged 14, in whose eye one drop of a one per cent. solution was instilled. In a few minutes there were blue lips, pallor, profuse sweat, and small, slow pulse. Ammonia was given, but it was nearly an hour before he recovered.

Heuse recorded the case of a female, aged 70, in whose eye three drops of a two per cent. solution were instilled, followed by great dyspnea. The next day, six minims caused dyspnea and vomiting, and later a smaller instillation produced the same symptoms.

Mr. A. Roberts — *London Lancet* — injected sixty minims of a six per cent. solution prior to amputating breast. Patient became blind, and talked incoherently. Blindness lasted four hours.

Mr. Mayo Robson mentions two cases. In one, cocainizing — amount of drug not stated — prior to circumcision was followed by severe syncope; the other, before removing nasal polypus, caused aphasia for four hours.

Dr. Barsky — *British Medical Journal* — cited a case in which one and one-third grains caused pallor, vertigo, general numbness, dysphagia, dyspnea, chest oppression, and vomiting.

Dr. Walter Tothill — *London Medical Record* — reported the case of a girl in whose gums one grain was injected. In ten minutes she became unconscious, remaining so for two and one-half hours. Another, male, aged 27, cocaine

was applied in the same way prior to extraction. "Within a minute he became violent, his pupils enormously enlarged, pulse beating six times with each inspiration, face pale, with dark lines round mouth and eyes."

Schubert noted the case of a strong, healthy, non-nervous female, aged 28, in whose gum six minims of a twenty per cent. solution were injected before extracting a tooth. In ten minutes vision was impaired, gaze fixed, and she soon became quite blind and unconscious.

Dr. Geo. O. Williams — *New York Medical Journal* — reported that he injected one-half a grain of Squibb's cocaine — three injections five minutes apart — for local anæsthesia, prior to removal of a small tumor from forearm. Ten minutes after last injection there were general numbness of forearm, excessive dryness of throat, pupils dilated, vision so disturbed that he could not distinguish acquaintances at forty feet, and his gait was staggering. Symptoms persisted two hours. Visual disorder and dry throat continued through a sleepless night, and toxic symptoms persisted, in part, for nearly a week.

Dr. Call, in a paper before the Madrid Medical and Surgical Society, stated that he found fifty centigrammes of a one per cent. solution injected into the bladder caused convulsive movements.

Dr. Emmet Holt — *New York Medical Journal* — reported five cases of children, aged 3 to 21 months, suffering from whooping-cough, in which the use of a four per cent. solution by swabbing or spraying caused toxic symptoms. They were vomiting, great restlessness, rapid, shallow respirations, pulse too frequent to be counted, pupils widely dilated, profuse perspiration, temperature rise to 102 degrees, constant and disconnected talking, marked delirium, and convulsions; "very critical condition." In a child four months old, one swabbing with a four per cent. solution caused well-marked toxic symptoms; and "alarming" effects followed two sprayings of the same solution in two infants, 3 and 6 months old. His opinion is "cocaine must be used with great caution in young children under all circumstances."

Grube injected one and one-quarter grains in a woman for local anæsthesia. It caused pallor, vertigo, vomiting, general numbness, pulse weakness, difficulty in swallowing, chest oppression, and dyspnea.

Dr. Heimann cited cases of a melancholic female to whom he gave two-sevenths of a grain, subcutaneously. In five minutes she became very maniacal, continuing nearly an hour.

Schnyder reported the case of a druggist who took two doses of three-fourths grain each, forty-five minutes apart for relief of headache, causing loss of sensation, trembling of hands and feet, spasms, cold extremities, thready pulse of 150, labored breathing, intense headache, jactitation, gesticulation, and delirium.

Bresgen put a pellet of cotton wool moistened with four to six drops of a twenty per cent. solution to the nostril of his wife. It caused chilliness, nausea, unsteady gait; excitement, followed by depression, difficult articulation, and restlessness which continued for a whole night.

Dr. F. Tipton reported to me the case of a vigorously healthy female in whom he injected four minims of a four per cent. solution for local anæsthesia. In five minutes she was "deathly pale, vomiting, feeble frequent pulse, sighing, hiccoughing, and complaining of great numbness, with a sense of impending death." Symptoms persisted three hours.

Heymann observed the case of a boy, aged 10, in whom cocaine applied by brush to larynx caused apathy, continuing five hours.

Minney noted two cases of toxic effect from repeated applications of a four per cent. solution to the nostrils.

Dr. Howell Way gave me details of four cases observed by him, in which five to sixty minims of a four per cent. solution, instilled, or injected for local anæsthesia, caused toxic symptoms — blanched face, blue lips, aphasia, dyspnea, hallucinations, delirium, and unconsciousness.

Dr. Geo. N. Monette, *Journal American Medical Association*, noted three cases occurring in dental practice, in which two to four drops of a twenty per cent. solution injected

in the gums caused vertigo, blindness, cold perspiration, and inability to walk — “completely unnerved; acted as if deranged.”

Dr. R. M. Griswold informed me of a lad, aged 15, in whom he injected fifteen drops of a four per cent. solution for local anæsthesia. In four minutes the patient complained of faintness, vertigo, had stertorous breathing, with thready pulse of 160, and became blind and unconscious.

Manheim noted a woman in whom the subcutaneous injection of two decigrammes caused dyspnea, irregular and suspended breathing, dysphagia and agrypnia, lasting thirty hours.

Gougenheim has collected a number of cases in which cocaine solution, applied to the throat, was followed by urgent symptoms.

Conclusions:

There is a lethal dose of cocaine.

This dose is uncertain.

Toxic effects are not rare.

They may be sequence of doses large or small, in patients old or young, the feeble or the strong.

This risk should induce caution.

Antidotes should be at command.

These are nitrite of amyl and hypodermic morphia.

Dr. Hammond says, that in the large number of inebriates he has seen all were, on examination, found to be sexually impotent or masturbators.

The following questions proposed by the English examiners in psychological medicine to the candidates for certificates, show that inebriety is recognized among the mental diseases of the old world. “What forms of mental disorder may be classed under alcoholic insanity?” “Trace the relationship of alcohol and syphilis to general paralysis.” “Name the various forms of alcoholic insanity.” “Describe the condition commonly known as chronic alcoholism; give the prognosis and treatment.”

Abstracts and Reviews.

THE TREATMENT OF FEMALE INEBRIETY.*

BY NORMAN KERR, M. D., F.L.S.,

President Society for the Study of Inebriety; Chairman British Medical Association Habitual Drunkards Legislative Committee; Consulting Physician Dalrymple Home for Inebriates.

It is a remarkable fact that while there is no provision in the United Kingdom for the treatment in special homes of destitute male drunkards, or male drunkards of limited means, there are more than a dozen homes where female drunkards are received, either for a small payment, or for no payment at all. This is but one proof of the appalling fact that intemperance among women is rapidly gaining on the intemperance of the "Lords of Creation." Year by year the proportion of female to male inebriates has steadily increased. Intemperance among men is decreasing, thanks to the growing influence of the beneficent temperance reform, the increasing spread of the principles of abstinence and prohibition; but, alas, the fair sex are becoming more drunken, and if the recent rate of progress downwards continue, will ere long once more assert their supremacy over man by contributing more than their proportionate share to the inebriety of Britain. Even so conservative and apathetic a body as the House of Lords has been moved as to direct attention to the increasing alcoholic excess of women constituting a new and alarming danger. Well may the peers utter this timely note of warning. The drunkenness of a woman is a still more saddening spectacle than the intoxication of a man; but the

*Read at the Conference of the Reformatory and Refuge Union, held at Liverpool on June 9th.

peril to the nation's health and morality is infinitely greater. As the mother generally wields a more powerful influence than the father over their children, a tipping mother is indeed a dire disaster; and as on the mental and physical soundness of English womanhood the character and disposition of our future children largely depend, the increasing intemperance of our women involves a fearful tale of aggravated susceptibility to alcoholic excess, and of diminished power to resist this heightened susceptibility on the part of coming generations. This prospective accumulating tendency to drunkenness is all the more imminent that already there are more cases of chronic police court drunkards among females than among males.

Add to all these considerations that the drinking mother vitiates the blood and saps the strength of the innocent infant at her breast, by poisoning the wells of her maternal nourishment, by polluting the very springs of life of the helpless babe, whom she would not designedly hurt, and for whom she would be willing to lay down her life.

The commonwealth is in danger, but the nation is blind to its peril.

The injury to the drunkard herself is terrible—cleanliness, truth, honor, affection, duty, are all offered up at the shrine of Bacchus. Weary, wasted, and worn, wretched in spirit, broken in heart, ruined in soul, a waif on the ocean of human life, tossed on the tempestuous and furious sea of inebriety, she has made shipwreck of all that is beautiful, and true, and good.

For her own sake, for her family's sake, for the country's sake, is there no hope for such? The world replies, "No," and passes undeeding by. The Church preaches that as long as there is life, there is hope for every sinner, but practically deals only in rebuke and denunciation. The State says neither "Yes" nor "No," and treats her as a hardened and incurable criminal with a cell, bread, and water.

But there is hope for her—she is not beyond redemption. A new era has dawned for the inebriate. In the past, so few

female inebriates have been permanently reformed, that many good men believe such an event to be an impossibility in a woman. The cause of former failure has been ignorance. As the lunatic was at one time declared by learned theologians to be possessed of a devil by way of punishment for her sins, so has the inebriate been preached at from a thousand pulpits, as given over to demoniac drunkenness, the unavoidable penalty of moral depravity, and of a vicious disposition. This may or may not be true of a small minority of mad women and toppers, but modern science has shown that in insanity and inebriety there is frequently a diseased condition, a departure from bodily and mental health, a disorder of the physical system, of organs, and of functions.

Here is the auspicious omen for the poor, battered, despised, demoralized female victim of alcohol.

The Society for the Study of Inebriety, of which I have the honor to be president, is hard at work in the investigation of the deceased states productive of inebriety, and has already done something in enlightening the public mind on the undoubtedly abnormally morbid conditions favorable to inebriate manifestations.

The philosophic profession of medicine has expounded the great truth that there is a physical aspect of intemperance, the operation of unhealthy influences, of transmitted tendencies to intoxication, of inborn feebleness of resisting power, of innate weakness of will, of inherited susceptibilities to the fell and deceptive power of narcotics. The Christian and the philanthropist have learnt from the physician that female inebriates can be cured, that they have a body as well as a soul, a casket as well as a jewel, and that no dimness can ever wholly destroy, though it may obscure the lustre of the gem of divine life within.

The burdensome weight of alcoholic heredity crushes many a woman to earth. No law is more marked, none more inexorable. There are not a few brave souls who, though they have successfully lived a life of abstinence, have achieved this only by a gallant and persistent struggle dur-

ing the whole term of their sojourn on earth. Other disordered bodily states, nervous shock, such as sudden bereavement or worldly ruin, injuries to the head and other injuries, have all acted as causes exciting to a paroxysm of inebriety in constitutions with an alcoholic transmitted inebriate predisposition.

The first condition of cure and reformation is abstinence. The patient is being poisoned, and the poisoning must be stopped. Were it arsenic instead of alcohol, no one would dispute this. So long as the drinking of intoxicants is indulged in, so long will the bodily, mental, and moral mischief be intensified and made more permanent. The abstinence must be absolute. On no plea of fashion, of physic, or of religion, ought the smallest quantity of an intoxicant be put to the lips of the alcohol slave. Alcohol is a material chemical narcotic poison, and a mere sip has even in the most solemn circumstances been known to re-light in the fiercest intensity the drink-crave, which for a long period of years has lain dormant and unfehl.

The second condition of cure is employment. Idleness is the foster mother of drunkenness; industry is the bulwark of temperance. Let the mind of the penitent inebriate be kept occupied by attention to regular work, and the task of reformation will be shorn of half its difficulty.

The third condition of cure is to ascertain the pre-disposing and exciting causes of the inebriety, and to endeavor to remove these causes. For example, a female has glided insensibly into the slavery of drink by resorting to alcohol for the relief of agonizing pain. Find out the cause of this pain, remedy it, and you have lightened your rescue work enormously. Or, again, if hysteria or epilepsy has been the provocation, rectify the unhealthy state, and the crave for relief from the torpor-yielding properties of a narcotic ceases.

The fourth condition of cure is to restore the physical and mental tone. This can be done by appropriate medical treatment, by fresh air and exercise, by nourishing and

digestible food to reconstruct healthy bodily tissue and brain cell ; aided by intellectual and educational influences.

The question remains, where should the female inebriate be treated? If taken in time at an early stage of the disease, the female inebriate can be treated at home. I have seen a very few successful cases. But generally the drinking habit has been of long standing, often secret and unknown to the friends, and it is important to take the victim away from her inebriate associations, from her cunningly devised methods of procuring liquor surreptitiously. For example, in one sad case in which the husband never suspected the cause of his wife's premature death, till at her death-bed this was revealed to him, the mother had taught her daughter to bring the drink into the house concealed in her muff. The weak and broken-down drunkard should be sent to a genuine home, within the confines of which no intoxicant is permitted, where she can breathe an air untainted by alcohol, whence body and brain may be enabled to emerge in due time freed from the benumbing, soul-destroying liquid potion, in which they had been literally soaked.

Nowhere can the conditions of cure which I have enumerated be so effectually employed as in a strictly teetotal and Christian institution for the special treatment of such cases ; nowhere else can that firmness and discipline which are so valuable aids in reformation be so strictly enforced ; nowhere else can employment of various kinds be so effectively organized for the personal benefit of the patient, and as a means of contributing to the expense of their board and maintenance. Laundry work, sewing, and needle work, are occupations which can be carried on with great advantage. More genuine homes, with the treatment of the patients by a medical man skilled in the disease of inebriety, are urgently required ; but let me venture a word of warning to those enthusiastic reformers who fancy that such homes are likely to be self-supporting. A not inconsiderable experience has afforded no case of such an establishment having been successfully conducted without extraneous aid. For the well-to-

do and rich there are institutions which not only support themselves, but return a profit to the proprietor. The destitute and impecunious, on the other hand, must be taken free or for a very small payment, and a generous annual subscription list, in addition to ample funds for the equipment of the home, is absolutely necessary.

One great hindrance to permanent cure is the astounding fact that after a long residence in an honest teetotal home the discharged patient will, in many cases, be tempted immediately on reaching her own home by the fermented wine or beer placed on the dinner table. Even from the Dalrymple Home for Gentlemen at Rickmansworth, where more than one-half of the discharged have done well, wives have been known to drink their glass of sherry in the company of their husbands, within a few hours of the discharge of the latter, sometimes actually inciting the quondam inebriate patient to drink too. Not only should no one tempt the reformed to drink, but every one who has the interest of the inebriate at heart ought to set her the only safe example of abstinence from all intoxicants.

Liverpool has done well in her Vergmont Sanatorium, and recently opened shelter, and there are excellent homes in different parts of the country. But as there are other establishments for inebriates which are by no means satisfactory, it is necessary that great care be taken to enquire into the real character and genuineness of any such institution before leaving a patient therein.

It is melancholy to reflect that there is no licensed home where a female inebriate, unless she is possessed of means, can surrender her liberty under the provisions of the Habitual Drunkards Act, but let us hope that the time is not far distant when an enlightened and aroused public conscience, when a consistent and drink-divorced Christian Church, will give the Legislature no peace till, as in the great Republic of the West, there shall be provision for the poorest inebriate who, awake to her danger and repentant of her sins, will be willing to surrender her freedom in the eager hope of deliver-

ance from her worse than Egyptian bondage, of cure of her unspeakably terrible disease, of re-instatement in the ranks of the sober and industrious, of salvation from the power and dominion of sin.

ARE SYPHILITIC ATTACKS MADE MORE PRO-
NOUNCED BY THE WITHDRAWAL OF ALCO-
HOLIC STIMULANTS FROM THE INEBRIATE?

Dr. C. F. Barber of Fort Hamilton, Brooklyn, sends the following communication: "Voluminous as are the writings upon syphilis, I fail to find mention, save in a minor way, of the deleterious effects of alcohol upon the disease. True, we are cautioned again and again to induce our syphilitics to refrain from the use of alcoholic drinks, or, if habituated to their use, to curtail them as much as possible. But no stress seem to be laid upon the outcome of their abuse. It may be my misfortune to meet unfortunate cases, or perchance those made worse by neglect, but the fact impresses me most forcibly that the abuse of alcohol, while not retarding or checking the progress of the disease as to its ultimate results, causes relapses to occur more suddenly and with greater violence than they otherwise would. It may be objected that no inebriate (for it is from this class of patients I draw my inferences) takes care of himself as he should, to say nothing of following the directions of his physician. Granting the point of this statement, I nevertheless maintain that, while many neglect themselves to a dangerous degree, yet there are those who exercise more or less care and attend to their unhealthy condition. I have, during my observations, extending through several years of service among this class of people, been forcibly impressed with the fact that syphilitics, as a rule, after the withdrawal of alcoholic stimulants by gradual reduction, suffer in a sudden and severe manner from the disease in some of its many forms. Whether alcohol has any troling effect upon the disease I am unable to state positively, but certain it is that in some

patients there seems to be a period of *stasis* during their excesses. I have in mind several cases in which the disease was dormant for a long period, and suddenly reappeared after a prolonged debauch. In one case this was marked by a most severe laryngitis, causing loss of voice, difficulty in swallowing (to such an extent that nothing but fluids could be taken, and these only in small quantities), swelling of the tongue, and sordes upon the tongue and inner side of the cheeks. This patient retired in apparently good health, but upon waking the next morning found himself in the condition I have described. Another case is that of a man who invariably, after one of his debauches, is the subject of a syphilitic ulcer on the anterior pillar of the fauces. A third has to combat a serpiginous ulcer over the crest of the tibia. A fatal case which came under my observation was that of a laborer who had contracted syphilis previous to a prolonged debauch, which terminated only after he had been sent to an institution for the cure of inebriety. After being restored to apparently his healthy condition, and while at work among his fellow inebriates, he was complained of on account of a terribly offensive odor which emanated from him. This could not have been a result of neglect of cleanliness, for he was compelled to bathe frequently. Upon examination he gave a syphilitic history, but said that he had not been troubled for some time by any manifestation of the disease. Upon the removal of his clothing there were found syphilitic papules scattered over his body, and his scrotum was found to be a complete mass of ulcers. There were also ulcers upon the inner side of each thigh. The testicles were no doubt involved; but the condition of the scrotum forbade handling, and the internal parts of the sac could not be examined. This condition had all come on within three days, as the patient had had his bath and a change of clothing, under the eye of a reliable person, but three days previous, at which time he was apparently in a perfectly healthy condition. Many other cases, varying as to intensity, might be cited, but these are sufficient to illustrate my belief.

It is well for those who have the troublesome malady of inebriety to contend with to be on their guard, and at the first indication of a syphilitic nature take the case well in hand, and, by proper treatment, alleviate the sufferings which through neglect might cause results of the gravest nature." — *Medical Record.*

Inebriety, its Etiology, Pathology, Treatment, and Jurisprudence, by Norman Kerr, M.D., F.L.S., Consulting Physician, Dalrymple Home for Inebriates; President, Society for the Study of Inebriety, etc.

This, the first systematic work ever published on the disease of inebriety, is a comprehensive and exhaustive treatise, and will be found to be a valuable work for reference. Chapters I and II describe the disease and its relations to insanity. Chapters III to VII treat of the various forms of inebriety; periodic and constant, regular and irregular periodicities; social and solitary; the inebriety of insanity, syphilis, heat, apoplexy, other diseases and injuries; alcohol, opium, chloral, chloroform, ether, cocaine, and gelsemium narco-mania; concluding with the question — "Is there a tobacco inebriety?" In chapters VIII to XI the etiology of the disease is considered under predisposing and exciting causes, with the influence of sex, age, religion, climate, education, social circumstances, occupation, marriage relation, heredity, temperament, associated habits, disease and injuries, diet, hygienic conditions, intoxicating agents, etc. Chapters XII and XIII are devoted to the pathology of inebriety, a novel and important exposition. Treatment occupies chapters XIV to XVIII which are of great practical value. The fallacy of many so-called "cures" is exposed. Sound therapeutic principles are laid down. Useful medical remedies are considered, with plans of treatment at home and also at a home for inebriates, the procedure necessary to admission to the latter being fully explained. The remedial value of moral and religious influences meets with due

attention. Chapters XIX to XXIII are devoted to the medico-legal aspects of inebriety, comprising a description of existing legislation; improvements needed in the law; the relation of inebriety to civil capacity in marriage, testamentary disposition, and life insurance; the national mortality and loss from inebriety; and the criminal responsibility of inebriates, with special reference to English, Colonial, American, and Continental legal medicine.

Nervousness, its Nature, Causes, Symptoms, and Treatment, by H. S. Drayton, M.D. Fowler, Wells & Co., publishers, New York city.

This little work of nearly a hundred pages, discusses in a popular way this very important topic. The general facts and the remedies are very clearly presented, and brought to the comprehension of every reader. This is by far the best popular discussion of this subject which has been presented.

The Man Wonderful and the House Beautiful. A allegory teaching the Principles of Physiology and Hygiene, etc., by C. B. & M. A. Allen, M.D. Educational Publishing Co., New York city, 1886.

This is a school book, and also designed for home reading, presenting the leading facts of physiology and hygiene in an allegorical form. The large sale of this work is evidence that it meets the want it is intended to fill. The authors say in the preface, that they have aimed to give a correct and scientific view, in such simple language, and with such correct illustrations, that they hope a better understanding of the subject will be given than has been generally entertained.

A Text-Book on Hygiene, by George H. Rohe, M.D., Professor of Hygiene in College of Physicians and Surgeons, Baltimore, Md. Published by Thomas & Evans, Baltimore. 1885.

This is purely an American text-book, and is exceedingly practical, clearly written, and more suggestive than exhaustive. It outlines the entire field of hygiene, and gives the reader a

good idea of the known and unknown which stretches out into the future awaiting discovery. The author, Dr. Rohe, is not only an able teacher, but an excellent writer, and has crowded into less than four hundred pages precisely the facts a busy medical man would wish to know. The type is good, and the division of the subjects are practical for ready reference. We most heartily commend this work to all our readers.

Nervous and Mental Diseases, influenced by the Climate of Colorado, is the title of an excellent paper by Dr. Eskridge, published in the *Journal of Nervous and Mental Diseases*.

The author says that many people in Colorado live irregular lives, use tobacco and alcohol to excess, and become diseased more quickly than in lower altitudes. Tea, coffee, tobacco, and alcohol when taken to excess brings on insomnia and irritable heart and temporary congestions, and more restlessness than elsewhere. Alcohol is the cause of most of the insanity dependent on the rarified air in some measure. He contradicts the theory that alcohol is more rapid in its action and transient in its effects in Colorado than at the sea level. The result of his study was that alcohol cannot be taken in large quantities and continuously without being followed by unpleasant symptoms, more quickly than in lower regions.

Psychology, by James McCosh, D.D., LL.D., President of Princeton College. I.—The Cognitive Powers. II.—The Motive Powers. 2 vols., 12mo, each \$1.50.

The first volume contains an analysis of the operations of the senses, and of their relation to the intellectual processes, and devotes considerable space to a discussion of sense-perception, from the physiological side, accompanied by appropriate cuts. The second volume continues the subject with a discussion of the power of the conscience, emotions, and will.

Professor William De W. Hyde of Rowdoin College, says,

"This book is written in a clear and simple style ; it breathes a sweet and winning spirit ; and it is inspired by a noble purpose. In these respects it is a model of what a text-book should be."

Elements of Physiological Psychology, by George T. Ladd, D.D., Professor of Mental and Moral Philosophy in Yale University. With Numerous Illustrations. 8vo, \$4.50.

Professor William James, in *The Nation*, says, "His erudition and his broad-mindedness are on a par with each other ; and his volume will probably for many years to come be the standard work of reference on the subject."

The above works published by Charles Scribner Sons of New York City, are the most valuable works on this topic that has appeared. We commend them to all our readers.

Facts about Tobacco, by Dr. E. P. Thwing, A. S. Barnes & Co., publishers, is a little work of popular interest, intended to convince the reader of the danger from the use of this narcotic.

Dr. E. P. Thwing, 156 St. Mark's Avenue, Brooklyn, N. Y., has put into a compact volume of eighty pages some valuable data entitled "*Hand-book of Anthropology*." Having compiled facts of anatomy and physiology bearing on the study, he enters the field of psychology and discusses the involuntary life, trance, mental dialogue, and hypnotism in their medical and moral bearings, and as related to therapeutics and surgery. The experiments, for example, of the treatment of seasickness by the trance sleep are very suggestive. The late Dr. Geo. M. Beard said that the record of these cases first read, in 1883, to the Academy of Sciences at New York, was the first contribution to medical literature in this department of psychic studies. The treatment of alcoholism, of opium neurosis, and kindred ills ; the homiletic bearing of the subject ; its relation to revivals, inspiration and miracles are but hinted at. It is a hand-book for students in the Academy of Anthropology of which Dr. Thwing was founder and four years president, but a book of unique and startling interest to the general reader on account of its predictive and monitory utterances. Cloth, 16mo, 40 cents.

The *Scientific American*, published by Munn & Co., begins the new year with superior attractions, and contains a great variety of scientific and mechanical news.

The *Homiletic Review* for January, has a bewildering variety of theological thought and stimulating criticism. It is published by Funk & Wagnalls, 20 Astor Place, New York city.

The *New York Medical Abstract*, published at 23 Fulton street, New York city, brings monthly a most excellent selection of foreign medical literature.

Good Health, a journal of domestic hygiene, published at Battle Creek, Michigan, is one of the best family journals on health matters published. Its editor, Dr. Kellogg, has a happy faculty of popularizing facts in science so they can be understood by all.

The *National Temperance Hospital Quarterly* is a little sheet devoted to the interests of this new enterprise in Chicago, Ill. Dr. Burnett is president, and the future of this hospital is very promising.

The *Phrenological Journal* of New York, under the care of Dr. Drayton, grows with each number and is, without doubt, one of the most liberal and progressive publications in this field.

The Popular Science Monthly, D. Appleton & Co., publisher, is a yearly volume of scientific thought that ranks with a cyclopedia, only coming every month, and filled with freshness and the strong individuality of its varied authors.

The Science of New York City, a large weekly devoted to all matters of science, is thoroughly reliable and exact in all its pages. Such a journal becomes a necessity in every family, as much so as a daily paper. No other journal competes with it.

The Electrical Engineer of New York, is one of the best journals devoted to this great new world of electricity, and its practical application to the work of every-day life. It is thoroughly scientific, clear, and practical.

Lend a Hand is a journal of philanthropy, edited in Boston, by Rev. Dr. Hale, that can be warmly commended to all who wish to know how and where to aid and build up better lives and living.

Editorial.

NEW YEAR.

The JOURNAL enters upon the tenth volume with this number. The year past has been most eventful in the discussion and acceptance of the great truths of inebriety. The few pioneers who helped launch the first number of this JOURNAL can now predict with certainty the direction and future of its voyage. On every side the currents of progress and evolution lead in the direction of the scientific study of inebriety. The long night of error is breaking away, and the lights of science and truth are gilding all the hill-tops and valleys with newer and larger views of life and its relations. The mists of the supernatural are fading away in the past, and all the phenomena of insanity, inebriety, criminality, and the varied forms of brain wreck are appearing as states of dissolution, moving in a progressive order governed by laws. The study of the origin, progress, cure, and prevention of inebriety is the special work of this JOURNAL. The facts along this line of study are not matters of controversy. This JOURNAL aims to present such facts, irrespective of all conclusions they may teach. If the facts show that the views of moralists and prohibitionists are correct, or that Christian Science is the best remedy for the inebriate, this JOURNAL will indorse and support them. Whenever any theory of inebriety or plan of treatment becomes established by well-observed facts, this JOURNAL stands ready to record and defend it. From infancy this JOURNAL has always had a large number of well-meaning critics, who have been and are continually urging us to indorse this or that theory. Occasionally a medical man or medical journal becomes alarmed at the statements of the JOURNAL, and writes long, personal letters protesting against them; but unfortunately they all assume that the management of this JOURNAL is in

the hands of persons who are without knowledge of inebriety in any true scientific sense. To all these critics this JOURNAL repeats the invitation so often given, to send with their views and theories the clinical proofs and facts on which they are supported, then the JOURNAL can place them before its numerous readers, and their reality can be tested by a larger audience.

The acrimony which appeared in the earlier years of this JOURNAL has disappeared, and it is now entering upon a new era, above all assumption and dogmatism; a period of accurate observation and study of the facts and laws which govern inebriety. Into this new year the JOURNAL enters with larger hopes and greater promises for the future. It appeals to every student of science and every worker in the ever-widening fields of truth. It points to new and unexplored realms of evolution and dissolution, where events follow in a majestic, uniform order, which can be ascertained. It appeals to every medical man to take up the subject of inebriety and teach the world the laws which govern its origin, growth, and prevention. The problem of inebriety will be solved in the coming century; its solution has begun in this JOURNAL, and no matter what theories prevail, the facts will appear sooner or later.

DISCUSSION ON THE MEDICAL JURISPRUDENCE OF INEBRIETY.

The New York Medico-Legal Society has lately given two evenings to the discussion of the above subject, thus placing on record the first scientific effort to group and harmonize the many conflicting views of inebriety urged by both professions. A symposium of papers were read by leading medical authorities on inebriety, and lawyers who had made medico-legal science a study. A number of leading men of both professions joined in the discussion which, in many respects, was remarkable for the general agreement as to the disease of inebriety, and the need of a legal recognition of

this fact. Different opinions were freely expressed on questions of responsibility, stages of vice, and degrees of punishment; and doubts were entertained of the danger of legal recognition of the disease of inebriety. Clark Bell, Esq., read an excellent paper on the rulings of the court in cases of inebriates who had committed crime. Dr. Parrish described the trance condition, and its legal significance. Dr. Wright called attention to the degrees of paralysis present in all cases of inebriety. Drs. Kerr of London, and Hughes of St. Louis, referred to the profound degeneration, both mental and physical, in these cases. Dr. Mann called attention to the concealed insanity of these cases, and the injustice of treating them as sane. Dr. Crothers outlined the duty of courts and experts called to determine the condition of criminal inebriates. Dr. Baker gave some very interesting statistics of inebriates who are arrested for crime. Dr. Hall mentioned some of the facts underlying the disease of inebriety. Mrs. M. Thomas urged strongly that inebriety was purely a medical subject which physicians should study and describe. A number of lawyers read papers on the legal bearings of such cases, and remarked on the views of the physicians. Judge Davis closed the discussion, but added nothing new to what had been said. The spirit and tone of these discussions were admirable, and indicated that both lawyers and physicians fully recognized the need of a better knowledge and practical application of the truths of science in the legal treatment of inebriates. The proceedings of these two meetings are to be published in a volume, soon, and will undoubtedly be the beginning of a new era in the medico-legal study of the inebriate who commits crime.

LOCAL OPTION IN RUSSIA.

In *The Voice*, published in St. Petersburg, is a very interesting report of a committee of government experts, called to devise some means of checking the increasing inebriety in the rural districts of Russia. It has been decided long

ago that each community had a right to forbid or permit the sale of spirits in its territory. In many places this was carried out in a most practical way. According to this report, some villages or communities early recognized the fact that the use of spirits could not be dispensed with and the best remedy was full and absolute control. Hence they organized communal spirits stores, and hired reputable men to manage them. These stores trusted no one able to pay, took nothing in barter for spirits, and sold nothing to men already intoxicated, or women. No adulterated spirits were sold, and each man in the community was personally interested to prevent all secret selling by other than the communal store. The profits of this store went to pay the expenses of the village church, repair the roads, and other public works. The government inspectors favored these stores, and all abuses were corrected in a most summary manner. The poor were given spirits free for medicinal purposes, and no one was allowed to squander his money or destroy his family by spirits procured at this place, nor could he procure spirits in the next town, without incurring punishment. The capital for this communal store must come from all the residents of the village, and it was the interest of all to have the business of spirit-selling conducted on the best basis with the least evil. This plan had been eminently successful in many communities. The commission suggests many reforms: one that the tramps and beggars should be gathered and forced to settle down on government lands in communities, and send their children to school and be taught useful labor. This would break up one prolific source of inebriety. The local governments should be given more absolute power to control the inebriate in his home, preventing him from committing suicide and ruining his family by drink. The clergy should be given a higher position in the community as teachers and leaders. The peasants should be granted greater facilities for education, and with this, protection in their landed estates.

The committee considered it perilous to absolutely sup-

press the use of spirits and introduce new views which the community do not understand, and which are not in accordance with their common experience. They urge that no single person should be allowed to sell spirits, but that its sale should always be by the community. The committee complain that much time and money are wasted in discussing theories of inebriety which cannot be applied practically.

They affirm that the subject is a social one and must be treated by the state and community; that no individual should ever be permitted to sell spirits for his own personal benefit; it is a dangerous power to place in any one man's hands. They close with an urgent appeal to study inebriety in each community, and the causes and surroundings which are active in producing it.

THE HEART IN INEBRIETY.

Malnutrition of inebriates in most cases is seen in alterations of the blood pressure and changes of the heart's action. Hypertrophy is the most common lesion. The increased heart's action brings an increased nutrition and growth of the organ. In other cases through some failure of the assimilative capacity, and the diminished blood supply to the heart tissue, sudden failure and permanent dilatation follows. In both of these cases, there is a failure of nerve force, to meet the sudden demands which may be made on the heart for increased action. The real causes of sudden deaths in inebriates are often this heart failure, or rupture of the ventricle. The sudden extreme action and burden of labor required of the heart in the first stages of intoxication, are not compensated for in the paralysis and reaction. This stupor does not furnish rest to this organ, because the nerve force needed is diminished and the nutrition checked. The muffled or the loud tumultuous sounds indicate clearly this failure. The degeneration from alcohol quickly affects the heart, and leaves it more or less permanently disabled.

THE ALCOHOLIC QUESTION.

A little work, with the above title, is creating a great deal of interest on the Continent of Europe at present. It was originally given as an opening lecture before the faculty of the University of Basle, Switzerland, by Dr. Bunge, the professor of physiological chemistry. It has been republished in almost every country and language in Europe, within a few months, and reprinted in most of the leading papers. Many points of this lecture will be of interest to our readers. The author begins his lecture with the announcement that the time has come to look at this subject fairly and honestly, above all theories or personal prejudices. The alcoholic question is a physiological one, and no intelligent treatment of this subject can be given except from physiological information. Alcohol is never a nutrient. The force and strength which alcohol rouses up can be of no value to the body, unless it can be shown that it is spent in developing normal function. The chemical energy of alcohol should be transformed into living strength to be a nutrient. This should be done in a certain way, and along a fixed line, which never occurs, consequently it is not a vital energy for the needs of the body. We have no evidence that the muscular fibers, tissues, or brain cells, can use the force developed by alcohol, to promote its strength or life. But we do know that the force needed for the body comes from the blood, and when this is deficient or wanting the body suffers. . . . It is urged that the force given out by the burning up of alcohol is useful in providing warmth to the organism. This is fallacious. The amount of heat may be raised, but its expenditure is also raised, and the loss of force increased. This is well substantiated by numerous experiments. The physiological action of alcohol is described with great minuteness, showing that its action is always a paralyzant, and never a stimulant. The physiology of intoxication is presented as evidence. The want of prudence and reckless extravagance of force and strength

shows that some central brain region is paralyzed. The increased heart's action, with increased loss of power, and failure to naturally economize the strength of the body is further proof. A very graphic picture is given of the effects of alcohol over the higher brain centers, as seen in the slow insidious failure to recognize all the relations of life and act upon them. Among these is mentioned the sense of weariness and tired feeling following work, and showing a loss of force, calling for rest. This is nature's warning and method of telling what is wanted. Alcohol taken in this state covers up this warning, and the demand is unheeded. The poor man destroys and blunts the very warnings he most needs for his future preservation. The workman who drinks beer and the nobleman who uses wine when wearied are both increasing the loss of force they seek to regain, as well as blunting their power of determining what this loss is. Many incidents are mentioned in proof of this, drawn from the armies and navies of the world, explorers, and others who have been subjected to severe strain. The danger of giving alcohol in cases of melancholy, neurasthenia, and other nerve and functional states are mentioned at length. In all these cases it covers up and perverts the voices of nature.

Beer is one of the most dangerous of drinks, because it is so insidious, and not only masks the real condition of the organism, but perverts all natural conceptions of the normal state. Beer disturbs the system less, but is more dangerous and holds in check all the natural warnings and voices of the body. Beer contains carboniferous and dextrine substances, which are always supplied to the body from other sources less elaborate and more easily assimilated. They do not contain nutrient substances, that cannot be had more easily from natural foods. . . . All scientific research are united in the conclusion that beer and wine are of no value as helps to digestion. They retard and slacken the chemical transformation of food in the stomach. In medicine this paralyzing action of alcohol is of great value in some

cases, to reduce heightened sensibility of the nervous system, and in many other ways. Accurate scientific researches have pointed out these cases, and given the rationale of the power of alcohol over them. Alcohol has not been found of use in chronic cases, but in acute cases its action resembles that of morphia and other narcotics, and is of great value.

One of the many degenerations which follows from the use of alcohol, is the perversion of the nutrient wants and power of discrimination in foods. The patient is constantly deceived by his perverted tastes and appetites. He uses food that cannot properly nourish the organism. Hence his entire system suffers from a degree of starvation, and continuous nutrient degeneration. The wine and beer drinkers as well as the spirit taker, have abnormal appetites for foods that are bad, and unnutritious. This is clear from a study of the inebriates.

The author thinks that in many cases the early causes of inebriety comes from bad foods, want of variety, want of flavor, and deficiency in nutrient qualities. He thinks children and young persons who have not had proper food, find in sweet wine and other drinks a nutrient want, and normal gratification of the taste sensation. From this they soon degenerate into spirit drinkers. If the diet in childhood had been of sufficient variety and had gratified this taste demand, wines and spirits would have been repelled, and never used except as medicine. He believes that one of the great remedies for the inebriety of the age, is an improvement in the diet of the people. If the money spent in perfecting wine and beer could be used in developing the knowledge of foods and methods of preparing them, so as to gratify this taste sense, and supply the body with the exact nutrition it demands, a rapid decrease in drunkenness would follow. He also asserts that any one who uses beer or spirits every day to relieve some abnormal appetite, is an inebriate or drunkard. The doctor discusses at length, the organic starvation, which leads to inebriety, and that which

follows after. He denounces the esthetic notion, that the organism must be repressed to bring out its highest functional activity. He thinks it is the great sin of the ages to attempt to crush out the body to elevate the mind; this has resulted most naturally in inebriety. We must begin at the bottom and work up on the side of physical forces, and show how alcohol dwarfs and degenerates the entire organism. Also show the great causes which can be checked in the beginning. The forces of heredity were described, and their potent power in the organism, and also other conditions, of which nervous exhaustion was most prominent, were mentioned. In the treatment, the folly of educating children from text-books on alcohol as in America was shown. The real remedy was in enlarged knowledge of the forces of environment, food, training, etc., etc. The inebriate should come under the laws as one mentally sick, and the State should control the traffic in spirits the same as of other poisonous drugs.

The speaker closed with an appeal for a larger practical knowledge of alcohol and the conditions of life which favored its use and abuse in the world.

This little work is a great step in advance of the previous notions of medical teachers in Europe. It indicates, beyond doubt, that the "alcoholic question" has taken deep root in the minds of medical men, and its solution is one of the great certainties of the future.

INEBRIETY IN AFRICA, AND ON THE CONGO.

The comparatively recent and enormous demand for spirits by the natives of Africa, opens up a new phase of the drink problems of great scientific interest. For ten years past the shipments of rum from New England, and gin from Holland, with spirits from other countries, have increased so rapidly, that Africa is now called one of the best spirit markets in the world. From the testimony of missionaries and

travelers it appears that the natives become inebriated at once from the use of spirits, drinking to stupor as long as they can get money or goods to pay for it. Both sexes and children develop a mania for spirits from the first drink, which seems to be without any free intervals, but continuous, only governed by the inability to procure spirits. Dr. Clark of Cape Town, writes: "The moment a native becomes intoxicated on spirits he seems to be possessed with an insane infatuation to keep it up. He becomes demoralized at once, and ever after can be influenced by the promise of spirits to do almost anything. The action of alcohol seems to be more pronounced on his brain, than on his muscular system." Mr. Thompson, a missionary on the Congo, writes: "Rum and brandy make imbeciles of the natives wherever it touches them. If the trade in these commodities is not stopped, all civilization and effort to develop these people will fail. In the place of childish credulity and ignorance, insanity and delirium will prevail, and rapid extermination will end the race." Canon Farrar has recently published in the *Contemporary Review*, an article "On Africa and the Drink Trade," which is a vigorous protest against allowing spirits to be sold to these natives. This paper has been published with a letter "On Free Rum on the Congo," by W. T. Hornaday, in a pamphlet by the *National Temperance Society*, New York city, containing a memorial to congress to aid in suppressing this traffic. From this interesting tract we learn that during 1884-5, nearly a million of gallons of spirits were sent from America to the west coast of Africa. That during this time over seven million gallons of spirits went to Africa from other parts of the world; making in all nearly nine millions of spirits poured into that country. The cape parliament in South Africa has gathered an immense amount of evidence on this point through a commission on the liquor traffic.

In addition to the unanimous conclusion of the injury and suffering from the use of spirits, the statement is made that the natives are rapidly killed by spirits. They have but

little resisting power to alcohol and succumb in a few months at the farthest after beginning to drink. Another statement is made that to the island of Lagos, with a population of thirty-seven thousand, over a million and two hundred thousand gallons of spirits are annually sent.

On the Congo the sale of spirits has outgrown all other articles of traffic. At the African conference at Berlin in 1884-5, it was voted by the representatives of all the great nations, to forbid slavery in the Congo region, but allow free traffic in rum. The result will be the certain and rapid extinction of the African races. How far the benevolence and charity of the age will force prohibition on the importation of spirits to Africa, is a problem. The effort is a grand one, and should receive the fullest endorsement of all.

It is evident from these facts that the disease of inebriety finds a most fertile soil for growth in these native races. Their nervous system responds at once to the narcotism of alcohol rapidly developing into profound degeneration and death.

The argument in the pamphlet mentioned, that it is criminal on the part of nations to allow spirits to be sold to these natives, is true, and reflects on the very spirit of civilization and progress.

INEBRIETY FROM GINGER DRINKING.

The increasing demand for ginger extracts and drinks, is a very significant hint of a new phase of the morbid drink impulses of the age. Several large proprietary establishments are devoted exclusively to the preparation of ginger extracts, essences, and drinks, which are extensively advertised as medicines, and preventive drinks for the diseases of the different seasons. It is a well-known fact that all these preparations are made with the poorest, cheapest spirits, and contain from thirty up to eighty per cent. of alcohol. In some instances wood spirits are used on account of the cheapness, and the intoxicating qualities of this mix-

ture are far worse than any alcoholic drinks of commerce. The demand for these ginger drinks is due to the alcohol they contain, the ginger in itself having but little influence on the body, although some enthusiastic writers assert that ginger taken in large quantities produces a distinct form of inebriety, marked by stupor and melancholy.

In two cases which have been reported where extract of ginger was taken in large quantities, profound nutrient disturbances, and inanition were present. The intoxication was less maniacal, and attended with profound depression. This would undoubtedly depend on the alcohol more than the ginger. From inquiries it appears that there are a large number of persons, who buy extract of ginger regularly, apparently using it as a common drink. The probability is that after a few months or years they abandon this drink for some stronger alcoholic drinks, or narcotics.

A new York druggist writes: "That the sale of ginger extracts to women are rapidly increasing; that he has over a dozen regular customers, who buy from two quarts to one gallon of ginger a week."

The sale of ginger in Maine was so great, that it was declared by the courts to be an intoxicant, and placed among the alcoholic drinks prohibited.

From a variety of evidence there can be no doubt that ginger drinking in this country has reached a dangerous magnitude, and those who use it any length of time are almost certain to become alcoholic or opium inebriates.

The extracts of ginger on the market are without exception dangerous, because of the dangerous alcohols they contain. Neuræsthenics and neurotics should avoid them as poison, and inebriates of every form will always find them treacherous remedies for every condition. For all the various functional disturbances they are supposed to relieve, pure alcohol is far safer, and less injurious.

In cholera and yellow fever the inebriate dies first and almost at once. They have no resisting power, and never recover when once attacked.

LECTURES ON INEBRIETY.

The president of the English Society for the Study of Inebriety, Dr. Norman Kerr, is to give the first course of medical lectures on the Disease of Inebriety and its treatment, in the hall of the London Medical Society, beginning Jan. 12, 1888. Dr. T. D. Crothers of Hartford, Conn., has been invited to deliver two lectures on the same topic, before the Albany Medical College, Jan. 24 and 25, 1888. These are the first medical lectures on inebriety, and the first efforts to present this subject in connected detail, by medical men, from a purely scientific standpoint.

We should be pleased to publish a long paper sent us, which seems to show that ninety per cent. of all the inmates of an inebriate asylum were permanently cured by the pledge and conversion, but most unfortunately it has come to our knowledge that three inmates of this asylum have been received and discharged eight times in one year. We infer they were put down on the books as permanently cured, each time they left the asylum. Of course we can not doubt the statements of those who are presumed honest, but the asserted facts are so entirely unsupported by all other experience of equally capable and honest observers, that we must decline this paper. The writer assumes that in no other asylum has prayer and conversion been tried, but he forgot that every church and temperance society have tried these means for half a century. Had they been effectual there would have been no need for an asylum for inebriates.

We have received a paper for publication in this journal, from a very excellent but mistaken clergyman. The central idea of the paper is that a large part of the inebriety of the present time is due to the careless use of alcohol in the sick room, and the use of alcohol as a remedy. This he believes to be true, from the fact that a large number of physicians

were intoxicated at the banquet at the international congress at Washington. He argues from this that physicians are not temperance men, and that the great need is for work among them. He offers very kindly to give us material aid if we will concentrate our work to the spread of teetotalism among medical men. In answer to our inquiry of how he ascertained the number of intoxicated persons at the banquet, he answered his brother was present and gave him the facts. Our personal observations at this banquet indicated a different conclusion. A specialist of similar views joined us in a careful scrutiny of the three thousand physicians who were at this banquet, where wine and other spirits were free as water. In all that company only one man was visibly intoxicated. A half a dozen or more were exhilarated, and showed the transient excitement of wine. A dozen more had marks of being inebriates, but seemed to be abstaining at that time. It was clearly evident that the American physician as seen at this place was far more temperate as a class than the average man in other callings of life. We conclude that a mistake has been made, and the publication of this paper, or a crusade among medical men, will be impracticable at this time. We would assure our correspondent while it is true the thoughtless use of spirits in the sick room often does great injury, and many physicians are inebriates, yet these are small factors in the great chain of causes of inebriates and inebriety.

Readers interested in the workings of high and low tariffs in the various civilized countries of the world, will find an unusually readable discussion of the subject by Hon. David A. Wells, under the title of "Governmental Interference with Production and Distribution," in the January number of *The Popular Science Monthly*.

The enterprise of Wm. Wood & Co., in reporting and distributing to the medical journals of the country a full report of the International Congress at Washington, cost over four thousand dollars.

Clinical Notes and Comments.

MEAT STIMULANT AND SEDATIVE.

The withdrawal of alcohol and opium in cases of inebriates is always followed by intense neuralgias, insomnias, and neuræsthenic conditions. To find effectual remedies for this condition is often very difficult. Favorite prescriptions and old time remedies frequently fail, and the physician is ever on the alert for new preparations that will answer this demand. Some months ago we tried the well-known "Valentine's Meat-Juice" in these cases, with most excellent results. As a pure stimulant, the effects of which seemed to last a long time, and be followed by no reaction, it exceeded all other remedies. In some cases this (to us) remarkable stimulant action was followed by a sedative effect, and insomnias, which had been intense and persistent, broke up at once. In one case a lady who had suffered from hysteria and inebriety for years, and was considered an incurable, was given this remedy as a mere coincidence, and was fully restored from the drink craze and greatly improved in health. In the case of an overworked business man, who used alcohol to break up the insomnia, a few weeks' residence in the country with no other remedy but this Meat-Juice brought on a complete restoration and cure. Its stimulant action in a case of alcoholic melancholy broke up both the use of spirits and effectually cured the case. An inebriate who used both alcohol and opium, recovered by the use of the Meat-Juice and hot baths in his home. Our experience is yet limited in the use of this form of meat juice, yet we confess with surprise that the same results have not been obtained from the use of meat extracts prepared according to the regular formula. This is no doubt owing to the superior scientific method of extraction or preparation, by

which the albumen is not coagulated and the volatile principles of the meat are retained. We take pleasure in calling attention to this preparation for the purpose of stimulating further inquiry and experiments, and in the hope that this meat juice will be found a valuable agent in these most difficult of cases.

From our experience it seems very probable that from meats most valuable stimulant narcotic and nutrient remedies may be found. The Valentine Meat-Juice Company is an old firm, and this preparation has been on the market for years, hence we feel great confidence in urging our readers to make a special study of its action in cases of inebriety, and if possible determine its real value. The pages of our journal are open to record all new experience with this remedy.

PRIZES FOR ESSAYS ON MEDICO-LEGAL SUBJECTS.

The Medico-Legal Society of New York announces the following prizes for original essays on any subject within the domain of medical jurisprudence or forensic medicine: 1. For the best essay, one hundred dollars, to be known as the Elliott F. Shepard prize. 2. For the second best essay, seventy-five dollars. 3. For the third best essay, fifty dollars. The prizes to be awarded by a commission, to be named by the president of the society, which will be hereafter announced. Competition will be limited to active, honorary, and corresponding members of the society at the time the award is made. It is intended to make these prizes open to all students of forensic medicine throughout the world, as all competitors may apply for membership in the society, which now has active members in most of the American States, in Canada, and in many foreign countries. All details of the award will be determined by the executive committee of the Medico-Legal Society of New York. The

papers must be sent to the president of the Medico-Legal Society of New York on or before April 1, 1888, or deposited in the post-office where the competitor resides on or before that day. The name of the author of any paper will not be communicated to the committee awarding the prizes. All persons desiring to compete for these prizes will please forward their names and address to the president or secretary of the Medico-Legal Society of New York. In case the essay is written in a foreign tongue, it should be accompanied by a translation into the English language. It is hoped that all our members, whether active, honorary, or corresponding, will take an interest in this effort to stimulate scientific inquiry and research in questions relating to medical jurisprudence.

Scientific societies in all countries are invited to lay this announcement before their members, and the coöperation of the legal, medical, and public press is respectfully solicited in bringing the subject to public attention.

CLARK BELL, *President,*

57 Broadway, New York city.

ALBERT BACH, *Secretary,*

140 Nassau St., New York city.

STARTLING STATEMENT.

An exchange says, that in this country we have about 180,000 men and women engaged in the sale of intoxicating liquors, and that the number of drinking saloons to the inhabitants in the different States is as follows :

Nevada,	1 saloon to	65 inhabitants.
Colorado,	"	65 "
California,	"	99 "
Oregon,	"	176 "
New Jersey,	"	179 "
New York,	"	192 "
Louisiana,	"	200 "
Ohio,	"	225 "
Connecticut,	"	226 "
Massachusetts,	"	256 "

Delaware,	1 saloon to	258 inhabitants.
Pennsylvania,	"	265 "
Rhode Island,	"	266 "
Illinois,	"	267 "
Maryland,	"	293 "
Wisconsin,	"	304 "
Minnesota,	"	311 "
Missouri,	"	337 "
Michigan,	"	350 "
New Hampshire,	"	376 "
Iowa,	"	377 "
Indiana,	"	380 "
Kentucky,	"	438 "
Nebraska,	"	487 "
Tennessee,	"	525 "
Texas,	"	549 "
Arkansas,	"	554 "
Alabama,	"	608 "
Georgia,	"	612 "
Florida,	"	653 "
Mississippi,	"	654 "
Virginia,	"	693 "
North Carolina,	"	708 "
Maine,	"	731 "
Vermont,	"	812 "
West Virginia,	"	817 "
Kansas,	"	877 "
South Carolina,	"	908 "

In the testimony at the inquest of Col. Mathews, a retired English officer, and inebriate, who died in a hotel in London, it appeared that his weekly bills for brandy and soda was from ninety to one hundred and twenty dollars a week.

Wide Awake, 1888. The readers of this wonderful magazine for young people are so accustomed to good reading and pictures that they will wonder how it is going to be better than ever this coming year. But it is. The new year has already begun with the holiday number just out—a truly great number, larger and richer, more varied, and therefore it must be better than ever before. And the publishers have a

primer to send to those who want to know what *Wide Awake* is going to have in it in 1888. The wonder is that such a library and picture-gallery can be got together for \$2.40 a year—a thousand pages and everything fresh and new—stories, history, travels, biography, sketches, anecdote, adventure—and all instructive, as well as entertaining. Two worlds are drawn from to make such provision for the education and pleasure of our children. So high is the best of young people's literature nowadays that we are all of us glad to be young. Nine-tenths of reading people prefer it to what is written for them; for it has the rare merit of being easy as well as good. We know of no gift so sure of bringing a happy response in a reading family. Send \$2.40 to D. Lothrop Company, Boston.

A Half-Century of Science. By Prof. Thomas H. Huxley and Grant Allen. J. Fitzgerald, publisher, 24 East Fourth street, New York. Price, fifteen cents, post-free. The progress made by science within the last fifty years is the most noteworthy phenomenon of recent history. In the work before us that momentous episode finds adequate record and exposition, one of the authors, Professor Huxley, being the foremost biologist of our time as well as a recognized leader of scientific thought; and the other, Mr. Grant Allen, one of the most successful popularizers of the results of scientific research. It forms No. 96 of the "Humboldt Library of Popular Science,"—a series containing many of the scientific works which have in our day revolutionized the intellectual and moral world. Such works must command the attention of every intelligent man who would understand the mind of the age in which we live.

REMEDIES IN INEBRIETY.

This journal has always taken great pains to urge its readers to test the various nutrient foods and medicines that are advertised in its pages. Inebriety has so large an element of defective and perverted nutrition, that, in many cases, these remedies have a most excellent effect. In some cases these remedies act like specifics, and in others they fail to have any marked effect. We have requested some of our readers who have ample opportunities for testing these remedies to send us the results of their experience for the

benefit of others. The following are some of the statements of physicians who have tried these remedies :

The *Coca Cordial*, by Parke, Davis & Co., has been found of great value in the exhaustion which follows from the withdrawal of opium; also in cases of nausea and melancholy following inebriety. Where the spirits are gradually withdrawn, Coca Cordial is a most pleasing and valuable substitute.

Lactated Food, by Wells, Richardson & Co., seems to have been very fully tested, and to have proved of great value in all nervous cases with nutrient debility. In one case under our care, large doses an hour before retiring broke up a degree of insomnia that was very distressing.

Peptonized Cod Liver Oil and Milk, by Reed & Carnrick, New York city, is very highly recommended by many of our correspondents, especially in all wasting diseases and where there is profound exhaustion. No other form of cod liver oil can compare with it in nutrient value.

The *Maltine* preparations, by the Maltine Company of New York, are recognized as invaluable as tonics and nutrients.

Fellows' Hypophosphites, by J. I. Fellows of New York city, has evidently come into very general use. In our experience, it has always acted promptly as a tonic in all cases of nerve and brain disorder. In two cases of incipient phthisis this remedy seemed to ward off the disease and prevent what, without doubt, would have been an early death.

Lactopeptine, by the New York Pharmaceutical Association, is without a rival for all disorders of digestion. In melancholy, hypochondria, and all forms of dyspepsia, from whatever cause, this remedy can be used with great confidence and certainty. Like Chinchania, it is a standard remedy, that should be always in the stock of every physician's office.

Bromidia and *Papine*, by Battle & Co., St. Louis, are both hypnotics and anodynes of great value, and in the treatment of inebriates and nervous cases are indispensable. The Bromidia is a very excellent combination, and every one should try it in preference to any other.

Horsford Acid Phosphate has become a standard remedy which needs no compliments. It can speak for itself in all cases of brain and nerve debility.

THE HIGHLANDS.

A FAMILY HOME FOR NERVOUS AND MENTAL DISEASES.

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This "Family Home" is conducted by Dr. Ira Russell and Dr. Frederick W. Russell, both of whom have made the study and treatment of mental and nervous diseases, physical and nervous exhaustion, opium and alcoholic inebriety a specialty. The Home is not an institution or asylum. It is to all intents and purposes a "Family Home," where everything is made as homelike as possible. Patients are not subjected to the care of common nurses, but are provided with companions. Intelligent gentlemen are employed as attendants and companions of the male patients, and educated American women of experience are the attendants and companions of the lady patients.

The feeling of social degradation that is commonly felt by patients in Retreats and Public Institutions, who are subjected to the control of uncultivated nurses, is not experienced here. The utmost possible liberty is permitted, under suitable guardianship, to all the patients, and each one is regarded and treated as a member of a private family. Each case receives the attention and study given to private practice, and when needed the ablest medical talent in the country is called into consultation.

The Highlands, so called, is a pleasant mansion with cottages annexed, situated in the midst of ample grounds, on an eminence overlooking the town of Winchendon and the valley of Millers River. From the windows a superb range of hills and mountains can be seen, reaching from Wachusett in the southeast to Monadnock in the northwest.

A piano room, billiard room, bowling saloon, and ample stabling are provided on the grounds. The drives in the vicinity are considered delightful, and for healthfulness of location the Highlands are unsurpassed.

Dr. Ira Russell is the founder and superintendent of the Home, and letters of inquiry can be addressed to him, or to Dr. F. W. Russell, the assistant superintendent. For information we are permitted to refer to the following gentlemen:

- | | |
|--|---|
| C. F. Folsom, M. D., Prof. Mental Disease, Harvard College, 15 Marlboro St., Boston. | G. F. Jelly, M. D., 123 Boylston St., Boston. |
| W. C. Williamson, Esq., 1 Pemberton Sq., Boston. | C. H. Hughes, M. D., editor of <i>Alienist and Neurologist</i> , St. Louis, Mo. |
| J. H. Hardy, Esq., 23 Court St., Boston. | E. C. Spitzka, 120 E. 50th St., New York, N. Y. |
| Rev. G. J. Magill, D. D., Newport, R. I. | W. W. Godding, Superintendent National Insane Asylum, Washington, D. C. |
| Wm. A. Hammond, M. D., 43 West 54th St., New York. | Clark Bell, Esq., editor of the <i>Medico-Legal Journal</i> , New York City. |
| S. G. Webber, M. D., 133 Boylston St., Boston. | T. D. Crothers, M. D., Hartford, Conn. |

THE QUARTERLY JOURNAL OF INEBRIETY,

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Address,

T. D. CROTHERS, M. D., Editor,
HARTFORD, CONN.

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ALCOHOLISM AND OPIUM HABIT,

By T. D. Crothers, M.D.,

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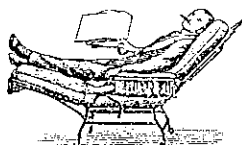
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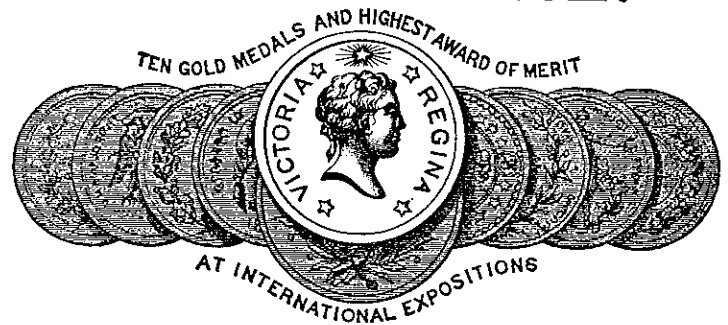
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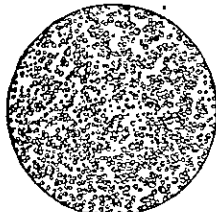
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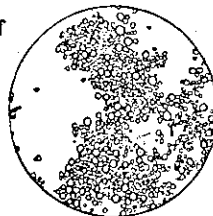
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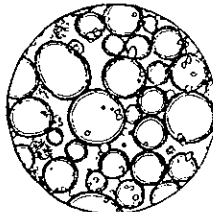


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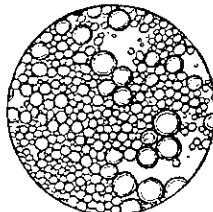


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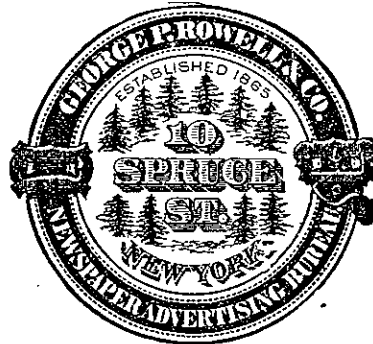
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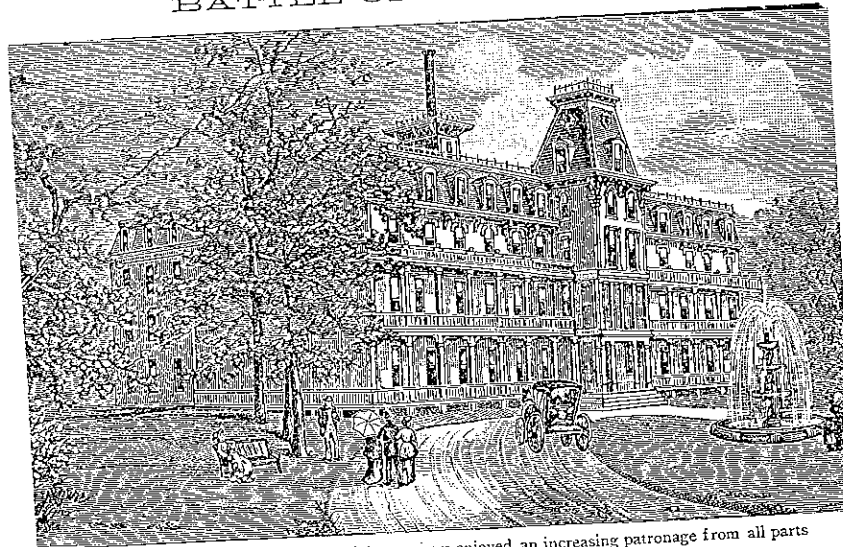
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VOL. X.—16

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P every hour until

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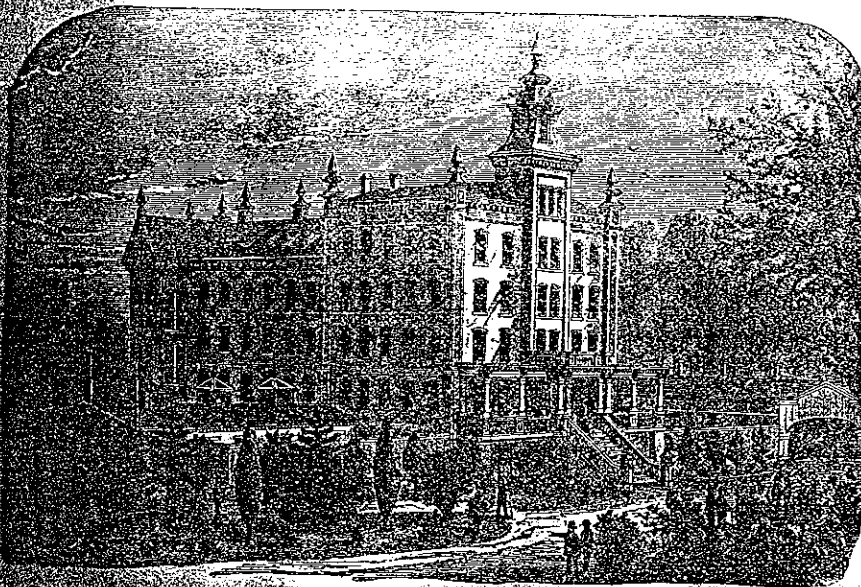
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