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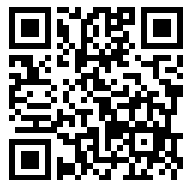
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THE QUARTERLY JOURNAL

—OF—

INEBRIETY.

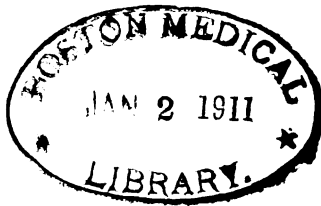
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T. D. CROTHERS, M. D., Editor,
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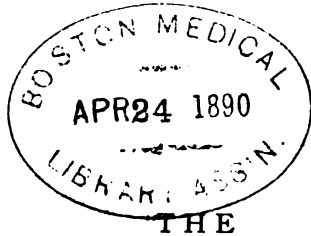
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THE MEDICAL JURISPRUDENCE OF INEBRIETY.*

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 to-day, 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. I. *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 Guysling v. Van Kuren*, 35 N. Y., 70; *Aiken v. Weekerly*, 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 in re*, 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*, 8 Blackf., 151; *Lathan v. Wiswall*, 2 Ired. Eq., 294.

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

‡ *Wadsworth v. Sharpsteen*, 8 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.‡

* *Kenny v. People*, 31 N. Y., 330; 27 How., 202; 18 Abbott, 91 *Lonergan 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; *Kenny 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 Hump., 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.*, 8 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; *Maconnechey v. State*, 5 Ohio, § 77; *Carter v. State*, 12 Tex. Ap., 500; *Buswell on Insanity*, § 158; *Erwin v. State*, 10 Tex., 700.

‡ *Lonergan 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.

§ *Lonergan 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 *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. 246-248.

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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 import.

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.

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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, diarrhœa, 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
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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 Chirurgical 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 unfelt.

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 trolling 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 Bowdoin 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 cyclopaedia, 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 presumedly 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 experiment, 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, *Coça 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.

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ALCOHOLIC HEREDITY.

DR. F. LENTZ,

Medical Director Government Insane Asylum at Tournai, of Belgium.

Alcohol does not alone affect those who abuse it, but afflicts more or less grave disorders upon their children. The symptomatology is called hereditary alcoholism. Many books have been written on this topic, but heredity in nervous diseases resembles so closely the symptoms of alcoholic heredity, that the latter cannot always be distinguished. Another cause of obscurity is owing to the fact that alcoholic excess does not necessarily come from alcoholism, and that alcoholism can exist apart from alcoholic excess. Alcoholism by itself in the ancestors does not necessarily predicate heredity in the descendants. This requires a whole group of symptoms. Many families in which excess have happened escape alcoholism, for the reason that a sufficient number of predispositions did not exist to cause it to take on a morbid form.

Historically, alcoholic heredity was known since the days of mythology. We are told that Vulcan lame was conceived by Jupiter drunk. Diogenes, addressing a stupid child, said, "Thy father was drunk when thy mother conceived thee."

Aristotle declared "that a drunken mother would produce drunken offspring." The legislation of Lycurgus promoted drunkenness in vanquished nations, that it might extinguish patriotism.

The Carthaginian law prohibited any drink but water on the day of cohabitation with one's wife. Numerous ancient and modern authorities have repeatedly called attention to the serious and varied effects of parental drunkenness in the offspring. The first serious study was by the celebrated alienist Morel. He first defined the foundations of alcoholic heredity. His successors have done no more than develop what he had discovered.

There are admitted to be two general forms: First, the homologous heredity, or that of similitude. Second, heredity of transformation, or eccentric heredity. In the first form the progenitor gives to the descendant his tendency to alcohol, or symptoms of his alcoholism. In the second form the alcoholized mental state of the progenitor becomes transformed into the varied nervous disorders of which the body may develop. No alienist of to-day denies this direct heredity. The examples are too frequent and striking; but it must be remembered that heredity will appear under the most varied forms. There is but little agreement among authors about the frequency of its transmission. Dr. Dodge claims that fifty per cent. of all inebriates were hereditary. Dr. Beare believes that twenty-five per cent. are inherited. Dr. Kerr thinks over fifty per cent. Dr. Magnan claims eighty per cent. Dr. Parrish eighty per cent. Dr. Crothers eighty per cent. Dr. Day seventy per cent. Dr. Mason sixty per cent.

The mere appetite for drink transmitted from the parent to child presents so many varied aspects that it is difficult to define any exact law for its manifestation. It is not rare to see it reproduced in the child with the same characteristics as exhibited in the parents. As a general law, it may be stated that hereditary alcoholism begins early, augmenting, reaching its climax, and showing its greatest activity at man-

hood and at the menopause. Notwithstanding what we have said, heredity does not always reveal itself by this disordered appetite for drink.

Heredity not unfrequently shows itself by irritability, instability, and a vicious moral disposition, which seems to place the sufferer under some burden to find an excitement which will relieve him from his suffering. The laws of nervo and psychopathic heredity govern heredity drunkenness. For this reason it may be mediate or immediate, coming direct from parents or skipping several generations in their descent.

Apart from the question whether strong drink produces alcoholism or alcoholism produces a desire for strong drink, it is certain that a variety of mental and nervous disorders engenders a desire for strong drink. Unfortunately the control of these cases is wholly unknown to us. This constitutes the first variety of heredity of similitude, which is the simple transmission of the defect from parent to child. A second variety of the same form is more discussed. This exhibits in the descendant symptoms of chronic alcoholism without any accompanying alcoholic excess. It is well ascertained that the drinker does not transmit the vice of drinking, but the disease of alcoholism. Sensibility is diminished in their descendants, and they have varied and complex symptoms of complex nervous disorder.

The author cites two cases of the homiletic type, in which various nervous symptoms were present, but does not deem them marked typical cases. The heterotype form is more easily defined. Numerous observations render it certain that epilepsy occurs under a reflex excitability produced by alcoholic heredity. The same mother with a sober man gives birth to healthy children, and with a drunken man to epileptic children. Statistics prove the presence of epilepsy in the children of drinking parents. Of eighty-three epileptics, sixty have been traced to drinking parents. Youthful convulsions are not less infrequent than epilepsy. In the families of sixty alcoholics, there were one hundred and sixty-

nine survivors, forty-eight of which experienced convulsions in childhood. In the case of twenty-three non-alcoholic families, having seventy-nine survivors, only ten had convulsions in youth.

Another form of the heterotype order is seen in the hysteria and sensitive states of women. In men, under the name of nervosisme, it offers an infinite variety of symptoms. A certain number of these nervous symptoms leave no doubt of their alcoholic origin. The digestive function is especially the seat of these disorders, prominent of which is nervous dyspepsia, vomiting, hyperæsthesia, insomnia, dreams, enfeebled muscular force, capricious character, and so on.

The following clinical observations make this class more clear: A laborer, with alcoholic father, mother, and sister, died of lung disease. He had convulsions in youth, is neuralgic, has headaches, stomach troubles, and is weakly. His character is unrestrained, imperious, and he has fears of becoming insane. He drinks but little wine, because it disagrees with him. B, a woman with an alcoholic father. She has vomitings every few days, although her menses are regular. For several years this dyspepsia is more pronounced at the menstrual period. Goes often without eating, and has cramps of the stomach. Laughs and cries, and is very emotional at times. Has a nervous laugh, and neuralgia and analgesia all over the body. Sensibility to heat and cold is gone, and the sense of taste and smell greatly diminished.

These cases give only some symptoms of the varied nerve troubles which follow from an alcoholic origin. These states represent a continual progression from a simple neuropathic temperament to the most pronounced nervosisme. With women this nervosity is revealed by more or less pronounced symptoms of hysteria, unaccompanied by convulsive attacks. A third manifestation of alcoholic heredity is impulsive madness, more rare than others. These are not explained apart from hereditary taint. Often it is the expression of an extended neuro-psychopathic condition. The moral perversions and atrocious crimes often seen can only be accounted for by

the alcoholic inheritance. In addition to this and opposed to it is another form of mania, consisting of a delirious obsession, which completely controls the idea of the person, despite all his efforts to prevent it. Its approach is known to the sufferer, but he cannot deliver himself from it. It has only recently been described, and should be considered a consequence of alcoholic ancestry.

Krafft-Ebing describes two cases of this kind, both of which had alcoholized fathers. One of these cases was a work-woman. She was hysterical from youth; once had slight loss of consciousness; the obsession approached gradually and consisted of melancholy and religious terror, with perplexities about dogmas. These culminated in a conviction to abstain from all food and drink. From simple mental weakness to absolute idiocy there are grades of degeneration which can be ascribed to hereditary alcoholism. These affections may be congenital and primitive, or consecutive, in the sense that the slightest cerebral derangement will result in irreparable mental weakness. Lunier thinks fifty per cent. of those who exhibit moral imperfections are traceable to alcoholic forefathers. Beyond the definite cerebral and psychical derangements which we are acquainted with, there are many moral and intellectual perversions which alcoholic ancestry fully explains. These persons are the prey of moral degeneration inherited direct from their parents. From youth they exhibit the worst instincts, are cruel, vindictive, and quarrelsome. Their delights are in witnessing suffering and tormenting others. Later they are lazy, undisciplined, and vagabonds. Usually it is impossible or very difficult to educate them, and the period of puberty is the sign for throwing off all restraint. Idleness, indecision, vagabondage, moral perversion, restlessness, drink, and venereal impulses are their principal characteristics.

These persons exhibit a wonderful precocity in developing the drink habit, resulting in alcoholism more dangerous from the fact of previous disposition to degeneration. They end by falling into the instinctive moral manias, the existence

among criminals, which has been so much discussed. These subjects usually pass through many jails and prisons before ending in asylums.

Alcohol is even worse in its inflictions on the physical nature than on the moral. Children of alcoholized parents are nearly always timid, feeble, pale, bad nutrition, and lessened vitality, making them an easy prey to attacks of sickness. The muscular system is but little developed, and they suffer from general imperfect growth in all directions. One of the consequences of alcoholic heredity is the partial and unequal development of the brain, amounting to general or partial atrophy, unilateral, and accompanied by cranial malformations. With the microcephalus the organic development is incomplete, the cranium and superior region of the head is asymmetrical, the body homiatrophical.

Another consequence of alcoholic degeneration is hydrocephalic, and also infantile paralysis. In another order of observation it is found that alcoholic heredity diminishes fecundity and birth. Lippich has demonstrated that alcoholized marriages produce two-thirds less children than among those who were temperate. There can be no doubt that alcoholism affects the generative function of both sexes. The testicles undergo degeneration in alcoholized persons. The spermatic fluid shows this in the well-marked changes it exhibits, robbing it of the vitality indispensable to conception. The alcoholic cachexia, after it has attained sufficient intensity, will produce this, although the organs may not be themselves diseased.

Many examples of women are noted who have had children by their first marriage, whose subsequent union was barren with an alcoholized husband, and also the reverse. Women may become sterile by alterations of the ovaries and matrix, and abort before maturity. From this point of view alcoholism in the mother is a more serious trouble than in the father.

ALCOHOL ON THE BRAIN.*

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

This occasion is the outgrowth of the most grand and beneficent movement of the age in which we live, a movement designed to raise the fallen and to inspire with new hope the despairing. The place is most fitting, this great city—the center of the population, the wealth, and the enlightenment of the whole world. It is, therefore, eminently proper that we each should place on the altar of humanity some small offering in furtherance of the central idea which has brought us here from every clime under the sun. In following out this thought I beg leave to ask your attention for a few moments. The time has come when some practical application of the principles developed by the study of Inebriety is desirable. The anæsthetic, the benumbing, the paralyzing influence of alcohol upon the nervous system, and especially upon common sensation, always darkens knowledge, always misleads judgment. And this is of necessity the case, because the perceptive faculty is so intimately associated with, if it is not wholly founded upon, sensation. When the senses are disturbed and impaired, perception is correspondingly disturbed and impaired; and it is unable to present to the mind facts as they truly are, as they really exist in the surroundings. The fine shadows and uncertainties and doubts which invariably attend all human transactions, escape the notice of a man who is intoxicated; and not being perceived by him, he imagines they do not exist. Everything has, to his mind, the quality and energy of absolute demonstration. He never hesitates, never doubts. He is, therefore, a very bad, as well as a very dangerous, witness in a court of justice, and particularly in crim-

* Remarks at reception of Dr. Crothers in London, July, 1887.

inal proceedings, where he is very likely to appear — bad from defective knowledge, and dangerous from a morbid positiveness in conviction and assertion. It seems probable, indeed, that a drunken witness testifying as to events observed while sober is more trustworthy than a sober witness testifying as to events observed while intoxicated. These incapacities are inseparable from the use and influence of alcohol ; and even the moderate dram of ardent spirits — to some extent it may be small — will remove, will dislodge, the human character from the highest position it is capable of occupying — that of a sound mind in a sound body. I will, with your permission, touch upon another point. There is a great deal said about heredity, and the various causes which incite to drunkenness. These things are rightly and properly said, for, not only is there often an inborn predisposition to drunkenness, but there may be also an acquired predisposition. The latter accompanies the establishment of a neurotic constitution through physical injury, or prolonged and profound disease, or some overwhelming bereavement, and so on. Yet this predisposition does not, all of the time, impel to drunkenness. Very often drinking is not indulged in, and is not desired. There is, therefore, something else, something additional which calls for intoxication at particular times. What is the actually present force bearing on the nervous system which incites with such irresistible power to alcoholic indulgence? The answer is, the neurotic constitution is one of non-symmetry of function — one of distraction amongst the several sub-systems of nerves, which, when operating in harmony, distinguish the normal man. This inharmonious activity in the nervous systems may be, and often is, slight at times. But like some fault in the perfect working of machinery, every movement increases the disturbance until the whole nervous organism becomes excited and distressed. It is to subdue this that alcohol is taken. For the paralyzing influence of that substance abates pain and overcomes the disturbance in nervous unity of action. At length the time comes when a re-adjustment amongst the several

nervous functions becomes imperative. There is a continuous irritability of nerve. If trouble is not real, trouble will be imagined. An unceasing and insupportable nagging from nervous distress and universal hyperæsthesia will torment the physical and mental and moral powers. There is no period of abatement, no city of refuge. Rest, repose is indispensable. The agony is dreadful, and it must cease, or a resort to suicide is threatened as the last and only remedy. What now happens? A convulsive movement, like some great seismic upheaval, takes place in the form of drunkenness. For a time, the re-adjustment in the harmony of nervous function is accomplished, and repose ensues. To secure this result, a stoppage of the nervous storm and tumult in nervous function is indispensable, and the paralyzing and anæsthetic influence of alcohol is called in to secure the desired rest. It is not for excitement that, most commonly, alcohol is taken into the system; it is to secure repose; and this repose is simply paralysis. In the paralysis of sensation, pain is abated; in the paralysis of the co-ordinating nerve centers, the moral and sympathetic distresses no longer harass and agonize the system. Alcohol is a complete remedy, for paralysis means death; and the paralysis of alcohol extends throughout the whole body. It is seen in the motor system through the staggering gait, the imperfect articulation, and the distorted countenance. It is seen in the organs of sensation through anæsthesia, and the suspension of the sense of feeling. It is seen in the intellectual functions through the incoherence and confusion of mind, and the intrusive distortions in the ideas and imagination. It is seen in the moral sense through the loss of that sense, and the inflow of untruthfulness, deceit, and prevarication. The fact is that drunkenness is a temporary suicide, which is frequently sought by the neurotic inebriate, in the unconsciousness of drunken stupor. Again: the man of sober and equable temperament will point to alcohol, and say to the inebriate, "This substance will affect me just as it does you, yet I abstain without difficulty, while you resort to it in spite of

the disasters it entails. It is useless to declare that you cannot forbear as well as others." The error lies in contemplating the nature of alcohol, and leaving out of view the nature of the victim. It is not the strength of the alcohol which determines the event, as much as it is the weakness of the inebriate. A feeble assault is successful when the defenses are weak, while the same assault is easily repulsed when the defenses are strong. A neurotic constitution is one wherein the bulwarks of nerve power and endurance are thrown down, and where, in consequence, temptation gains easy entrance. Build up the resiliency of nerve function in the inebriate by adequate mental, moral, and especially by hygienic and medicinal appliances; remove the weakness of body and mind and will; restore their strength and endurance, and then the onslaughts of alcohol will be vain. In view of the march of scientific and unprejudiced investigation, the following conclusions appear to be warranted:—

- 1st. The condition of drunkenness, by impairing sensation and consciousness, renders the acquisition of accurate knowledge impossible, and the legal testimony as to facts observed in the drunken state should be viewed with suspicion.
- 2d. The inebriate constitution is neurotic, and founded upon instability of nerve energy and the discordance of nervous function. This is shown by the disruption of the normal interdependence that should subsist between the several nerve sections, both as to the power and the time of their mutual activity.
- 3d. Inebriety is a physical disease, exhibiting most commonly periodical symptoms. It is at once evinced and demonstrated by an imbecility of the will, and of the controlling and conservative powers of the nervous system in general.

In Switzerland temperance reformers continue to make headway, but the Germans have hardly yet grasped the idea that alcohol is pernicious as a beverage in any form or degree. In Austria the government has had a bill presented to restrict licenses, to punish drunkenness, and make debts for liquor void in certain cases.

PRISON EXPERIENCES WITH INEBRIATES.

BY LUCY M. HALL, M.D., BROOKLYN, N. Y.*

What makes the inebriate, or, in rough Saxon, Why do men get drunk ?

Twenty years ago no one asked this question. Now there is hardly any one who is not asking it.

That every morning a vast army of people should arise in the possession of their sober senses, who before the day is over will, by their own deliberate act, become stupid, stumbling imbeciles, or frenzied, dangerous maniacs, has at last presented itself to the mind of the scientific world as a problem, and more, as a problem which requires solution. Following closely upon this has come the other problem, what shall we do with the inebriate ?

Of more than two hundred inebriate women examined and subjected to the most careful scrutiny by me, I found more than seventy who gave what seemed conclusive evidence that somewhere in their wretched history they had passed the point where self-control is lost, and poor human nature is left helplessly to follow wherever the temptings of a remorseless appetite may lead.

Here is a woman, well reared, always sensitive and proud, once beautiful and rich, who, for a score of years, has been making her dreary round, drunk to-day, arrested and sentenced to-morrow, forlorn, hopeless, deserted by friends and foes alike, one of humanity's dregs, and yet maintaining a sort of remnant of her old-time stateliness and refinement of manner, when the prison doors are barred between her and her tempter. Every shadow of her perception of self-control has long since passed away. The sight or odor of intoxicating liquors throws her into a state of frenzy as loathsome as it is uncontrollable. Her moral sense is absolutely nil.

* Read before the Medico-Legal Society.

Here are two others, young girls scarcely sixteen years of age, one blue-eyed and sunny-haired, the other dark, but equally pretty and pleasing. What have these two in common with the poor wretch just described? Only this, they are drunkards. Never in their lives have they been able to leave untouched any intoxicant which was within their reach, nor to desist from its use until completely stupefied.

These are but three, culled from a motley procession. The two latter are hopelessly tainted in the ultimate cells from which their nerve centers were builded, for they are the children of drunken parents. Of the former, and the class which she represents, it is difficult to decide where the mental decadence reached a point from which return to normal standards became impossible.

We speak of the human will as though it were an independent entity, whereas this factor of the intellectual machine is really only the resultant expression of many opposing forces, none of which can be accurately weighed. Certain of these forces, by some sudden, sharp, or decided impression, may, under favorable conditions, be so stimulated that self-control becomes easy, whereas, under other conditions, it would be impossible. Again, care and attention and a gradual up-building of the system will ensure a response from the brain forces, which will protect the inebriate from lapsing into his besetting vice.

In either case there are, no doubt, molecular changes in the brain cells. If these changes remain and acquire permanency, the cure is lasting; otherwise it is but temporary. But there comes a time in the course of every unreclaimed inebriate when no such response from the governing forces is possible.

There were many of the two hundred unfortunate women above noted, who, so far as human wisdom can penetrate the secrets of the human organism, gave no evidence of having lost, or of never having possessed, the nerve and will power which would enable them to control their tendency to inebriety. There were others who exhibited the peculiar nervous phenomena which mark the initial stage of irresponsibility,

as the unstable state of the emotions, the lowered moral sense, the general breaking up of all that which goes to fortify character in the individual.

If a cure is not wrought before this condition becomes pronounced, there is little hope, and it is just at this stage that the heaviest censure is heaped upon the unfortunate wretch, still further degrading him who is already beaten down by a sense of his own degradation, and the help, encouragement and control withheld which might prove his salvation.

Thus the question: "Why do men — or women — get drunk?" resolves itself into a psychical and pathological study of the most profound and the most perplexing nature. Much has been achieved in the last few years, but the problem is yet but partially solved. In our eagerness to correct old errors we must not fly to an opposite extreme.

All the strength of the victim and of those who would rescue him is demanded in this, the grandest work, the mightiest movement of our century, the cure or care of the drunkard.

As there is pre-cancerous stage of cancer, a prephthical stage of phthisis, a stage in which the tendency is strongly developed, but may be warded off by proper measures and the patient rescued from his impending doom, so in inebriety, *if the tendency is not too pronounced*, timely aid will save him. When the last stages are reached, and the poor drunkard has sunk to that beastly condition where he seems to have lost his kinship to humanity, when there is no sentiment left to which you can appeal, nothing in him which can be awakened in response to your desire to rescue him, the opportunity is lost. As well try to cure advanced cancer or phthisis as to cure him.

To affirm that the habitual inebriate is as sane and responsible as is his sane and temperate brother is absurd. No man or woman believes it.

This does not imply that society is to be at the mercy of the frenzied and dangerous inebriate; it implies just the reverse. For in just so far as the inebriate is irresponsible, just to that degree is society responsible for him, and this responsibility can only be discharged by the putting forth of every effort on the part of society to protect and reclaim him.

It is needless to say how poorly and inadequately this duty is being discharged, how stupidly and egregiously the errors, which are the result of old and unscientific modes of thought, are being perpetuated in the accepted methods of dealing with these unfortunates.

Every boat which goes to Blackwell's Island, freighted with its throng of blear-eyed and dejected humanity, is a protest against these methods. Every boat which returns, with an equally numerous throng, like the others except that they are a little more degraded and forlorn, is a protest. The nine-tenths of this just liberated throng, who will be returned, battered and begrimed, so soon as they have had time to complete the cycle of another debauch, another arrest, and another summons to appear before "his Honor," are a protest in the same direction.

Every correctionary and penal institution in the land, its cells crowded with inebriate wrecks, or those who have become criminals because they were first drunkards,— every hospital and poor-house and insane asylum, all our burdened charities, all the rum-wrecked homes, the disgraced and ruined families, stand as a bitter reproach to the law and the administration of the law as it affects the inebriate.

Lack of time and space forbid a further elaboration of the subject. I can only repeat what with tongue and pen I have so many times reiterated. All legislation with regard to the inebriate should be for his protection. He should not be classed as a criminal nor treated as a criminal, for inebriety alone.

Upon the other hand, he should be regarded as irresponsible, if he fail to control himself, and his course of self-destruction speedily arrested. Every effort which science can suggest should be put forth for his recovery. Failing in this, he should be shielded, and his powers for happiness and usefulness conserved, by a system of control the least degrading, the most humane, but at the same time the most absolute and perpetual which human ingenuity can devise or human power enforce.

DUTY OF THE STATE WITH REGARD TO
INEBRIATES.*

BY ISAIAH DE ZOCHE, M.D., M.R.C.S., ENGLAND.

Honorary Surgeon to the Dunedin Hospital, New Zealand.

It is now universally recognized that one of the duties of the State is to take cognizance of diseases which may affect the people, whether with a view to promote the better treatment of disease or to its prevention. Already the most beneficial effects have resulted from legislation on sanitary matters, and it is not unreasonable to hope that in time many of the grosser and more palpable forms of disease may be completely stamped out; and medical science will be left free to occupy itself with the more obscure, and— if I may use the word— finer, diseases which affect mankind. But whatever be the form of the disease, if it appear that legislation can lessen its prevalence or diminish its effects, it is clearly the duty of the State to pass such laws as may attain that end.

To medical men, especially those who have devoted themselves to the study of the diseases of the nervous system, it is unnecessary to prove that inebriety is a disease, just as epilepsy, hysteria, etc., are diseases. But this is far from being understood by the general public, whose ignorance of its true nature is reflected in the laws passed for the punishment of habitual drunkards. I will first endeavor to show on what grounds inebriety should be regarded as a disease; and next, that it is a disease in which the State has an especial duty towards persons affected by it, for the sake of the public as well as for their own.

As regards the terms "inebriates" and "inebriety," these mean drunkards and drunkenness respectively; but the words "drunkards" and "drunkenness" are so commonly

* Read before the New Zealand Institute, Feb. 1887.

associated with the idea of a *vice*, for which the drunkard merits punishment only, that there is now a tendency to substitute the Latin forms by which the disease-aspect of drunkenness will be indicated. The term "inebriety" refers more properly to the periodic form of the disease. I would define inebriety to be a disease of the nervous system, characterized by periodical fits of depression and restlessness and craving for alcohol. The restlessness and craving begin gradually, attain a certain height — a climax — and then have a tendency to decline. This is the natural course of the fit, or attack, if the patient is not treated by himself or by others with alcohol, which would have the effect of prolonging the attack indefinitely. The periodicity of the attacks alone is sufficient to mark the nervous origin of the disease. In this it resembles other nervous diseases of the so-called functional class, such as epilepsy, nervous headache or migraine, spinal irritability, neuralgia, etc.

As in the diseases just enumerated, the patient affected with inebriety is apparently in perfect health during the intervals between the attacks; all restlessness has disappeared; he is able to apply himself to business or study; and many periodical inebriates are distinguished by their energy and clear-headedness in business pursuits, while some have been eminent scholars. So free is he from all symptoms of inebriety that no one would suspect him to be the victim of disease, and a disease which, in aggravated instances, seems like a demoniacal possession. Then he feels strong, and confident that his will is strong enough to overcome the terrible weakness and craving should it attack him again. He even believes that it never will do so. Many inebriates never touch alcohol during the interval, or would not do so did not kind friends offer them a glass, exposing them to the greatest of risks through the mistaken kindness of a vicious custom.

My attention was first strongly directed to inebriety as a nervous disease by studying the case of a professional man who was the subject of this affection. He was well read in

general literature, an admirable critic of literary style, could talk with pleasure and profit to his hearers on a variety of topics, and was, except during the attacks, a delightful companion. He was not a habitual drunkard ; indeed, during the intervals, he was almost a total abstainer, and for weeks together entirely so. But at times the fit came on him, and then the depression and craving became so violent that I believe he would have sold his clothes to obtain alcohol. He had less will than a child, and was reduced mentally to a most pitiable condition. The fit over, he was a prey to the deepest remorse. The desire for drink was gone, and he was only sensible of the shame of having again failed to keep his resolution ; and he reminded me of some lines of Schiller, which may be thus roughly rendered : " There are evil spirits who quickly work the evil thing within us, and then fleeing to hell leave horror behind within the stained breast." When again restored to his right mind he was constantly, or frequently, occupied in studying out his disease, or whatever it was that possessed him, with the view of writing on the subject, and of finding a remedy, of which he never despaired. But the same series of events occurred again and again, and I daresay are going on still from time to time, if he is still alive. There was a strong neurotic disposition in his family.

There is another form of inebriety to which the term "habitual drunkenness" more properly applies. It is not characterized by intervals, as in the periodic form, or at least the intervals are so short as to be unrecognizable. The habitual drunkard of the police-court is an example. I am inclined to look upon this as the acquired form of the disease, and in the first instance at least to be regarded as a vice ; but it becomes a disease nevertheless, and the treatment of both kinds is on the same principle.

The pathology of these nervous diseases, so called functional, is still unknown. There are no constant morbid appearances ; in most cases no morbid appearances at all. But it appears certain that the nerve cells are in a state of instability. In epilepsy, it is believed that there is increased

nutrition of nerve centers, which is one side of high instability. In inebriety there is an opposite condition of instability, in which nutrition falls far below par. This going on gradually, as a drain, there is not a sufficient stock of force necessary for the due performance of nerve function. Irritability and restlessness are the result. The deficiency at length reaches such a degree that the want is keenly felt by the patient, and he flies to any remedy which will supply that want. Alcohol does so for the time, or at least it renders the perception of the want temporarily less evident to the patient. Alcohol may act by accelerating the heart's action and increasing the blood supply to the nerve cells, or it may act simply as a narcotic to the nerve cells. I am inclined to believe that it both acts as a narcotic and supplies a temporary force. In either case the patient is for the moment relieved from his state of suffering, but only to feel it more acutely when the influence of the stimulant or narcotic passes off. The feeling of depression is terrible and the craving proportionately strong. An inebriate in this stage will endeavor to procure alcohol by any means — by entreaty, by threats, by stratagem; and the cunning displayed is sometimes remarkable. The moral sense frequently becomes dulled. The patient may become more violent through the refusal of his friends to supply alcohol than if he were under its influence. He speaks of those who are really nearest and dearest to him as if they were his worst enemies, and forgets all decency of language and demeanor in the height of the paroxysm; and it is well if he does not commit some act of violence. Doubtless indulgence in alcohol is responsible for some of the symptoms produced — that is, if alcohol were withheld the "attack" would only develop depression, irritability of temper, and restlessness. Too often, alas, the continued indulgence in alcohol induces an attack of delirium tremens; but delirium tremens forms no essential part of the disease inebriety, while on the other hand the active treatment necessitated by the attack of delirium tremens often cuts short the attack of inebriety. Friends of inebriates and

attendants in asylums well know by the patient's restlessness when an attack is impending. While the accessions of the inebriate condition — *i.e.*, the craving — might, and most frequently do, come on at intervals without indulgence in alcohol, an attack may be readily induced at other times by even a moderate imbibition. So unstable is the nervous balance that a minute portion of alcohol is capable of setting up such serious disturbance as to bring on an "attack." When the crisis is past and the craving is on the wane, the inebriate is tortured with self-reproach. He bewails his want of resolution; he alternately blames his friends for having withheld alcohol and for allowing him to get it; he is in a state bordering on melancholia, and it is well if he does not again drown his cares in the bowl.

As regards treatment during the attacks, the services of a good attendant are indispensable. It should be his duty to see that no alcohol be supplied to the patient; and in private houses this is the most difficult part of the physician's prescription to get carried out. In forty-nine cases out of fifty of attacks of inebriety, whether going on to delirium tremens or not, all alcohol should be at once forbidden — there should be no "tapering off." This is, I think, the universal experience of those who of late years have had to do with the treatment of attacks of inebriety. In all the cases I have known where it has been possible to enforce the complete discontinuance of alcohol at once, the patient has made a much more rapid recovery. The general treatment during the attack should of course be left to the discretion of the physician. During the interval no medicinal treatment is followed as a rule to cure the tendency, nor is there any known specific which could do so.

While inebriety cannot be said to have any pathology as far as morbid appearances *post mortem* are concerned, we may form a judgment from the symptoms observed as to the probable causation of the disease. This has already been slightly referred to. The feeling of sinking and depression in attacks of inebriety would indicate that there is a defi-

ciency of nerve nutrition. I look upon inebriety as an anæmic neuralgia. Other diseases in which disturbances of nerve nutrition occur temporarily are epilepsy, hysteria, and neuralgia. These are termed functional nervous diseases, as contra-distinguished from those nervous diseases in which lesions of nutrition are advancing or permanent, and in which specific alterations can be discovered in the nerve cells. The chief cause is hereditary predisposition. Many functional derangements of the nervous system are very commonly spoken of as affections of the mind, as if the brain were one thing and the mind another, floating ethereally about the brain and pervading it in some way. But, without attempting to elucidate the respective relations of mind and matter, there seems to be no doubt that the elements composing the nervous system are capable of receiving shocks and "strains" conveyed through mental impressions. The nature of the change in the nervous elements in periodic inebriety cannot so far be demonstrated by any of the known methods of pathological investigation; but from the phenomena we may suppose that the ultimate molecules of the nerve-cells are, as if loosely held together, easily thrown into molecular vibrations setting up a violent commotion which is known as a nerve storm, and discharging currents until utterly exhausted. This condition of the nervous system may be congenital or acquired; but, once set up, the nervous system remains subject to irritation by what otherwise would be slight exciting causes. Dr. Norman Kerr says: "I am persuaded that inebriety is for the most part of a physical origin." This opinion is shared by all the most recent authorities on the subject. Persons affected with inebriety are frequently of highly-susceptible nervous organization. They belong to the neurotic class, who, if not affected by the inebriate tendency, might be the subjects of some other form of nervous weakness — if women they would probably suffer from hysteria and some of many forms of neuralgia; if men, they might suffer from hypochondriasis. I think frequent tipplers may, under certain circumstances,

become victims of inebriate disease, but of this I am not certain, unless the constitutional tendency is there. The tippler drinks every day, and a good deal; the inebriate, or dipsomaniac, gives way to the craving only at intervals, as a rule, and exhibits other nervous peculiarities which the tippler does not. The organs of the inebriate may be healthy; those of the constant drinker show alcoholic degeneration. Inebriates are usually looked on as simply drunkards, and are treated by the general public with something like contempt. If a man does not succeed in the world, his enemies, and sometimes his friends, will say "it is his own fault," without sufficient regard to circumstances. This is inconsiderate and often cruel, and it is assuredly cruel with regard to inebriates. Certainly the inebriate is not a success, either to his forefathers or to himself. His forefathers cannot well be brought to account for his condition, and the whole brunt of it falls on himself, and keenly is he made to feel his position. I see nothing to despise in the inebriate. I look upon him as a man suffering from a disease of the nervous system, with which he may have nothing whatever to do; whose will is deficient at certain times in consequence of this disease; and I consider that he ought to be treated with the utmost kindness, without relaxing in the slightest degree the firmness which is necessary to render true kindness effectual. Without doubt a man or woman not constitutionally neurotic, who becomes a drunkard, may have children who will develop inebriate disease, but it would be wrong to attribute all cases of inebriate disease to the disposition derived from drunken ancestors. The neurotic diathesis is mostly inherited from neurotic ancestors, but not necessarily from ancestors rendered neurotic by drink.

We must rather look to the conditions of society for the production of the neurotic diathesis. The fast pace at which we live, the competition which begins in the schoolroom and continues in business or professional pursuits, the necessity of making a certain income in order to keep pace with the luxurious wants of the age, the greed of speculation, so often

resulting in loss, the strain of study, too often encroaching on the hours which should be devoted to sleep, to keep pace with the requirements of science,—all these tend to the production of unstable equilibrium of the nervous system, and may result in hypochondriasis, insomnia, or drink-mania, in the individual himself or his children.

Dr. Savage, superintendent of Bethlehem Hospital, says : “ Drink often gets blamed for producing insanity, whereas the intemperance was the first symptom of the disease.” But it is not only intemperance which may give the first warning of the insane condition, for Dr. Savage says, in another place : “ Among total abstainers we have, of course, to recognize the fact that a certain number abstain as the earliest symptom of their insanity ; that is, of their perversion.”

Dr. Beard of New York, attributes “ the frequency of inebriety in America to the climate, the dryness of the air, and the extremes of heat and cold. Inebriety and other neuralgic disorders are most common in the north and east, where there is so much total abstinence. He says there is no country in the world where there is so much total abstinence from the use of stimulants, and at the same time so much inebriety as a disease. He therefore considers that the disease should be treated on the same principles as nervous diseases — first by keeping the patient from exposure to exciting causes, and second, by fortifying the system with nerve sedatives.” There is, however, no more potent cause of insanity than alcohol. Without dwelling on the ordinary phenomena of drunkenness, which is proverbially spoken of as a short madness, the records of lunatic asylums show that melancholia, or mania, or some other form of insanity, in a large number of instances owe their origin to alcoholic excess, more especially in individuals of excitable or unstable nervous temperament.

Dr. Carpenter says : “ The closeness of the affinity between the states of insanity and alcoholic intoxication is further made apparent by the extreme readiness with which the balance of reason is disturbed by a small quantity of

liquor. In those unfortunate individuals in whom there exists a predisposition to mental derangement, the power of volitional control being already feeble, it is easily overcome, and the propensities and passions, which are always unduly excitable, are readily aroused into morbid activity by this provocation, so that a very few glasses of wine or a small quantity of spirits is sufficient to induce what may be regarded either as a fit of drunkenness or a paroxysm of insanity — *the two influences concurring to produce the mental disturbance which neither of them alone would have sufficed to bring about.*” Even patients say it is like a madness, not only while the fit is on them, but during the interval, when there are no disordered ideas. The beginning of the inebriate disease is often determined by some nervous shock or strain. A man of neurotic temperament experiences a sudden loss in his business, by which the work of years is undone and his prospects are shattered. Soon afterwards one hears that he has “taken to drink.” All pity for him ceases when he does so; but the taking to drink is after all only a symptom of the shock to the nervous system. Prolonged mental strain may have a like effect in an individual predisposed, also injuries to the head.

On the foregoing grounds I think we are justified in regarding inebriety as a disease, depending on a lesion of nerve-nutrition. It will be noted that in order to carry out the treatment the patient should be perfectly under control. *He should for the time be deprived of liberty of action,* and should be so circumstanced as not to be able to obtain a drop of alcohol. These conditions it is almost impossible to obtain in private houses.

First as to control. Frequently the patient will not allow a strange nurse to come near him, even if an attendant could keep him obedient to orders. He is under the care of his wife, or some member of his family, but insists on going out, or in getting spirits or beer, and becomes violent unless it is supplied. Often a wife has said to me: “I had to give him a glass now and then, just to keep him

quiet." I had an inebriate patient who held a situation of great responsibility, and was during the interval exceedingly clear-headed in business matters. He used to get the inebriate fit every two or three months, and it was important that he should be got well as soon as possible. When an attack occurred a man was engaged to be with him, and watch him, and prevent his getting liquor. For a time all went well. He recovered from two or three attacks within three days after treatment was commenced ; but at length he grew intolerant of being watched, said he would have no jailor about him, and peremptorily ordered the attendant away, and me also. After this all treatment was futile. There was no check on the fatal craving for alcohol ; he had an apoplectic stroke, and died a few days afterwards. Had he been *under proper control* in a hospital, he might, I believe, have been alive now. The friends of such patients have often said : "There ought to be some place where he could be locked up until he is better ; some hospital or asylum ; we cannot look after him." And the cases are numerous in which patients have voluntarily given themselves up for treatment in an asylum or retreat, where they knew they would be deprived of liberty for a certain period. In the hospital where I was house-surgeon there was a temporary asylum, where, besides other cases, inebriates were received. I well remember a man who used to come from time to time and beg to be taken in until the fit should pass over. He used to remain for a few days, and go out cured for the time. But not only is it of importance that inebriates should be treated in some special hospital during the inebriate state, but also that they should remain for a sufficient time. The only hope of cure for the inebriate lies in total abstinence, and this it is impossible to procure without the control of a special hospital or asylum.

The prospects of cure will depend on (1) the nervous temperament ; (2) the degree to which the nervous system has been implicated ; (3) the time which has elapsed since the actual attacks of inebriety began ; and (4) on the system

of treatment pursued in the special hospital or retreat where the patient may be under care. In any confirmed case less than a year's seclusion in a special institution or retreat would be useless. Even then the prospects of cure in confirmed long-standing cases may be small, I admit, for the tendency is still there. It may be dormant for a time, but easily aroused by the immediately exciting cause — alcohol. Yet no case should be deemed hopeless. There are many instances where moral force has prevailed, and in others sudden mental emotion; it may be through some religious agency, or due to the powerful representations of a temperance lecturer. The mental paralysis is removed, just as functional paralysis of the limbs is sometimes cured by a visit to a holy shrine or by an alarm of fire. I borrow from Dr. Carpenter's quotation: "I heard a man say that for eight and twenty years the soul within him had to stand like an unsleeping sentinel, guarding his appetite for strong drink." These cases, alas! are too few in this matter-of-fact age, and practically nothing but placing the inebriate under such conditions that he cannot by any possibility procure alcohol, is the only method of treatment deserving confidence. Only in an asylum or retreat can such conditions be obtained.

But it will be asked, What are the prospects of cure in these retreats? Mr. Alford states that "In America such institutions show sixty per cent. of cures. Convicts after years' enforced abstinence seldom lapse into drunken habits." Out of twenty-two cases in a private asylum at Balham, Mr. Carsten reports six as cured. In several cases where patients were uncured, the failure was owing to the existing laws. Dr. Norman Kerr estimated the cures in American retreats at thirty per cent. of male drunkards, and three per cent. of female drunkards. Now, one of the chief objects of this paper is to urge that it is the duty of the State to provide or license such retreats, which should not be in any way connected with a lunatic asylum. It is true, as I have said, that inebriate disease is not far removed from insanity; but our chief hope in the success of treatment is to enlist the

patient in his own cause, to encourage the exercise of his will in the right direction, and such means are frequently successful. By placing him in an asylum he finds himself at once classed with lunatics. "What hope is there for me?" he might say. "I am looked on as only fit for a lunatic asylum." And it is well if he does not give way to utter despair. Such patients seldom forgive their friends, and constantly speak of their unkindness in having them placed in an asylum. Since writing the foregoing, I find Dr. Savage refers to the question as to whether persons suffering from alcoholic insanity should be sent to asylums. He says: "If suffering from simple acute alcoholism, or if suffering from delirium tremens, it is best not to send them to lunatic asylums. The great danger of admitting such cases is, that they rarely appreciate the intention of their friends, and are commonly vindictive. Such cases are too frequently morally perverse and sly; trumped-up accusations and vexatious lawsuits are constant sources of worry as a result of their admission." Now, the friends ought to be relieved of any odium which the patient might throw on them, by the necessity which the law would impose on them to report to the proper authorities all cases of ungovernable intoxication, which would thus be taken out of their hands.

It may be asked: "Is there any necessity for the establishment of special hospitals for inebriate patients?" The best answer to this is to inquire what is usually done with inebriates, that is, persons who are found drunk, whether in consequence of inebriate disease or from over-conviviality. By the Police Offenses Act, 1884, section 19 (New Zealand), "Every person found drunk in any public place, on a first conviction, shall be liable to a penalty not exceeding 20s., and in default of payment thereof may be imprisoned for any period not exceeding forty-eight hours. On a second conviction within six months shall be liable to a penalty not exceeding £3, and in default may be imprisoned for any period not exceeding seven days. On a third conviction within such period of six months shall be liable to be impris-

oned for any period not exceeding fourteen days, or, at the discretion of the convicting justice, to a penalty not exceeding £5, and fourteen days' imprisonment in case of default; and on any subsequent conviction within such period of six months shall be deemed to be a habitual drunkard, and shall be liable to be imprisoned for any period not exceeding three months." Any of these convictions may carry hard labor with them. (See Justices of the Peace Act, 1882, section 102.) Again and again this process may be repeated, with no change for the better in the condition of the inebriate; and amongst the poorer classes as many as sixty or eighty convictions have been obtained in one case. Indeed, I have been informed by one of our magistrates that some of these poor wretches only enjoy twenty-four or forty-eight hours' liberty at a time, before they are again convicted and sent to prison. In jail the associations are certainly not such as tend to promote a cure by moral agencies. The inebriate—the man suffering from a nervous disease for which he may be in no way responsible—finds himself associated with forgers, thieves, and it may be with criminals worse than these. There is no classification. He is clad in the jail dress, and the letters H.M.G. are printed in very legible characters on the back of his prison jacket. In the case of women inebriates the effect of the evil associations may be infinitely worse. Truly "to be weak is miserable." The wretched sufferer from this nervous disease has good reason to complain of the means adopted by society to deter him from committing an offense which no power on earth can keep him from committing if alcohol can be procured. As far as the public is concerned, the jail can only be looked upon as a place where the inebriate is in safe keeping, and where his relatives and the public will not be troubled by him. No one expects that inebriates will be reformed in jail.

Dr. Alfred Carpenter, speaking at the meeting of the British Medical Association in August, 1876, said:—"As a magistrate in the south of London he had to commit these

poor drunkards over and over again, knowing that as soon as ever they came out of prison they would be before the bench again. He had no hesitation in saying that in such cases short terms of imprisonment were worse than useless, and that to treat habitual drunkards in that way was a great mistake. He never sent a person to prison in that way without feeling that he was doing an injustice in punishing as a crime that which in reality was a disease. They had no more right to send these poor people to the treadmill for a fortnight for getting drunk than they had to send them to a lunatic asylum. The treatment required was not penal but curative.

The report of the committee of the British Medical Association on legislative restriction for habitual drunkards says :—" That the merely penal treatment for drunkenness, by committal to prison for short periods, far from influencing for the better the habitual drunkard, is shown by the evidence taken before the select committee of the House of Commons to be ' worse than useless ; ' confirms him in his evil ways by utterly destroying his self-respect, and rendering him reckless of consequences ; and thus runs counter to the whole tendency of recent legislation, which aims at the reformation as well as the correction of the offender." But there is some provision made by law in New Zealand other than sending inebriates to jail, at least, those who have friends. As already mentioned, they may be committed to an asylum, on the application of their friends, by an order of a judge of the Supreme Court, if it appear that they have shown symptoms of delirium tremens or other evidence of habitual over-indulgence in alcohol, or that they have threatened violence, or wasted their means. It is provided that they are to be placed in a ward where lunatics are not kept, and that they shall do such work as may be beneficial to health and assist in cure.

The last regulation is an excellent one, for nothing tends to restore healthy nerve-nutrition so much as healthy occupation. The man who is healthily occupied has no time for

brooding. The disease-aspect of inebriety and the possibility of cure are thus officially acknowledged by the act, for such work as may assist in the cure of the habitual drunkard is enjoined. Still, the connection of these means of cure with the name of the asylum is frequently quite sufficient to deter the friends of patients from availing themselves of the provisions of this Act ; and the appearance in person of the habitual drunkard before the judge I have known to be objected to by a patient—a woman—who was otherwise willing even to seclude herself in an asylum as a means of cure. Why not, therefore, have some retreat to which no objection could be offered except that it deprives the patient of his liberty, and which will afford him a period of rest from alcohol and from unhealthy influences that may give him a new start towards recovery ? At once I see the objection which starts to the lips of many who would say : “ Is it right to deprive a man of his liberty for, it may be, six months or a year because he chooses to indulge in the free privilege of drinking ? What an interference with the liberty of the subject ! ” These objectors ought to consider that there is no subject whose liberty is more violently and more unpleasantly interfered with than the inebriate. His liberty is interfered with by police constables and by magistrates, and he may find himself almost a permanent inmate of the jail. When he is at large he interferes very seriously during his outbreaks with the liberty of those about him, and may endanger their lives. I would merely substitute a not disagreeable residence in a home for inebriates for a most disagreeable seclusion in prison ; and the object of this would be not to punish but to cure.

In Victoria, if any person addicted to the habitual excessive use of intoxicating drinks shall apply to the master in lunacy, and shall declare in writing, attested by a justice of the peace, that he is desirous to submit himself to curative treatment, in order to be cured of such habit, etc., the master in lunacy may authorize the detention and curative treatment of such person in any licensed house for a period

not exceeding twelve months, or in any public asylum, for a sum to be fixed by the master for the maintenance of such person. In other respects the Victorian Act resembles that of New Zealand. There is no provision for poor inebriates ; otherwise there is much to commend in this statute.

In New South Wales persons having no lawful means of support and habitual drunkards may be committed to a workhouse. Any person so committed may be discharged at any time by order of the Governor, with the advice of the Executive Council. The act says that the justices may commit a person brought before them if they shall be satisfied that such person is an *irreclaimable drunkard*. (Public Statutes of New South Wales ; an Act to establish Workhouses, 27th September, 1866.) The word workhouse, savouring of poor law, is very objectionable.

But apart from the view that special retreats are necessary for the sake of inebriate patients, I would urge their establishment in order to relieve the families of such patients of the burden of maintaining them. I know of many instances where the wife could provide for herself and children, but an attack of inebriety in the husband throws all back. He must be watched day and night while the attack lasts, medical attendance and medicines must be procured, the shop or the sewing which would otherwise bring in enough to keep them is necessarily neglected, and she is obliged again and again to appeal to friends, who begin to get weary of giving assistance. The poor wife says : "Something must be done ; he must be put somewhere ;" but the prospect of prison or of the lunatic asylum deters her from taking any action, and she says : "Well, I will give him another trial." These poor women have bitter lives, and many of them make noble sacrifices for the sake of their families. The State ought to afford them a ready means of relief from the consequences of a physical and mental disease in their husbands for which they are in no way responsible.

I would then propose the establishment of hospitals for

the care and cure of inebriates, such hospitals to be either supported by the State, or else under State inspection and control. That persons suffering from inebriate disease should, if the outbreak of the disease be recent, on the representation of their friends to a magistrate and after due examination by medical men and proper certificates being signed by them, be committed to one of the hospitals for nervous diseases for a year. That the period of detention in such hospital might be lessened on the recommendation of the medical officers. That during the patient's residence in such institution he should be obliged to do sufficient work to pay the expenses of his living, and the surplus to be handed to his friends for his support on his discharge. The object of the work would not be merely to pay expenses, but to give healthy mental and bodily occupation; to substitute healthy nerve-work for unhealthy impulses, and thus to act curatively. In cases where such seclusion and abstinence from alcohol for a year had been tried without effect—that is, in cases of presumed incorrigible drink-mania—the patient should on each outbreak, if not under proper care and control, be admitted for treatment until the attack should be over, and he should be detained as long as the medical officers thought fit with regard to his safety.

I have explained what proper care and control means, but will do so again. It means such care as will prevent the patient getting alcohol during the attack—an exceedingly difficult measure to carry out in private houses. I would avoid the use of the word "asylum," and name an institution for the treatment of inebriates "Hospital for Disease of the Nervous system." It could easily be specified in the rules of the hospital for which particular nervous disease it was intended. Such a name would be less repugnant to the patient than the word "asylum," and would serve to educate public opinion. The establishment of such State hospitals might be objected to on the score of cost, but it must be evident that the community pays far more heavily by the present system, or want of system, than it

would do if special hospitals were established. We should then be saved the expense of maintaining such patients in prison ; and such special hospitals could be made self-supporting to a very great extent, rendering the estates of those who were able to pay liable for their maintenance, while the others should work for their support. It might be a considerable time before private retreats would remunerate the promoters in New Zealand, but I am sure there are inebriates enough in New Zealand to justify the establishment of a State retreat for the Northern Island and another for the Middle Island. Inebriates who might be allowed to live out of the retreat on parole, could, if they broke their parole, be treated in the nearest public hospital and discharged when the fit was over ; but if they again broke out they could be committed to the retreat for the full time on the recommendation of the medical officers, without option of leaving until their time should have expired.

Conclusions : (1) That inebriety is, in the great majority of cases, a physical disease. (2) That inebriety is curable in a large number of cases. (3) That the committal of inebriate patients to prison is unjust, and morally and physically injurious to them. (4) That patients affected with inebriety can only be treated with any measure of success in special hospitals or retreats, where precautions against their obtaining alcohol could be thoroughly carried out. (5) That it is the duty of the State either to establish or license retreats for inebriates, or to do both.

M. Pilliet of Paris has been making some studies into the histological lesions which follow from morphine poisoning. The lesions were principally in the liver and brain. In the liver there was fatty degeneration of the cells. The cells of the gall-bladder were also fatty. In the brain there were tracts of granular bodies which penetrated into the substance of the brain. Many of the large cells were fatty and atrophied.

THE PATHOLOGY OF INEBRIETY.*

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We are here confronted by a topic of extreme difficulty and importance. The difficulty lies in the following circumstances. Purely nervous disturbances, with altered states of the nervous fluid and impairment of the nutrition process with changed conditions of the blood, may take place in the living subject without exhibiting any physical degradation of structure visible during life. Insanity of an incurable type may be plainly existent beyond dispute, and yet we may be able to detect no organic or other lesion. How often in such cases has the curable stage been passed without an effort at remedial treatment, because the presence of no disease was suspected. Even after death, in many cases of mental unsoundness, an examination has revealed no definite discernible lesion.

Difficult though the investigation of the pathology of inebriety may be, it is of the highest importance. For lack of accurate knowledge of the morbid conditions which antedate or are contemporaneous with the act of intemperance, many well-meant and honest attempts at its cure have failed.

Though there has hitherto been little recognition of the fact, to my mind there is clearly either an alteration of structure or a functional disturbance of some kind, or perhaps in some cases both, antecedent or coincident with the desire for and act of intoxication. That there is a structural degradation in long-standing habitual inebriety admits of no cavil, as we shall see when we proceed to the consideration of *post-mortem* appearances, but whether any tissue changes immediately precede, or are synchronous with, the narcotic crave and impulse, we have as yet no means of knowing.

* Annual address of the President of the Society for the Study and Cure of Inebriety.

There is, however, a pathological state, probably there are various pathological states on which this desire depends. If this pathological basis of inebriety be removed by appropriate treatment, the desire ceases. The exact nature of this physical antecedent or coincident we cannot yet determine, though there is undoubtedly a failing reproduction of that nervous force which is essential to healthy brain life; but of its existence I do not see how there can be any reasonable doubt.

Every sensation has a physical antecedent or accompaniment, with which it is in close relationship, the relation being that of proximate cause and effect. The sensations of hunger and thirst are preceded or accompanied by a certain bodily state, the intensity of the appetite for food and drink varying in degree with the actual condition of the body. The desire for food is the expression of a physical need caused by the waste demanding the repair of tissue. The longing for water is the expression of a physical want caused by loss of fluid calling for fresh supplies. In the one case, the lack of substance, and in the other case, the lack of liquid, sets up a physical state which is the precursor and producer of the sensations of hunger and thirst. These sensations are thus the expression of certain bodily requirements.

In health both these physical antecedent conditions are normal, but in deviations from health the feeling of hunger may be heightened or lessened, the feeling of thirst may be mitigated or intensified. In acute disease, as in a high state of fever, or in chronic disease, as in diabetes, when thirst is excessive, this again is but the expression of altered physical conditions. The bodily states antecedent to the sensations of hunger and thirst, and to other natural feelings, are in good health called physiological, in bad health pathological, conditions.

Except when intoxicants are drunk for social or fashionable reasons, why do men and women partake of any intoxicating agent! They do so either to gratify some inward desire for the acceptable, though fleeting, pleasurable sensa-

tion which follows the use of such substances, or they are impelled by some strong impulse from within to indulge in some narcotic (whether they like or dislike it) which will yield relief for the moment. In the former instance the act of drinking is voluntary, in the latter it is involuntary.

What are known as "moderate" drinkers, belong, at least so long as they practice "moderation," to the voluntary class. With them drinking for a time is largely a matter of habit; but unhappily considerable numbers are possessed of constitutions which are, by some inborn or acquired idiosyncrasy, so susceptible to the narcotic influence of alcohol or other anæsthetic, that the habit lays the foundation of a diseased condition of body and brain, the victim quietly, unknowingly, yet surely passing from the voluntary to the involuntary class.

Involuntary drinking is characterized by an impulse from within, excited to activity by internal or external stimuli. This intoxicant drink-impulse has as clearly an antecedent physical condition as has the unintoxicant drink-impulse or the desire to eat. The impulse to eat food, and the impulse to drink water are natural. The impulse to drink intoxicants, or to eat or smoke opium, is not natural, and does not exist in a perfectly healthy state. By perfectly healthy, I mean a constitution wholly free from abnormal heredities, as well from any present physical or mental disturbance or departure from sound health. This overpowering narcotic-impulse is the result of a disordered state of the nervous centers, or morbid condition of nerve-element roused to action either by some organic or other excitation from within, or by some provocative from without. Here is emphatically a pathological antecedent, a prior morbid condition.

Again, look at the voluntary alcohol drinker gradually merging into involuntary inebriety. For whatever length of time he has been able to "take it (an intoxicant) or want it," the habit has imperceptibly tightened its hold upon him till it is extremely difficult for him to refrain from intemperate indulgence. The narcotic has gradually undermined his

power of control, while, by its irritant properties, it has injuriously affected the texture and functions of at least some of his vital organs. The consequences are, that he suffers from nausea, his tongue is dry, or he frequently after slight extra exertion feels a faintness or sinking. He craves an intoxicant, which soothes the craving for a short time, only, alas! to ensure the speedier return of the unhealthful desire. Here is an unquestionable series of pathological changes giving rise to a frequent unhealthy craving. This craving is as truly an expression of a pathological antecedent, as are the hunger and thirst of the healthy the unspoken voice of a normal physiological state.

We know the ending of these pathological changes. Who can divine their beginning? Are we not face to face with a non-natural longing begotten of a certain physical antecedent or coincident of a corporeal man? The wish to taste an intoxicant for the pleasurable sensation the wisher feels it will ensure, has as truly its rise in a preceding or accompanying bodily state as has healthy appetite for food and for natural drink.

What is this pathological basis, the proximate cause of the crave for intoxication? In some cases this crave is the inarticulate cry of a despondent soul for a temporary solace of its woe. Out of the depths of misery comes the despairing wail of a dejected spirit, ready at any peril to drain the cup of Lethe in the hope of even a few moments' oblivion of its despair. This feeling is one of extreme depression.

The most familiar example is to be seen in the reaction from an alcoholic or opiate debauch. No pen can describe, no tongue can tell the wretchedness of the sufferer. Dismayed, appalled, a prey to apprehension, and utterly prostrate, the wretched drunkard in the depths of his despair feels that he must indulge again to lift for a second the terrible load from his being. He is in a state of complete physical depression dependent on some (even if undefinable) physical state of body, brain, and nervous system.

Profuse loss of blood is followed by a deep faintness.

Repeated losses of blood are apt to cause a somewhat continuous, though less intense degree of faintness. These are conditions which not unseldom give rise to a crave for narcotization. Females are specially liable to sink into habitual inebriety, from the temporary alleviation of their post-hæmorrhagic languor and dread by an alcoholic remedy. Though intoxicants are contra-indicated in such cases, faintness being nature's mode of arresting hæmorrhage, it is a common practice to administer alcoholic liquors freely in this disease. The patient revels in the glow of reviving life apparently fanned by the alcoholic spark. The semblance of death vanishes, vitality and vigor seem to return, gloom gives place to mirth, despair is swallowed up in hope, the most inanimate and bloodless sufferer is deluded by the joyful presage of new life; but after a short interval, pallor creeps again over the countenance, strength fails, languor recurs, prostration advances, gloom returns, despair deepens, and the woe-begone victim succumbs once more to the false wiles of the mocking narcotic enchanter. Here the pathological antecedent of each desire for alcohol is a state of profound physical depression.

There are many persons who are possessed of a highly delicate brain and nervous system, with little cerebral inhibitory power against pain, fatigue, or distress. From this numerous class inebriety has derived no mean proportion of its recruits. To such sensitive and morbidly nervous individuals, any extraordinary call on their resisting capacity creates a feeling of actual depression. If they are seized with illness, they are sure that they must die of it. All through the attack, they look upon death as imminent, and even when danger is past, it is with the utmost difficulty that the physician can persuade them that they are actually convalescent. Mental or bodily overwork, such a crisis as puberty, pregnancy, or lactation, in such handicapped individualities develops an unutterable sensation of lowness, a nervine collapse, which craves for some immediate, if fleeting, relief from some intoxicant or narcotic. Here the

pathological antecedent is one of indescribable physical depression.

A very strong longing for partial or complete intoxication is not invariably preceded or accompanied by physical depression, though I am inclined to believe this is so in the majority of cases. As in insanity, the immediate antecedent condition may be one of the opposite character, exaltation. By this I mean morbid exaltation, when the physiological limit of natural exaltation has been passed, and there is exhibited an abnormally exalted state, dependent on a disorder of cerebral function or on some unsettlement of the neurine, or, more probably, on both.

In physical depression productive of an inebriate outbreak, there is a nervous insufficiency. We are now met with a superabundance of nerve force. In the evolution of paroxysms of inebriety from a morbidly low physical state, there is an exhaustion of nervous energy. In the evolution of paroxysms of inebriety from a morbidly high physical state, there is an excessive discharge of nervous energy. Under the latter circumstances, there is an expulsion or liberation of nerve-force, as in epileptic seizures. A man or woman feels buoyed up and unusually elated, more than ordinarily talkative, playful, demonstrative, and excited; in short, displaying symptoms of undue exaltation. If he has been drinking, this unwonted exhilaration would probably be ascribed to alcohol, but in many cases which I have seen the person had not partaken of an intoxicant for some time. If he drinks in this state of hyper-exaltation he drinks to excess; he cannot help it. He is carried away, body and soul, by the neurotic whirlwind which has suddenly and unexpectedly arisen within him. Here the antecedent or concomitant state is one of exaltation, and it is as clearly physical as is the antecedent or concomitant state of depression. We may credit the symptoms of elated excitement to dilatation of the arteries, as in the first or exhilarative stage of alcoholic intoxication, but this again is possibly due to a pathological perversion of brain life affecting the vaso-motor

nerves. In all probability both the cells of the brain and the cerebral function are morbidly affected. In any case, this prior state of exaltation is unmistakably physical. It is thus manifest that pathological states of depression and exaltation are met with as the proximate cause of outbreaks of inebriety. I have no doubt that there are other functional, and perhaps structural perversions, which are at times the antecedent or coincident. Any morbid alteration of the cerebral substance, any impairment of the nutrition of the brain by abnormal action of any organ or tissue on the circulatory fluid, any disordered function, may be the immediate pathological basis of the attack. This physical antecedent or concurrent may truly be described as a pre-paroxysmal pathological antecedent.

Having investigated the pathology of the paroxysm, we have next before us the pathology of the diathesis.

We often see an explosion of inebriety as we often see an epileptic explosion, but in inebriety as in epileptic mania there are causes predisposing to an attack, as well as external causes which excite, and an internal proximate pathological cause which inaugurates, the attack. Unless the encephalon and nervous fluid, by some transmitted or acquired influences are responsive to the exciting cause, the inebriate storm may exhaust itself, and leave the patient apparently without having inflicted on him any structural damage, the origin probably of the aphorism "drunk once a month not so injurious as steady drinking every day." I say "apparently" for it is not absolutely true that no textural injury follows occasional or periodic lunar intoxication. Acts of drunkenness frequently repeated tend to set up a gradual series of pathological changes, which in the long run become crystallized into permanence. The most evanescent attacks are those which take their origin from functional derangement. Of course I refer to attacks of inebriety or narcomania, *viz.*: a powerful morbid desire for inebriation. As soon as functional order has been restored, the crave for the inebriant ceases. Yet during the brief period of inebriism there has

been an altered state of the blood and of the blood vessels. The whole circulatory system has been riotous and disorderly. The vessels have been dilated by paralysis of the vaso-motor nerves, the action of the heart has been tumultuous, the nervous fluid has been thrown into a state of commotion, cerebral action has been vitiated, and the cell-life of the brain has been rudely disturbed. In an otherwise healthy organism the immediate lesions may, by the recuperative vigor of the nutritive and nerve processes, be repaired; but a persistent succession of such temporarily diseased states of body and brain lay the foundation of chronic disorder, of permanent tissue alteration.

Exciting causes such as sudden joy or sorrow would be unable to provoke to inebriety in action unless there were something within the organism ready to be acted upon, as it were an inflammable entity easily fanned into a flame by a spark from without or from within. The majority of drinkers are tried by as many vicissitudes, experience as many calamities, suffer as many bereavements, undergo as great hardships, are the subject of as wasting diseases, as are the minority. Yet the former are not goaded or tempted into any kind of intoxication or narcotization, as are the latter. Why is this? Credit may be attributed to the fortifying influences of religion, of social, and other environment, but after ample allowance for the operation of all such influences, there are large numbers of persons who, to the intelligent medical observer, are indebted for their inability to keep from narcotic indulgence in the hour of their extremity, to some inherent physical defect which renders them, on the one hand, prone to surrender to inebriety, and, on the other, powerless to resist the onset of this intensely virulent disease.

In what consists this diathesis, so potent in its operation, so subtle in its working, which has betrayed to their death so great a company of our fellow-beings? It consists in a deficient tonicity of the cerebral and central nervous system, with an accompanying defective inhibition.

All men and women are endowed with some amount of

self-control. The law requires the exercise of this power from all adults except the idiotic and the insane. We are compelled by legal enactment to restrain ourselves from committing theft, destroying the property of another, taking human life, and other illegal acts. The seat of self-control is in the higher nerve centers, and the act of self-control is the exercise of the inhibitory power.

The brain and higher nerve centers being the seat of inhibitory control, innutrition and malnutrition of cerebral and nerve tissue are apt to lower the tone and impair the efficacy of the inhibitory process. If the brain and nerve cells are healthy, so are their functions. If the brain and nerve substance is improperly or imperfectly nourished, the will power and the power of control are heavily handicapped.

This defective inhibitory or controlling power may be (1) inherited, (2) acquired.

1. *Inherited.*—In a considerable proportion of cases of developed inebriety, the family history shows that the lack of self-control was transmitted. Self-indulgent parents who, though never actually intoxicated, have been in the daily habit of drinking freely, have originated, or it may be intensified pre-existing, inborn, constitutional, deficient power of inhibition, by begetting progeny, all of whom may be more or less wanting in that normal amount of self-control with which fairly sound human beings ought to be endowed. Though alcohol is the commonest cause of this hereditary defect, yet lack of sufficient brain will and restraining power may be handed down by parents who have never tasted an alcoholic or other inebriant. This burdensome inheritance may have taken its origin simply in infraction of the ordinary laws of health, the morbid state having been gradually set up by irregular and improper feeding, mental or physical overwork, the neurasthenic sequelæ of various lowering ailments, and a life of pleasure, of mere gratification of every passing whim, void of honest effort to restrain the desires and actions with due regard to the comfort and benefit of other persons. With this defective central inhibitory power

is often associated an inherited deficiency of resisting power, whereby the legatees are in great part physically at the mercy of strong morbid impulses springing from functional crises, such as puberty, maternity, visceral derangement, and other disturbed physical states.

There are also transmitted perversion of function and altered structure, an unsound condition of brain and nerve cell, a physical and mental idiosyncrasy, which in some manner, as yet hardly understood, renders the possessor peculiarly liable to be excited to concrete inebriety, and peculiarly susceptible to the narcotic influence of alcohol and other intoxicating anæsthetics.

This peculiar susceptibility may extend to opium, ether, chloral, chloroform, *et hoc genus omne*, but it is more delicate in the case of alcohol than in that of any of the others. Alcohol is preëminently a degenerative agent, and the degenerative work is seen to be carried farther by it than by any of its congeners.

The physical temptation born of alcoholic intoxicants embraces in its range of morbid action the highest mental centers, and seems to physically taint the most delicate intellectual processes, as it dulls the senses and reduces muscular force. The pathological depravity of the cellular brain and nerve tissue, the intellectual vitiation, the feeble *morale* may lie dormant for a lifetime, unless quickened by the interposition of an internal or external exciting cause. The inebriate diathesis may be either latent or developed. Where it is latent, all through a long life it dwells hidden and unnoticed because no appropriate provocative has intervened to disclose its existence.

2. *Acquired*.—When defective inhibition has been inherited, it may be increased by cultivation, but this deficiency of restraining power may be acquired where it has not been transmitted.

The narcotic action, of alcohol and other neurotic poisons on the blood, the nervous fluid, and the material centers of intelligence, is the principal factor in the causation of that

acquired loss of self-control which offers up so many a comparatively easy prey to inebriety. Apart from any of the commoner and what may be called coarser forms of alcoholic degeneration of tissue, at times *pari passu* with these alcohol exercises a specific influence on the circulatory and nervous systems, which influence tends to break down inhibitory function.

The first stage of alcoholic action is one of exhilaration. The blood courses more quickly through the blood vessels, the rate of the cerebral circulation is increased, the spirits are more bouyant, a glow of warmth is felt, and the face appears flushed. What has taken place pathologically? The alcohol has paralyzed the vaso-motor nerves, their vigilance is relaxed, their power is for a time reduced. The check on the heart having been lessened, that organ beats with marked additional frequency. This state is one of relaxation. From the loss of power in the cardiac inhibitory center the heart pursues its mad career, from the diminution of power in the higher inhibitory centers the affected becomes garrulous, confiding, yielding, easily pleased, and ready to contribute to the pleasure of others. Each act of inebriety still further relaxes and reduces the inhibitory power. The central and local stock of inhibition, perhaps not over grand to begin with, is by long-continued and persistent withdrawal, through the daily inhibition of alcohol or any other intoxicant, gradually decreased to such an extent that little self-control remains, and the shiftless, unstable victim is tossed about on the ocean of inebriate excitation like a rudderless ship in a storm.

Alcohol is a mighty waster of inhibitory force, the most effectual destroyer of the faculty of self-control. Under the action of the alcoholic narcotic poison the strength of the local inhibitory centers is also weakened, whereby the vigor of various bodily organs is impaired, thus tending to the genesis of morbid functional disturbances or exciting causes, the alcohol all the while reducing the general resisting power.

The descent is so easy as to be hardly apparent, but to recover the lost power is a formidable task, indeed.

Healthy cell life is the measure of healthy function, function alike of the *mens sana* and the *corpus sanum*. Unhealthy cell life is the measure of these functions disordered and diseased. Alcohol impairs cellular vitality and thus, by its direct effects on the brain and nerve substance, produces pathological states of cerebral and nervous abnormality. The brain tissue is perhaps the most delicate texture in the human economy, and its functions are the most refined, the most intricate, the most varied, and the most susceptible. Alcohol is a brain poison as subtle as it is powerful. So that from the extreme delicacy of the organ combined with the peculiar subtlety of the narcotic agent, intoxicants are specially noxious to the organ of thought, and injurious to the intellectual, volitional, and moral faculties.

The pathological effects of alcohol on the brain and nervous system are productive of accompanying mischief to the mind and to the *morale*. The structural changes, the tissue degenerations of the human body produced by alcoholic intoxicating drinks are all pathological states, the ineradicable footprints of a destructive, disease-producing, poisoning agency.

By this degenerative process, by a long chain of morbid changes, capillary paralysis, circulatory tumult, vascular atheroma, cellular decay, membranous thickening, cerebral congestion, and neuroglial proliferation, alcohol dims the perception, confuses the judgment, paralyzes the will, and deadens the conscience. Perverted or imperfect nutrition has been the starting point in this series of pathological degradations.

Nor is this all. By its destructive action on the stomach, the liver, and the kidneys, it sets up a pathological condition of organic structural alteration which impairs those digestive and depurative functions, the due performance of which is so essential to health and comfort. The depravity of the blood, the functional derangements, and the poisoned organism, engender morbid impulses and desires which crave for the delusive consolation of narcotization. Thus doth alcohol often breed inebriety.

Whether inherited or acquired, this want of tone in the brain and nerve centers, with its accompanying defective inhibitory power, is usually preceded by a neurasthenic condition or state of nervous exhaustion. This is a well-marked pathological lesion which can in most cases be recognized by the skilled and intelligent physician. In this inchoate stage of the disease there is a real departure from health, a truly diseased condition of the higher, if not the lower, nerve centers. Inebriety, once developed, pursues its course influenced by environment, by meteorological and climatic conditions, and by other modifying forces which affect the nervous fluid. It is a disease subject to natural laws, an accurate knowledge of which would render the treatment a comparatively easy task.

As a corrective, sending drunkards to jail has been found, by long and painful experience, to be an utter and absolute failure. In general, it but completes the wreckage already so far advanced, and cuts off the last hope of restoration and reform. It is also an expensive, as well as an ineffectual, process. A very large proportion of those who answer to the daily roll-call at the police courts are "old-timers." They have been there with indefinite frequency before. If they live long enough they will be there again as often in the future. They are lodged and fed at the public expense, and the process gone through with them is called punishment. It may be called anything one pleases. It is a piece of gratuitous and wasteful folly from beginning to end. It has not about it the first shadow of a reformatory element, while it is not even punishment in the only proper sense of that word. There cannot be a doubt about the fact that a large number of such inebriates are suffering under disease. It is of no use discussing how such disease was brought on. It is there, and it will never be cured by those under its power being sent to jail, and there treated as ordinary criminals.—*Editorial in Toronto Globe.*

ENQUIRY AS TO THE DESIRABILITY OF ESTABLISHING AN INEBRIATE ASYLUM IN TORONTO FOR CHRONIC CASES OF INEBRIETY.

BY DR. C. S. ELLIOT.*

In compliance with your request, I have much pleasure in laying before you the following report upon the pathology and treatment of chronic inebriety, or habitual intemperance as a chronic disease.

It is now a well-known fact, established beyond all dispute, that there are certain hereditary or acquired conditions latent in the human economy, neurotic in character, which, when alcohol is imbibed, immediately develop a form of disease called inebriety or dipsomania.

The scope of this report will not admit of a detailed account of inebriety and its nature. It will be sufficient for my purpose if I briefly mention the characteristics of dipsomania and describe the two principal forms in which the disease appears, viz., the periodic and the chronic. The periodic is often observed in individuals who have suffered from injuries to the head and spinal cord, from falls, blows, etc., brain shocks, from fear, grief, joy, or great excitement of any kind; great strains and drains on the body and mind; also, those who are the victims of hereditary taint, being frequently derived from a parent addicted to drink, or one who is predisposed or addicted to insanity. The individual afflicted with this phase of the disease abstains for weeks

* We give the following extracts from a most excellent report by Dr. Elliot to the mayor of Toronto. We are pleased to say that the result of that report has been the preliminary steps and organization of an inebriate asylum, which will go into operation in the near future. In our next issue we shall give a full history of this new work. Our colonial friends will owe a deep debt of gratitude to Dr. Elliot for his energy and enthusiasm in this great work.

and months from all stimulants, and not unfrequently loathes them for the same period. But by degrees he becomes uneasy, listless, and depressed; he feels incapable of application; he is restless, and at last begins to drink until he is intoxicated. Awakening from a profound or restless sleep, he seeks again to repeat the intoxicating dose, and continues the same course for a week or two longer, when a stage of apathy and depression follows, during which he feels a loathing for stimulants, is the prey of remorse, and regrets bitterly the yielding to his malady. This is followed by fresh vigor, diligent application to business, and a determined resolution never again to give way; but alas! sooner or later the paroxysm recurs and the same scene is re-enacted. Ultimately, unless the disease is checked, he falls a victim to the physical effects of intemperance, becomes maniacal or imbecile, or is afflicted with some form of chronic organic disease. The second or chronic form of the malady may be thus briefly described: The patient has incessantly the most overwhelming desire for stimulants; he disregards every impediment; sacrifices comfort and reputation; withstands all claims of affection; consigns his wife and family to misery and disgrace, and denies himself the common necessaries of life to gratify his insane propensity. In the morning morose and fretful; disgusted with himself, and dissatisfied with all around him; weak and tremulous; incapable of any exertion of mind or body; his first feeling is a desire for stimulants, with every fresh dose of which he recovers a certain degree of vigor both of body and mind until he feels comparatively comfortable; a few days, perhaps, pass without the feeling being so strong; it soon returns, however, and the patient drinks again until intoxication is produced; then succeed the restless sleep and suffering, the comparative tranquillity, the excitement and the stage of sensibility; and unless absolutely secluded from all means of gratifying the propensity the patient continues the same course until he dies or becomes imbecile. The great characteristic, then, of the dipsomaniac is an irresistible impulse by which he is im-

pelled to gratify his propensity, being, during the paroxysm, regardless of life, health, family ties, affection, or responsibilities ; and during the interval (in the more advanced cases at least) the moral and intellectual perceptions are so obscured that he no longer recognizes right from wrong ; he no longer distinguishes vice from virtue, or truth from falsehood. . . .

The physical aspect of inebriety is rapidly gaining ground. Although it is many years since it was first recognized as a physical disease by a few leading members of the profession, it is only within a very few years that the subject has been made one of systematic study and research, and that the views advanced by eminent scientists have become almost universally adopted by medical men. The mass of the general public are still in ignorance in this matter, while some would-be philanthropists and reformers repudiate the idea altogether. Old prejudices and notions are hard to overcome, but to every intelligent and educated person the notion that an individual whose mind is confused, whose nervous system is shattered, whose brain is congested, whose stomach is inflamed, whose muscles are enfeebled as the result of alcoholic indulgence, needs no treatment to restore the broken constitution, must appear absurd indeed. Equally vain and absurd must it appear to preach reformation to one who has brought himself to this wretched predicament. To convince a drunkard that drunkenness is a heinous sin or a crime is not to effect a cure ; indeed, it has often an opposite effect ; it proves a source of irritation and depression, and goads him on in his degradation. All temperance effort, as well as legal means, for the prevention and cure of inebriety are based on the popular theory that it is merely a moral disorder which the victim can control at will, or a wicked habit that he can continue or put away at his own pleasure. This idea of inebriety is purely theoretical, and embodies the same errors which formerly prevailed in regard to insanity. This malady was explained as a possession of the devil, and the victims were supposed to enter into a compact with the evil spirits voluntarily. The remedy was severe punishment.

The patient was often chained in barns and subjected to the most cruel and barbarous treatment. Public attention was occupied for ages in persecuting and punishing the unfortunate insane on this theory of the cause. And need I add, it is not surprising that laws, governments, religion, and public sentiment, all failed in the prevention and cure of the disease, just as we now find in regard to inebriety.

Notwithstanding all the efforts put forth in the temperance movement, the number of inebriates is steadily increasing day by day, and year by year, and yet public sentiment rests contented with moral agitation of the subject. Criminal and lunacy records, as well as the statistics of the increased production and consumption of all kinds of spirituous liquors, and the increased number of arrests for drunkenness — all confirm this view. In order that we may have some conception of the magnitude of this evil, allow me to give some estimates, which in all probability approximate to the truth. The latest estimates in the United States place the number of alcoholic inebriates at one per cent. of the whole population. With a population of fifty million, this would give an army of five hundred thousand inebriates. Last year (1886) the number of those sent to jail and punished as willful drunkards was over fifty thousand. Large as these figures seem, there is every reason to believe they are even larger in proportion to population in this fair Dominion of ours.

God forbid that I should say a disparaging word in regard to the excellent work in which the noble army of temperance workers have been engaged. Their work has been, though in some instances misguided and misdirected, a labor of love, and is not without its good results; but I cannot help saying that while this vast army has valiantly opposed the enemy with every legitimate weapon at command, they have for the most part left the wounded and dying to care for themselves, or consigned them to the tender mercies of the law. Regarding inebriety in the same way as every form of wickedness and vice, merely as a moral perversion, the unfortunate victim of strong drink, if he escapes the vigi-

lance of the police, and the prison cell, has been allowed, perhaps, to lie hidden away in some by-place, to perish without pity and without assistance, as if his crime were inexpiable and his body infectious to the touch; often decried from the pulpit and the rostrum as a vile and wicked wretch, unfit to live, and unfit to die. An eminent *divine*, in a recent address, is reported to have said that, "drunkenness is simply sin, and the drunkard is not worth the powder spent in trying to reform him," and there is reason to believe that such sentiments are shared in by some, at least, of those who are bending every effort to sweep strong drink from the face of the earth.

But I am glad to say, hope is again dawning for this unfortunate class; signs of a new era are rapidly setting in. Among the educated and better classes there never was a time when the subject of inebriety has met with such profound attention. Asylums and their methods have been discussed. From thousands of homes and ten thousands of voices in our land the appeal is coming for help. Wives are seeking some place where the husband and father can be brought to see his true position and accept of rational means to secure his complete reformation. Parents are anxious to save sons who, through inherited tendencies or native weakness, have fallen. His diseased condition and the need of special medical care in special surroundings, is a truth that is spreading surely but slowly in all directions, though public opinion and sentiment, as well as legislation, are still far behind the march of science in a practical knowledge of this evil and the means to correct it. It is now, however, safe to predict that, not far away in the future, inebriety will be regarded as small-pox cases are now in every community; not with loathing so much as with sympathy and pity, the inebriate will be placed in quarantine and treated for his malady until he recovers. . . .

The following is the testimony on this subject of one of London's foremost physicians, the accomplished and indefatigable president of the "Society for the Study and Cure of Inebriety," in England, Dr. Norman Kerr.

“ . . . Whatever else it might be, in a host of cases it is a true disease, as unmistakably a disease as gout, or epilepsy, or insanity. . . . The influence of intoxicating drink is primarily physical, and no moral or religious surroundings or conditions can prevent or alter the physical effects of intoxicating agents on the human brain and nervous system.”

“I personally see cases every week in which the people are evidently to my perception as clearly suffering from a physical, and therefore a mental, disease as any patient who has gout, rheumatism, small-pox, or fever. I do not mean to say that it is impossible with some to recover. Supernatural power may enable one to rise above the flesh, but I am certain that I do see cases in which to all human appearance there is no hope whatever left for reformation or cure for habitual inebriety unless they are put in circumstances, of their own account or by compulsion, in which for the time they will not be under the temptation from alcoholic liquors. Perhaps under these circumstances their system may by-and-bye recover its tone, their will-power become strengthened, and with proper treatment something may be done to enable them to listen with understanding to the message of the Gospel. . . . Now this is the peculiar value of this discussion—that it will open the eyes of the British public, and especially of the religious classes, to the fact of which they seem in a great measure to be altogether ignorant in the past, that there is something needed besides moral and religious measures to restore inebriates. We know that a great many inebriates are subject to moral influence, and by a strong exercise of will, looking to higher sources, are enabled to abandon their habits, go on prosperously, and become good temperance advocates and respectable citizens; but I hope that the Christian public in this country, which is doing so much for the reformation of the drunkard now-a-days, will make that movement of theirs really effectual and permanent by taking into account that there is another aspect than their own, viz., the physical aspect, and that as all the religion and

all the morality in the world cannot give back to a man a leg that has been taken off, or a tooth that has been extracted, so neither can it restore his brain, his will, his nervous system and his muscles to the same condition that they were in before they were altered by the action of alcohol. In other words, no mental or spiritual agency can obliterate or efface the footprints of alcohol upon the brain and nervous system." These few pithy sentences I can cordially endorse.

Of the fifty thousand inebriates in the United States, only two thousand are under treatment in thirty hospitals or asylums which have been instituted or set apart for that purpose. I have lately enjoyed the privilege of visiting several of the most important of these institutions, and through the kindness and courtesy of their Medical Superintendents I was able to obtain a thorough insight into their working and to acquire a large amount of information on the subject. The Americans enjoy the honor of being the first to establish institutions for the treatment of inebriates, and inebriety is more thoroughly studied and understood there than elsewhere. They possess many able and talented men, who have made the subject one of special study. They also possess a rapidly-growing literature on the topic, which is regarded with interest and accepted as authority in the mother country. The *Quarterly Journal of Inebriety*, devoted entirely to the cause, is edited by Dr. Crothers. They also have a society for the study of inebriety, embracing among its members men of the highest ability and culture, who meet regularly to read papers and discuss the various topics connected with the subject.

Their asylums or retreats may be divided into two classes:

1st. Those established by corporations receiving State aid, or by private enterprise, and incorporated, having advantage of the laws; where the inebriate is regarded as diseased, and treated on broad scientific principles.

2d. Christian Homes, or institutions established by private subscriptions, and supported partly by paying patients

and partly by voluntary contributions. These are practically "faith cures," where all physical remedies and means are ignored, and the treatment of the cases is by moral means, such as the pledge, prayer, and promise.* . . .

The institution which I shall select as a type or representative of the second of the two classes I have above mentioned is the "New York Christian Home for Intemperate Men." It was founded in 1877, ten years ago, chiefly through the munificent benevolence of the late Hon. W. E. Dodge, so well known and honored in this country, who continued the president of its directorate till the time of his death, and whose son, the Rev. D. Stuart Dodge, succeeded him. The Home occupies one of the finest and healthiest sites in New York, overlooking Central Park, from which it is distant only one block. Especial attention has been given to the sanitary arrangements, and the Home is rendered in all its appointments as attractive and home-like as it is possible to conceive. From the manager down, every attendant and employee in the establishment has been rescued from the curse of strong drink. . . . All physical means for the restoration of the patient are ignored, professedly so, at least. If so in reality, I shall leave you to judge from the following extracts from their reports: "This habit is regarded and treated simply as sin, under the most favorable conditions, viz., bodily rest and comfort, mental repose, seclusion, and complete immunity from annoyance, irritation, and temptation;" again, "To restore the sufferers to physical health, the management confidently relies upon the recuperative powers of nature, aided by nutritious food, regular hours, open-air exercise, and happy surroundings; and this confidence is based upon an observation of almost invariable success;" and again, "In case he (the patient) is under the influence of alcohol, especially if he needs to be placed in our temporary hospital, he is treated with some ordinary seda-

* We omit descriptions of Fort Hamilton and Washingtonian Home, as well known to our readers, and publish a view of the Christian Temperance Home.

tive ; other medical attendance is rarely required, and after two or three days, except for opium patients, no medicine is used." The following is also from their report : " We seek to impress upon the intemperate that drunkenness is a sin toward God, to be repented of and forsaken, and that unless regenerated by the Spirit of God, healing cannot be effected. We lead him to the Great Physician, who, we believe, is alone able to save from all sin, and heal the soul." . . .

The British Parliament committee, in 1872, as a result of five months' inquiring, agreed on the following conclusions :

1st. The absolute inadequacy of existing laws to check drunkenness.

2d. The increase of drunkenness in large towns and populous districts.

3d. The confirmation of the statement that drunkenness is a prolific source of crime, disease, and poverty.

4th. The utter uselessness of small fines and short imprisonments.

5th. That occasional inebriation frequently becomes confirmed and habitual, and soon passes into a condition of disease uncontrollable to the individual.

6th. That self-control is suspended or annihilated, moral obligations disregarded, and the decencies and duties of life alike set at naught ; and that the victims of this condition obey only an overwhelming craving for stimulants, to which everything is sacrificed ; and that this is confined to no class, condition, or sex.

There is yet one phase of this question to which I have not called your attention, viz. : economy ; but to one like yourself, whom I know to be deeply interested in and familiar with all questions of political economy, I am sure it is scarcely necessary that I should do so, and especially since I know that you would prefer to view this question from the standpoint of a philanthropist rather than in a cold, pecuniary sense. It is, however, a subject worthy the attention of our best and wisest men, one by which economy is effected and reform promoted by the same act ; tax is lessened,

revenue increased, society benefited, and homes made happy. How beautifully are intermingled the two, philanthropy and economy! Could any other project so combine the two; could any other principles be so worthy the attention and action of our municipal and legislative assemblies? Their attention, however, requires to be awakened, and I should be only too glad to say a word that might lead them to see the importance of institutional treatment for the inebriate, in view of the fact that for most of the evils which rest so heavily on the producing portion of the people the drinking custom is responsible. The burden of punishing crime, caring for the poor, and treating the insane, comes from the burden-bearers of our country; moreover a very large portion of the money drawn from the people by taxation goes to punish or cure the victims of this infamous system. In conclusion, allow me to make a final appeal to you as a Christian philanthropist, and if it may be, through you, to the sympathies of a Christian and enlightened public, to wipe out the stigma and the disgrace of being so far behind almost every other civilized country on the face of the earth in making suitable provision for the care and treatment of this suffering class.

Dr. Wickham, of the insane asylum of Newcastle, writes in his last report: "Every year strengthens my conviction, that if we only search carefully enough we shall find one constitutional taint or another in those who we are apt to think have been rendered insane by intemperance. And as long as it is permitted to perpetuate this taint by unsuitable marriages, it is of little consequence that it is nurtured by intemperance and kindred vices, for the State must continue to pay the penalty of not trying to stamp out the taint itself. It is to be hoped that society will some day or other reach such a wholesome state of education in this respect that the intermarriage of the consumptive, or neurotic, will be regarded with as much repugnancy as is extended now to wedlock within the prohibited degrees of consanguinity."

THE PATHOLOGY, CLINICAL HISTORY, AND
THERAPEUTICS OF ALCOHOLISM IN
THE YEAR 1617 AND 1888.

BY LEWIS D. MASON, M.D.

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Retrospective glances are useful in enabling us to compare the new with the old, and thus determine what progress, if any, we have made. Medicine and Surgery, based on a more correct knowledge of anatomy, physiology, pathology and therapeutics, have made gigantic strides, and kept equal pace with the great advancement in science, art, and letters.

But there is one department of medicine that has lagged far behind in this progressive advance of medicine in all its other branches, and that is the study of alcohol as the cause of disease, and a careful classification and study of such diseases, with their pathology, clinical history, and treatment. There is no such work in the English language that can be regarded as a text book or an exhaustive treatise on this subject. The literature relating to it is fragmentary and occasional, with the exception of investigators like Anstie, Carpenter, Richardson, and others, the study of the action of alcohol on the living tissues of the body has been limited to a few. Small-pox, cholera, yellow fever, have slain their thousands, but alcohol has slain its tens of thousands. Governmental aid, and large private contributions, and every possible encouragement by scientific bodies and institutions, are held out to court investigation into the action of those poisons, their origin, propagation, and methods of suppressing and limiting their action, but the study of alcohol is shoved aside, or if its advocates are granted a hearing, it is only

through courtesy, and no impression is made, for none will be received.

A comparatively few years since, the inebriate was excluded from the benefits of the medical profession, and given over to the benefit of clergy; "by book, by candle, and by bell" the "demon drink" was to be exorcised. And there is no doubt if some members of the profession to-day, both here and abroad, were brought face to face with a cirrrosed liver or lung or kidney, a chronic gastritis or diarrhœa, or a neuritis, or an epilepsy, dependent upon and associated with alcoholism, would be much troubled with the "moral side of the question," and turn their hesitating gaze to the church and the pew, rather than the hospital and the cot.

To show how comparatively little progress has been made since 1617, about 271 years ago, we will present an extract from

"Wirtzung's Physicke, 1617,

entitled

"THE GENERAL PRACTISE OF PHYSICKE

"Conteyning [containing] all inward, and outward parts of the body, with all the accidents and infirmities that are incident unto them even from the crown of the head to the sole of the foote . . .

"Also by what meanes (with the help of God) they may be remedied: very meete and profitable not only for all physitions, chirurgians, apothecaries and midwives, but for all other estates whatsoever; the like whereof in English hath not been published.

"Compiled and written by the most famous and learned Doctour Christopher Wirtzung in the German tongue, now translated into English, in divers places corrected, and with many additions, illustrated and augmented.

"By JACOB LOSAN, German Doctor in same facultie."

This book, as the title would indicate, is a pretentious volume, printed in black letter, and gives more space and considerations to alcohol than the most modern works on the

practice of medicine, and in this respect, at least, it can claim some superiority.

We will now give the extract which we have copied entirely in the original phraseology, as follows :

“ Of the detestable sicknesse, Drunkennesse.

“ It will perchance offend the gentlemen drunkards, that I have here put their sickness of drunkennes after the infectious Plague and agues, and that I have compared their sicknesse to those : but I will omit here ye loss of everlasting life, disdain of humanity, and credite, consumption of worldly wrath, strife, murther, blasphemy of God, disclosing of secrets, whoredome, and many more ungodly works that ensue thereof : wherefore we will here onely treat of the hurt the body may hereby take thereof, and let other judge afterwards, whether this sicknesse be not worse than the ague, yea worse than the Plague itselfe — for Solomon speaketh not in vaine, ye Drunkennes hindreth all wisdome, . . . that it maketh a man a fool : darkeneth it not the understanding ? enfeebleth it not the brains ? the memory and all the sences ? bringeth it not more forgetfulnesse with it than is perceived in young children. Behold only how the hands, the feete, the head, yea the whole body tremble and quake, how the sight is darkened, how the tongue stammereth, and how there is not one member of the body that is able to discharge his duty aright. Yea say they, this sicknesse hath neither need of Phisitions [physicians] nor apothecaries counsel — make therefore as waighty a sicknesse as you can, it may be holpen with a very pleasant medicine, that is sweet sleepe.—Whereto I say and answer : oh good drunkard, there followeth with the time some other thing thereof, to wit, that thereby the good complexion of your liver is spoiled, so that it doth not engender any good blood but other bad humors, whereby the dropsie afterwards ensueth, or it doth so inflame the same with his sliminesse, that the whole body will be filled with cholera [heat] that lastly spoileth and fireth the whole masse of bloud, whereof there is caused fearfulnessse,

frightings, speaking in ye sleep, heavy dreams, the losse of all good colour, of natural seed unfruitfulnesse, leprosie, and lastly madness itselfe . . . the palsy, lethargie, the falling sickness [epilepsy] and divers such cold diseases. Is there not provoked through this drunkennesse a corruption of the stomach? The provoking of slimy and grosse humors? weakening of all the members? the gout, and to conclude, an untimely death — so that it hath been seen that some in their drunkenness have remained dead. Who is it then that doth not take this drunkennes and swilling or guzzling, for the most contagious, perillous, and sadainest [suddenest] sicknesse? Wherefore to help this extreme sicknesse, there is no certainer nor speedier than *sobrietas*, which is sobriety, and fasting or abstinence, and albeit that this receit [receipt] seeme to be altogether bitter, soure and unpleasant for the ale Knights, yet notwithstanding it will expell the foresaid malady, it sharpeneth the understanding and wits, it maketh a good stomach, whereby good bloud is engendered, and bringeth to the body none other but health, — — whereas when some have so weak a stomack that they are of necessity constrained to drink wine: notwithstanding are so feeble of braine, that how soberly soever they drink it, it disturbeth their heads and maketh them drunken. For this purpose may these things following be used to wit, juice of Quinces, or raw Quinces well chewed, and the juice taken downe; likewise the juice of Citrons, and Limons, or their sirupes, do hinder drunkennes. Hony [Honey] is also much commended if it be taken after much drinking of wine for thereby will the vapors of the wine be so driven downwards that it cannot weaken the understanding nor the braines. Bitter almonds confected, Conserves of Gillo-flowers; after that you have drunken much . . .

In the old time men did make a garland of saffron flowers and did weare it on their heads; the same virtue is ascribed to blew [blue] violets. And it is said that white Colewoorts cut into salads, and the same eaten or the seeds thereof chewed in the mouth should hinder drunkenesse: for

the juice of Coleworts, or the pith of the stalkes doth stay the vapors of the wine from ascending into the head. The precious stone Amethyst [amethyst] should also preserve men from drunkenesse. —

But for to defend and prevent all contagions that proceed of drunkenesse, we will adde some things more. First, he must be urged to vomit, with Oxymel of Squills, with Radish seede, with a feather dipped in Oyle [oil] and put into the throate, and thereupon he must fast and sleepe: and after he awaketh again, you must froth [rub] his members to wit, his hands and feete, with warme water wherein is sodden [steeped] Roses, Cammomill and a little salt, and tempered with some oyle of violets, whereby the vapors may be drawn downwards.

Item, lay a cloth upon the head that is wet with the juice of Cucumbers Purslaine, [syr. of Portulacca], or in any of their waters: the patient must keepe himself herein very sober, and use light meates, coleworts, lentils, yong [young] pullets and yong Pigeons drest with the juice of Limons and Pomegranates: the prepared and confected coriander is also very good, and sleeping thereupon untill that all the wine be digested, which may be seene by the concoction [boiling] of the urine.

It chanceth oftentimes that drunken folkes have great thirst, which if it commeth not through the abundance of wine, then give them faire fountain water to drinke and soure fruits to eate.

You have also an especial thing in the first part, the twelfth chapter, and fourth §, which is good for drunkenesse, and thirst after drunkennes . . .

There is also a great difference in drunkenesse and that according to the nature of them that are drunken. He that is sanguine doth sing, dance, laugh, and is merrie: he may be compared to children that soone laugh, and for the most part know not why nor wherefore, and when as a long time they have bene merrie, then begin they to sleepe till they have slept it out. The cholericke man is in his drunkenesse angry, raging, clamorous, addicted to fighting, and will not

be corrected nor admonished of any bodie [any body], one cannot bring them to bed, they have much babbling, and are much bragging. The *Phlegmatici*, they will be wearie, lazie, sleepe, and keepe themselves quiet . . . The *melancholici* are sorrowfull, bewaile sometimes their sinnes, their friends disease, and that is the greatest imperfection of their drunkennesse. They are like to the Apes, but in this they are all alike, that they stammer with their tongue, they reele, and tarrie not by their right wits. How hurtful also drunkennesse is, doth appeare in many places of this our booke of Phisicke, where we admonish all men to refraine it. And not onely of this unmeasurable drinking whereof we now make mention, but also where all expert phisitions doe forbid wine.

And we will for a conclusion add this to the rest, that the Rape wine and Beere [Beer] wine drunken after meat, doth make one more drunken and sleepe, than any other kind of Rhenish wine, and it is a common opinion that watered wine doth sooner infest the head, than pure wine, but this is to be understood of grosse and thicke wine, which by the putting to it of a little water is the more subtiller, whereby the vapor sooner fumeth into the head.

You have also many remedies before in the first part, the first chapter, and eight § that are commodious [suitable] for paine of the head through drunkennesse . . . ”

A few comments may be made on the above extract, representing as it does the practice in relation to the effects of alcohol nearly three centuries ago.

In the first place the “Disease Theory” is here advanced and substantiated. The author places the “detestable sickness of Drunkennesse” after the Plague, that almost annually ravaged either Holland or England with terrible mortality. The comparison is a good one, but the plague, so-called, is a thing of the past, but alcohol continually destroys its victims to-day as well as in the past, in large numbers, far exceeding any plague. No “pent-up Utica contracts its

powers"—it is not confined by geographical lines, or to certain localities.

He then goes on to speak of the moral evils to which alcohol gives rise. We can overlook his thus stepping out of his province as physician. His more modern brethren do the same thing, and they have the advantage of nearly 300 years of medical progress to direct them. But the writer wisely coming back to his original stand-point, as a physician, "will here onely treat of the hurt the body may hereby take thereof, and let others judge afterwards whether this sicknesse be not worse than the ague, yea worse than the Plague itself." He notices its effect on the brain, and the cerebral functions, especially the memory, upon the muscular system, and the senses; its effect on the liver, on the blood, its relation to dropsies; its effect on the nervous system, insomnia; and finally, delirium or madness, paralysis, lethargie or alcoholic coma, falling sickness or epilepsy; and various non-febrile diseases, gastritis, gout, sudden death, unfruitfulness, or sterility.

The author's therapeutics are certainly simple. "Whereof to help this extreme sicknesse there is no certainer nor speedier than *sobrietas* which is sobriety," and this treatment we cannot improve. On it is based the modern method, "tolle causam"; the old surgical aphorism comes in with double force. Total abstinence over a period varying from a few months to a year, the longer period preferable is the best method and the one generally accepted by all who have intelligently considered the subject from a medical standpoint.

As to therapeutics, we cannot comment with fairness to our ancient medical friend; on the virtues of quinces, citrons, or lemons, honey, bitter almonds, and gilly-flowers, garlands of saffron flowers, or blue violets. The eating of cole-worts cut up as a salad will remind us of the modern vegetarian theory advanced, that vegetarians are not so apt to become drunkards as meat eaters.

The value of the precious stone amethyst in preventing drunkenness must be placed with the horse-chestnut and

potato that are carried in the pocket to prevent gout, or the amber necklace as a prophylactic against croup in modern times. The treatment of cases of acute drunkenness, or intoxication to stupor, would be good modern treatment. Vomit the patient, allow him to recover from the exhaustion, then stimulate the circulation by rubbing the surface of the body. The dietary, for a stomach weakened by its excesses, is good, consisting of vegetables and light tender meats.

The analyzing of the urine by boiling, thus driving off the fumes of alcohol, though crude as to method, and inferior to the present method of chemical analysis, shows familiarity with the laws of osmosis, and the fact that alcohol is thrown off and not absorbed as a food by the tissues.

We certainly agree with our friend that "Faire fountain water" is an excellent remedy for thirst, whether the subject of it be affected with ebrietas or sobrietas.

The comparison of the effects of wine on the sanguine, the choleric, the phlegmatic, and the melancholic, is a correct clinical history, briefly told.

The fact, if it be a fact, that "watered wine doth sooner effect the head than pure wine" might be of value to those persistent drinkers who will dilute their wine with water.

Altogether, taking the period in which the chapter was written, we have before us that which, if modernized as to language and style, and some of the therapeutics left out, might well grace a page in a work on modern physic.

Is this because we have made no progress in the last three centuries past, or is it because we cannot improve upon the practice of those days?

When three more centuries shall have passed, shall the medical men of that time look back upon an analysis of our writings as we have on the chapter of the learned Doctor Christopher Wirtzung, and conclude that they have made as little progress as the present generation have since the time of Doctor Wirtzung?

But some one may say we have made progress. We have now special hospitals for the treatment of alcoholism just as

for other diseases. Yes, and we add the Inebriate Congress held at London last July, represented a great and growing interest in the subject of alcoholic inebriety, and special journals are being devoted to the subject, and the pages of all prominent medical journals are open to the pen of specialists in this branch. True there has been a great stride, from comparatively little or no interest, to a systematized effort on the part of the medical profession to study the effects of alcohol as the cause of disease, as they study the etiology of disease from other causes. But this consideration of alcohol and its results from a scientific and medical standpoint, to the exclusion of all moral views, is of comparatively recent date. We can count the years on our fingers and the members of the medical profession who have given intelligent consideration to a very limited number.

But it is to be regretted that the great proportion of the medical profession, and certainly of the so-called educated and intelligent classes, stand aloof and will not come to the view of Dr. Wirtzung, "that Drunkenness is a detestable sickness, worse than the plague." Can we imagine 300 more years to have passed, and posterity looking back? What will it view in its retrospective glance?

Will it see numerous text-books, illustrated and with ample text, on the pathology and treatment of diseases arising from alcohol? Will medical colleges introduce the study of alcoholic diseases into its curriculum? * Will the fact be recognized, that the manufacture and sale of alcohol, and its consequent dissemination in any community, is attended with the same dangers, only in a greater and more lamentable degree, as would be if the cause or germs of other diseases were so distributed?

Will the laws restricting the manufacture and sale of alcohol be applied to it as to other dangerous drugs; and will it be sold only as a poison, relegated to the shelf of the apothecary, and that the highest shelf?

* Dr. T. D. Crothers has delivered a course of two lectures on this subject before the Albany Medical School. This is the only instance on record, here or abroad.

Will inebriety be regarded as a curable disease, in the same way that other diseases are regarded as curable?

Will special laws be enacted, and that "bête noir," the "liberty of the subject," not interfere with the prompt and early restraint of the inebriate.

We believe all this will happen and much more, and a tri-centennial will not pass — neither a centennial — but within the compass of the present generation will all be fulfilled. Intelligence and common sense on this subject will prevail among the people and the judiciary, and especially our own profession.

And this "detestable sickness Drunkenness" surrounded and hedged in by wise laws, by places and remedies for its treatment, by higher and intelligent views on the part of the people, instructed by a conscientious and enlightened school of medical practitioners, will be limited and controlled where now "it runs riot and ruin."

The medicinal value of alcohol is slowly vanishing. Here are facts from England and Wales. There are twenty-seven workhouses where intoxicants are not at all allowed. The experience of doctors in these has proved the use of alcohol unnecessary. In 1871 the total cost of intoxicants used in workhouses and infirmaries amounted to £82,554, in 1881 it amounted to £60,303, and in 1885 was reduced to £44,820. The most marked feature of progress toward sobriety in England is this decrease of intoxicants in workhouses. There has been a reduction of more than twenty-five per cent. in four years past, and of forty-five per cent. in the last fifteen years.

In the report of the statistics of aged persons in the *British Medical Journal*, a female is mentioned between eighty and ninety years of age, who had been locked up over two hundred times for being intoxicated. Her father died at ninety, and her brother at seventy, both chronic inebriates.

Abstracts and Reviews.

History of the New York State Inebriate Asylum, by its founder, Dr. J. E. Turner ; American Publishing Co., Hartford, Conn., 1888.

This is a volume of over five hundred pages, finely printed and illustrated with many engravings of the early officers and trustees of the Asylum. The chief interest of this work turns on the fact, that it is the first history of the first inebriate asylum in the world. Its founder and author, Dr. Turner, was the great pioneer of the inebriate asylum movement in the world, and this work is a most welcome addition to history and literature, and clearly indicates that Binghamton Asylum, as planned by its founder, was fully a century ahead of the times. We have not space to fully review this work at present, but give a single selection which illustrates the principles on which this asylum was founded.

The distinguished surgeon, Dr. Valentine Mott of New York, was the president. His reply to a request to admit a dangerous inebriate for a period of six months, and allow him to visit his wife once a week in the city of Binghamton, was as follows :

He said that no patient was received in the Inebriate Asylum for less time than one year ; some cases required two years of medical treatment, some three years, and some were incurable. It must be understood that the Inebriate Asylum has no power to perform miracles, its great work must be accomplished through its medical treatment ; absolute control over its patients and a sufficient time to accomplish its mission. I would as soon allow the patient in a hospital for operative surgery, or a patient's friend, to dictate to me how long I should be in treating a compound fracture, the exact time I should take off the bandages, the day I should remove the splints or discharge my patient, as for a

patient in an Inebriate Asylum, or for the patient's friend, to dictate to me the time for his medical treatment, the removal of restraint, or his final discharge. In the case of a premature discharge of the patient with the fractured limb, there would be a chance of his becoming an incurable cripple and a burden to society, while in the case of the premature discharge of the inebriate from the Asylum, it might involve his own death or the death of his nearest friend. The head of a hospital would be guilty of a crime if he should entertain the suggestion of the inebriate or his friend. The proposition to have your son visit his wife at the hotel must be absolutely refused. From the history of your son's hereditary disease, it would not be safe to trust him upon his pledge or honor. These moral and social appliances have all failed in his case, and would be the height of folly to repeat. This experiment tried would bring a great disappointment to his wife, a double disappointment to yourself, and a relapse to your son, and the first declaration of your indignation would be that the managers of the New York State Inebriate Asylum were either fools or knaves, and that your money had been received by a hospital under false representations and pretences. . . .

This work contains a narrative of the failure of the trustees to carry out the original plans of the founder, and its consequent decline and change to an insane asylum. Through dishonesty and treachery the founder was driven out, and the object of this work is to raise funds and arouse public sympathy to restore the institution as an inebriate asylum. Aside from every other consideration, this work is a most remarkable history of a most remarkable effort to establish an asylum fully equipped, on thoroughly scientific principles. The author, Dr. Turner, is a most remarkable man, who has given his entire life to this work, and this history will be read with unusual interest.

We call renewed attention to the Lamb prize essays on Public Health, for sale by Dr. Watson of Concord, N. H., as the most practical and valuable publications of the day.

Inebriety: its Etiology, Pathology, Treatment, and Jurisprudence, by Norman Kerr, M.D., F. L. S., London, President English Society for the Study of Inebriety, etc., etc.; H. K. Lewis, Publisher, London; P. Blakiston, Sons & Co., Philadelphia, Pa., 1888.

This work of over four hundred pages, by the well-known Dr. Kerr, will be read with unusual interest by physicians and temperance reformers. To both classes it will be a revelation. The medical man will be astonished that so large a field of scientific study has not attracted his attention before. The clergyman and reformer will be alarmed at its conclusions, and hesitate and doubt its correctness. To the specialists it will be a most welcome grouping of a vast number of outline facts, and a starting point for other and more minute studies. The disease of inebriety has been presented to the medical world for many years. Several authors have written minutely on different phases of the disease: Drs. Parrish and Wright have each published admirable volumes; but Dr. Kerr has gathered and condensed all this fragmentary literature in one volume, giving the reader a very clear conception of the progress of the study in this field, and particularly indicating the vast unknown fields in this realm awaiting discovery, of far more importance than any present attainment. Practically this work gives the reader a scientific view of inebriety, representing the experience of the best authorities up to the present time, and as such is an invaluable book, and one that will live and mark the beginning of a new era in the study of the inebriate. Practically Dr. Kerr has written a text book, which every physician must read before he can have any clear conception of the disease of inebriety and its treatment. The time has gone by for the study and discussion of inebriety from an exclusive moral standpoint. There is a scientific side which cannot be ignored, and the physician and reformer who fails to realize the progress in this direction is unwise, and has fallen behind in the march of civilization.

The faults and imperfections of this work are of small

importance compared with its great value as a grouping of new facts, pointing in outline to new laws and forces unrecognized before. The general appearance of this work is good; the table of contents and index are full, and the most conservative critic will agree that Dr. Kerr has presented to the world one of the very few works which will live far down into the future. A more extended review will appear in the next number.

Medico-Legal Studies of Alcoholism and Conditions of Responsibility of Alcoholics Generally, by Dr. Victor Vetault of Paris, France. Bailliere & Co., publishers, 1887.

This volume of two hundred and thirty-seven pages brings us only one conclusion, and that is, that each case of inebriety must be determined from the facts of its own history. Even this is neutralized by the assertions that inebriety is never an excuse for crime. The author is in doubt about the irresponsibility of dipsomaniacs, and cites a number of cases where inebriates took spirits to give them nerve to commit crime. These cases, like the rest of the work, are most unfortunate combinations of second-hand statements that were inaccurate from the start, and have lost nothing by repetition. The author is evidently a library student of not wide reading, and not a practical student of inebriety as seen in actual life. The birth of such a work, notwithstanding its prematureness and general asphyxiated condition presaging certain death, is hopeful. It indicates that in the near future other works will appear, matured, with a heredity of facts which will give form and shape to a new field of medico-legal science of the most practical value to the world.

The Hygiene of the Skin, or the Art of Preventing Skin Diseases, by A. Ravogli, M.D. Central Medical Publishing Co., Cincinnati, Ohio, 1888.

This work of four hundred pages seems to cover a great deal of practical ground and give in a condensed form much valuable information. The following table of contents gives

the reader a fair idea of the work: The anatomy of the skin and hair; diathesis; skin diseases produced by particular virus or virulent impressions; physiological individual conditions; diseases of the skin caused by other morbid affections; eruptions produced by remedial or poisonous substances; influence of diet on the production of skin diseases; external causes of skin diseases; influence of water upon the health of the skin; cosmetics; influence of clothing on the production of skin diseases; the hair; parasites of the skin. These topics are all treated very practically, and we commend this work as one of great value to the busy physician. The publishers have brought out an excellent volume.

The Medical Jurisprudence of Inebriety. This volume of over two hundred pages comes from the press of the Medico-Legal Journal of New York, and is edited by Hon. Clark Bell. It comprises all the papers read on this subject at the Medico-Legal Society of New York, many of which are written by the leading specialists and professional men of the country. This is the first attempt to discuss and present an intelligent view of inebriety and its legal relations. While these papers are more suggestive than exhaustive, they point out a wide unknown field for future students and indicate the point of departure for exact scientific discovery. But the Medico-Legal Society and its president, Mr. Bell, are entitled to great thanks for this volume, which in many respects will be the most important publication of the year. The price of the volume in cloth is sixty cents. Address Medico-Legal Journal, 57 Broadway, New York City.

The *American Journal of Psychology* is a large quarterly published by the Johns Hopkins University, Baltimore, Md., and edited by Dr. J. S. Hall. Its general appearance and the contents of the first two numbers are excellent. It is thoroughly scientific and technical in its discussion of the shadowy outline truths of this great field, and has a German mistiness and minuteness of detail that is stimulating to the reader. The second number, dated February, shows much

improvement, and the critical digests and reviews are very valuable to the American reader. This journal will be warmly welcomed by all students of psychology, and will do grand work in this great drift period of this subject. Its very excellence and maturity as a journal gives one a suspicion of precocity and early death. If the doctrine of survival obtains here a very long and successful voyage may be anticipated.

The National Temperance League Annual for 1888, edited by Mr. R. Rae, is a volume of nearly two hundred pages, giving a review of the temperance work for 1887. It also contains some interesting statistics and short papers by eminent men. This volume is not only very useful but valuable as an index of the times; written in a very candid and truthful spirit, it commends itself to every thinker and worker in the field of reform.

The Temperance Record is the organ of the National Temperance League of England, and is a bright, generous weekly, giving a great variety of news and temperance facts of interest. The column devoted to crimes and accidents arising from the use of alcohol is of much scientific interest, and the editorial comments are broad and clear.

The Medical Temperance Journal, published in London, England, presents all the papers and transactions of the British Medical Temperance Association, together with many other communications, that show the danger of alcohol as a medicine. It occupies a distinct field of inquiry, and is doing grand work.

The treatment of Hemorrhoids by Injections of Carbolic Acid and other substances, by Dr. S. T. Yount, Echo Music Co., printers, Lafayette, Indiana, 1888, is the second edition of a little book which seems to have an unusual sale in the West. It appears to be a very useful and valuable work.

Editorial.

SOME PRACTICAL FACTS.

In the city of B., in 1887, over two thousand persons were arrested and fined for inebriety. Of this number over fourteen hundred were known as fixed residents of the city, and six hundred were repeaters, or persons who had been arrested before for intoxication, from two to forty times. Nearly four hundred had committed assault or petty crime while intoxicated. Here, as elsewhere, it was the unanimous conclusion of the police officers, judges, sheriffs, jailors, and others who had opportunities for knowing, that not one of these persons arrested for inebriety or petty crime associated with inebriety, ever received, or are permanently benefited by these means. In most instances the first arrest and punishment for intoxication had been the starting point of the final destruction of the victim. Examination showed conclusively that the effect of arrest and punishment of inebriates as criminals was to destroy all pride of character, and precipitates them into social conditions from which recovery was almost impossible. The direct effect of fining the inebriate pauperizes both himself and family, and increases the perils and obstacles of living. To confine him in jail, is to familiarize him with criminality and pauperism. It is asserted on good authority, that over ninety per cent. of all persons who are arrested for inebriety the first time are re-arrested over and over again as long as they live. The mortality of this class, after they are first arrested for inebriety, is about thirty per cent. Thus, within four years the two thousand inebriates arrested in this city in 1887 will be dead. These are facts which can be easily verified.

In this city, last year, two thousand inebriates were arrested and punished, and all authorities agree that such

punishment was not only useless, but harmful, increasing the physical and mental degeneration, and making them more incurable. Thus, the effort to prevent inebriety by punishing the inebriate, was literally a process of precipitating them into more hopeless and helpless conditions. Practically, this city has been educating and preparing inebriates for pauperism and criminality, with as much certainty as its free schools and compulsory attendance has helped to make good citizens. This is only one instance of the application of a vicious theory in the treatment of inebriety,— only one instance where a blundering conception of the inebriate is turned into a force, which pauperizes, criminalizes, and destroys them. While these facts are conceded by all who are familiar with the cases, no practical relief has been suggested. The judges, officers, and jailors, all ask, "what can we do? we must execute the laws, no matter what the results are; we must go on destroying the inebriates, only protesting against it, until a clearer knowledge and rational means of cure are provided." When this time comes, this city will build a work-house hospital on a large farm in the country. Here these cases will be sent as sick and diseased, and treated with exact medical and military care. Here all the surroundings, both medical and physical, will aid in building up and antagonizing the diseased elements, and the victim will be made self-supporting by organized work. His treatment will extend over long periods, and his cure will be tested by paroles, during which, should he relapse, the treatment may be lengthened. Should the case prove to be incurable, he can be permanently housed, and all his labor directed to support himself. These hospitals will be built from the license fund, and be supported by this tax and the labor of its inmates. They will be special quarantine-stations, where the young man who is intoxicated for the first time, and the chronic inebriate, can be forcibly placed in the best possible conditions for permanent restoration. Such hospitals will house this army of inebriates, removing them from all sources of infection and danger to themselves and others, on the

same principle as small-pox and yellow-fever cases are quarantined. Such hospitals deal a blow at the saloons more effectual than all legislation. The saloon exists in obedience to a law of supply and demand. It never creates this demand, but it may increase it. The saloon is always more prosperous in unhealthy, intemperate communities, where neurotics, defectives, and exhausted, irregular-living persons congregate. It is welcomed to supply a narcotic which brings relief, rest, and change to its victims. Increase this army of defectives and the saloon is increased. Take away this army, and the saloon disappears in obedience to a higher law than prohibition. A crusade against the saloon only gives it greater strength and vitality, but a crusade against the inebriates which support the saloon is fatal to its interests.

The real temperance work of the hour is to build these military hospitals for the inebriates, and isolate all this class, making them self-supporting. Surround the manufacture and sale of spirits with strict regulation, and tax it to support the inebriate. Recognize the inebriate as insane and incompetent to enjoy the liberty of a citizen and freeman, and treat him as sick and diseased, and the final cure and prevention of inebriety becomes a certainty. The great recruiting grounds of insanity, criminality, and pauperism are broken up, and the armies of defectives and dangerous classes are scattered. Treat the inebriate as a moral delinquent, and punish him with great severity, and the evils of his life, conduct, and influence are intensified. The more thoroughly the inebriate is punished by fine and imprisonment, the greater the loss and peril to law and order, and the greater the army of incurables and dangerous classes. The real work of most practical import to-day is to control and treat the inebriate, thus protect him from himself and also the community.

The statistics of longevity in England show that clergymen of the Church of England have the longest lives, and dealers in spirits the shortest. These classes occupy the two extremes of mortality and longevity.

DISEASE NOT VICE IN INEBRIETY.

The following article, published in the *Medical and Surgical Reporter* in February, 1880, is reprinted with a full clinical history of the cases mentioned :

I have, for years, urged that every person who was either a continuous or periodical drinker, using alcohol in any form to intoxication, was most emphatically suffering from the disease of inebriety. I am also confirmed in my belief that the starting point of this disease is in the first instance of intoxication, or toxical effect of alcohol. The pathological and psychical impressions produced on the organism at this time are permanent, although inebriety may not always follow. The germ of disease then implanted may remain dormant for years, then suddenly spring into activity, from the action of some peculiar exciting causes.

This view of inebriety has been the subject of much criticism, particularly by those who never studied these cases practically or clinically. The papers and articles written to prove the error of this view and the vice of inebriety form one of the most curious chapters in the history of psychological literature. Even to-day, men who are learned in psychological studies continue to repeat statements and theories both confusing and unreliable, and with no basis in clinical facts, in a spirit of dogmatic assumption that is very lamentable.

I have lately had an opportunity to study the history of two cases of inebriety which were under the care of two very excellent superintendents of large insane asylums. These cases formed the basis of many bitter comments, in which they severely condemned all inebriate asylums, and pronounced the theory of inebriety as a disease perfectly absurd, and false in every particular.

My purpose in reporting these cases is not so much to indicate the assumptive ignorance of these physicians, as to point out the necessity of a thorough study of such cases, with all the aids at our command, before pronouncing on the

question of vice or disease. If physicians who are persuaded that they have something new to write on this subject would ignore the baseless mass of theories that are repeated from one author to another, and study a few cases of inebriety thoroughly, they would find facts of the greatest interest, that are practically unknown at present.

CASE I.—The father of this patient was a regularly educated physician, but who, all his life, vacillated between one school of practice and another, adopting every new idea proposed, and manifesting much enthusiasm and bigotry in defending them. He was also noted for his changing religious views, and generally was of very uncertain mental calibre. He was healthy, temperate, and lived to eighty, dying of some heart affection. His wife was a retiring woman, of a gloomy disposition. Her mother and grandmother, on her father's side, were insane, and her brother had epilepsy in early life, and later died an inebriate. She was neuralgic and eccentric at times, and had convulsions at the birth of her son. B., the subject of this history, was the only child of the above parents. During childhood he was noted for his exceeding fretfulness and impulsive temper. He grew up rapidly, developing an active, nervous temperament, a ready memory, and was considered precocious in his ability to learn. At puberty he was sick for nearly a year, from some form of fever, attended with exhaustion, anæmia, and much irritability of temper. At twenty-one he graduated from college with high honors, and two years later was admitted to the bar as a lawyer. For some years nothing unusual was noted. He won distinction, and acquired a large practice. At twenty-eight he married. Up to this time he had been very generous and lavish of money, then suddenly he became penurious and refused all claims for charity. At thirty, with equal suddenness, he gave up all his flattering prospects as a lawyer for a third-rate partnership in a manufactory. To his friends he gave no special reasons for his miserly habits or his change of occupation. To his wife he affirmed that he had great fear of dying in the

poorhouse. In the manufactory he kept the books, and manifested great pleasure in watching the operatives. About this time a change was noticed in his personal appearance, wearing poor and soiled garments, which was attributed to his excessive economy. He had always frequented the best society, and had been temperate in all his habits, attending church, and foremost in all endeavors for social reform. Now, all unexpectedly, he seemed to avoid this circle, and began to visit the mill operatives and the saloons which they frequented, playing cards with them and drinking beer at their expense. During the following years all these low tastes increased, also his miserly habits and general disregard of society and its claims.

At forty-eight he was sole owner of the business and wealthy, dressed poor, was selfish and grasping, and generally suspicious of everybody. He drank wine at home moderately, avoided company, and worked very hard. Much against his wishes his wife and daughter went traveling in Europe; the great objection was the expense. After the excitement of parting he went home, drank to intoxication, and in the delirium which followed broke up much furniture and threw it out of the window. He repented deeply for this act, called in a clergyman, signed the pledge, and declared he was going to live a different life. A few months later he drank again suddenly, and had a furious delirium, during which he destroyed more of his property, and injured a servant who attempted to stop him. This was followed by a long period of repentance, during which he attended church and seemed a different man. The news of his daughter's death abroad brought on another severe paroxysm of drink, which lasted nearly a week, ending in a low, nervous fever. Recovering from this he drank every day moderately, his temper seemed more violent and irritable, and a change of character was apparent. He forbade his wife coming to the house, but sent her large sums of money, was sleepless at night, and often very profane. These paroxysms returned more frequently, but were less violent, unless from some special

cause. Wine was used at the table regularly, but never to excess until evening. In business he was very energetic, manifesting great skill and judgment, and gave no evidence of mental debility. He spent his time reading old books on witchcraft and necromancy, making quite a collection of that kind of literature; he ate temperately, and appeared in good health. The delirium of destruction which followed the paroxysm of drink seemed to be in a measure under his own control. This he declared to be so, and affirmed his desire to give up alcohol, and urged others in public meetings, with much skill and eloquence, managing a temperance canvass in every neighborhood of the county. He gave money and time freely for the blue ribbon cause, and was thought to be a "brand plucked from the burning," but to his intimate friends he was very irritable and impulsive.

.At this time I was consulted, by letter, about this case and gave an opinion that he was suffering from the disease of inebriety, and needed exact and long-continued medical care. Shortly after he relapsed and suffered from a severe paroxysm of drink, breaking up his property, and was altogether so violent that his friends conveyed him to an insane asylum, giving the superintendent my letter, with the diagnosis of inebriety. In ten days he had so far recovered as to be sent home cured. The superintendent wrote a long letter, giving a history of the case to the family physician, indicating that there was no evidence of disease, and not the slightest suspicion of anything more than pure drunkenness, associated with a vicious temper, advising that he be locked up at home and forced to control himself when in this condition. This the patient agreed to willingly, but on the return of the next attack resisted, with wild fury, all attempts to carry it out.

Six months later he was returned to the asylum, and the superintendent wrote his friends that he would make a special study of this case. The result of this study was a more positive confirmation of his former views, with an additional statement that the delirium was merely the outburst of a mean, vicious nature, liberated by alcohol. He was dis-

charged in two weeks, and relapsed a month later. Growing gradually worse, he was persuaded to come under my care.

I found him a robust, healthy-looking man, who reasoned quite clearly about his case, deploring the neglect of his spiritual faculties, etc., and seemed quite anxious to get strong, but had the usual delusion, that he could stop any time; also, that wine in moderation would benefit him, and was necessary in ill health and overwork. A closer study revealed the presence of a delusion, viz.: That he was under the power of some spiritual agency, which took possession of his body for a special purpose. He referred to *Cotton Mather* on witchcraft and the power of evil influence; these impressions he dated from the time of his first intoxication. He admitted that it might be all a delusion, but felt confident that after a certain point in drinking he was a mere automaton in the hands of other persons, as in a mesmeric state. He had, for years, made collections of books which contained proof of this condition or power. His reasoning was very acute on this topic, and he was also full of ideas of persecution, and fears of suffering from extreme poverty and want. Economically, he was satisfied to come to an asylum, and explained his mania for destruction as an effort of his higher nature to get the ascendancy over the lower. On other subjects his mind was clear, although very sensitive and changeable.

The second week under my care he arose one morning in a condition of great excitement and alarm; went about aimlessly; had great fear of dying; his pupils were congested, and he begged for alcohol; made his will, etc.; but under the influence of narcotics, became quiet. The next day he was melancholy and much exhausted. The third day he recovered, was calm, and seemed in fine spirits. The congested pupils cleared up, and, except a nervous trembling, he was much better than he had been before. He went away the fourth week, in the fullest faith of recovery, made a strong temperance speech at his home church, went directly to his house and drank to intoxication, three days after leaving my

care. One year after he gave up business, and traveled in Europe, with an attendant. He drinks regularly, has delirium less frequently, but is much weaker, both in mind and body.

(This was in 1879. The next year, he came home from Europe, and began to speculate. He drank at intervals, and was delirious and destructive at times. Finally he became melancholy and committed suicide. He was found to be a forger and defaulter, and had lived a double life, of apparent honesty, yet taking advantage of this to advance his interests by dishonest means.)

Such is a brief outline of a case which was affirmed by a prominent physician to be vicious inebriety, and a good illustration of the vice of drunkenness, that was, to him, very strangely held up as a disease.

Some of the special facts of this history may be grouped as follows :—

1. The hereditary history pointed strongly to a taint of insanity, and the presence of a diathesis, which might develop any time, under proper exciting causes.

2. His history up to the time of the first intoxication indicated a degree of eccentricity and instability of brain function that was very suspicious.

3. The first intoxication opened the door for delusions. The delirium for destruction which followed, and the recurrence of the drink craving, were unmistakable evidences of disease.

4. The subsequent progress of the case furnished the clearest proof, and both the physical and psychical symptoms pointed to the development of an insane diathesis, which took the form of inebriety.

CASE 2.—A gentleman wrote me of his brother, who had been under the care of a noted specialist and superintendent of an insane asylum for inebriety, and repeatedly discharged as *incurable* and *incorrigible*, requesting me to take care of the case, and correspond with the physician of the asylum. In answer to my letter this physician wrote me at length ;

first regretting that I had advocated the disease theory of inebriety, and advising that I turn my attention to the study of insanity, etc.; second, of this case, he had studied it carefully, and was long ago convinced that he was a mere "bummer," in the sense this term was used in the army; also a vicious, base, bad man, without any evidence of the so-called disease of inebriety; third, and last, he had no sympathy with any who called such persons diseased, and he believed the worst results would follow such an opinion.

A short time after this case came under my care, with the following history: H., aged forty-one. His father was a speculator, and drank hard up to his death, at forty-eight. His mother was in ill health, and died soon after his birth. His two brothers were temperate; one had convulsions in early life; was now a selfish, miserly man. The only sister he had was eccentric and of gloomy disposition. H. graduated from college, entered a medical school, then went into the army, was attacked by typhoid fever, and after recovery was detailed as a clerk in the departments at Washington.

At the close of the war he came home and entered into business, as traveling agent for his brother. Nothing unusual was noticed until 1870, when, after an accident on the railroad, in which he was slightly injured, he drank to protracted intoxication, and was ill for two weeks. A year later he drank again, for two weeks, and spent much money with low company. Up to this time he had always been very truthful and correct in all his business habits; now he seemed to change suddenly, and was very unreliable, telling falsehoods where the truth was better for his own reputation. He became careless and forgetful, neglected his business, and was boastful and arrogant, bragging of events which never took place. In business he was dishonest, and was discharged by his brother. Committing some assault while drinking, he ran away, and was heard from in California, as a barkeeper and gambler, for the next two years. Returning, much broken down in health, and destitute, his brother employed him as a porter. He drank beer steadily, and was

occasionally 'quite stupid' from it. On recovering, he was filled with delusions of robbery and poisoning by his friends. He manifested fair average intelligence, and affirmed that he often used brandy or beer to drown the depression of spirits and sustain his energies. He was often the object of the temperance missionaries, always uniting with earnestness in every effort to help others to reform. Repeatedly he united with different churches, made strong appeals to sign the pledge, but fell himself, with every temptation. When caught where denial was useless, he would acknowledge his sins in the most penitent manner, and describe them with gross exaggerations. It seemed a keen pleasure to him to be the object of prayerful attention, and for a long time he was one of Mr. Moody's most hopeful converts. In the midst of such excitements, he would drink in his room, then thrill everyone with the most extravagant details of struggles with the tempter, and prayers for help. He possessed a vein of extravagant oratory that never failed to attract the closest attention. His mind was buoyed up with an extraordinary confidence and hope in the future. He would drink hard all night, be intoxicated, and on recovery go into the church and announce confidentially that he was destined for some great work and would yet be known as the champion of the cause of reform. His thoughts could not be concentrated very long on one topic, and he was either hesitating or very bold. He was keen to take advantage of the situation, and use every opportunity for his advantage; also he displayed much cunning in covering up the real condition. His drinking seemed to be for relief from exhaustion or depression, from which he suffered. He suffered under my care from distinct periods of exhaustion, which seemed to bring out the worst features of his nature, but when these were over he was quite a different man.

When much intoxicated he used violent, threatening language to his relatives, hence he was sent to the asylum as a dangerous person. Under my care great improvement followed, and he is yet under treatment, with strong prospect of recovery.

(This case, after six months' treatment, remained sober for nearly two years. Then suddenly drank to great excess, and committed an assault for which he was sent to prison. He died six months later from acute phthisis. During these two years of sobriety, he denounced all inebriate asylums, and all notions of disease as humbugs, and affirmed any one could stop at will if they chose to.)

This case, like the former one, was the subject of unjust reflections and criticism, and the history may be condensed in the following statements:—

1. The hereditary history indicated an inebriate diathesis.
2. The onset of inebriety following an injury and nervous shock from a railroad accident.
3. The total change of moral character, and his subsequent moral perversions, more prominent than the drink paroxysms.
4. The peculiar depression and exhaustion which preceded the drinking all outlined clearly the presence of the disease of inebriety, which the subsequent history confirmed.

These cases may be considered fair illustrations of many others that are sent to the insane asylum, and are considered by some physicians unworthy of study, and as possessing little or no psychological interest.

Both of these cases have been considered types of the vice of inebriety, and in both instances they were not studied, only in the most cursory way. All attempts to demonstrate a condition of vice in the disorder of inebriety indicates a most superficial knowledge of the subject, clinically, and may be compared with similar efforts to show a stage of vice in insanity.

Dr. Norman Kerr of London, read a paper before the Medical Temperance Association, Feb. 21, "On the results of four years' work at Dalrymple Home." Of the one hundred and fifteen patients treated here, fifty-two were restored. The average length of treatment was seven months.

CONCEALED INEBRIETY.

Mr. William Duncan died in Boston, Mass., Sept. 20, 1886. On opening his will it was found that he had left the most of his property (over a million dollars) to found and build a model town on the Yukon river in Alaska. This town was to be laid out under the direction of his spirit, after he had made a visit and found a suitable locality, which fact would be made plain to a certain medium who was to act as executor. Long, minute directions were given as to the sewers and buildings of the town, which were all to be built in advance of the coming population. The executor was to act on his judgment should he fail to get accurate instructions from Mr. Duncan's spirit form. A wife and two children, to whom only a small sum was left, contested the will. It appeared that the testator had been a concealed inebriate, and although he had been a very reputable man and church member, and was known only as an investigator in spiritualism, not the slightest suspicion of his mental unsoundness had ever been noticed. The will was drawn by a lawyer who was unacquainted with the testator, and there was no evidence that the executor had exercised any special influence or even suggested anything in the will. The family had never heard any expression of the testator relating to Alaska, or the founding of a town. The executor, a spiritualist and impetuous lawyer, had many motives for defending the will. Two eminent physicians reviewed the testimony taken before a referee, and concluded that there was no evidence of insanity or mental derangement, or unusual bias by any one. That the testator was in full possession of his senses and reason, and comprehended the nature and character of his acts. They affirmed that his concealed inebriety was merely a moral condition and vice, which did not impair his reason or knowledge of right and wrong. The evidence and this conclusion was referred to another physician, who, from a closer examination, discovered the real mental condition of the testator. The divergent views of both commissions were

referred to me. It appeared from the history of the case that Mr. Duncan came from a neurotic family, other members of which were hysteric, epileptic, and feeble-minded. He was in early and later life a deeply religious and moral man, and always very conscientious in all his business transactions, and inclined to melancholy. On the death of his son he was ill for many weeks, believing it was God's judgment on him for selfishness. About this time he began to use alcohol for insomnia at night. A year or more later he complained of severe headache, and drank spirits to stupor for two days, then recovered. From this time he had periodic returns of headache and what he called malaria, for which he took spirits to intoxication. These "fits," as they were called, were preceded by great irritability of temper and withdrawal from all business and society. He would spend one or two days drinking to intoxication, then recover and be very tender and charitable to all he came in contact with. For three years past he had, at the end of these drink paroxysms, shown great interest in spiritual seances, and believed he had received direct communications from his son who had died years before.

These investigations had not attracted any special attention, or apparently influenced his life or family relations. The executor, to whom he gave control of his property, had only met him occasionally at the spirit circles, and was not intimate with him. The will was written three days after recovering from a drink paroxysm, and on or about that time he was reading a book on Alaska, from the dates on the margin of the book. He had also shown much interest in some sanitary writings, on the value of good buildings and sewerage on the health and morals of the people. He showed great irritation when the lawyer who wrote the will suggested that its provisions were unusual. The drink fits, as they were called, were longer in duration, and were preceded by more irritation and mental changes, and also followed by greater feebleness of mind and body, during the last year of his life, and in the period in which this will was written.

He died from apoplexy, following a drink period. From these and other minor corroborative facts, I sustained the judgment of the last medical commission, that the testator was an inebriate and of unsound mind, and incompetent to dispose of his property with justice and judgment. That in the fact of concealed periodical inebriety there is always a suspicion of mental unsoundness, which should attract attention and be studied. If the acts are peculiar, strange, or inconsistent, this suspicion is sustained, and the irresponsibility of the person is a fact more probable than that of responsibility. The referee reported adversely on sustaining the will, and the model town on Yukan river, under the spirit of the testator, was postponed to the future.

Dr. Braweskey of St. Petersburg, Russia, sends us a printed address in which he protests against the danger of permitting spirits to be sold by all classes of people. He thinks the retailer of spirits should be under bonds, and be a man of excellent character, and be held most literally accountable for the spirits sold. He thinks the power in the hands of such persons is very dangerous to the community, and perilous to the nation. He proposes as a remedy for inebriety, that every inebriate should be arrested and confined as insane and irresponsible, and placed in special hospitals or kept under surveillance for years. That all spirit selling should be confined to certain places where cheapness and good quality could be always had. That the dealer should be a responsible man, and should be watched and punished for any mistakes or wrongs he may commit.

An enthusiastic physician of the Southwest sends us a long statement for publication, which, unfortunately, we have not space to print. He mentions as a fact, that in every town where prohibition was enforced, the sales of meat, milk, and sugar increased enormously. He thinks if the sale and

supply of spirits in St. Louis could be suddenly stopped for two days, the demand for food of all kinds would cause a famine and exceed all possible supply. The demand for meat to take the place of spirits would be very great. From this he concludes that prohibition would be dangerous if carried out literally, seen in the sudden outbreak of abnormal appetites, and diseased impulses, and commercial derangements.

Dr. C. H. Shepard of Brooklyn, N. Y., has opened a hospital for cases of rheumatism in connection with his well-known Turkish Bath. This will be cheering news for many poor sufferers to whom the Turkish bath offers the most perfect relief of any known remedies. Dr. Shepard's life-long experience in developing the Turkish Bath gives assurance that this movement will be a great success, and the scientific application of these means will result in many permanent cures among those who are now considered hopeless.

The London Pathological Society, Sir James Paget, President, have decided to set apart three evenings of the spring session for the discussion of the pathological changes produced by chronic alcoholism, and the exhibition of specimens. Dr. Payne will open the discussion.

The *Brewing Trade Review* of London has opened its columns for a medical discussion upon alcohol. Dr. Kerr leads off in the March number, and Dr. Alfred Carpenter follows in the April issue. The editor announces that he is after the real facts, no matter what the results may be.

The specific nostrums for the cure of opium and alcohol inebriety are steadily increasing. There are over twenty in the field at present. It is a curious fact of psychological in-

terest that their most profitable avenues for reaching the public and warmest friends are the religious and temperance journals. A specific advertised to cure every inebriate on whom it is used in ten days without his knowledge, is most warmly endorsed at present by some of these papers.

Dr. Kerr of London, in his late lectures on Inebriety, makes a very practical distinction between the inebriety of insanity and the insanity of inebriety. The former is only a symptom of insanity, and the latter is a special form of brain disease, due in part to the toxic action of alcohol. He asserts very clearly that in both of these conditions irresponsibility should be recognized. Dr. Kerr is doing grand work in this field of scientific study.

The Washingtonian Home of Boston, Mass., celebrated its thirtieth anniversary on the 20th of February last. Dr. T. D. Crothers delivered the address. Very interesting speeches were made by Dr. Day, President Warren, Judge Story, and others. These speeches will appear in a pamphlet form soon.

In the sixteenth century alcohol could only be obtained from the drug stores on a physician's prescription. About this time a learned treatise appeared at Bonn, Germany, by Theocritus, a physician, on the marvelous effects of spirits on the body. Among the curious statements of what spirits would do, occur the following: "It stops the coming on of age, and makes youth permanent. It scatters melancholy, gladdens the heart, lightens the soul, endows the nervous system with alacrity; removes wens; drives away deafness, blindness; cures stuttering, trembling of the jaws, and shaking of the hands, rotting of the bones, and softening of the brain." In 1581 it was introduced into the English army, then fighting in the Netherlands, as a spirit strengthener, and to prevent homesickness.

Clinical Notes and Comments.

HISTORICAL SKETCH OF THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIETY.

IN A LETTER FROM JOSEPH PARRISH, M.D.

BURLINGTON, N. J.

MY DEAR DR. CROTHERS, — During convalescence from an attack of sickness, I have read the one hundred pages of your *new* "Quarterly Journal of Inebriety." I doubt if there is another periodical on the American Continent that contains in any one hundred pages a larger amount of valuable literature than your new journal. It is just full of solid, substantial, scientific and practical matter, and I have no doubt that a grand and useful future awaits it. When I look back over the years that have passed since 1870, I am amazed at the progress the cause has made, especially in view of the influential opposition that at once arose to combat it. I recall the day that I sat in my study, meditating upon the possibility of getting a sufficient number of men together in New York City to form an association with the single object of advocating the disease theory as applied to certain forms of alcoholic inebriety. I decided to consult Dr. Willard Parker of New York City and if he should agree to co-operate, to venture a call for a meeting to be held in the near future. I wrote to him and received a favorable reply. The time and place were fixed for a meeting, and invitations were at once issued to the superintendents of inebriate asylums, and others supposed to be interested in them. The next thought was to arrange a programme. Who shall move off, and take the lead? I wrote again to Dr. Parker and asked him to prepare something. He replied that he had not time, and added, "You must write a paper and present the subject as it now appears to you." I went to work, and

at the time named was in New York wondering if anything would come of the effort.

The meeting was held Nov. 29, 1870, at 12 o'clock noon in the parlors of the Young Men's Christian Association, New York City, and to our surprise fifteen gentlemen were present. Dr. Parker was called to the chair, and in a brief opening speech explained the object of the meeting. He said, "It is not a *temperance*, but a scientific gathering," and he proceeded to say that "Alcohol was a poison," and to explain its physiological and pathological action upon the living system, and that its introduction into the system *improperly* induces a general disease in that system as well marked as intermittent fever, small-pox, or lead poison. "Can that disease be cured. It will be the object of this meeting to inquire into the best mode of treating inebriety." As the invitations that were sent out embodied requests that papers should be offered, it was gratifying to find that several were contributed.

Dr. N. L. Davis of Chicago, though not present, forwarded a most valuable contribution on "The Pathological Influence of Alcohol, and the nature of Inebriation." The next in order was on "The Philosophy of Intemperance," by Dr. Joseph Parrish. Then followed a most remarkable document entitled, "The Disabilities of Inebriates," by the inmates of the "Pennsylvania Sanitarium." This paper was the product of a meeting of the inmates (inebriates) of an institution who presented a concise, logical, and somewhat pathetic view of their condition from their own standpoint, the reading of which made a profound impression.

The "History of Washington Home," by W. C. Lawrence of Boston, the "Restraint as a Remedy for Inebriety," by Dr. D. G. Dodge of Binghamton, N. Y., "The relation of the Church to Inebriates," by Rev. J. Willit of Fort Hamilton, N. Y., "Inebriate Asylums in their Relation to Social and Political Economy," by Albert Day, M.D., of Greenwood, Mass., and the "Moral and Social Treatment of Inebriates," by P. J. Wardner of Chicago. Discussions on these several

topics were free, and added much to the interest of the meeting.

The following session was given to the adoption of a "Declaration of Principles," and of a plan of organization. Also to a very general discussion as to the use of alcohol as a medicine, the conclusion being unanimous in favor of its utility as a remedy in certain conditions of the body.

The secretary exhibited a copy, and explained the provisions of a bill recently presented to the British House of Commons, defining habitual drunkards and providing for their custody and care in licensed homes. He stated that our laws are at fault in this regard, *i. e.*, that they do not recognize a diseased condition in inebriety, nor do they make any provision for the custody and treatment of such cases. The subject was fully discussed, and a committee of which Dr. T. L. Mason was chairman, was appointed with instructions to report a draft of a law next year. On the subject of publishing the proceedings, it was "Resolved, that the secretary be authorized to arrange the minutes and papers for publication in pamphlet form, and that five thousand copies be published, the expenses to be borne by the different institutions represented." Dr. Mason consented to act as treasurer, to whom an allowance from each institution was to be sent to meet the cost of publication which it was supposed would amount to not less than five hundred dollars.

Dr. Parker made some interesting remarks on the commercial value of men, showing the loss to the community in labor and productiveness of inebriates, and commended the subject to the careful thought and study of all present. Omitting for the present an analysis of the papers read and discussions, I shall close this first of my series of letters by announcing the "Plan of Organization."

1. "The name of this association shall be the 'American Association for the Cure of Inebriates.'

2. "Its members shall consist of superintendents, physicians, and delegates from boards of directors of institutions for the treatment of inebriates.

3. "Its object shall be to study the disease of inebriety, to discuss its proper treatment, and to endeavor to bring about a co-operative public sentiment and jurisprudence."

The officers and their duties are the same as in similar organizations.

The following preamble and declaration of principles were carefully considered and unanimously adopted :

WHEREAS, The "American Association for the Cure of Inebriates," having met and considered important essays on the various relations of inebriety to individuals, to society, and to law, and having seriously determined to use their influence in all suitable ways, to create a public sentiment and jurisprudence, which shall co-operate with true methods for the cure of inebriates, do make the following *declaration of principles* :

1. Intemperance is a disease.
2. It is curable in the same sense that other diseases are.
3. Its primary cause is a constitutional susceptibility to the alcoholic impression.
4. This constitutional tendency may be inherited or acquired.
5. Alcohol has its true place in the arts and sciences. It is valuable as a remedy, and like other remedies may be abused. In excessive quantity it is a poison, and always acts as such when it produces inebriety.
6. All methods hitherto employed having proved insufficient for the cure of inebriates, the establishment of asylums for such a purpose is the great demand of the age.
7. Every large city should have its local or temporary home for inebriates, and every State, one or more asylums for the treatment and care of such persons.
8. The law should recognize intemperance as a disease, and provide other means for its management than fines, station houses, and jails."

So far as we know, this was the first meeting ever held in the interest of science to make known the dogma of disease as applied to alcoholic inebriety, and to declare it to be "curable in the same sense that other diseases are." The "Declaration of Principles," the first systematic statement of the doctrine ever pronounced by an organized association and as such sent forth to the community.

It was the good time of sowing seed. The full harvest is not yet, but the time for it is at hand. No sooner was the doctrine proclaimed than there arose a violent opposition to it. The religious press especially, and the so-called temperance papers, were at the front, holding forth their signals of dan-

ger. They appeared to be honest, but they were mistaken. They have found it out now, and are one by one falling into line.

ALCOHOLIC ETHERS.

Alcohol is not the only poison that alcoholic liquors contain. The hydrate of ethyl changes into aldehyde and acetic acid when it is exposed to certain oxidizing agents. Aldehyde, itself an irritant poison, is capable of setting free metallic silver from its nitrate; and various radicals may be formed, each of which has its specific power, and may set up different kinds of toxic results, accounting for death. It is also known that all new spirits contain more or less minute quantities of amylic alcohol ($C^5 H^{12} O$), which goes by various names, as fusel-oil, potato spirit, or oil of grain. It is less volatile than ethylic alcohol and only comes over at the end of the distilling process. It is a virulent poison, producing extreme irritation, and acting at once on the brain cells in a most energetic manner, giving rise to violent delirium or temporary insanity. How far it is possible these products to be formed inside the body itself, and thus for oxidation to produce still more poisonous agents than alcohol, is not positively known; but that there are ethereal products must be manifest to all who come into personal contact with drunkards. The breath of a drunken person or of a person who has been drinking does not always give out the vapor of alcohol, but other vapors allied to the ethers are easily recognized by the nose. The oxidation of alcohol, as it takes place in the human tissue, does not give rise to the materials capable of being used in the production of force, but the results are allied to acetic acid, acetal, acetone, and other matters which have passed out of the range of force producers as much as carbonic acid itself has done. We have also to recollect that the quantity of carbon compared with hydrogen in alcohol brings it into a different category from that of sugar, starch, and oils.

CARPENTER.

CIRRHOSIS OF THE LIVER.

M. Laucereau of Paris, in a recent paper on alcoholic cirrhosis, states that this disease is common in wine-drinking countries. Excesses in the use of spirits was shown to exist in ninety-five cases which he studied. The number of deaths in New York, according to the record, has greatly increased from hepatic cirrhosis equal to one-third. M. Laucereau thinks it more common in wine-drinking countries than where strong alcohols are used. In Germany, one-third of the cases of cirrhosis are said to come from brandy drinking. His claim, that it is more common in wine-drinking countries, is opposed by the statements of others.

The editor of the *Northwestern Lancet* writes thus of the law in inebriety: "One of the strongest arguments for the general recognition of inebriety as a disease and the putting of confirmed inebriates under restraint in State asylums, is the anomalous condition of the laws with regard to responsibility for crimes committed by the intoxicated. The language of the New York penal code is: '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.' That is to say, if a man, suffering from the disease of inebriety, whose paroxysms of intoxication he can no more avoid than the epileptic can avoid a fit, if such a man commit homicide in the frenzy of drunkenness, he is to be hung if the letter of the law be followed. To hang a madman for any crime would be regarded as the greatest barbarity, yet insanity is not more clearly a disease than is inebriety. Why should so much distinction be made between two forms of disease of the nervous system?"

A noted alienist and superintendent of an insane asylum announced most emphatically, "that inebriety was incurable; he was sure no recoveries ever took place." This observation was, no doubt, based on his experience with chronic cases, who never came to insane asylums until past all curable stages. It never seems to have occurred to this man, that in all cases of inebriety, there was a curable stage, which is called by non-experts, vice. A stage that is never diagnosed by the physician; a period where the greatest triumphs of modern medicine will be made. Dr. Hughes has most aptly outlined the principles of treatment in speaking of general paresis. This, in substance, is as follows: "My plan has been, and is, for all future cases, to maintain therapeutic control over my patient's brain and all its habits, for at least a year after the cessation of the first symptoms. The symptoms must be promptly suppressed at the beginning; cerebral rest, maintained by medical oversight, until the normal relationships of cerebral and cerebro-spinal waste and repair are reestablished." The treatment by this plan will result in cure in most cases. It is the experience of all careful observers, that inebriates are largely curable when treated early with care and skill.

The *Medico-Legal Journal* publishes an editorial by Clark Bill, Esq., which calls attention to the lack of governmental or State supervision of the manufacture of lager beer in this country. In Germany, the standard and manufacture of beer are under direct governmental supervision, and any infraction of the law is visited with severe penalties. In France the growth of crime for which lawyers plead immunity on the score of "alcoholic dementia," has led the government to call for reports from all the prefects of France, bearing on the effects of drunkenness in inciting crime. Also the Minister of War has instituted inquiry as to action of alcoholic drinks in debilitating French youth, so as to render them unfit for military duty. In the United States there is no effort of this sort in progress. Mr. Bell very

justly points out the danger arising from the adulteration of beer with us. Already the physical deterioration of those addicted to the immoderate use of beer, especially among our German population, has attracted public notice. There should be some legal standard insisted upon whereby the unscrupulous brewer can be checked in his adulterations.

The Chicago *Religio-Philosophical Journal* says: "Life insurance companies have no sentiment. Their business is one based purely upon experience, from which certain inexorable rules have been established. A life insurance company will not insure the life of a confirmed beer-drinker. Why? Because it is a certain fact, as certain as a thing can be, that the beer-drinker cannot drink long enough to make insurance profitable to them. These institutions dread beer more than they do whisky, for its effect upon the system is even worse. A non-beer drinker at forty is considered a good risk—a beer-drinker at that age can get no insurance at all. In addition to sowing the seeds of disease and death in the physical system, beer in large quantities is said to sodden the brain and paralyze or vitiate the moral natures of its votaries. Careful observers assert that it is more brutalizing in its effects than either spirituous or vinous liquors, in partial proof of which they point to the disproportionately large number of German names among the perpetrators of especially atrocious crimes published in the daily papers."

In a paper read before the British Medical Society, "On insanity following the use of anæsthetics," Dr. Savage remarks: "Any cause which will give rise to delirium, may set up a more chronic form of mental disorder quite apart from any febrile disturbance. Alcohol is the first and most common example. Insanity frequently follows alcoholism. It may occur in persons who have had delirium tremens once or more often. The symptoms of mental disorder may follow the delirium tremens, but instead of the delirious stage passing off, it becomes established. Besides such cases occurring in chronic drinkers, there are others in which a

single bout of drinking, or moderate drinking, associated with some shock or some cause of vital depression, is followed by a similar development of acute delirious mania. In both of these cases nervous instability, due to insane inheritance, is the chief predisposing cause."

The absurdity of free trade in drink is demonstrated by the preëminence of drunkenness in Belgium. The revenue restriction on drink in that country is only a fourth what it is in France, and a tenth what it is in England, yet nowhere is drunkenness so conspicuous as in Belgium. In fifty years Norway has reduced the consumption of spirits from sixteen litres per head to six litres, by temperance agitation and repressive legislation. Fifty years ago Norway had free trade in drink. Practically, free trade in drink existed until very recently in Belgium. The serious riots of recent occurrence there have convinced the government that the 150,000,000 francs taken from the poor annually by drink manufacturers was largely the cause of destitution and crime. Hence the recent restrictive measures.

A man of good character and reputation was going home at night, and feeling bad, drank a glass of spirits, and remarked to the druggist that he was very sick. He left, and an hour later was found breathing heavily on the door-stoop of a house. He was arrested and taken to the station-house as intoxicated. The next morning a physician glanced at him, and decided he was stupid from drink. That night he was found by his friends and removed to his home, where he died soon after. The autopsy revealed fractured skull and embolism. The question was raised of the fracture coming from the policeman's club, in his efforts to rouse him. Why should not the physician have recognized the nature of his injury the next morning?

In some cases of inebriety there is a peculiar sensitiveness to alcohol that is not recognized except by a long study of the history. Such cases are intoxicated and exhibit a degree of degeneration out of all proportion to the spirits

taken. This is mistaken in cases where crime is committed for willfulness on the part of the accused. It appears in evidence that the prisoner had only used a small quantity of spirits, and yet he appeared like one who had drunk to great excess. The judge and jury assume that this appearance of great intoxication was assumed for a purpose, and overlook the fact of morbid sensitiveness to alcohol.

An authority on insurance says: "We have closely watched the heavy beer drinkers in this community, with reference to their mortality ratio, for more than twenty years, and not more than five out of every hundred pass the age of fifty-three." The "splendid physique," so much insisted on as associated with beer drinking, invariably succumbs to Bright's disease, uræmic poisoning, fatty degeneration, erysipelas, or apoplexy.

Most cases of inebriety can be grouped in two classes: One in which inebriety appears in an unstable, unhealthy organism, where constitutional defects have been inherited. Often these cases represent genius and a high degree of development. The second class are those who seem to have healthy bodies and minds, but who suffer from some severe injury or shock which changes the organism and develops inebriety.

The last report of the London Metropolitan Police shows that the proportion of arrests for drunkenness drops from 18,917 in a thousand in 1833, to 4,589 in a thousand in 1886. The Rev. Dr. Dawson Burns draws the conclusion from this that the apparent decrease in drunkenness is mainly attributable to a change in the instructions given to the police as to the arrest of persons in a state of intoxication.

A Hospital for Opium Inebriates has been projected in Brooklyn, with a long list of eminent men as directors. It is proposed to secure an endowment of two hundred thousand dollars. This will be the first institution of the kind in the world. The demand for such an asylum is growing more imperative every year.

There are in the United Kingdom of Great Britain one million thirty-two thousand four hundred and seventy-two paupers, who are supported by public charity. There are over two millions more who receive aid from both public and private sources every year. This makes a grand total of over three millions of paupers. Here is a field to study the relation of inebriety as a cause of pauperism.

When a number of cases of inebriety are grouped and studied, the obscurity and complexity of the symptoms exhibit a unity of order and progress. The same general conditions follow in all cases, either well defined or obscure ; changes, complications, halts, may occur, but through it all a general order and uniformity points to the operation of laws that are yet to be discovered.

Alarm is manifest in France at the result of recent investigations into the relation of alcohol and lunacy. The number of suicides, criminal assaults, and lunacy cases attributed to excessive drinking have shown a startling upward tendency during the last few years in that country. There has been an increase of eleven per cent. in the last six years of the number of taverns *per capita*.

Dr. Christison held long ago that the inebriate should be considered irresponsible, 1st. When he ignored all moral and physical considerations, and all efforts to deter him were useless ; 2d, when the inebriate frequently and continuously overwhelmed his mind with intoxication ; 3d, when by virtue of his drinking, both his family and business matters were considered in danger.

The judicial statistics of England and Wales show, for the year 1886, that the cases of drunken and disorderly conduct numbered 165,139. With assaults the number grew to 242,456. In almost every one of these drink was the inciting cause. The inquests in the same year numbered 28,940. Of these, the cause of death in 397 cases was collapse from excessive drinking.

Wide Awake for 1888 is a rare magazine for children and grown people. The publisher, D. Lothrop Company, Boston, will send specimen copies for examination.

The following list of works on psychology published by J. Fitzgerald, 24 East Fourth Street, New York City, are volumes in the *Humboldt Library* at fifteen cents apiece: "Body and Mind," by Prof. Baine; "Diseases of Memory," by Dr. Ribot; "Diseases of the Will," by Dr. Ribot; "Illusions," by Dr. Lully; "Hereditary Traits," by Dr. Proctor; "Conditions of Mental Development," by Prof. Clifford; "Illusions of the Senses," by Dr. Proctor; "Morphine Habit," by Dr. Ball; "Diseases of Personality," by Dr. Ribot.

The *Index Medicus* is practically the most valuable publication in America. It brings to the reader the title and author of every paper published. Such a journal deserves the hearty support of every reader and practitioner.

To our friends we would say, use *Parke Davis' Coca Cordial* in the insomnia which follows from the withdrawal of opium.

Try *Fellows' Hypophosphites* in both opium and alcoholic cases, where anaemia and debility are present.

Give *Lactopeptine* always in every case of digestive disturbance. *Peptonized Cod Liver Oil and Milk and Maltine* are very excellent remedies where there are any lung disturbances, and should be used when any lung defects are suspected.

Dr. Dewitt, in describing the value of *Liquid Essence of Beef*, says it exerts a rapid and remarkable stimulating power over the brain, and in many cases it is an auxiliary to and partial substitute for brandy in all cases of exhaustion, and weakness, followed by cerebral depression and despondency.

Attention is called to *Robinson's Elixir Paraldehyd*, which as a narcotic in inebriety and cases of narcomania is of great value, and is more and more used every day.

Lactated Food is another valuable remedy for many cases of insomnia, and nutrient debility.

Horsford's Acid Phosphate is often given for months with most excellent results. *Bromidia* and *Papine*, prepared by *Battle & Co.*, will be found of greater value in many cases than the ordinary narcotic mixtures used in inebriety.

Valentine's Beef Extract should be kept in every asylum as indispensable. It is the most rapid stimulant that can be used.

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POINTS TOUCHING THE MEDICAL JURISPRUDENCE OF ALCOHOLIC INEBRIETY.

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

Vice-President of International Congress on Inebriety, London, England; Member of the British Society for the Study of Inebriety; Member of the New York Medico-Legal Society; Member of the American Association for the Study and Cure of Inebriety.

The researches of Dr. B. W. Richardson relating to the influence of habitual drunkenness on the structure of the heart and blood-vessels, and the known connection which often exists between heart disease and insanity — especially described and illustrated by Dr. Wm. Julius Mickle in his recent Goulstonian lectures — open a door for investigating the influence of inebriety upon the mental and moral movements. That the heart is very likely to become dilated in the habitual drunkard, when its pulsations increase from seventy per minute to at least eighty-five per minute as a stated thing, is apparent. For these figures represent an extra and unnatural labor imposed upon the heart of nearly eight million beats per year — a change of heart beat from thirty-six millions to forty-four millions in round numbers

per annum. And that the large arteries also must sympathize and suffer with the heart is evident, for they necessarily become enlarged, lax, and bagging, as their tonicity and elasticity are gradually weakened or destroyed by constant and violent stretching. Of course such a state of the circulation — powerless, though rapid — favors the advent of melancholy moods, leading to despondency and suicidal insanity.

It is obviously impossible, in a brief paper, to go over the whole field of the mental and moral disabilities imposed by alcoholic indulgence. I will, therefore, omit further reference to the changes and diseases of the circulation, as factors in the disturbance, or the destruction of the reasoning faculties, and confine myself to the mental and moral incapacities immediately traceable to the toxic effects of alcohol upon the nervous system. The drunken man is in a condition of partial anæsthesia. His sense of feeling is benumbed, and he unconsciously exerts an unusual roughness of movement in order to be assured that he is really in contact with persons or things exterior to him.

This indefiniteness in the sense of touch is one indication of the partial paralysis of the nervous system at large. Indeed the general insensibility of nerve will become apparent upon a very superficial investigation. The muscular sense is greatly obtunded — as is evinced by the staggering gait, the impeded articulation, the unfixed eye, and the distorted countenance. And so likewise the senses of sight, of hearing, and even taste and smell show indications of disturbed and restricted function in various forms of illusion and hallucination and incapacity when alcohol is dominant in the system. Partial paralysis oppresses the ordinary senses, every one, when they are brought under the influence of alcoholic liquors. Paralysis, in whatever degree it exists, withdraws function in a corresponding degree from the control of volition. No effort of the will can remove, to the slightest extent, the incapacities of paralysis. In this respect the effects of alcohol upon nerve power differ from those of

opium and chloral and tobacco. Weakness, debility, prostration, respond in some measure to the calls of volition. Paralysis does not. Hence alcoholic responsibility is less in degree than narcotic responsibility. The organic nervous system is equally affected and equally disabled. The drunken man perishes from cold more readily than the sober man. Not only does alcohol abstract oxygen from the blood corpuscles and thus "slow" the ordinary physiological combustion of the organism, but it benumbs and paralyzes the heat centers* and sensibly hinders and oppresses their functions. It is absurd to imagine that alcohol would fail to impress the heat centers when its extensive influence upon the brain otherwise is so apparent and demonstrable. Here is the point where alcohol, by its paralyzing powers upon the heat centers, becomes a valuable therapeutical agent in reducing abnormal temperature in disease. "Alcohol lowers, opium raises temperature"—says Dr. Norman Kerr in his recent work on inebriety. Alcohol paralyzes universally, opium does not.

The paralyzing property of alcohol is that through which it is enabled to masquerade in the character of a food—a food indeed, which very strangely possesses in its own nature no single suspicion of nutriment—a food "in a certain sense" as it is described—in short, a "waste-restraining food," whatever that may be. Well, what may that be? This: When eggs, milk, beef, potatoes, etc., have nourished and built up the bodily structure, alcohol, by its paralyzing powers and properties, interferes with and prevents the natural and physiological waste of the body; and thus it keeps locked up in the system for a period of time longer than is natural matters which otherwise would have been cast out as effete and poisonous. "Food" is an excellent

* These centers are: 1st, in front of, and beneath the corpus striatum; 2d, the parts on the median side of the nodus curiosus; 3d, the parts about Schiffs crying center; 4th, the anterior end of the optic thalamus. These centers are exciting or inhibitory according to the kind of impression sent into them by the peripheral nerve endings. They are inhibited by the paralysis of alcohol.

I. Orr.

name indeed ; and if in arriving at the goal *food*, alcohol is compelled to take a long, dark, and tortuous way, still once there a "good name" will, at least for a time, rehabilitate somewhat a reputation badly tattered.

But all these disabilities imposed by alcohol upon the several senses, and upon the universal nervous powers through paralysis, do not fully measure the disasters brought upon the human capacities and potentialities by that agent. Indeed they are merely elementary — simply the alphabet of the whole libraries of mental, moral, physical, and constitutional debasement and destruction. But, being elementary and alphabetical, they are, of course, the keys to the correct interpretation of all phenomena concomitant with and consequent upon alcoholic indulgence.

It is impossible for a mind, when the senses are obscured and lifeless, to receive accurate knowledge of persons and things exterior to it. And, if it were possible that such knowledge should, by any means, become the property of mind, still, universal paralysis of the brain, although limited in degree, would prevent the normal use of the reasoning faculties ; and knowledge would become the basis of perverted and mistaken conclusions. Yet, again ; if perchance the reasoning faculties should act with precision and clearness, the co-ordinating centers of the brain would be incapacitated for justly analyzing the quality of convictions, and the moral activities would be found halting and repressed. Moreover, even if the moral nature was not thus embarrassed, this same brain paralysis would effectually confound and dull the fine distinctions, essential to the formulation of proper and rational motive and choice — perplexing the will and precipitating an irrelevant and irrational conduct.

But in truth, if the receptive faculties are in good order, it may be presumed that all the other mental powers are probably in like order. I mean as a general rule ; for I am not ignorant that moral insanity and imbecility of will are held by many to present independent features. On the other hand, if the receptive mental faculties are impeded, or modi-

fied, or insensible, it is presumed that most commonly all the other faculties, both of mind and sensibility, are likewise defective and unreliable. My friend, Dr. Crothers, has directed attention to a mental state, sometimes found in the alcoholic inebriate, which he has called alcoholic trance. Now if a person cannot see clearly, hear correctly, smell, taste, and feel accurately — if indeed he is in a condition of partial paralysis in his entire nervous system, he is very liable to lose his sense of personal identity — so far at least as to be oblivious to what transpires with relation to himself while in that state of incomplete sensibility. For it is the unimpeded action of the senses, and the feeling of a perfect concord amongst them — one with another — which give to a man the idea of his individual existence — his own, his personal identity. Now it is common for a person to say, after recovering from intoxication, "I do not remember anything that occurred." While this may be false, it also may be true, for the reason based upon science, as well as upon experience; namely, the drunken man is, in every instance, partially paralyzed all through. He is thus very prone to lose his sense of personal identity — that is, his sense of relationship with events and things exterior to him. He must be liable to lose his right sense of relationship with other persons and other things, because, being partially paralyzed through his entire nervous organism, he has no just and regular and natural sense of anything whatever. In fact the identity of a person which is associated with the impeded nervous power in partial paralysis is, to all intents and purposes, the identity of some other — some imaginary person with whom, when restored to his normal condition, the mind can have no links or chain of association. Thus considerable modifications in the sensibilities may eventuate in modifications of the sense of relationship which the sound mind sustains to all things else. Hence, though there may be a modified sense of personal identity incident to modified sensibility of nerve, this is not always recognized in memory when the mental powers resume their natural purity and perfection.

These incapacities are inseparable from the use and influence of alcohol — and even the moderate dram of ardent spirits will remove — (to some extent or other, great or small) — will in truth *dislodge* the human character from the highest position it is capable of occupying — that of a sound mind in a sound body.

Looking at this phase of our subject in any light we may, approaching it from any point of observation whatever, the conclusions are the same. Examine for instance, the capacities and responsibilities of the alcoholic inebriate from the standpoint of consciousness, and what do we see? Take the definition of Wundt, that “consciousness is psychologically a unification, although itself a unit.” There is no nerve-center of consciousness, and the entire organism is essential to its exposition. “Thus perception, representation, idea, feeling, volition — form the continuity called consciousness, of which only tautological definitions can be formulated. Taken as a whole, consciousness embraces the following movements: first, impression; second, transmission to a nerve-center; third, general or vague perception; fourth, special perception (called also apperception); fifth, voluntary reaction; and sixth, transmission by the motor nerves.” But all these elementary constituents of consciousness are benumbed, dulled, hindered, dwarfed in stature, repressed in function, and deranged in natural order of procession by the paralyzing influence of alcohol.

The rational faculty is not only injured by the influence of alcohol, producing as it does, confused, incoherent, and inconsequent ideas and beliefs, but the moral attributes are debased in an equal degree. The incomplete paralysis of alcohol necessarily overcomes the finer and mobile sensibilities and leaves the grosser ones comparatively unaffected. That is it destroys the humanitarian sensibilities leaving the coarser and purely animal ones nearly untouched. And this is simply the suppression of the distinguishing characteristics of the human nature and leaving in command the brutish and animal instincts without check or monitor. What follows?

The man does not wickedly and maliciously act *like* a brute, but he is in reality a brute himself through the loss or suppression of his humanizing sensibilities.

Latency of function is followed by difficulty of function — if not even impossibility of function through atrophy of structure. A curious exemplification of this principle is furnished by Dr. Livingstone, the famous traveler and philanthropist. He said that upon coming into the presence of his countrymen after years of absence among the black tribes of Africa, he was at home in everything except his own mother tongue. "I seemed to know the language perfectly, but the words I wanted would not come at my call.*"

Nothing is more common than that men, after drunkenness, are amazed at the shocking things they have done, or thought, while in the state of intoxication — indicating the insensibility of the moral nature in drunkenness. But if the inebriation is incessant or nearly so, that is habitual, the shocking thoughts and deeds are not subjects of rational review, and the latency of the moral sense becomes automatic, fixed, and congenial to a deformed and unsound reason. The mind may seem to know the nature of morality perfectly, "but if wanted it will not come to the call." It is, therefore, not surprising that steady drinking, even when not excessive, is more disastrous in the final outcome than the convulsive sprees of the neurotic inebriate. In the former the moral and mental incapacities become at length habitual and insurmountable, while in the latter, the intervening seasons of total abstinence prevent the establishment of habitual disability in the nervous powers. This looks bad for the daily beer and wine drinkers.

A medical gentleman of my acquaintance has been a steady drinker of ardent spirits for over thirty years. His moral nature is latent, if it has any real existence at all. He is not vicious or malignant, but he is an incessant and shameless liar — shameless because insensible to shame by reason of the long continued suppression of his moral sense through

* Explorations in Africa, p. 436, G. G. Evans, 1858.

the chronic and persistent influence of alcohol. He must always have something to say that will surprise his auditors.

Now this seems very foolish indeed, and likewise very inoffensive. This man in fact is, right here, on the verge of insanity. Amongst the great army of the unrecognized insane, there are none more common or more really dangerous than the chronic and steady drinkers of ardent spirits. These men in early life acquired the usual habits, both of thought and action, that belong to the average citizen. Habitually or automatically, with the guide and assistance of the example of others, they manage, without much effort, to keep in the ordinary grooves of common life. If such a man is a farmer, automatically he farms as others do, and in a judicial inquiry, should that fact be established, it very likely proves nothing. If he is an artisan, or physician, or lawyer, he may, by force of habit and of example, pursue his avocation with reasonable success. But let some supreme crisis intervene, so as suddenly to throw him upon his own unaided powers — let instant rage, or what is more consonant with his nerve defect, jealousy, come over his mind and disposition — he will then be thrown out of the grooves of automatic life; then, acting upon his own true nature, he heralds to the world his real condition. Then desperation, murder, suicide — true representations of his actual mental state will burst unexpectedly and without warning, upon the scene. To most chronic inebriates this crucial test of insanity is never applied; they live without recognition and die with their great and dreadful infirmity unknown and unsuspected.

There is another great field of inquiry related to the Medical Jurisprudence of Inebriety. It is the field opened by that property of alcohol which promotes proliferation of the interstitial tissue. This field covers the whole organism, for the connective tissue goes every where. Dr. Silveking asserts that “there is scarcely a degenerative condition of the body that may not result from the abuse, or rather the habitual use, of ardent spirits”; while Dr. Maudsley speaks of that “more dangerous form of habitual indulgences in small

quantities of wine or spirits throughout the day by which some active men of business endeavor to spur their overtaken energies." * The alcoholic structural affections of the stomach, the liver, the kidneys, and the brain are familiar to all.

But I will not enter upon this portion of the subject at length, for time and space admonish me to forbear.

Dr. Ridge, secretary of the British Medical Temperance Society, has issued a circular calling attention to the fact that three distinct medical declarations concerning alcohol have been made in the past fifty years in England. The first statement was made in 1839, and was a general protest against the indiscriminate use of alcohol. This statement denied that alcohol had any value except in disease, and used in health was always disastrous to the organism. It was signed by Drs. Benjamin, Brodie, Clark, Cooper, Ferguson, Hall, Good, Mayo, Hope, Quaine, and a large number of the leading medical men of Great Britain. The second medical declaration was made in 1847, and signed by over two thousand surgeons and physicians. It affirmed the same position of the first statement, and asserted that crime and misery was largely due to alcohol, and that total abstinence was absolutely necessary to health. In 1871, a third declaration concerning alcohol was made, and signed by a very large number of physicians, reaffirming the same facts in stronger language. Dr. Ridge now wants a fourth statement and declaration by the profession, and calls on the medical men to send him a card giving their opinion of the three previous declarations, and how far they are correct to-day.

de Blood degeneration and blood poverty is always followed by thought generation and thought poverty.

* *Path. of Mind* (Appleton, 1880), p. 434.

THE PROHIBITION QUESTION FROM A MEDICO-LEGAL STANDPOINT.

BY C. C. FITE, M.D., KNOXVILLE, TENN.,

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The prohibitionists may be right, or they may be wrong. They may fail to secure practical prohibition, or they may succeed, but whatever the ultimate result of their efforts, one thing is beyond doubt, and that is, that they have convinced the world that something must be done to curb the great evil, intemperance. That something will be done, no student of history can doubt. The agitation of such a question kept up unceasingly, with so much vigor, by so many elements of society, finally permeates every household and every center of thought.

The evil being recognized by every one, the only question is how to correct it. Many measures, such as high license, local option, etc., failing to reach the trouble, absolute prohibition of the manufacture and sale of alcohol becomes the battle-cry of the enemy of intemperance. It is probable, however, that there are other ways to correct the danger which threatens, and not only threatens but destroys, so many. There may be a time when prohibition will be universal and actual, but long before that is possible the writer believes the vital issue — the prevention and cure of drunkenness — will be reached in another way, and that practically and by common consent.

The proposition is this: Has a man the right to be a drunkard? If we admit that he has not, we are ready to proceed with the remedy; but all will not admit this position. They will cry out liberty! liberty! Individual liberty! And the right of the individual to do as he pleases will be forever

their watchword. Has the individual such a right? Has he the right to disgrace his family, and to impoverish his wife and children? Has he the right to have children to inherit his weakness? Has he the right to transmit such tendencies to the unborn? Instances might be selected of men without family or ties of any kind, and the position taken, that no one is hurt but themselves; but how is there to be any security that they will not ultimately commit some crime, or at least become cares to the public as lunatics or as paupers? Does the individual have such a right? It seems to the writer that the unincumbered individual has no right so to live as to damage society and become a burden to the public. It is sheer madness to claim the right of the individual, who has a family, to drink to excess. There is one phase of the question which we avoid as much as we can in debate—the painful one of inheritance—the heavy drinker may see in his children the result of his debaucheries, in most cases the same vice, in others the nervous or the insane diathesis. The tendency to crime or moral irresponsibility is a sad heritage to give to children begotten in the bestiality of drunkenness. These tendencies are natural results following causes easily understood by the physiologist.

Society has the right to protect itself, and taught by the "temperance fanatics" it will, as one man, in the not distant future, ask for protection and will get it. How? In this way: Drunkenness, inebriety, dipsomania, or whatever scientific term we may be pleased to give to the habit of excessive drinking of alcoholics, will be considered and regarded as a disease, as we regard insanity, and the individual so afflicted will be treated and cared for as though he were actually insane. This proposition may startle those who have not watched the development of thought in the medical world, more especially among physicians who have had charge of the insane, or of drunkards, or who have been so situated as to have to treat inebriates; but the subject is not new,—if the writer cared to burden this essay with quotations and references, pages could be filled with them. The ground has

been so fully covered, that there is very little new to say on the subject, and we can only reiterate what has been said by others scores of times.

There are several ways to look at this question: One is the philanthropical, which would lead us to regard all crime and all vice, including the vice of evil habits, as inherited tendency, and therefore beyond remedy; but society cannot afford to take such a position, now at least—civilization is not yet old enough for it. Then there is the legal view. Crime, including drunkenness, is the fault of the victim himself, and he must be punished. The medical view is to regard dipsomania as an unconquerable tendency, an ungovernable passion, a weakness from which the victim cannot escape, or but rarely, by his own unaided efforts, and he has the right to protection against himself and society against him. It would, perhaps, astonish the astute criminal lawyer to know that a large per cent., perhaps a third, of the inmates of our asylums for insane know right from wrong as clearly, on most subjects, as the best of us; but the trouble is to keep from doing the wrong. The absurd question so often put to the medical witness: "Does the person, in your opinion, know right from wrong?" and if "yes" is the answer, the jury is afflicted with an oration hiding the truth and making a farce of science. Whatever may be the law in any given State, whatever may be the theory of the law, insanity is a disease leading to abnormal conduct, and there is often no discernible boundary line between insanity, drunkenness, and crime. If the world is not ready to admit the medical theory, then it is feasible to regard dipsomaniacs as criminals, and so treat them and prevent criminal conduct by incarceration in asylums or hospitals. One admirable suggestion is to have asylums for inebriates, and send them for one year, then if the habit is again given way to, for two years. If this does not conquer the passion, commit for life, subject to parole on good conduct. If the individual is a laboring man or without means, and has a family, give him steady employment in the institution, and apply part of the proceeds of his

labor to the support of his family. If a man of means, his affairs to be placed in the hands of trustees, and a certain part set aside to pay his expenses, and the remainder held in trust for his family or heirs. Such institutions should be, and could be largely, if not entirely, self-sustaining. The inmates to be treated more like insane than criminals, and if the first and second detention does not work a cure, then they are prevented from doing further harm. If this seems utopian at first sight and out of the question, look at the facts. In many, if not all, public and private asylums, there can be found men and women who are insane in no sense except in one habit, and who are treated and cared for as insane. No one ever seems to object to it, and the law winks at it. This fact shows the drift of unconscious public sentiment. It shows that society does regard such men as practically insane. Why should not the man with an ungovernable habit, which will lead him and all who are dear to him to sure destruction, be regarded as powerless to act for himself, just as the suicidal maniac is. Should the kindly friend and good father, the true and loyal husband, who has gradually and unknowingly drifted into inebriety, perhaps from a vicious and weakly balanced nervous system, inherited from his forefathers, be allowed to become a dishonest friend, a brutal father, and a vicious husband, simply because he cries out for personal liberty? Have his children, his friends, no right? Has his wife no legal or moral status? Shall he go on procreating unfortunates like himself, to in time, perhaps, fill poor-houses, jails, and asylums? The strong arm of a benign and merciful law should stop him and show him that he must control himself or be a prisoner. If drunkenness led to financial troubles in families only, it would be bad enough, but go to the asylum and see the haggard woman moaning out her life; ask her history: a united family where life and love ruled supreme; the husband drinks and drinks again, is abusive, and in his cups is untrue to his wife. The grief, the shock, the madhouse. Is it an overdone picture? Then visit another ward of the asylum and see a father, a

demented imbecile, with a brain burned out by alcohol, a son dead from drink, a daughter in a brothel, the wife a pauper begging her bread. Watch the record for a few generations and see how often that father's name will be repeated in the list of insane. Has the individual that right?

Such things must end; the world is growing too old to be so burdened. There must be some way to curtail the growth of the irresponsible classes. Is there a better way than to say to such unfortunate men, "The right of the individual is to enjoy and to build up, and not to destroy; you can go no farther, there is a limit; anarchy in the social and domestic world is not to be allowed; liberty is not license, and you shall not burden the world with your crimes and with descendants to imitate you."

The doctrine of inheritance is a hard one, but founded on immutable law. The seed that is sown is a promise of the plant that is to grow. What use is it for the mother to teach her children virtue and self-discipline if the father or grandfather has transmitted an innate vice of constitution? How hopeless is the struggle of the man with such vice in his blood to be a man, with the voice of pleasure constantly singing sweet lullabies in his ear.

If the reader had listened to the sad history of the victim of habit; had heard his hopeless story, his earnest desire to reform; had seen his attempts to be firm, his sad failure. If the reader had been the physician and friend of such men, often, too often, men with otherwise noble aspirations, and seen the hopeless struggle against self, then ready assent would be given to such a proposition as this paper makes, and as the writer believes to be the final solution of the problem.

Some one has said: "The fanatics of one generation are prophets to the next." We should not make war on the prohibitionists, if they are fanatics, but all the laws that could be enacted would not prevent the dipsomaniac from procuring, or as a last resort, making alcohol. To shut him away from it under legal restraint is the only remedy for the worst

cases. This plan does not mean punishment; the idea is that of protection and restraint; and it does not make any false promises or delude any one, it only guarantees the prevention of drunkenness in the individual by keeping him absolutely removed from temptation until he has had an opportunity to be freed from the effects of liquor, and to cultivate self-discipline, and it also guarantees to him that self-restraint and the conquering of the habit which will lead to liberty and the enjoyment of life, while a return to it will surely result in his liberty being again curtailed, and if he cannot break the chains, then permanent protection against himself and his enemy, alcohol.

It has often occurred to the writer, in watching the promoters of the prohibition idea, that they were fighting the club that slew the victim, instead of seeking out the enemy who wielded it,—the demon habit, who with insidious tread stole upon the victim unawares until he could strike the blow and place the mark on the unfortunate as his slave.

If, then, prohibition does fail to prohibit; if the drunkard is still found on the street in spite of there being no saloon and no distillery, the prohibitionists will, as philanthropists, be ready to welcome this proposed remedy. This reform may be delayed until that time, but it may be turned to before that, upon the failure of prohibition being generally voted in and sustained; and whenever the time does come for such a movement, it is almost a certainty that the temperance agitators will have prepared the way and have cultivated public opinion so that it will be accepted as the remedy after all.

All reformers are extremists, it is said; then let the prohibitionists be considered extremists, fanatics, or anything else that suits the fancy of the constitutional obstructionist, but let us be sure at the same time that their cause will win in some way, in their own way or in some other, but the result will be reached in the general acceptance of the proposition that drunkenness must be checked; that crime must be prevented, and that the future generations have a right to

protection against the inheritance of such tendencies and such influences.

If there is any better remedy, time will develop it, and the experiences of the first attempts will teach more perfect methods; and it is beyond doubt that there will be no retrogression, that it will stand for all time like other reforms, fought bitterly at first, and then accepted as priceless boons by mankind. It is only necessary to ask the reader to recall the fact that all reforms, all revolutions, are at first regarded as utopian, fanatical, and absurd. Yet the high degree of civilization and true liberty we enjoy to-day results from reforms which were at first met with derision from the wits, with scorn from time-servers, and with contempt from the ultra-conservatives; and yet the reform succeeds and the opposers are forgotten, or only remembered as examples of the kind of men who fight against the inevitable, and whose only creed is a negation.

It is not necessary at this time to go into a detailed statement of the experiments already made in this direction. The times are, however, nearly ripe for such a movement, and the writer desires to call the special and careful attention of those members of the medical profession to it who have not yet considered it. The question is a vital one, and no portion of the community knows the great need of some remedy more than the medical profession, and it behooves the physician, who is always, or should be always, a philanthropist, to think well and carefully on this remedy for intemperance, so that when the time comes to spring the issue he will be ready to lead public opinion into the true channel, and at the same time check the extremists. The issue will come in this generation. The world moves rapidly now, and the leaden ways of our forefathers are thrown aside, and as the world moves rapidly so does thought, and he who would not be lost in the mire of delay must act now and think now; and it is very apparent that this great question which is agitating the civilized world through and through, will some day be suddenly crystalized in the line proposed in

this paper, and when it does come the medical profession should be found ready to applaud and lend a helping hand; but why not lead in the movement? It is the sacred duty of the physician to protect and advise the people against danger, and as he would show the way to avoid disease, so should he show the prevention against the worst of all diseases, the cruel, remorseless disease, drunkenness. The demon with blood-shot eyes, and hot, scorching breath, destroying as he goes, and leaving wounds and bruises and crimes as his tokens; the viper who sucks the life-blood from the infant in the cradle, and stings the helpless wife until she dies in agony; the siren who lures the son to death, and leaves the mother to mourn that she was ever born to be a mother.

There is a remedy for this disease, this worst enemy of man in modern times. If the insidious foe cannot be destroyed, then protect his victims from him, put them beyond his grasp, and save them with a merciful but firm hand.

The following list of medicines are advertised as cures for inebriety, writes a valued correspondent. The State Board of Health of Massachusetts ordered an analysis of them with the following results, showing the per cent. of alcohol in each one: Scotch Oats Essence, 35; The "Best" Tonic, 7.65; Carter's Physical Extract, 22; Hoofland's German Tonic, 29.3; Hop Tonic, 7; Howe's Arabian Tonic, 13.2; Jackson's Golden Seal Tonic, 19.6; Liebig Co's Cocoa Beef Tonic, 23.2; Mensman's Peptonized Beef Tonic, 16.5; Parker's Tonic, 41.6; Schenck's Sea-Weed Tonic, 19.5.

Wherever inebriety is practically unknown, there theory and speculation flourish luxuriantly. The absolute confidence and precision of detail with which these theories are explained is a matter of surprise, particularly when they are based on no definite facts. Often these theories are both incapable of proof and disproof, hence it is useless to attempt any argument concerning them.

THE HOTCHKISS CASE,—A MEDICO-LEGAL
STUDY.*

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

On the 16th of October, 1886, Henry S. Hotchkiss shot and killed his wife, then shot himself: the ball glanced and produced only a slight wound from which he recovered. He was indicted for murder, and by advise of counsel plead guilty to murder in the second degree, and was sentenced to prison for life.

Thus the criminal and the crime was disposed of, but the equity of the case was not considered or even approached. The individuality of the case is of minor interest, but the principle of dealing with the crime and criminal is vital to all progress and civilization. The question is asked, was this sentence in accord with the facts, and was it proximate justice, sustained by the best legal and medical knowledge of the age? Was this disposal of the criminal just to society in the cure and prevention of crime?

A brief history of the man and his crime will aid in answering these questions.

H. S. Hotchkiss was born in 1846 in Hartford, Conn. His father was an inebriate and deserted his wife soon after the birth of the prisoner. His mother died of consumption a few months later, and the prisoner was placed in an orphan asylum. He was said to have had rickets and been a feeble child. The deformity of the sternum and costal cartilages, which he affirms always existed, seems to sustain this statement. No record of his father's family can be obtained. On the mother's side two aunts had consumptive, insane, and weak-minded children. One of his sisters died in

* We are indebted to A. S. Bill, Esq., one of the counsel for the defense, for his very intelligent and appreciative study of the facts of the case.

infancy. The other married and had four children, two of whom died of consumption, one is weak-minded.

When twelve years old he was bound out to a farmer, with whom he lived five years. At about puberty he was seized with severe headaches, which have continued at irregular intervals down to the present. When about fifteen he was suddenly unconscious for a few hours, and sick for several days after. This came on after a paroxysm of headache. A year later a similar state of unconsciousness occurred, following a headache. He thinks this was some form of sun-stroke, as it occurred in the harvest field. He was addicted to self-abuse from the age of ten up to twenty five, and thinks he suffered from this, in weakness and nerve prostration. After the first attack of unconsciousness his temper changed, and from that time on these severe headaches were always preceded by great irritability, suspicion, and sensitiveness. This at times merged into mental confusion, and stupidity.

From his own and sister's statements it appears that these paroxysmal headaches have always been preceded by alterations of temper, mental dullness, and incapacity, more or less prominent, for a time. When nineteen years of age he enlisted in the army, and was first a waiter and then a drummer. Had in New Orleans a severe fever, during which he was unconscious for several weeks. He was discharged and came back, and worked in a shop and on a farm for some time. From ill health he gave up this work, and later enlisted in the regular army as a musician. He remained here five years, and began to drink beer to strengthen him. Was injured on the head by a falling timber, and suffered more headache from this. Since his discharge from the army has worked in different shops, been a night watchman, and also musician in a band. He has changed places frequently, owing to ill health and other circumstances. He began to drink beer to excess in the army, and continued from this time on.

When twenty-six years old he married, and was very

devoted to his wife. They had four children, and were very poor; and often it was difficult to procure proper food and comforts. He was weak and nervous and could only do light work. At intervals he drank beer or spirits to excess with his friends.

During this period he lived most amicably with his wife. Two of his children died suddenly of diphtheria, and he suffered from a severe attack of the same disease. He was laid up nearly two months, and was delirious and unconscious for over a week. He thinks he never fully recovered from this illness, and has been weak and more nervous than ever before.

Soon after the death of his children his wife began to spend much of her time away, visiting friends and neighbors. He thinks that his wife lost all ambition to do well after this event. She seemed to take pleasure in the company of other men, and would go away riding with them, and come in late at night. He could not sleep, and had recourse to alcohol, and was stupid often after this, and also was discouraged and angry at the conduct of his wife. The evidence of her infidelity increased, and she acknowledged it, obtaining his forgiveness on the promise of a change. He wanted to win back her love, and move away into a better neighborhood.

He consulted his brother-in-law, who remarked: "That he would put her out of the way if she was his wife." This idea seemed to have suggested violence. Soon after this his wife told him that her paramour would shoot him if he disturbed her illicit relations. He bought a revolver when intoxicated, saying he intended to shoot his wife and paramour if he found them together. When sober he said he purchased the pistol to defend himself; that he would not shoot any one unless they tried to shoot him.

The year before the crime was committed was one of great wretchedness. He drank continuously, quarreled with his wife, threatened her often; was absent-minded, talked to himself, could not sleep unless using large quantities of

spirits; was poor, did not have regular food. Complained bitterly to others of his misfortunes, and drank to stupor to drown his troubles; was unfit for business, and was discharged from the band. He could not keep his mind on any work, and seems to have been unable to do anything satisfactory. His wife spent most of the time away from the house, only occasionally returning. Finally he broke up his home and lived around wherever he could find a place to work and sleep. In October, 1886, he had drunk more than usual, and had been more delirious, wandering round, talking to himself, and complaining of his wife and situation to others. About 1 P. M. on the 16th day of October he saw his wife on the street in company with a woman. He called to her to stop, as he wished to speak to her. She answered him derisively, and continued on her walk. He called to her again, using a familiar name, to which she paid no attention. Suddenly he drew his revolver, fired three shots at her, then placed the pistol to his head, and fired again. She died at once; he was taken to the hospital and found to have only a flesh wound, from which he recovered.

His statements before the coroner's jury were clear and consistent, and detailed all the facts up to the shooting; from this time all was a blank up to his recovery in the hospital. He seemed in a state of despair, and wanted to die, but generally did not appear to realize the nature and character of the crime. He spoke kindly of his wife, and cherished no bitter feeling against any one. His health improved greatly in jail, and except the old severe headaches at times, nothing unusual was noticed. He read the Bible and talked rationally, and appeared more weak and inoffensive than willful and designing.

On my first interview, Feb. 20th, he told the story of his life with frankness and candor, and seemed in no way inclined to conceal anything, and displayed no particular depression of mind. He talked of his eldest child who was weak-minded, and the second child who was greatly attached to him, and the great affection he had for his wife. He

had frequently dreamed of her, but seemed to have no hallucinations or delusions. He seemed deeply interested in religious topics.

On the second interview, March 9, 1887 (after the sentence to prison for life), he was much the same. No change except his religious convictions had deepened. He said the devil had possessed him, and had urged him to die and go to hell, and be with his wife. He had escaped by reading the Bible, and was convinced he could sin no more. For Jesus was his friend. He seemed to derive great pleasure in opening the Bible at random and considering the passages as special messages to him. He thought he was going to die soon, as he had seen the glass fall and break to pieces. A general impression that religious delusions were coming on was apparent in this interview. The keepers say that when he suffers from headache he is really crazy. His mind and conduct at these times is greatly changed.

From these general outlines in the history, the following conclusions seem to be fully sustained. 1. Hotchkiss was insane at the time of the homicide, suffering from acute alcoholic delirium. 2. He was a neurotic from birth, inheriting an unstable nerve organization. The paroxysmal headaches and states of delirium were symptoms of continuous brain degeneration. The use of alcohol was only a stage in the march of the brain disorder. 3. The shock at the death of his children seemed to fix and develop the acute alcoholic delirium, making him more and more unconscious of the nature and character of his acts.

From this time on to the commission of the crime, he was insane and without power of control. He was acutely delirious, melancholy, and homicidal, depending on physical conditions and surroundings. The suggestion of crime by his brother-in-law found fertile soil for growth. The infidelity of his wife was an exciting cause, and an accident in the progress of the case, developing a condition that might have been delayed for years. But sooner or later acute mania would have appeared, or suicidal melancholy. The use of

alcohol only gave form and direction to the march of degeneration. The crime was committed in a trance state and without any recollection or consciousness of what he did. His appearance of sanity in the jail and at the time of trial was no evidence of his real mental state. His health improved on the removal of spirits, but the paroxysmal headaches remained, proving that the disease still existed.

It is clearly apparent that the sentence of Hotchkiss as sane and responsible was an error, and wrong in principle and in fact. It was a reflection on the intelligence and the civilization of the day, that an insane man should be regarded as criminal and treated as responsible for his conduct. Justice demanded that such a man be examined by a medical commission, and his real state discovered, and from this his treatment or punishment be determined. The principle of all justice to society, to the criminal, and law and order is outraged by treating the lunatic as a criminal, practically destroying the victim and making restoration impossible. Society gains nothing, human rights and protection by law gains nothing in punishing such cases. Crime is never diminished or criminals deterred from committing crime by such blunders.

The use of methylic spirits as a drink has been noted in Edinburgh, and the authorities have taken measures to stop the sale. In this country, methylic spirits are used more and more in the low saloons without attracting any attention. This is apparent in the acute delirium and paralysis so often seen in the cases that are arrested for intoxication on the street.

A man who had drank spirits to intoxication every night for at least fifteen years, was pronounced sane and conscious of the nature and consequences of his act by a medical commission. He was convicted of a forgery that was without object or reasonable purpose.

ALCOHOLIC HALLUCINATIONS.

BY DR. F. LENTZ,

Medical Superintendent of the Insane Asylum at Tournai, Brussels.

The dominant character of chronic alcoholic hallucination is a sensorial delirium, which gives a peculiar tinge to the morbid idea, without supplying the foundation for it. This is rather epiphenomena, which may be quite short, appearing and disappearing from light causes, then becoming more acute, continuous, and often accompanied by rapid delirium, which results in a real attack of delirium tremens.

It is usually in the sphere of physical sensibility that we find the first symptoms of alcoholism, which are characterized by phenomena of diathesia. Among the symptoms may be mentioned general disquiet and distress, giddiness, creeping sensations, explosions, shooting pains, and many strange sensations, like that of an animal scratching the skin. These phenomena appear at bed-time, and may be the result of changes of temperature, or moral emotions. At first they are limited to the feet and hands, then they creep up the limbs, rarely passing the knees and elbows. This diathesia is accompanied by increased and diminished sensibility. The former is general or limited, spontaneous or provoked, and can be observed along all the nerves, prominent by painful unrest, heat, and tension, and finally by shooting pains which make the patient scream. In the latter, both partial and complete loss of sensibility, preferably limited to the skin, and in most cases to the inferior extremities. Sensations of temperature may be perceived, but are not acute. The organs of sense are likewise affected. Among these vertigo is more prominent, especially in the morning. This is followed by troubled visions, change of color in objects, and other subjective sensations, which run into veritable hallucinations.

The special senses share in this disorder. The sensation of respiration is impeded, and a feeling of restriction ensues. The disorders of motion are more pronounced than those of sensibility. Tremor appears in the morning, or from any slight causes, beginning at the extremities, and becoming general. Oscillation while standing, also difficult walking follows; stuttering, and diminution of muscular force; not infrequently followed by cramps, or spasmodic contractions.

It is in the sensitive-sensorial sphere that these phenomena become apparent, such as dreams, followed by illusions, and culminating in hallucinations. The usual sleep is interrupted and filled with dreams of terrifying character, different from natural dreams, which lead up to natural nightmare. This phenomenon begins at night, and the dreams may not be distinguished from waking hallucinations; the sufferer may be most tormented when beginning to sleep, or awakening from sleep. Finally, these apparitions appear in broad daylight. While ordinarily these apparitions may be fleeting, sometimes they are tenacious, being determined by new excess or some moral cause. The moral sensibility is lessened, the sufferer is anxious and frightened, and continually looking for repose and peace which he cannot find, and pursued by a feeling which he cannot define.

The intellectual domain seems the least disturbed in appearance, although a careful examination will show that it participates in the general degeneration. He will continue his usual avocation, while often realizing the real cause of his disorder. To give courage he will resort to an excess of drink, thus producing delirium tremens, which is only an acute form of his chronic condition.

Hallucination seems to be the most prominent symptom of this form of alcoholism. They are subject to periodicity, but generally few in number, and always characterized by a double consciousness of his sanity and insanity on the part of the sufferer. This disorder culminates suddenly, as a rule, but premonitory symptoms will always express unrest, inconstancy, sadness, moroseness, irritability, usually with

insomnia. It is during states of this kind that, deceived by hallucinations, the sufferer is driven to acts of the most violent character. The following cases may illustrate the symptoms we have described :

S., thirty-six years old, drinks both wine and spirits. He has suffered for years from vomiting and vertigo, especially in the morning. Brutal and irritable impulses increase with him, and he threatens his wife's life. His wife drinks with him. From the 1st to the 8th of December they were both drunk all the time. From the 8th to the 16th day S. has delirium tremens, seeing processions, brigands, saints and angels, hears music, and sees cats. From the 16th to the 4th of next month his hallucinations leave him. Is weak, tremulous, and incapable of work. In his troubled sleep the brigands seem to force their way into his room, and he suffers from headache and dimness of vision. At this date he is called away some distance on business. On this journey he drinks two and a half quarts of wine, which has the effect of making himself more or less unconscious of himself. He thinks he is in the midst of a herd of horses, or cattle, and is frightened, running for several hours, reaching his house much exhausted. Is there more quiet; talks to his wife, and drinks more wine. Suddenly he hears shouting, and sees brigands at the window pointing their guns at him. Getting his loaded gun, he thinks two red angels are at the window. Approaching them, he hears the discharge of a gun, and finds his wife on the floor, covered with blood. He then was heard to shout that his wife had committed suicide. The testimony of his servant shows that she heard the wife say, "Victor, thou art crazy!" immediately followed by the discharge of the gun. He had shot his wife through the head. He was possessed with the idea that his wife had committed suicide, and gave the impression that he wished to destroy himself. After arrest the symptoms of alcoholic hallucinations continued over a month. His memory of the tragedy continued vague, but in six weeks he conceded it might be a possible thing to have killed his wife. He recov-

ered fully, with the exception of slight feebleness of mind, slow pulse, insomnia, and great sensitiveness to the smallest quantity of spirits.

Case second. G., forty-one years of age. Is a hard drinker; suffers from catarrhal stomach and poor appetite, eating but little. On the 19th he feels better, resumes work which he has abandoned for some time, and drinks during the day three pints of wine. At eight in the evening, becomes restless and complains of heavy head; sees crowds in the street which threaten him. He calls the guard and causes the arrest of two people whom he points out. To his surprise, these are released when questioned. He is told to go home, and thinks he is pursued by menacing figures. In the house, voices call him the black man. He arms himself with knife and deals blows to these visions, until he is disarmed. The next day, is without fever, face congested, has tremors and sweats, slow pulse and turbid urine, sees rats and mice. Under the influence of chloral, sleeps convulsively, and wakes in the morning lucid. He admits the illusions concerning animals, but not the crowds in the streets. He insists that had he not defended himself he would have been thrown into the river, as others were. His sleep improves, but convulsive jerkings precede its coming. Hallucinations disappear, but he is extremely excitable, somber, and morose. He recovers at the end of fourteen days.

Case third. T. had been an inebriate, for three years, of a periodical form; periods lasting three weeks at times. The effect of spirits was greater on his mind than on the body. Hallucinations appeared while playing with his child. An interior voice said to him that it was necessary that his son should perish at his hands. The dread of the thought caused him to put his son down and leave the house. At intervals the voice returned several times, urging this murderous act. Finally he awoke one night, hearing the imperative command to kill his child. He appealed to God, asking if he should do it. Hearing no voice, he returned to bed. Instantly the same voice urged him beyond all power of resistance. He

found a hatchet and did the deed. He then aroused the family, and gave every evidence of his horror and sadness at the act.

Case fourth. George, a heavy drinking man, was married to his second wife. After a period of sobriety, began to drink; this his wife opposed, making him very angry. He went to his room and called his step-daughter to bring a light, then beat her to death with a stick. Rushing to his brother's house, he declared that he had killed a man and woman while defending himself. Exhibited no emotion on seeing the corpse of his step-daughter. George had a feeble-minded mother and an alcoholized father. He drank to excess from his nineteenth year; his record is full of eccentricity, irritability, and mental depression. So violent was he at times that seclusion was proposed. On examination, he was in good physical state, both ate and slept well. After a rest his whole deportment was that of complete apathy, but subject to violent explosions without the least provocation. He gradually sank into a state of imbecility six months after.

Case fifth. Joseph B. was married when twenty-four. He exhibits an amiable and considerate disposition, and lives a regular life. Suddenly he exhibits an instinctive craving for drink, which is attributed to grief at an unfortunate event. His whole character changes, he becomes irritable and jealous, and at times is brutal to his family, except to his youngest child. For five weeks he complained of insomnia, headaches, diminished muscular force, and melancholy. A few days prior to the crime, he seemed at times lost, and wept without cause frequently. On the day of the crime he was very restless. He attends his wife to work, then goes to the saloon, where he sits and speaks with no one. He goes from place to place with his little child, always silent and wild-looking. To a passer he said, "My little child and I are going to drown ourselves." Later, he was seen to tell the child to go home. The little one followed him, perceiving which he caught up the child and

dashed his brains against a stone, shouting, "This is the way I work!" He continued his walk in a menacing and aggressive manner, and wounded a woman before arrested. He showed no sorrow when confronted with his dead child; admitting his act, he said, "The world is upside down. I am not master of myself." A few hours later he tried to strangle himself. When placed in an asylum, he appeared mechanical, with an expression of mirth and self-satisfaction. All is vague and confused with him. He killed his child in obedience to voices, and thinks the world is turned upside down.

These cases show, by their suddenness and irresistibility, that they proceed from a brain lesion, and also that emotional delirium is a corollary of the delirious conviction which produced the murderous act.

A very curious and suggestive bill has been introduced into the legislature of Kentucky, which prohibits marriage with an idiot, lunatic, pauper, vagrant, tramp, drunkard, gambler, felon, or any person rendered physically helpless or unfit for the marriage relation, or any person with a violent temper, or who has, within one year, been a frequenter of any immoral house.

Dr. Fox, in the *Dietetic Gazette*, says in all cutaneous diseases, alcohol, tea, coffee, and tobacco are injurious. These substances seem to impair the functions of the skin, and arrest the reconstructive tissue process. Eczema is rapidly increased by the use of beer. Alcohol in any form checks the reparative action of the skin, and no treatment of these cases is successful where the patient is permitted to use stimulants, including tea and coffee.

THE CURABILITY OF THE INEBRIATE.

BY C. F. BARBER, M. D.,

Assistant Physician Inebriates Home, Fort Hamilton.

It has been my fortune during the past six years to have seen nineteen hundred and forty-one inebriates. These unfortunates have come from all grades of society, and from lands far and near. There have been among them the periodical drinkers, the social club bibber, who drinks at all times and dotes on the quality and quantity of his liquors, and the common tramp, who drinks anything from pure alcohol to bay-rum or Worcestershire sauce.

The means of reform undertaken to correct the habit in these nearly two thousand intemperate beings has been as varied as their temperaments. Enforced restraint, mild persuasion, the no limit plan, allowing the free use of stimulants with the hope of disgust, medical treatment, and even the popular craze "mind cure" has been brought to bear upon these patients by their ever-hopeful friends. But what has been the result? Here opinions are at variance. Statistics are impossible to obtain, owing to the inability to keep the patient under observation for any length of time. The result to my mind is far from satisfactory. I believe the per cent. of cures of inebriety are less than those of cholera. I mean when I speak of a cure, where the patient has not relapsed for a year or more. Some who have had dealings with these unfortunates consider they have gained success when the patient has remained apparently sober (I say apparently sober, for I am certain that many of the so-called cures have a "quiet still on" the greater part of the time) in the eyes of his friends. In general practice we do not consider our patients in health when they are suffering from any ailment, no matter how trifling or when they complain from time to time, and why should an exception be made in the

case of the inebriate? That which is inborn is, in my opinion, just beyond the line marking the curable from the incurable. From these two thousand patients it would be a difficult matter to select ten per cent. who have not been obliged to seek aid to restore them to a healthful state; their ill health having been caused either by a continual debauch or a spree of varying duration. Many have died, and of those who have passed from the ranks I have endeavored to ascertain the cause of their death. The mortuary record fails to announce one who has died a natural death. The use of stimulants has been the cause either direct or indirect. Some have given up the battle, and to protect themselves have entered some of our many institutions for the care of such unfortunates. Many have told me that it is a useless endeavor for them to try to control the habit. They say they have the craving, not for the liquor, but the effect which they constantly feel in need of.

When the much honored Alonzo Clark, M. D., used to state to his class that phthisis was curable, how startled would many of his hearers be, and sometimes even the sleepy ones on the back seats would wake from their revery. But how much more astonishing and gratifying would the announcement be that inebriety has been mastered and a course portrayed by which we might hope for success. The disease, I fear, is a more hopeless one than phthisis, the sources from which the habit originates are so numerous that our hands seem tied in endeavoring to grasp the exact cause and so treat the malady. While hereditary taints, syphilis, epilepsy, to say nothing of the social and moral sources, are to be combatted with, our last is a most discouraging one, yet we should not despair but by strenuous endeavors seek for the hidden cause and hope for success.

I must make some apologies for this paper owing to my inability to turn to statistics, and rather than rely upon my memory, have purposely omitted them. The point which I wish to convey to the reader of this article is, that while the proportion of cures is so small, it is, in a great measure, due to the lack of attention given to the source of the disease.

CLINICAL CASES IN PRIVATE PRACTICE.

BY DR. McCOWEN, DAVENPORT, IOWA.

Case 1.—Miss A., aged 32. Milliner. Father subject to paroxysms of ungovernable rage without adequate cause. Mother neuralgiac. One sister an epileptic. As a child was delicate and nervous, with frequent headaches, yet attained womanhood without serious illness. Was slender and pale, worked constantly beyond her strength in ill-ventilated rooms. During busy season worked far into the night for weeks at a time, keeping herself awake with strong tea. Had blinding periodical headaches. One day was shocked by a boy rushing into the store and abruptly announcing the drowning of a younger brother to whom she was devotedly attached; immediately after the limp and dripping body was brought in, at sight of which she fainted away and lay insensible for some time. An attack of brain fever followed from which she convalesced but slowly. Was obliged to resume her duties at the store while yet enfeebled and unable to do a full day's work. Did not gain strength, had frequent palpitation of the heart, obstinate constipation, sleep irregular and disturbed by nightmare, was unhappy and depressed. On one occasion when unusually exhausted, a large order came in necessitating protracted night work. The only way in which it could possibly be accomplished was by resorting to stimulation. From this time on she had morbid craving for stimulants, which nothing else satisfied, which no resolution of her own could withstand and which she gratified by stealth. Gradually her character seemed to change, she became irritable, capricious, and exacting, and finally, after an undue indulgence, had an attack of wild delirium which revealed her condition to her employers and her family. Her course was now from bad to worse. Her condition was aggravated by

bitter upbraiding and unwise altercation on the part of her father. Protracted drinking alternated with intervals of deep and pungent remorse. But in vain did she resolve and re-resolve, neither threats nor entreaties could prevent the recurrence of the paroxysms, and finally death came to the relief of the unhappy sufferer and her equally unhappy friends.

Case 2.—Mrs. C., aged 25. Two children, youngest fifteen months. Did not get up well from her last confinement. Labor protracted, forceps delivery, post partum hemorrhage, inducing general debility and nervousness which persisted for weeks. Was faint and dizzy on attempting to rise, suffered from backache and other symptoms of uterine disorder. Her physician recommended wine, which promptly relieved the horrible sinking feeling, and was resorted to with increasing frequency until something stronger was necessary to satisfy the uncontrollable craving, and whisky and finally brandy was indulged in freely. From being a most exemplary wife and devoted mother, she became entirely indifferent to her children, irritable and abusive, appetite capricious, bowels constipated, had violent attacks of neuralgia, and at each recurring menstrual period, notwithstanding the entreaties of her husband, found it impossible to resist the insatiable craving for stimulants and drank to stupefaction. Uterine examination showed a patulous os and defective involution; uterus moderately retroverted, depth four inches. This condition, however, yielded readily to appropriate remedies, and partly by the most strict surveillance which kept temptation out of her way, and partly by the exercise of strong will-power her impulses were controlled, though she never recovered her former even balance. About a year later an abortion with dangerous flooding again reduced her strength and brought to light the smothered propensity. Again the morbid craving proved stronger than maternal love or family pride. Under the influence of proper remedial measures addressed to the physical condition she was restored to health and more gradually regained her self-control. At every menstrual period, however, the impulse is felt.

Case 3.—Miss L. P., aged 19. Factory girl. Father moderate drinker, with “sprees” on special occasions, as Christmas, Fourth-of July, etc. Mother died of consumption shortly after L.’s birth. Stout and rugged. Menses appeared at fourteen, was so disconcerted and alarmed, never having had a mother’s instruction, that she sat in cold water until the flow was stopped. It did not appear again for six months, and she has since suffered intensely from painful menstruation. For this the neighbor women administered gin and hot water in immoderate quantities, which gave temporary relief, and a habit was soon formed of resorting to stimulants on the slightest provocation. After appearing several times intoxicated she was discharged by her employer. Her father who had first bestowed the inheritance upon her, and then left her to grow up absolutely without care or attention, which might perhaps have kept the fatal taint in abeyance, showered upon her abuse and vituperation, and finally resorted to personal violence, but neither curses nor blows, nor hanging up by the wrists till she fainted from pain and exhaustion were sufficient to deter her from drinking when the “spell” came on. Finally, after all the resources of brutality were exhausted, the father, in righteous indignation, turned her out of doors. The only shelter open to her was a saloon, thence she readily found her way into worse quarters, and now, from time to time, she figures in the police courts as “drunk and disorderly.” Charitable ladies have labored with her in vain, again and again have they been assured of her penitence and remorse, and of her determination to do better. Home after home has been found for her, but after an interval of good behavior, sometimes longer sometimes shorter, she has a headache, then a sleepless night, a day of feeling “all gone” with an occasional rush of blood to the head; she is depressed and in tears, then sullen and defiant, and on the third day she rushes out of the house and appears at the nearest saloon wild-eyed and staring. Again and again does she go through this vicious circle of symptoms with scarcely a hair’s breadth variation.

Case 4.—Mrs. M. T., aged 35. A beautiful, educated, refined lady. No hereditary taint. Always had excellent health until, in returning from a picnic, had sunstroke, a sequelae being persistent headache. Had occasional fainting spells, the home remedy for which was whisky. Presently it was given to ward off the spells, and later a desire for stimulants began to be experienced, independent of the conditions for which it had been at first prescribed. Her increasing use of liquor was observed, and upon being remonstrated with, it was thereafter continued in the privacy of her own room. On her wedding night the first taste of wine awoke the sleeping desire, and being already on the verge of exhaustion in preparation for the event (as is the manner of women), resistance was impossible, and before the evening was over, the young bridegroom was horrified to find his bride pronouncedly under the influence of liquor. Protestations of penitence and remorse condoned the offense which, however, in spite of all efforts at control is still repeated at irregular intervals. An interesting feature in these attacks is the fact that they always begin in the stomach. She has first an indescribable feeling located in the pit of the stomach, a sensation of emptiness, of central feebleness, a violent pain in the head comes on, and after a more or less protracted struggle against the impulse, the will is overpowered, and with the first taste all restraint is flung to the winds and she does not stop till dead drunk.

Bavarian beer is used very largely in Northern Germany. Its physiological effects are more pronounced and destructive than the milder beers. Dr. Nodolph says that this beer rapidly increases lassitude, and depression of the system, breaking up the appetite and taste for food, and finally develops in a steady decline of intelligence. Such beer drinkers eat at long intervals, inordinately, then abstain, and grow more and more degenerate in body and mind.

PSYCHOLOGY OF ALCOHOLIC INEBRIETY.

BY IRA RUSSELL, M.D.,

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"O Thou invisible spirit of wine, if thou hast no name to be known by let us call thee devil!" Such was the exclamation of Cassio when he had recovered from a drunken brawl, during which he stabbed his friend Montano, who in vain had tried to quiet him. Alexander the Great in a drunken debauch killed his general and friend Clitus.

The world is full of just such tragedies. The subject of alcoholic inebriety is becoming a matter of absorbing interest to the philanthropist, physiologist, jurist, and statesman; and it bids fair to become one of the great issues in party politics. It is my purpose to show the influence of alcohol upon the mind.

The brain is the seat of the mind, and different parts of the brain preside over different faculties of the mind. Every physiologist knows that the functions of organic life are located in the base of the brain. The affections, the emotions, the passions are located higher up. The judgment, will, conscience, and reason are located in the superior part of the brain. The brain may be compared to a three-story building: the functions of organic life reside in the first story; the affections, emotions, and passions in the second story; the intellect, judgment, reason, and conscience, in the upper or third story.

The above may be considered irrelevant to the subject, but my object is to show what *particular* faculties of the mind are affected by the alcoholic inebriety, viz., the affections, the emotions, the passions. In this condition (of alco-

holism), instead of the emotions and passions being controlled by the man, he is controlled by them; the reason, judgment, and conscience are overwhelmed; hence the frequent occurrence of the terrible tragedies that shock whole communities. The Cassios and Alexanders are still abroad in the land, unrestrained and uncontrolled; friends, wives, and children are murdered by the inebriate friend.

For convenience we will separate inebriates into four classes: occasional, habitual, confirmed, and dipsomaniacs; each of which has its peculiarities. The occasional inebriate is one who, through social enjoyment on some holiday, becomes intoxicated; due, perhaps, to the solicitations of jovial companions. He becomes exhilarated, loses self-control, and quarrels with his best friends. Such an event is followed by mental depression, a sense of shame and a feeling of disgrace, with a determination never to repeat the offense.

The habitual inebriate is one who makes constant use of stimulants; is not often fully intoxicated but is thoroughly saturated with liquor. The influence of such a course upon the mind is marked by unreasonableness, occasional fits of ill-temper, and gradual deterioration of the higher mental faculties, and weakened ability to control the lower faculties. Such a husband or father will have periods when he will be kind, affectionate, and indulgent, followed by abuse and ill-treatment.

The confirmed inebriate is one who, uninfluenced by moral considerations, and caring not for the disgrace and loss of character that follow intoxication, becomes drunken whenever an opportunity occurs. In such a person the sense of moral obligation is completely blunted, the lowest and most brutal passions unrestrained, and the love of home, wife, and children destroyed. The destitution, hunger and nakedness of those who should be nearest and dearest to him, make no impression upon him and are treated with utter neglect.

The dipsomaniac is one who goes on sprees occasionally,

the craving for stimulants occurring periodically. During the interval of sobriety he has no desire for stimulants, and at this time his deportment is above reproach. He may be the kindest of husbands and fathers and most punctilious in the performance of every duty, but when the paroxysm occurs, nothing will restrain him; love of home, social position, wife and children, have no influence upon him. He will hide away and seek the companionship of the lowest and vilest, and drink until he is completely exhausted. He will pawn watch, coat, wedding ring, and any other valuables he may have about him, to procure liquor. After remaining in this condition from one to two weeks, and becoming completely exhausted, a paroxysm of repentance and remorse comes over him; he returns to his family broken-hearted, and with tears and sighs promises that nothing of the kind shall occur again.

The dipsomaniac, before commencing his debauch, has certain psychical, premonitory symptoms; he is nervous, low-spirited, irritable, moody, and taciturn, and takes less interest than usual in his business.

The legitimate influence of alcoholism upon the intellectual faculties are seen in loss of memory, impaired judgments, and dullness of observation. The moral faculties suffer no less than the intellectual. It seems to paralyze the higher moral faculties, the sense of right and wrong, of duty and accountability, giving full sway to the lower passions and propensities. The most important part of this subject is the relation of alcoholism to insanity.

In reading the reports of our insane asylums, we find that a large percentage of cases are attributed to alcoholism. But the insanity to which I wish more particularly to refer, is that of insane drunkards. The insanity which lasts only while the victim is under the influence of alcohol, and which passes away when he becomes sober. Among the insane drunkards we have every variety of symptoms that are observed in an insane asylum. One will have melancholia with all the characteristic symptoms peculiar to that form of

insanity—depression, self-blame, suicidal tendency, with direful forebodings of impending calamities. Another will exhibit the symptoms peculiar to general paresis: the same self-complacency, exaltation, and extravagant ideas and actions.

Another will manifest all the symptoms of acute mania; intense excitement,—the reason completely dethroned, and all the lower passions in full play—destructive, and homicidal, a perfect terror to all around, and utterly regardless of the consequences of his acts.

Another class will have all the symptoms of dementia with its stolid indifference, the mind oblivious to all surroundings.

The mental symptoms exhibited by those suffering from delirium tremens is not foreign to the subject under consideration, inasmuch as the peculiar form of mental manifestation in this disease is due to the poisoning influence of alcohol upon the mind. Fear is a uniform symptom common to all such cases—fear of death, fear of devils, fear of enemies. They have hallucinations of sight and hearing; sights of the most terrific character among them.

There is a form of insanity due to chronic alcoholism which differs very materially from the acute attacks that frequently accompany and follow intoxication. It is seen in some persons where the intoxication is prolonged, and it becomes a fixed habit. The mental symptoms are less acute than in the insanity of acute alcoholism, but more persistent and continuous. The delirium is milder, of the melancholic type. There is distrust of friends and fear of persecution; the memory and judgment are weakened, the imagination is perverted and the moral sense greatly impaired.

From this enumeration of the mental phenomena expressive of inebriety in its various forms, we see what a great variety of psychical symptoms alcohol will produce that are not due to any structural lesion of the brain. The most prominent effect of alcohol upon the mind is a paralysis of the will and higher moral and intellectual faculties, and stimulation of the lower and vicious propensities.

Abstracts and Reviews.

PILOCARPIN IN ACUTE ALCOHOLISM.

BY E. A. NEELY, M.D., MEMPHIS, TENN.

Revolutionary discoveries only brighten medical literature at intervals of long periods, but this does not signify a cyclic quiescence in medical science. Constantly and unceasingly the profession is engaged in testing the accuracy and value of known truths; in extending the scope and usefulness of existing measures and means, developing and perfecting them for utilization at the bedside. My contribution, therefore, is not pretentious beyond offering for your consideration a few original facts, illustrating the value of pilocarpin in the treatment of acute alcoholism.

This, I believe, is a new application for a remedy whose intrinsic worth has already been unassailably established in the treatment of other diseases. I was led to employ it in this condition from observing its good effects in the case of a patient to whom I was hastily summoned during the past summer. I arrived to find a well-developed man in a most intense maniacal delirium, the efforts of half a dozen men being required to keep him on the bed, and from doing violence to himself and those about him. I was told he had sunstroke. An examination was impossible. At this juncture several other physicians arrived, having been called in the excitement of the moment. These, like myself, accepted the popular diagnosis, and one of them having treated several cases of sunstroke with it, suggested that we give him a good dose of pilocarpin. We gave him a half grain subcutaneously. In thirty minutes he was perfectly limp, his skin was cool and covered with profuse perspiration, the heart's action was increased and tension diminished, distressing vomiting occurred, and his intellect cleared. With the cessation

of the nausea and vomiting he sank into profound slumber, from which he awoke some fourteen hours later much refreshed and perfectly rational. I then learned that his sunstroke was nothing more than a well-marked case of alcoholic delirium. Since then I have used pilocarpin in all cases of alcoholic poisoning coming under my care with unvarying satisfaction.

The first effect noticed after the subcutaneous injection of a physiological dose of the muriate of pilocarpin is a flushing of the face and neck. Almost simultaneously a profuse perspiration occurs, saliva in great quantities is poured out, the heart's action is increased from ten to twenty beats per minute, but its tension is greatly lowered, and the temperature falls from $.5$ to 1.5° . Nausea and vomiting nearly always follow its administration, and occasionally a serious diarrhœa. Much prostration may occur, especially if large doses be given, hence the necessity that the indications for its employment be well defined and appreciated. While it should be administered with care, I can find, in the literature at hand, no record of a death resulting from its use. Several instances of poisoning by its ingestion are recorded, but these were promptly relieved by subcutaneous injections of atropine, its physiological antagonist.

That I may more clearly outline its limit of usefulness in alcoholic poisoning, and at the same time illustrate the good results I have derived from its administration, I extract from my note book the records of six of the nine cases treated with the remedy, the remainder, because of circumstances and conditions, not being fair tests.

Case I. August 3d. H., male, æt. thirty-one, well developed. Has drunk moderately for several years, with occasional excesses. For several days has been drinking heavily. At four o'clock in the afternoon fell on the street, and was carried home. When I saw him there an hour later he was raving with a maniacal delirium, threatening to do violence to himself and others, from which he was restrained by force. Pulse full and bounding. Face flushed and conjunctivæ con-

gested. Pilocarpin, grs. ss. subcutaneously. In thirty minutes he was completely relaxed. Perspiration copious. Vomiting occurred with great retching. Bowels moved several times. Arterial tension reduced and pulse rate increased. After two hours he was feeling comparatively comfortable, and was perfectly rational. Ordered quinine, grs. iii; hydr. chlor. mit., gr. ss.; podophyllin, gr. 1-20; morph. mur., gr. $\frac{1}{8}$. M. every three hours during the night. Next day felt comfortable, except a general muscular soreness. No elevation of temperature. Appetite returning. Discharged.

Case II. October 9th. J. P., æt. forty-six, illy developed. Has drunk habitually for years, but never to excess. While at work on above date was seized with very painful cramping of the muscles of right leg. This condition soon extended to all his extremities, and when I saw him he was suffering excruciatingly. Was told he had been drinking immoderately. His face was flushed; conjunctivæ congested; pulse rapid and arterial tension great; bowels constipated; tongue coated and flabby, and his temperature 100.5° . I gave pilocarpin, gr. 1-5, at once. In two hours he was completely relieved and sleeping. I ordered calomel, gr. ss, every two hours during night. On the following day I found his temperature 101° , but comfortable. Ordered salicylate of ammonium, grs. viii, every three hours. Under its influence his fever subsided in twenty-four hours, his appetite returned, and he convalesced rapidly.

Case III. October 22d. R. B., æt. thirty-six, male and very muscular. Accustomed to the daily use of alcoholic stimulants for twelve or thirteen years. Occasionally got on a spree, which always terminated in an acute gastritis. Jovial companions at the races tempted him into another one of these. When I saw him he was suffering most intensely with muscular cramping of all the extremities. His face was of a livid hue; conjunctivæ congested; eyes prominent, and a wild expression of countenance; tongue heavily coated, heart's action slow, and arterial tension very high; had vom-

ited several times, and nausea constant. I gave him pilocarpin, gr. 1-5, at once. In twenty minutes he was relaxed, and his distressing symptoms relieved. I then ordered calomel and ipecac, aa gr. ss, every two hours. Six hours later he was comfortable, but sleepless. At his solicitation I gave him morph. sul., gr. $\frac{1}{4}$, hypodermically, under the influence of which he slept during the entire night, and was able to take some nourishment with relish the next day. He convalesced nicely for several days, when a jaundice developed, which yielded readily to the usual remedies.

Cases IV and VI. October 19th, and November 17th. These two cases occurred in the same individual, a man of studious habits and a man of exceptional intelligence, but one who cannot refrain from frequent sprees. H. E., male, æt. forty-one. On both these occasions I found him in a high state of nervous excitement; face flushed and wearing a weary, expectant expression. The slightest noise startled him; sleep was unknown; tongue coated; bowels constipated; respiration somewhat hurried; pulse ranging from 90 to 100, and arterial tension great; no desire for food whatever. In each instance three injections of pilocarpin, 1-5 grain each, repeated at intervals of three hours, relieved all the nervous symptoms. Insomnia, however, persisted, and necessitated morph. sul., gr. $\frac{1}{4}$, subcutaneously for its relief. This was followed by quin. sul., grs. iii; calomel, gr. ss, every three hours till bowels acted. This constituted treatment in both cases. Convalescence in each in from thirty-six to forty-eight hours.

Case V. October 23d. J. S. McL., male, æt. forty-nine, railroad engineer. In early manhood drank excessively. Rarely takes a drink now, but when he does always winds up with delirium tremens. Began to drink a week ago. I found him exceedingly nervous at 4 P.M., face flushed, an occasional muscular spasm, tongue coated, bowels constipated, respiration hurried, pulse slow, full and bounding; had slept none in over forty-eight hours, and food was repulsive. Gave pilocarpin, grs. 1-5, and in thirty minutes

left him comparatively comfortable. At 9 P.M. his symptoms not being completely relieved I repeated the dose, combined with morph. sul., gr. $\frac{1}{8}$, and ordered calomel, pv. ipecac aa, gr. ss. ; pv. Doverii, gr. ii, every three hours. The following day I found him much improved, having slept fairly during the night, and taken a plate of hot soup at breakfast. A saline to move his bowels, and a $\frac{1}{4}$ gr. morph. sul. at bedtime to guarantee a sleep, terminated the treatment. The next day he felt good, and the next returned to his work.

It will be observed that all of the cases in which I have used the remedy, have been those characterized by more or less nervous manifestations. It is in this class, too, that it is particularly valuable. It may be employed in the ordinary or typical forms before the stage of depression has occurred, the maniacal and the convulsive form, and in all forms of chronic alcoholism marked by psychical derangements. To generalize, it may be used in all cases exhibiting exaltation of nerve force, or tension of the circulatory system and derangement of the secretory system. On the other hand it is contraindicated in all cases where depression exists, or is about to occur.

The effect of the excessive use of alcoholic liquors, apart from their transient influences, is to check the function of secretion, thus causing retention in the blood products of waste of the nitrogenous elements, which, reacting upon the nervous system, gives rise to those phenomena so familiar to us in all such cases.

In pilocarpin we have a powerful motor depressant. It relaxes muscular tonus, lowers vascular tension, and excites to a wonderful extent glandular action, thus hastening elimination of waste products, removing in doing so the source of nerve irritability. This accomplished, the debauchee exhausted by vigils, and a lack of proper and sufficient nourishment, sinks into a refreshing and recuperating slumber. If not, his system has been brought to that condition when this may be encouraged by the administration of morphia without any apprehension as to its evil consequences. The portal

circulation may now be acted upon, and convalescence established in a period of time infinitely shorter than from any other plan of treatment with which I am familiar. Theoretically it suggests itself to our intelligence as a most rational treatment. In my experience it has practically stood the test.

I do not advance it as an agent to be solely relied upon in alcoholism. Its special value is at the beginning of the treatment, and its action must be supplemented by that of other remedies, as the exigencies of the case demands.

This may seem a limited field, but is indeed a large one, for it accomplishes for us in a few minutes what by older methods of treatment took us days to effect. The patient is tided over that period of high nervous excitement, restless insomnia, and intolerable nausea. He is excused from the possible supervention of delirium and all its horrid phenomena, and put at once upon the high road to a speedy recovery. This is sufficient to commend it as a medicament of inestimable benefit in these cases, provided of course that my experience is corroborated by the profession.

To obtain the best results, it is necessary to administer the drug in doses sufficiently large to produce its full physiological effects at once. It should be given with full confidence in the indications and its power to meet them. Only in this way will it realize our expectations. Small but repeated doses accomplish no good whatever. The symptoms demand an aggressive remedy. To temporize with them may possibly expose the patient to serious results; at best, will only be a useless expense of time.

My experience leads me to conclude (1) that in pilocarpin we possess an agent of great value in acute alcoholism. (2) That because of its motor depressant and paralyzant effects we can act promptly and decisively. (3) With it we can shorten the duration of an attack, and establish convalescence much more quickly than with any other remedy at our command. (4) That we can always rely upon it. (5) That its minuteness of dose renders its administration an easy act,

and (6) when judiciously employed is perfectly safe.—*Mississippi Valley Medical Monthly.*

NOTES ON MORPHINOMANIA AND ITS TREATMENT.

In a communication to the French Academie de Medicine Drs. Ball and Jennings give the following notes: For a long time distinction has been properly made between morphinism and morphinomania. By morphinism is understood all the phenomena which results from a chronic poisoning. By morphinomania we understand the vicious habits of regularly taking in ever-increasing doses the toxic stimulant.

Gradually morphinomaniacs are held captive by that intolerable malaise which overcomes them when they attempt to force themselves to give up the habit. This feeling of general malaise is often accompanied by disturbances going to the verge of syncope, and may even end in death. This is the collapse described by all writers, and is present in different degrees in all patients in course of treatment. If the pulse of these subjects is studied by the aid of the sphygmograph, there are obtained tracings that exactly indicate the variations through which the circulatory functions pass. Take a patient who has been deprived of his usual dose for a time (is in the state of want), and the sphygmograph presents a plateau corresponding to the systole, and which resembles to a certain extent the tracing obtained in some cases of chronic nephritis, in aneurism of the innominate artery, and in some other diseases. At this time there is a break in the equilibrium between the cardiac impulse and vascular resistance. All the tissues are in a state of anæmia by default, and the nerve centers are the first to suffer from this state of things. This is why the morphinomaniac in a state of cerebral anæmia, suffers the distress caused by it. He feels himself giving way and all his vital functions seem suspended. Now give him his dose, and in a few minutes he is comfortable.

The peripheral resistance is overcome, the heart triumphs all along the line, the tissues enter into a state of turgescence, the functions are re-established and all malaise disappears. The sphygmographic tracing indicates the normal condition of the circulation with the exception of a slight degree of arterial tension.

It is known that morphinomaniacs when deprived of their stimulant return to the normal state after a struggle more or less painful and prolonged, with the exception of neuralgic cases and the vicious. But for those who have any real motive to free themselves from the influence of morphine the problem to be solved consists in the suppression of the use of the stimulant, and to replace it with a remedy capable of arousing the activity of its circulation and of giving the tissues their indispensable aliment. For this purpose many different remedies have been used.

Alcohol, coffee, paraldehyde, cocaine, apomorphia, chloral, vanalline, pilocarpin, and other things have been advocated, but for the most part, they are not only useless but hurtful. The idea occurred that it would be preferable to use heart tonics and to stimulate the action of this organ at the time it begins to fail. To this end they tried the sulphate of sparteine which fulfilled almost entirely conditions desired and can be administered hypodermically. They watch for this moment of failure, as indicated by the sphygmograph and the feelings of the patient, and then give an injection of from two to four centigrammes ($\frac{1}{8}$ to $\frac{3}{8}$ gr.) and repeat if necessary. In a few minutes the pulse rises and the malaise disappears, and, as patients express it, the medicine gives them a heart.

The treatment of morphinomania is then : 1, To place the patient in a hospital where the indispensable surveillance of the physician can be exercised at any moment ; 2, To stop more or less the use of morphine ; 3, To stimulate the action of the heart at the proper time by an injection of sparteine, to which should be added in cases of need an injection of morphine, if the symptoms become too threat

ening. For it must not be forgotten that collapse can terminate in death, and the use of morphine immediately causes it to disappear.

We have also used nitro-glycerine, the effects from which are much more rapid, but much less lasting, coming on in a few seconds and disappearing in fifteen minutes, leaving persistent headache. The medicine is administered by placing a few drops of the properly diluted preparation on the tongue, and it may be used in mild cases. This treatment, which we have often employed with good results, is applicable especially to that period when the patient, deprived of his habitual dose, suffers that distress that so often causes the resolution of the most determined to fail. At the end of some weeks the patient is cured or greatly benefited.

This article, in the original, is illustrated by cuts of the sphygmographic tracings showing the condition of the circulation in patients in the state of want—after a dose of morphine—after a dose of sparteine—after a dose of nitro-glycerine, and, also, a normal pulse after cure, which adds greatly to its interest.

Morphinomania in Monkeys. Experiments have hitherto tended to show that animals did not acquire the so-called morphia habit. Rabbits, to which morphia is administered for months in enormous doses, as much as eight grains per day, bear the sudden expression without any evidence of discomfort.

But it would appear from a memoir sent by Dr. James of Cambridge, to the Academy of Science, that this is not the case with monkeys, when these live with opium smokers and have become accustomed to medicated atmosphere, they acquire a taste for the poison. One monkey for instance would wait until his master had laid aside his pipe, and would then take it up and smoke what remained. If not allowed to do so for several days it would fall into a state of depression and stupor which disappeared as soon as the stimulant was supplied. Some of our readers may remember a monkey at the Zoölogical Garden which had been taught by the keeper to smoke tobacco.

SYPHILIS IN INEBRIETY.

Alcoholism has a very marked, though not a constant, influence upon the gravity of syphilis, and it acts in four different modes: First, it predisposes to grave and precocious forms of the syphilides, which do not usually appear until after the lapse of many years. Alcohol has an influence upon all dermatoses, and it is not astonishing to find that influence in syphilis, and it is often so marked that one can diagnose alcoholism by the aspect alone of the lesion. Alcoholism also favors the production of those forms in which the syphilitic manifestations succeed each other in a fashion almost continuous. It favors again those cases which act on the general health, and can, in little time, cause a veritable cachexia. Alcohol at last predisposes to cerebral syphilis. It figures largely in the antecedents of those thus afflicted, and it is to its influence that are due the precocious cerebral cases that appear in the secondary period, and even in the first year of the disease.—*Boston Medical and Surgical Journal.*

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

A semi-annual meeting of this association was held in Brooklyn, N. Y., June 6th. Dr. L. D. Mason was made chairman. Letters of regret were read from Drs. Day, Parrish, Barber, and Baker. The first paper was read by Dr. Fite of Knoxville, Tenn., on "The Prohibition Question from a Legal Standpoint" (published in this journal). The next paper was by Dr. Wright, Bellefontaine, Ohio, on "Points Touching the Medical Jurisprudence of Alcoholic Inebriety." (This appears in this journal.) Dr. J. B. Mattison of Brooklyn, read two papers, "The Ethics of Opium Habitues," and "Antifebrin, vice Opium, as an Anodyne." In the former, he asserted that several years' exclusive professional experience among a large and enlarging number of opium habitues convinced him

that the popular idea that all men who use opium are liars, is a mistaken one. He argued that the prevalent opinion—uncharitable and untrue—of an opium habitue being merely the victim of a vicious indulgence—was a leading factor in his desire to shield himself from censure, and claimed that a more rational and right appreciation of the situation—regarding such patients, with certain exceptions, as creatures of conditions beyond control—would be most helpful against the protective temptation to untruth. Besides, a more liberal and correct opinion on this score would have an important bearing on their medico-legal status and treatment. In his second paper, Dr. Mattison referred to the recent triumphs of analytical chemistry in giving the profession such valuable hypnotics as amylen hydrate and sulphonal, and noting the far reaching value of any drug that will take the place of opium— which, while so great a blessing is so often a bane—expressed his belief that the new anodyne, Antifebrin, was the richest addition of modern times to the therapeutics of pain. Very interesting discussions followed the reading of these papers, after which the society adjourned.

The Thirtieth Annual Report of the Washingtonian Home, Boston, Mass.—The superintendent, Dr. Day, reports that the number of patients admitted during the year was 404. Of these, 214 were natives of Massachusetts, 82 of other States, and 108 were of foreign countries. 344 were residents of Massachusetts, and 223 were married men. 14 physicians, 11 lawyers, 1 clergyman, 74 merchants, 102 clerks, 48 mechanics. There were 83 cases of delirium tremens. Average number of days which each patient has remained in the institution, about 17.

Of the early history of the asylum, Dr. Day remarks: "Thirty-one years ago the Home was established in the full faith that many of the evils of inebriety were susceptible of successful treatment, and that in a large number of cases, intemperance might be eradicated and cured by

strict regime, appropriate therapeutic measures, and by proper restraint, in an institution designed and conducted for such purposes. This belief has been confirmed by the experience of over thirty-one years, and from certain data in our possession, we have reason to believe that the number of patients successfully treated and restored to lives of sobriety and usefulness, will fully equal the ratio of cures in any of our lunatic asylums, or recoveries in our hospitals for the treatment of other diseases.

“While the idea of establishing inebriate asylums for the medical treatment of inebriety is older than the generation now quite advanced in life, its practical adoption, and the efforts at treatment, are comparatively recent.

“The thirty-one years last past have developed all that has been attempted in this direction, consequently it is not surprising that even at the present time a large class of our people, comprising some of the learned and intelligent, still regard the establishment and maintenance of institutions for the cure of inebriates as a novel and doubtful expedient, and with little or no information upon the subject, but influenced more by prejudice than intelligence regarding this subject, condemn the project as utopian and fruitless.

“We cannot fairly estimate the value of any new undertaking by its immediate results. What public or private enterprise brings full and ample remuneration at first? The institutions for the deaf and dumb, for the blind; the lunatic and idiot asylums, and even our hospitals for the sick, all had small beginnings, and at first made inadequate returns. It surely cannot be expected that a pioneer institution for the treatment of inebriety should be an exception to the general rule.”

The report presents at some length a history of the action of alcohol in causing various diseases, and their relations to society and practical life. Then refers to its work as follows:

“During the thirty-one years of the existence of the Washingtonian Home, it has been to this community more

like a life-saving station than otherwise. It has cared for and treated over ten thousand cases of inebriety in its worst form. There have been treated here yearly, from seventy-five to a hundred cases of delirium tremens. The rate of mortality has been comparatively small. It has labored under much disadvantage in various ways. It has not had the sympathies of the general public to that degree which its managers think it entitled, as a beneficent agent established more than a generation ago, for the purpose of caring for, treating, and reforming the inebriate. Many have been rescued, and are now scattered over our broad land leading lives of usefulness and good citizenship.

“Our record will now show that the institution has accomplished a great and good work. It is now, and has been, performing its assigned duty without ostentation. It has met the demands of duty without fear. We have treated the most formidable and varied cases of inebriety and its contingents, generally with success, and with such a history we can but feel that we have a right to call for means to enable us to open a wider field of usefulness. The demand is great and calls for this. In view of the physical diseases which we claim exist in every case of habitual drunkenness, and which the foregoing statements are designed to corroborate, we would argue the policy and duty of extending to all, rich or poor, the means for the care and attentions to which the helpless, the unfortunate, and the afflicted are entitled.”

The doctor urges a longer time of treatment, and expresses a most confident hope that this asylum will receive the full recognition which it so richly deserves. The report is well worth notice, and we advise our readers to address Dr. Day for a copy.

Report of the High Shot Tower Home for Inebriates, Tickenham, England, Dr. Branthwaite, Supt. — On January 1, 1887, I had with me fourteen patients, and during the year have admitted nineteen — thirteen under the Act, and six as private patients — for periods varying from three

to twelve months. These were drawn from the upper and upper-middle classes, and consisted of eleven married men, seven single men, and one widower. The average age has been thirty-seven, which is about the same as last year. The baleful results of intemperance seem to culminate in the fourth decade of life, which is generally a period of special strain, domestically and commercially. I have admitted this year eight between the ages of thirty and forty, as against four between twenty and thirty, four between forty and fifty, and three between fifty and sixty. Twenty-two have been discharged in the ordinary course, and two expelled for disobedience and misbehavior.

Referring to the whole time since I opened High Shot House, I find some difficulty in keeping in touch with many old patients (whom I have no reason to believe have resumed habits of intemperance) owing to a reticence they feel in keeping up a connection by correspondence with an episode of life which they prefer to forget or at least wish to be ignored; nevertheless, I am constantly receiving letters assuring me of continued abstinence as well as containing expressions of gratitude. Not only can I point to a large number who are "doing well," that is to say, men who I believe to be permanently improved, who are living abstemious lives, managing their own affairs with tact and ability, and who have been restored to their homes to the benefit and pleasure of their friends and families, but also to others who I *know*, from personal knowledge, to be not only cured of all desire for stimulants and total abstainers, but who are fully convinced that for others, as well as for themselves, there is but one reasonable and righteous course; and this is something to say considering that this conviction is wrought, not in those already half-persuaded, but in those who have tried every possible avenue of escape from the drink-crave before seeking, as a last refuge, the shelter of an Inebriate Home. I append a short analytical synopsis of a full and scientific report of all the cases under my care since the commencement.

Average age of patients, 39 years. Heredity distinctly traced, 19; insanity, 6; allied habits (smoking or opium), 48; intemperance, regular, 46; intemperance, periodical, 5; delirium tremens, 20.

Principal assigned causes:— Company, 15; domestic troubles, 8; business worry, 7; business temptations, 4; depression, 4; overwork, 2; accident, 1; other causes, 10 = 51. Average time under treatment, 5½ months.

Results as known January 1, 1888:— Continuing total abstainers, 11; doing well, 16; relapsed, 10; no information, 6; dead, 1; still under treatment, 7 = 51.

Report of Dalrymple Home, England, for 1887.— Thirty-three patients have been admitted during the year, nineteen of whom were private cases. Twenty-seven were regular and six were periodical drinkers. Twenty-one patients are at present under care at the home. The average length of treatment of each case is seven months. In a summary of the one hundred and fifteen cases discharged since the asylum was opened, occur the following facts. Of the ages of the patients fifty-four were between thirty and forty, and twenty-nine between twenty and thirty, and twenty-six between forty and fifty.

In the family history, ten had a heredity of insanity, twenty of inebriety, and fifty-nine of no history of insanity or inebriety. This later statement is very unusual, and differs widely from all other studies of heredity. In the records of complicating diseases, only forty-two cases are noted. Three of these are placed under the term of general debility. This is also quite unusual, and points to a degree of health almost unknown among American inebriates. One hundred and one cases used tobacco. Of morphia cases only two were received. The average time or duration of the inebriety was eight and a half years. The institution was more than self-supporting during the year.

This report is very suggestive, and shows that the man-

agement has begun the study of the subject on a true scientific basis.

This home is but the infancy of one of the most complete hospitals for inebriates in Europe. Dr. Branthwaite is the superintendent, and Dr. Kerr the consulting physician.

Inebriety—Its Etiology, Pathology, Treatment, and Jurisprudence. By Norman Kerr, M.D., F.L.S., etc. P. Blakiston, Sons & Co., Philadelphia, Pa.

This is a handsome volume of 415 pages with a full and convenient index. Its scope is very wide. But as alcohol has to do with the whole organism of man, with every detail as well as with the completed structure, it will appear that the space given to the discussion is not excessive. Inebriety is defined by Dr. Kerr to be "an overpowering impulse to indulge in intoxication at all risks" (pp. 10-34). This is a good definition, and it corresponds closely with a definition of dipsomania in an American book on alcoholism. In that work (*Inebriism, a pathological and psychological study*, p. 43) dipsomania is said to be "an overpowering desire for intoxication — not intoxicating liquors." These definitions give a better notion of the neurotic constitution of the ordinary inebriate than any references to a "thirst" or "taste" for alcohol can do. Inebriety is recognized as a disease, and is assigned, very properly, to "the group of diseases of the nervous system." The causes of inebriety are discussed at length and lucidly. "Some drink because they are insane" — that is, with respect to intoxication. There is also "inebriety from syphilis, from head injuries, from heredity, from nervous shock, from sunstroke, from prolonged sickness, from malaria"; in short, from anything which permanently diminishes nerve power, and seriously impairs the physiological freedom of nerve interaction. Certain exceptions, however, are made. "To avoid misunderstanding, let it be noted that all drunkards are not subjects of disease." That "drunkenness" is not an infallible evidence of disease is

true, but, if "drunkards" are inebriates, and inebriety is "an overpowering impulse to indulge in intoxication," it is difficult to see how any true drunkard can be eliminated from the diseased class. "Moral obliquity and vicious tastes are often the cause of intemperance." Unquestionably, but it may be doubted whether (the intemperate habit being once established) the inebriate can easily exert the will power to abstain; whether, in fact, he is not a subject of disease. It may be, after all, that our author in advancing the idea that a drunkard may exist independently of disease is merely "throwing a tub to the whale" in placating the prejudices of a certain powerful and influential but obstinate class of moralists in Great Britain. The physical changes due to alcoholism are well described. The heart is changed in structure by mechanical stretching and over-work, as particularly noted by Dr. B. W. Richardson. "Alcohol dims perception, paralyzes the will, and deadens conscience by a long train of degenerative processes," says Dr. Kerr. And so the stomach, liver, kidneys, and brain, as well as the organism as a whole, become structurally injured by the morbid changes of the connective tissue, which indeed goes everywhere. "Alcohol is a puissant will paralyzer," says our author. This is a central fact, around which revolve all the questions relating to the jurisprudence of inebriety. But alcohol is, in truth, a universal paralyzer, and this fact is thoroughly emphasized in the book before us. The acute effects of alcohol *for a time* interfere with the muscular movements, impair the functions of the several senses, giving rise to illusions and hallucinations, lower the temperature, restrain the physiological waste of the body, impede the rational faculties, and subvert the moral nature. All these are the direct consequences of the paralyzing properties of alcohol when recently taken into the system. But the acute effects of the poison, when intemperance becomes habitual, cease readily and wholly pass away. They are no longer merely acute; they become habitual, chronic, and fixed. It is therefore unwise and incorrect to declare that a small portion of

alcohol is innocent because it *seems* to be innocuous when taken a few times only. The final event shows a cumulative disaster arising from innumerable *apparently* insensible particulars, which is most woful, both in its appearance and in its consequences. The habitual or constitutional effects of alcohol are universal throughout the whole system. They are, however, most readily discerned through their impressions upon the moral nature. The habitual drunkard is callous to the impulses of morality ; he is notably an incessant and even motiveless liar, yet he may talk sensibly of morality and virtue. He may even clothe them in the radiant hues of poetry, or glorify them in the language of the most exalted eloquence. His reminiscences of the sympathetic nature may be, possibly, of the most pleasing character, but they are deceptive ; he has become forever incapable of making the moral nature a factor in the formulation of motive. To him, morality is simply a semblance, a phantom, a corpse, a thing that is past and gone with the years that have passed and gone with it. Alcohol has no physiological effect whatever. Toxic paralysis is never physiological. The effect of alcohol upon health is always paralytic — pathological ; while its effect upon disease may be therapeutical through its inhibitory or paralyzing properties. There is, therefore, no such thing as moderation or “temperance” in the use of alcohol as a beverage ; those who are striving to draw the line between the *temperate* and the *intemperate* use of alcoholic liquors, are wasting their efforts in fruitless sophistry and unproductive verbiage. Dr. Kerr has given us a great work. It will enhance his reputation, already deservedly high. It will be a store-house of facts for the inquirer, and will advance the interests of humanity. The doctor is to be congratulated upon his admirable exposition of the great subject of inebriety.

BELLEFONTAINE, O.

T. L. WRIGHT.

Quarterly Review of Narcotic Inebriety. Edited by Dr. I. A. Loveland of Gilsum, N. H., has appeared. The first two numbers are very promising, and the editor has the

unusual felicity of being alone in this great field, far beyond the clash of contact and rivalry. However rough the track may be, or heavy the burden of the journal, perseverance will be rewarded in the future.

Inebriate Retreats: Their origin, utility, necessity, and management. By Charles McCarthy, M.D., J.P., Supt. Northcote Retreat for inebriates, Melbourne, Australia. Stillwell & Co., publishers, Melbourne, 1888.

This volume claims the attention of the reader "as the result of thirty years' study of inebriety, and fifteen years' practical management of the Melbourne Retreat." It opens with an autobiography of the author, in which the origin of the Melbourne Retreat, and the various disasters and troubles are detailed that marked its infancy and growth. It appears that this retreat was projected in 1871 and went into operation in 1873. In 1876 a contest began over the title to the property, which lasted nearly ten years, and was finally decided in favor of Dr. McCarthy and the early management. In the meantime the usefulness and value of the retreat were greatly impaired. From that time the institution has been prosperous and is doing most excellent work. The volume is made up of papers by the author, written and published in various journals on the following topics: *Dipsomania, Moral Insanity, Retreat for Insane Drunkards, The Cure of Inebriates, Retreat for Inebriates, The Law Controlling Inebriates.* In each of these papers, the disease of inebriety is urged and defended with scientific order and clearness. The practical value of the physical treatment of the inebriate is shown by a great variety of evidence, and the questions of restraint are very strongly and correctly urged. The doctor asserts that "inebriate asylums are a necessity, and their absence a crime of the age." He asserts that over a thousand persons a year are lost who could be saved by inebriate asylums in Australia. This book will repay careful study, and coming from that far-away land of Australia, shows how far the subject has taken root and made permanent growth.

The Drink Disease: Its cause and cure. By Dr. Kawebewsky of Kharkoff, Russia, editor of *Annals, Psychology, and Mental Medicine* at the University of Kharkoff.

This is the first book which has appeared in the Russian language in which the disease of inebriety is recognized, and its treatment by physical means in hospitals is urged. The author gives a very clear summary of the subject under the following heads: Origin and early causes of inebriety; Different effects following excess of alcohol in different races; Different effects in the individual and varied symptoms which are manifest in the march of the malady; Different physiological and psychological symptoms and their insidious course; The complicating nerve and brain influences and the power of heredity; The treatment and cure of inebriety. Under the latter topic he urges very clearly the need of asylums for the restraint and permanent restoration of inebriates. He quotes freely from Drs. Parrish, Mason, Mann, Day, Wright, and Crothers, in this country, and Drs. Kerr, Richardson, and others of England; also Morel and Magnan of Paris. This work is a most suggestive contribution to this subject from a thorough scientific teacher of mental disease. It is gratifying to realize that leading scientific men of all parts of the world are turning to the study of this new field of alienism. This little work, coming from the pen of both an editor and teacher, is the certain promise of a more exhaustive study in the near future. We hope to give our readers some extracts in the next number.

Medical Jurisprudence: By Allan McLane Hamilton, M.D.; E. B. Treat, Publisher, New York City.

This is a volume of 380 pages, giving cases and notes with concise descriptions, embodying the latest conclusions and legal decisions on questions relating to mental disease and injury to the spine and nervous system.

It is very fully illustrated with cases drawn largely from *American* sources, and hence better calculated to meet the

wants of *American* physicians and legal advisers — a feature that is not always to be found in similar treatises. The leading chapters embrace Insanity in its Medico-legal Relations; Hysteroid Condition and Feigned Disease; Epilepsy; Alcoholism; Suicide; Cranial Injuries and Spinal Injuries.

The first chapter defines Insanity, its general indications, classification and Hereditary Influence—Including Post Mortem Examination of the Insane. Under the legal Relations of Insanity are mentioned—Duties of Medical Experts—Tricks of Counsel—Illusions, Hallucinations, and Delusions—Reasoning Mania—Medico-Legal Relations of Aphasia—Marriage and Insanity—Insurance Frauds—Responsibility of Deaf and Dumb—Criminal Responsibility—Responsibility in Relation to Imbecility—Commitment of Lunatics and State Laws Regulating it—Concealed and Feigned Insanity, etc. The chapters on Cranial and Spinal Injuries are particularly valuable for the numerous decisions cited from our courts in connection with suits for damages from railroad collisions, etc.

Manual of Diseases of the Nervous System. By W. R. Gowers, M.D., F.R.C.P. Published by P. Blakiston, Son & Co. pp. 1357. Price, \$6.50.

The most superficial examination will convince the reader that this is a work of great practical value. The grouping of the topics is admirable for ready reference. The classification is clear and scientific, and the treatment is thoroughly sensible and sound. The author describes four pathological classes of diseases of the nervous system, organic diseases, structural disease, nutritional disease, and functional disease. The description of the many brain diseases are minute and exceedingly practical. This may be justly called the most complete volume on nervous diseases in the English language. All the recent advances on this field are discussed in a conservative way. The reader will be disappointed that so few authorities are referred to, and the impression will grow that the author is over assumptive, in supposing his

readers are not critical and able to judge of the facts he states so positively. The chapter on alcoholism indicates that the author has read nothing in this field for years. The few lines on neurasthenia have the appearance of great exhaustion, and debility on the part of the author. As a book of reference to the many complex nerve disorders constantly appearing, we commend it most heartily.

Evolution and its Relation to Religious Thought. By Prof. Le Conte. Appleton & Co., New York City. 12mo. \$1.50.

Every reader should be familiar with the questions of evolution and their bearings on life and progressive thought. New views and new conceptions of life appear with each advance, and it becomes a matter of necessity to follow along this ever-widening track. This work is by a thorough scientist, who writes in a broad philosophical tone, presenting all the facts, and their probable conclusions. He outlines the entire subject of evolution, showing the facts on which it is founded, and the practical relations to life.

The following sentence in the opening chapter gives a good idea of the work. "Every system of correlated parts may be studied from two points. The one concerns changes within the system by action and re-action between the parts, producing equilibrium and stability, the other concerns the progressive movement of the system as a whole, to higher and higher conditions. The one concerns things as they are, the other the process by which they become so."

This work should have a place in the library of every reader.

The Principles of the Art of Conversation. By Prof. Mahaffy of Dublin. G. P. Putnam's Sons, New York City, 1888.

This is the title of a little work that is having a unusual sale, and great popularity. It deals with principles and is a very helpful little work.

Psychology, The Cognate Powers, by James McCosh, D.D., LL.D. Charles Scribner's Sons, publishers, New York City, 1887.

In this volume of two hundred and forty-five pages the author has condensed a series of lectures on this topic in a clear and most pleasing text-book. In the definition of psychology the following sentences give an idea of the treatment of the subject: "In induction we gather in facts, but always with a view of discovering an order among them and arranging them. It is found that in all nature physical and mental facts proceed uniformly and regularly according to laws. Psychology may be more fully defined as that science which inquires into the operations of the conscious self with a view of discovering laws." The cognate powers of the brain are discussed under three heads: the presentative powers, such as sense, perception, and self-consciousness; second, the reproductive powers; third, the comparative powers. While the medical reader will differ from the author in many conclusions, he will admire the broad generalizations and philosophic tone, as well as the graphic setting of the thought, and place this work in his library as indispensable for reference.

Psychology: The Motive Powers, Emotions, Conscience, Will; by James McCosh, D.D., LL.D. Charles Scribner's Sons, publishers, New York City, 1887.

This is a text-book for teachers and students, and is clear, concise, and full of interest. This analysis of the motive-powers of the mind brings out the metaphysical views in a strong light, and in all probability this is the best discussion of this topic which has appeared.

Manual of Clinical Diagnosis. By Drs. Seifert and Muller. G. P. Putman's Sons, New York City.

Is a most excellent work, and one which will be of practical value to every physician. Such books are often more consulted than more pretentious volumes. In cloth, \$1.25 a copy.

The Factors of Organic Evolution. By Herbert Spencer. J. Fitzgerald, publisher, 24 East Fourth street, New York. Post free to any address fifteen cents. The far-reaching consequences of the doctrine of evolution are strikingly set forth in this essay. As commonly apprehended, this doctrine is supposed to be a theory to account simply for the differences between species, but in fact it applies to life in all its phases — not less strictly to psychology, ethics, sociology, than to physiology and anatomy. In a word, there is no department of human knowledge or of philosophical speculation that has not been revolutionized since the publication of Darwin's "Origin of Species." The work before us, published at a merely nominal price, should be in the hands of every one who would think the thoughts of the age in which we live.

The *Popular Science Monthly* grows steadily in merit from month to month. Some of the best contributions to medical philosophy appear in this journal. The advances of evolution, sociology, and all the various branches of science, are grouped in a clear, graphic way, making this journal invaluable to every scholar.

The *Humboldt Library*, published by J. Fitzgerald, 24 East Fourth St., New York city, comprises a series of leading scientific works in a popular form, within the means of every one. They are the most practical volumes published.

The *Scientific American* comes weekly with a rich table of contents and steady-growing interest. It is the best family paper for facts in popular science that is published.

The *Wide Awake* is a most excellent magazine for young people. Every page is full of instructive facts, which are presented in a very graphic way.

The *Homiletic Review* is a rare journal of theological thought and fact, which even a layman can read with great profit.

The Science is edited with rare ability, and gives its readers weekly an excellent idea of the march of scientific thought.

Editorial.

BINGHAMTON ASYLUM.

In the last number of the *JOURNAL*, we noticed the recent publication of the history of the New York State Inebriate Asylum at Binghamton.

Probably no other institution of modern times has been the center of such bitter controversy, misconception, and wrong. Its history is one of most extraordinary interest, evidently not yet completed, the final chapter of which promises to be more startling than all the others.

In 1854 the United States Inebriate Asylum was chartered as a stock company, the shares of which were ten dollars each. In 1857 the name was changed to the New York State Inebriate Asylum. The city of Binghamton donated a large farm, and in 1858 the corner-stone of the building was laid. The work of building the hospital was long and difficult; money had to be raised, public sentiment had to be educated and often antagonized, and the idea of disease was sharply opposed and credulously defended. Both the principles and plan of organization were new and without precedent, and wide differences of opinion of necessity prevailed. Under the presidency of Drs. John W. Francis, Valentine Mott of New York, and Chancellor Walworth of Saratoga, the work progressed favorably, and the difficulties which center about every new enterprise were gradually being overcome. Finally the death of the president was followed by a reorganization of the board of management, turning out the founder, Dr. Turner, and placing the late Dr. Willard Parker in the presidency.

A few months later, in 1867, this new organization deeded the entire property to the State of New York for one dollar, without the advice or authority of any one. In 1879,

the State changed this asylum to an insane hospital, and the management consented.

Thus the pioneer asylum of the world, whose necessity far exceeded that of any insane asylum, was diverted, and the physical treatment of the inebriate pronounced a failure. The dishonesty and ignorance of the management which transferred the property to the State without legal right or authority was followed, most naturally, by the still greater blunder of changing it to an insane asylum.

The State of New York holds this magnificent asylum, which was built from the subscriptions of stockholders, by a deed from the board of managers, who had no authority to change or dispose of it. The stockholders were the owners, and they only by a majority vote could have delegated the power to the managers to sell the property. The managers acted on their own responsibility, and assumed that the large number of stockholders holding only small shares would make no objection. A great wrong can never be concealed for any length of time. The day of judgment always comes, sooner or later.

We learn from this book that these shares have been transferred by the stockholders to the founder, and the question of ownership is soon to be decided by the courts. The voluntary opinions of the best jurists agree that a great error has been committed, that the State of New York has no legal right to the asylum, and that the board of management are responsible with the State for this injustice.

This story of Binghamton as an inebriate asylum, and the court and official records of its change to the State and then to an insane asylum, suggest to the reader a series of doubtful transactions that are unaccountable. In justification of this act the asylum was called a failure, a fact most flatly contradicted by the reports. From this work it is evident that, notwithstanding the errors and misconceptions, the early plan of the organization and principles of management were correct and thoroughly scientific, and at least half a century in advance of the times. Had they been carried out

practically, Binghamton asylum would have been the most complete hospital in the world, and the knowledge of the disease of inebriety would have gone on a half a century beyond the present time.

To the student of inebriety this work presents another sad repetition of the dense ignorance and bitter opposition which meet every advance of science. The sale of Binghamton asylum and its absorption by the State was, in principle, the same fierce battle which assails every new truth.

The march of science has established the fact that the disease of inebriety is curable in hospitals, and the demand for such inebriate hospitals will not permit any organization or State to divert or hold an institution which should be used to meet this necessity.

This book will rouse the deepest interest, and is a chapter in the progress of asylum work for inebriates that should be read by every student of science.

INEBRIETY PRACTICALLY CONSIDERED.

Some time ago a physician wrote condemning very earnestly an article in which I asserted that inebriety was always preceded by a prodromic stage, from which prompt recognition and treatment would give the greatest promise of cure and restoration.

He saw in this statement errors that to him were infidel, and generally disastrous to all truth and progress. My silence and refusal to enter into any defense or argument to sustain these views, was construed as evidence of inability to do so, and he rushed into print in an essay that to-day he would gladly recall. A member of his family became an inebriate, and then for the first time he realized that a distinct chain of physical causes had been in operation producing this result. Had he recognized them before, he might have prevented a most calamitous disaster. The case in brief was this :

A young man of weak, nervous organization, with disor-

dered nutrient tastes, and superficial education, was sent to Europe to travel for his health. He fell in with drinking companions and soon drank to intoxication, and continued for two years using wine and stronger alcohols to excess. On his return he manifested so much knowledge of foreign wines and their manufacture, that he was encouraged to start a wine store. Three years later he failed, and the interest of a large circle of friends were hopelessly ruined. He is now an incurable inebriate, and a burden to his friends.

A noted divine of New York asserted "that inebriety could only be cured by making it odious and criminal to drink, and that the inebriate should be treated with severe punishment, rather than by mock sympathy as a sick man." Some time after, his only son, a professional man, became an impulsive inebriate, and was placed under my care. His father manifested great fear that he would be restrained against his will, and be treated harshly. The son recovered, and after an interval of nearly two years is well. The father still preaches the same dogmatic views of inebriety, giving the impression of *mental aphasia*, and incompetency to recognize the truth.

Another instance, of a journalist whose writings have spread false notions, that are considered authority, may be of interest. His father died insane during his infancy. His mother was an invalid and died of some brain trouble. He was brought up with a drinking uncle, became a clergyman, then an editor. He has drunk at intervals to intoxication from the time of a sunstroke many years ago. These paroxysms of intoxication come on suddenly, and are concealed by going away and shutting himself up in a strange house. They last about two weeks, and are marked by free intervals of five or six months. During this interval he both writes and lectures, bitterly condemning the disease theory, and urging that all inebriates should be punished, and that the vice of inebriety deserves no sympathy, but must be met with severe repressive laws.

His views are often so intemperate as to suggest a very

close approach to insanity. To his friends and readers, who do not know him as an inebriate, these theories are often quoted as an authority. Thus inebriety, as seen through the theory of moralists and speculative dogmas, is found to differ widely when studied practically at the bedside.

A noted temperance lecturer was very anxious to discuss with me the reality of vice, and a wicked, willful propensity to drink in all cases, that could be controlled. It was agreed to test it clinically by a study of the first case we should meet on the street that was available. The result of this experiment was the following, the lecturer making the first study separately and at his leisure, with these conclusions :

B., sixty-four years old. Has drunk thirty years. Began to drink while working for a circus and through the influence of bad company. Does not care for spirits, and can stop it of his own will power. Never drinks except when in bad company. If he had married a good wife and kept away from bad company, would have been sober. Is sure it is a vice, and thinks it a wicked sin. When recovering from intoxication, has very clear notions of his sin and strong desires to be better ; but later forgets it all, and drinks again. The lecturer conceives this to be a case of vice, that the pledge and conversion only can remove.

My study revealed this side of his history :

A strong presumption existed that his parents were both insane and criminal. He was brought up in an orphan asylum, and was a bar-keeper and hostler in a hotel up to an attack of the brain fever, which came on after a fall. He went with a circus, and drank to intoxication whenever he could get spirits. Was in the army two years. Had a succession of social disasters, and was sent to jail for drunkenness. From this time his career was marked by steady degeneracy of both mind and body. He was clearly incompetent to control himself, or abstain, and was fast merging on imbecility. His views of his case were mere delusions, which his whole life contradicted.

In all probability the brain fever produced some perma-

ment impairment of an already feeble brain power, and gave an inebriate form to an inherited diathesis. This was fostered by thirty years of more or less drinking, during which conditions of disease had begun that no art could reach, and no pledge or conversion would control.

The sequel of this was a good illustration of what is seen all over the country every day. This old man was taken into the church, signed the pledge, and claimed to be converted; also gave evidence of being a "shining light." The next day he relapsed, and stole a large sum from his benefactor, who, with inconsistent charity, had him sent to jail.

Thus, all over the country, theoretical notions of the vice and sin of inebriety result in the senseless efforts to cure inebriates by appeals to a diseased emotional nature. The energy and money spent in the gospel temperance work and other labors to pledge the victim to recover, is a sad commentary on the ignorance of its advocates. Practically, it is a failure, and always will be, for the reason that it ignores the actual state of the inebriate, and assumes the presence of another condition, which no study indicates.

Some years ago I advised a lawyer, who was drinking to great excess, to go under medical treatment, and urged that he was positively diseased, and should act on this basis. Some friends sneered at this notion, and urged him to trust in the pledge and conversion. The result of this is that he is now serving out a life sentence for manslaughter, committed while intoxicated. The failure of the church and pledge only increased his malady, and literally precipitated him into incurable states. Had he recognized his physical condition, and used the means for recovery, no such result would have followed.

Inebriety is a more positive disease than insanity, because the continuous use of alcohol is without motive or object, and contrary to every dictate of self-preservation.

Inebriety is a more stupendous evil than insanity, more widespread and disastrous, and yet its study is in the hands of moralists and reformers.

The legal treatment, by jails and fines, literally destroys the victims, precipitating them to lower levels and more incurable conditions. The only hope for the future is from a practical study by medical men, who have no other object except to find the facts and the laws which govern them. The excessive and poisonous use of alcohol, by a vast number of persons in this country, is most certainly a problem of absorbing interest, and can not be solved by theory speculation. Like cholera and yellow fever, it is no chance condition, but comes from some specific causes; and from the medical profession must come the practical investigations which will reveal these causes, and the means to remedy and neutralize them.

TRANCE CASES.

The following trance cases are of more than usual interest. In both cases the victims were very intelligent and truthful, and all the facts are well attested by conclusive evidence.

A noted lawyer, engaged in the defense of the New York alderman, was astonished a few days after the close of the trial to find that he had no memory of any of the circumstances connected with it. The trial lasted nearly six weeks, and had been long and exciting. During this time he had drunk over a pint of brandy a day, and manifested more than his usual intellectual force. He had an exciting quarrel with a gentleman at a club house one evening, and was severely censured by his friends. When the trial was over he retired to his country residence to rest, and after a day or more gave up all use of spirits. He awoke one morning with no memory of what had taken place from the beginning, or first day of the trial. He could not recall the slightest incident from the first forenoon of the trial. His critical examination of witnesses and exceptions to the rulings of the judge, his final summing up, was all an oblivion, and his reading of the minutes of the trial was new, and in no way suggested anything in the past. This man had a marked

inebriate ancestry, and has drunk many years irregularly. During the trial he drank regularly, and appeared in no way different, only a little more irritable.

The second case was that of a banker in a Vermont village, who went to New York to invest some money for himself and friends, and awoke on a Liverpool steamer three days out from New York. He had important business interests at home, and expected to return on Saturday. Thursday evening before, he made some important engagements, and, although drinking moderately, went to bed that night, and not being able to sleep, drank more than usual. From this time he lost all memory of events up to Tuesday of the next week, when he awoke in mid-ocean. He had a ticket to Liverpool and all his papers and securities intact. It appeared that he had been drinking regularly for some time, but never seemed to be unconscious; also that he had transacted all his business correctly, and left the hotel to take the train home Saturday morning, when suddenly he went over to the steamer, bought a ticket for Europe under an assumed name. He went to bed and drank large quantities of spirits, but did not seem to be intoxicated. He came back on the next steamer, and could not recall the slightest circumstance or event of this trance state. This man had an inebriate ancestry, and was a moderate and only occasionally an excessive drinker.

REPORT OF INVESTIGATING COMMITTEE ON DEATHS FROM INTEMPERANCE.

The committee of the British Medical Association have recently published a report giving the results of an inquiry into the connection of disease with habits of intemperance. Printed inquiries were sent out, and two hundred and fifty answers were returned, giving the statistics of four thousand two hundred and thirty-four cases of deaths. These cases were divided into classes, then studied to ascertain the occupation, ages at deaths, causes of death, prevalence of gout,

renal disease, phthisis, and other maladies. The following are some of the leading conclusions:

1. That habitual indulgence in spirits beyond a moderate amount has a distinct tendency to shorten life.
2. That men who have passed the age of twenty-five temperate live at least ten years longer than those who are intemperate.
3. That alcoholic excess more often produces cirrhosis and gout than other diseases. Beyond these diseases, its tendency is to general pathological changes.
4. That alcohol excess does not especially lead to the development of malignant disease or to tubercle, but rather tends to check and retard these diseases.
5. That apoplexy is not especially induced by such excess, nor the mortality of pneumonia or typhoid fever increased.

These barren conclusions point to the error of classification. The attempt to divide all persons who use spirits into habitually temperate, careless drinkers, free drinkers, and decidedly intemperate is to invite confusion and make it impossible to secure accuracy among reporters.

The care and thoroughness with which these returns are studied should yield better results for the labor; but the purpose of the investigation must be distinct and narrowed to a few lines of inquiry. The many questions which arise from the excessive use of alcohol cannot be answered from the vague notes of physicians whose knowledge is more or less uncertain on this topic. The sources of error are so numerous that the results of this study are practically worthless, but as an effort along the lines of exact inquiry, it is the certain promise of great advance in the future. This report occupies eleven pages in the *British Medical Journal*, and indicates clearly that alcohol and the injuries which follow from its use or abuse have become medical topics. The great realm of inquiry, theory, and speculation concerning alcohol is occupied at last by the true explorer.

This report in the journal is followed by a paper on

"The Relation of Alcoholism to Inebriety," by Dr. Kerr, of London. This very suggestive outline paper and the report was discussed in a frank, admirable spirit.

INEBRIETY IN EUROPE.

Recently, a feeling of alarm has been manifest all over Europe at the rapid increased consumption of alcohol and an increase of the injuries which follow from it. Several countries have been making statistical inquiries, and many very suggestive papers have been read at medical meetings and congresses on this topic.

At the Hygienic Congress at Vienna this topic was a most important one. Among the causes upon which there was a general agreement of opinion was the low price of spirits, the excessive number of places for their sale, the poor condition, intellectually and physically, of the lower classes. The remedy suggested at Vienna was high license, stringent control of the dealers, and depriving the inebriates of liberty in asylums for that purpose. Also to provide coffee and tea houses for the safe resort of the lower classes.

In Switzerland, where the government took control of the sale of spirits, the quantity consumed was reduced from 33 to 27. In Vienna, the increase of brandy and beer from 1860 to 1885 was from 40 to 70 of beer, and from 65 to 86 of brandy. This was far beyond the increase of population. In Hungary and Austria the physical disability from alcohol in conscripts rose, from 1875 to 1885, from 38 to 56. The number of insane from alcohol in asylums, from 1884 to 1886, rose from 20 to 31.

Equally startling statistics were given of the increase of consumption and production of spirits in all the European countries. In Belgium, one dram-shop existed for every 44 people. In Geneva, one for every 70. In Berlin, one for every 160. In Holland, the number of dram-shops are limited by law to one for not less than every 500 people.

Sweden and Norway have been notorious for a long time

for the excessive production and use of spirits. Recently, from the operation of more stringent laws and the force of a higher public sentiment, the consumption of brandy in Norway has dropped from 16 to 3, and in Sweden from 54 to 8. Everywhere more stringent laws regulating the sale of spirits have produced the best results.

A summary of the views which have been urged and accepted by most authorities, with other facts, are condensed in the *Pacific Record of Medicine and Surgery*, as follows:

1. The injuries caused by the excessive use of alcohol are more or less present in all civilized countries. Its effects are traceable, especially in infirmaries, insane asylums, prisons, work and pauper-houses.

2. The causes of this great evil should be established by investigation.

3. Private action may promote this object and aid in its treatment by total abstinence societies, excluding all spirits and providing harmless substitutes, improving the homes, food, and conditions of the poor, and by asylums for their medical treatment.

4. The state should cooperate by strict license laws and regulation of the manufacture and sale, and by enforced confinement in special public asylums for the special treatment.

5. All alcoholists who are treated in public infirmaries and asylums should be discharged on parole, and be returned if they relapse, or should remain a long time in some special department or place where they could grow strong and have physical power of resistance.

It is evident from these statements that inebriety is awakening much interest, and its scientific study is increasing rapidly in all directions.

Dr. T. D. Crothers gave a course of lectures on "The Causation and Treatment of Inebriety" before the students of the University of Vermont, at Burlington, in June.

SIN OR DISEASE.

John B—— came from a neurotic and feeble-minded family. His mother died in his infancy from consumption, and his father was a moderate drinker and a man of uncertain reputation. During early life John B—— was greatly praised for oratorical ability, and was educated for the legal profession. He served three years in the late war, suffered from great hardships and concussion of the brain, for which he was confined to the hospital for six months. He came out of the army, and began to use opium. Four years after, he was taking sixty grains a day. He then abandoned opium, and became an irregular inebriate, using spirits at intervals to great excess. He had the usual delusions of persecutions and capacity to abstain at will. He also manifested great pleasure in theorizing on the causes and treatment of his own case, always adopting the views of those he came in contact with, and posing himself as an example and illustration. In church and in company of clergymen he professed to be changed by prayer and conversion, and illustrated their views of treatment in a startling way. In the police court and in jail he asserted the value of punishment in these cases and its benefit to him. When sent to an insane asylum he demonstrated that inebriates were always sane and conscious of what they were doing, and could control themselves any time if they chose to. He was at last placed in an inebriate asylum, and endorsed the view of disease, and boasted of his irresponsibility, begging of his friends in the most pathetic way to permit him to stay long enough to recover. He claimed he was sick and could not control himself, and must have help. Later, he grew angry and ran away, and finally was returned to the insane asylum. Here he was the central subject of a medical clinic, where the idea was prominent that the inebriate was not sick or diseased, but vicious. He claimed that he had deceived his friends and the managers of the inebriate asylum, and had worked on their sympathies for his good. Later, he died from acute pneumonia.

This was not only an inebriate, but a reasoning maniac, who, after the paroxysm of drink subsided, displayed an insane cunning to take advantage of every circumstance which would make a hero of him and appeal to his self-esteem. For years he was an object of great interest, and furnished the text and illustration of two long papers, criticising and condemning inebriate asylums and those who supposed such cases were diseased. He was under the care of the late Dr. Gray, of Utica, and was discharged as not insane. He was a shining example at Mr. Moody's meetings, and at a large gathering in New York signed the pledge, and thrilled the audience with the story of his restoration. During the drink periods he was heavy, stupid, and obstinate. When he recovered, his mind became very active to create sympathy in himself and rouse up inquiry. He was a literal maniac, only it was covered up and made to bend to circumstances. Any careful study would have made this clear. A noted physician of England reported his statement, as evidence against the disease of inebriety, and this has gone into medical literature. From such evidence and the failure to study these cases have sprung up the most erroneous notions of the inebriate and his malady. This case is a type of others, who are constantly misleading superficial observers, and are, beyond all doubt, insane inebriates. The drink paroxysm seems to be an outlet, which prevented insanity from developing beyond a certain point, but permitted a full play of all the moral degenerations and symptoms of changed character, conduct, and disposition. A field of most suggestive facts await discovery along this line.

DRS. MAIRET and Combemal presented some experiments on the hereditary influence of alcohol before the Academy of Sciences of Paris. A previously healthy dog was made a chronic alcoholic, and gave birth to twelve puppies. Two were still-born, three died accidentally, and the remaining seven all died of epileptic attacks, enteritis, pulmonary and

peritoneal tuberculosis. The lesions found at the *post mortem* were thickening of the bones, fatty degeneration of the liver, adhesion of the dura mater, and other marked alcoholic degenerations. A strong dog was kept intoxicated on absinthe the last three weeks of gestation. Six puppies were born. Three died at birth, two were of defective intelligence; one grew up of defective intelligence and nervous organization, and was coupled with a strong dog. Of the three puppies born of this union, one died of marasmus, the other two were congenitally defective in bodies, having atrophy of the hind legs. One of the conclusions drawn was that the degeneration from alcohol was more prominent in the second generation than the first; also, that alcohol used by the mother always produced defective offspring.

THE Supreme Court of Montana appears to entertain rather liberal views as to what constitutes proper and improper conduct on the part of jurors. In a murder case which recently came before that tribunal, one of the questions presented was whether the court should not have granted a new trial because some of the jurors drank spirituous liquors while they had the case under consideration. In passing upon this question, the court says: "We cannot agree with the doctrine announced in certain cases in Kansas, Iowa, and Arkansas, that the verdict rendered by a drunken jury, or a jury, one or more of whose members were, during the trial, intoxicated, should not be in any case allowed to stand." In the Montana case, it appeared that while the jury were in charge of the bailiff they visited a hotel for the purpose of taking their meals, and some of them drank at the hotel bar at their own expense. They took only one drink each, and no resulting intoxication was shown. The court held, that inasmuch as it did not appear that the cause of the defendant was in any manner prejudiced by this indulgence in spirituous liquors, a new trial was refused.

Dr. Charles McCarty, the superintendent of the Melbourne Asylum and honorary member of our association, is one of the oldest active superintendents of an inebriate asylum in the world. He was born in 1814, and founded the Northcote Retreat in 1873, and has been in charge from that time. Our journal has published several of his papers, and our association takes pleasure in calling attention to his vigorous scientific writings, which have already attracted much attention.

Two centuries ago the truthfulness and reality of witchcraft were sustained by overwhelming human testimony. To-day the vice of inebriety is sustained by a mass of evidence, that to many persons seems beyond question. On human beliefs and human testimony these supposed facts have been based. One has disappeared in the past as a great delusion. The other is rapidly receding before the march of scientific study.

"History of the New York State Inebriate Asylum, at Binghamton, N. Y.," by its founder. A few copies of this work, which contains five hundred pages, have been left at this office for sale, and will be sent to any address, post paid, on receipt of three dollars.

Drs. Wright and Crothers read papers on inebriety at the American Medical Association meeting at Cincinnati, in May last. Dr. Wright's paper was on the "Medical Jurisprudence of Inebriety." Dr. Crothers' paper was on "Alcoholic Automatism."

At the International Congress on Anthropology, held in New York city in June last, Dr. Kerr of London read a paper on "Hereditary Inebriety." Dr. Mann, the president, read a paper on "The Action of Alcohol on the Mental Faculties."

Dr. Fite's paper on "Prohibition, from a Medico-Legal Standpoint," published in this number, appeared first in the *Southern Practitioner*, a medical journal that leads the profession along the very front lines of science, no matter who follows.

The *Electrical Engineer* of New York, comes monthly, with a new history of the great march of electrical forces into the service of civilization and development. Send for a year's subscription to No. 11 Wall street, New York city.

Clinical Notes and Comments.

HISTORICAL SKETCH OF THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.

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

No. 2.

DEAR DR. CROTHERS,—The names of the persons who assembled at the first meeting of the Association should not be omitted from the history, and hence I begin letter No. 2, by naming them in the order in which they appear on the record, as follows:—Willard Parker, M.D., president, and D. G. Dodge, M.D., superintendent of the New York State Inebriate Asylum at Binghamton. Hon. J. S. T. Stranahan, president, T. L. Mason, M.D., Consulting physician, L. P. Mason, M.D., attending physician, J. Bennett, M.D., Brooklyn, director, and Rev. J. Willit, superintendent of Inebriates Home of Kings County, N. Y.; W. C. Lawrence, superintendent, Daniel Allen, R. K. Potter, Theodore Prentice, directors of Washingtonian Home, Boston, Mass.; P. J. Wardner, superintendent of Washingtonian Home, Chicago, Ill.; Albert Day, M.D., superintendent of Greenwood Institute, Mass.; Joseph Parrish, M.D., president of Pennsylvania Sanitarium, Media, Pa.; C. L. Ives, M.D., professor of Theory and Practice of Medicine, Yale College; Alonzo Calkins, M.D., author of a book entitled "Opium and Opium Habit."

JOSEPH PARRISH,

Secretary.

I shall present a brief analysis of the remarks made at this initial meeting on the several topics that were presented. In the opening remarks of Dr. Parker, he said that in the beginning of the present century "insanity was regarded as a visitation of God's displeasure, and not a disease," but to-day, we know that eighty per cent. of cases of *acute*

insanity treated are restored to health and usefulness. As insanity was regarded seventy years ago, so inebriety is regarded now. Alcohol is a poison as certainly as arsenic, corrosive sublimate, and prussic acid are poisons; and is capable of destroying life, and yet in small doses it acts as a stimulant and tonic. In larger doses it acts as an irritant poison and induces disease. Can the disease be cured? Inebriety can be cured. Our duty is to inquire into the best modes of dealing with it. What legislation, if any, is to be had? We must also impart scientific truth and enlighten the mind of the public, inducing it to move in its power, and demand protection against this disease.

Dr. T. L. Mason thought one great object of this meeting was to consider the question, "What can be done to procure legislation that shall recognize inebriety as a disease," as it does insanity, and make provision accordingly.

Mr. Stranahan arose to urge that intemperance should be announced to be a disease, that this fact being admitted, the next question should be, what can be done to cure and prevent it; by individuals, by law, and by common sentiment of the people; all of which should be declared by this body.

Mr. Willit referred to the King's County Home, which was conducted without written rules; and though some of the inmates belong to what are known as the "dangerous class," he had no difficulty in controlling them without bar or locks.

Mr. Allen had the same views about restraint and made an earnest appeal in favor of personal influence upon the inebriate. If he can be made to realize that efforts were for his own good, and not for mere punishment, he would be benefited.

Mr. Prentice said that in Massachusetts the people had already been educated up to the fact that intemperance was a disease; that it was so acknowledged in the courts, and inebriates were not treated as criminals.

Doctors Wardner, Day, T. L. Mason, and J. W. Willit, spoke again of legal punishment as demoralizing.

An interesting discussion ensued upon the treatment of men and women patients in the same building. Dr. Day reported having two ladies with seventeen gentlemen in his home, who eat at the same table, and participated in social amenities.

Mr. Willit spoke of the subject as one of great importance and gave his experience at the Kings County Home, where both sexes are cared for under the same roof with satisfactory results.

The general opinion, however, seems to be adverse to the practice of treating the sexes under the same roof, except in private institutions with very few patients.

Dr. Parrish called attention to the practice of some of the homes of holding "experience meetings," in which inebriates are in the habit of relating in each other's presence, and in the presence of invited guests, their experiences. He had heard them tell of their debasement, of their cruelty to wives and children, of their arrests by police, and their prison life, and had been unfavorably impressed by such displays. With his own patients he had discouraged such allusions, even in ordinary conversation. He feared the tendency of such practice was to create caricature and merriment. He preferred that they should forget the past, and look forward to a better life. He had known earnest and sincere temperance advocates to caricature inebriates before public audiences, and to make stories and jokes out of their misfortunes. He felt sure that public sentiment was sometimes influenced by such displays to look upon inebriates with disgust and contempt, and he hoped the influence of this association would be against such performances.

Dr. Day's experience in his own home led him to favor such practices, and it had become an established part of the discipline and treatment of the institution.

At Binghamton it had never been adopted. Mr. Lawrence found it to work well. He believed that where the institutions were located in cities, and the old inmates who remained steadfast came to the meetings, told of their strug-

gles and their triumphs, the tendency was to strengthen the hearts of the weaker ones. Neither he nor Dr. Day discovered anything like merriment or caricature, though they believe that earnest appeals of the inmates to each other based upon experience were useful.

Dr. Wardner called attention to the influence of a uniform system of statistics, and a resolution offered by him passed calling upon all superintendents of asylums and homes to keep a table of facts to be gathered from his patients covering their history and conditions upon entering into, and discharge from institutions, and as far as possible follow them up by correspondence and otherwise after discharge.

The subject was considered at some length,—how inmates of institutions should be employed, etc. The directors of the Chicago Home have had the subject under discussion, but were at loss to know how to proceed, and were waiting the action of this meeting.

Mr. Willit reported, that at the home on Long Island there were several means for mechanical occupation, including a printing-press. He said that labor of some kind could be required of inmates of the dependent class, but the difficulty was with those who paid for their treatment, and especially those who had never been used to manual work.

Mr. Prentice said that in Boston he had received persons from the city who were inebriated at the time, got them sobered and fit to resume their avocations, when he allowed them to continue their work, while they boarded at the home, so that they were enabled to pay their board from their earnings, and returning every evening to lodge. They were kept under supervision, which served as a protection to them. This plan could only be effected with persons who could find employment near to the institution.

Dr. Parrish thought that for other classes of patients there might be a system of mental training that would be pleasing, as well as valuable, in cultivating the judgment and

strengthening the mind, and he hoped that something would be evolved from our experience that would meet and satisfy the want.

One of the most important and deeply interesting topics that claimed the attention of the meeting was introduced by Dr. T. L. Mason, in the form of resolutions, which I give in full :

Resolved, That the question of the cure of inebriates is one which depends largely upon the sentiment and practice of the community.

Resolved, That when inmates of inebriate asylums leave the care of such asylums, it is the duty of their families, of the church, and of the people at large to receive them without reproaches for their past lives, and give them encouragement and protection.

They were fully discussed, and a number of instances related of men who had left institutions with great promise of usefulness, but, for want of a reception from family and friends that was in accord with their temperament and need, had become discouraged and relapsed. Reference is made to this feature of the case in the address of inebriates, which will be noticed hereafter.

Dr. Parrish called attention to a very common statement made by temperance advocates, which he thought contained an error, and he wished to have an expression of opinion from his associates. It is, that alcohol taken in any quantity is a poison. From the rostrum and from the pulpit it is declared that "a person who takes a teaspoonful of an alcoholic drink is a teaspoonful drunk," etc. And the doctor further said, that while he believed in the toxic quality and effect of alcohol, he also believed that it was useful as a medicine, and he thought that such unguarded statements were misleading. He had tried alcohol in cases of great prostration, and believed that it did enter into the process of reparation in some way that he was not prepared to explain. One patient, while confined to his bed, had taken a pint of alcohol per day, for three consecutive days, with no nourishment other than a very small allowance of tea and soft toast. During this time, his physician had failed to discover any trace of alcohol in the exhalations or dejections, and he was

quite confident that the alcohol contributed to his support, and was an important factor in his recovery. The speaker believed that the fusel oil that was found in whisky did a great deal of injury — perhaps more than the alcohol. He had recently obtained a quantity of fusel oil, with which, in combination with water and a few aromatics and glycerine, he manufactured a whisky which an expert could hardly distinguish from the genuine article, though it did not contain a single drop of alcohol other than might be found as a solvent for the other articles.

Dr. Calkins considered this a very remarkable scientific experiment, and hoped it might be published in some permanent form. Dr. Calkins cited the example of a boat-load of wrecked seamen, one of whom used opium in small quantities as an antidote for hunger and thirst, and after several days' tossing about on the ocean, he was the only one able to stand on his feet. He argued that any poison may be taken in limited quantities with positively good effects in certain conditions.

Dr. T. L. Mason was quite prepared to endorse the sentiment, that in some conditions of the system alcohol acted safely and beneficially.

Dr. Dodge did not believe that alcohol in small doses acted as a poison, but that these small doses, frequently repeated, might awaken desires that were characteristic of the alcohol appetite.

Dr. Willard Parker said that opium, arsenic, or any other poison, taken in certain conditions and quantities is healthful and proper, but, beyond that, acted as a poison. He believed it was the same with alcohol. It was good for the stomach in certain disordered conditions, but not good for the head. The discussion was animated and in the best of spirit, and there were no objections to the views as above expressed.

How to bring the proceedings of the society before the public was an important subject, that claimed the attention of the closing hour of the session, and the following minutes were agreed upon as the unanimous vote of the meeting.

Dr. T. L. Mason moved that the secretary be authorized to arrange the minutes and prepare for publication in pamphlet form, and that five thousand copies be published, the expenses to be borne by the different institutions represented. The secretary was also authorized to state that the association holds itself responsible only for the declaration of principles, resolutions, and motions agreed to and reported upon its minutes.

The first edition of five thousand copies of a volume of eighty-four pages was distributed *pro rata* to the different institutions, and from these, were again circulated among the leading citizens and public libraries in their respective States or districts.

The daily newspapers took up the proceedings as narrated, and the dogma of disease was barely referred to, except favorably. The temperance and religious weeklies, however, assailed the doctrine with zeal, and a remarkable feature of their opposition was sometimes displayed in language which was not born of the dignity and fairness which should characterize such publications. The writer of this sketch was denounced by name in some instances, and made to rank with the enemies of temperance. They were ignorant then, but have learned better now.

NEED OF STUDY.

In an address before the section of medical jurisprudence of the American Medical Association, Dr. Quimby, the chairman, remarked as follows :

“ Let this numerous and representative body of medical men, in whose hands are the issues of life and death, and who have so often in times past sounded the alarm of impending danger, rise to the importance of the danger by sounding the alarm against this Goliath of crime. Let the medical profession in its national capacity issue a new proclamation and, if necessary, put new sentinels upon the watch towers to

warn the people of the rapid and perceptible inroads that alcoholic beverages are making upon the human race.

Let the medical profession proclaim the fact that modern science and the latest investigation have sufficiently proven that alcohol destroys the *natural forces of the body*; that it *retards* and *prevents* the *development of the nervous system*, which effect is even extended to the *unborn infant*; that it perverts and deteriorates the red corpuscles of the blood, that it is not a preserver or conservator of *mental* or *physical* powers; that it does not and can not, *per se*, form true natural tissue or good blood. At the rate drunkenness is increasing in civilized communities, it is estimated by good authorities that in a little over one hundred years the Caucasian race will degenerate to the level of the Mongolian, and become subject to all kinds of immoral practices. In proof of this, I may cite the "result of the anthropometric examination of fifty habitual prostitutes, who had been inmates of brothels for not less than two years, reported by Dr. Tarnovskaia at at the first congress of Russian alienists at Moscow." For the sake of comparison the doctor examined in the same way fifty peasant women of the same age and as far as possible of the same intellectual development, etc.

"The result of this unique investigation may be summed up as follows :

"1. The prostitutes presented a shortening, amounting to half a centimetre, of the anterior, posterior, and transverse diameter of the skull.

"2. As many as 84 per cent. of the habitual prostitutes showed various signs of physical degeneration, such as irregularity in the shape of the skull, a symmetry of the face, anomalies of the hard palate, teeth, ears, etc.

"3. In 82 per cent. of the prostitutes the parents were habitual drunkards.

"Can any physician, can any thoughtful person, after reading this appalling statement of facts, close his eyes to the true *modus operandi* of alcoholic stimulants, or deny its *deteriorating* and *destructive influence* upon the *human system*?

“Formerly the medical profession, through lack of experimental and practical knowledge of physiology and chemistry, but little understood the action of alcohol upon the human system, and therefore they *recklessly* and *indiscriminately* prescribed alcohol to their patients in season and out of season, which has resulted in inculcating much of the habit of inebriety among the people.

“Hence the medical profession should be *first* to voice the results of the modern investigations which point unmistakably to the destructive action of alcohol upon all the tissues of the body, and especially upon the nervous tissue. And the sooner professional, personal, and public effort is exercised in exposing its nakedness and its destructiveness, and making it odious and punishable, instead of apologizing for it and making it excusable, either in the manufacturer, seller, or the drinker, the better for society and for the human race.”

AN URGENT DEMAND.

Advice is asked in a daily paper where to place fifty thousand dollars to be the greatest charity. Dr. Waugh, editor of the *Medical Times*, answers this as follows: After mentioning the inebriate as an object of the greatest pity, he writes:

“There is no place or retreat for him; the House of Correction alone affords a place of detention. Here he is herded with tramps, petty thieves, and criminals of the most contemptible classes. It is a matter of common observation that a man confined in the House of Correction for drunkenness comes out far worse than he went in. The association with criminals is not so bad as the palpable fall from the plane of respectability, which sweeps away one of the strongest barriers to unbridled indulgence.

“For the inebriate, then, we may say, without fear of contradiction, that no adequate means of treatment have as yet been devised. The State provides for her deaf-mutes, her blind, her idiots, and her insane. There are jails for the

wicked, hospitals for the sick, alms-houses for the poor, but no suitable place for the drunkard, though the need is great. It is unnecessary to demonstrate the value such an institution would possess were it conducted upon the proper plan. The legal difficulties, the erection of safeguards about the personal liberty of the citizen, are not more complex than those pertaining to mad-houses.

“Such an institution should be in the country, away from the temptations and from the excitement of a great city. Country life and rural pursuits are best suited to these cases. It should emphatically be a work-house, where the inmates must earn their bread before they eat it, and, if possible, should contribute to the support of their families at the same time. The chief of the establishment must be a physician, and every inmate should be looked upon as a case of disease, to be treated and managed as any other nervous affection would be, with reference to its cure. There would be no lack of suitable patients for such a hospital; and if its success were demonstrated, the State could easily be induced to follow up the experiment. Thus, the good effects would far exceed those directly due to the sum originally expended. There are many tracts of wild land in the mountainous parts of Pennsylvania or of West Virginia which could be purchased for a trifle, and where the necessary seclusion could be secured.”

ABSORPTION OF ALCOHOL.

Mesnets, as quoted by Taurdat, in *La Temperance*, reports the case of a wine merchant, who was intoxicated every night from the fumes or vapors of brandy, which came up into his bedroom. He drank no spirits at any time, and was abstinent, but slept over his wine-cellar, which ventilated through his room. Every night after returning he was intoxicated and stupid. He died from alcoholic paralysis. During life he seemed pleased with the effects of spirits at night, and would not change his room, although warned by the physician.

Dr. Thorn of London, reports a case of a man and wife who both had delirium tremens, although they rarely used spirits, and then in very small quantities. They kept a gin saloon, and slept over the bar, being constantly exposed to the fumes of spirits night and day. Both died from the effects of chronic alcoholism, which was absorbed by the lungs. Dr. Scott of Edinburgh, reports the case of a strong, healthy man from the country, who was employed in a wine store and slept near the casks, rarely going out, spending most of the time in the vaults. He was intoxicated and stupid, and remained in this condition until taken to the hospital, where he died a few months later a chronic alcoholic, the alcohol coming entirely from absorption.

This fact is sustained by a great variety of proof, and shows that alcohol can be absorbed in toxic quantities by the lungs. Also that inebriety can come from persons who never drink, but who live in an atmosphere of alcoholic vapors, where it is taken up by the lungs.

FURFURAL.

M. Bacchi read a paper before the French Academy of Medicine on this alcoholic compound. He thinks it the special dangerous element of alcohol from grains. It is obtained from oats, rye, and barley, and is a colorless liquid, changing to a brown color under the influence of the air. The odor is that of the oil of cinnamon or bitter almonds. When administered to animals a rapid toxicity, of a tetanic or epileptic type, comes on. The respiration is soon arrested and paralyzed.

He believes that in cases where strange convulsive actions follow the use of old spirits, this furfural may be present. In Ireland and Scotland, the frequency of convulsive symptoms among inebriates suggests the same cause, and especially as they are found to use spirits from grains. The strange, unknown symptoms which appear in inebriates may be due to this adulteration of spirits, or rather the

attempt to improve their flavor, and bought regardless of the chemical compounds produced and their physiological effects.

REPORT ON INEBRIATE ASYLUMS.

A committee of the corporation of the City of Toronto, have lately made an elaborate report urging the city to establish an asylum for inebriates, from which we extract the following :

“Your committee have spared no pains and neglected no opportunity to gain as full and wide a knowledge of the whole subject as is possible—from a medical, social, economic, and philanthropic point of view ; and the research in which it has been engaged has resulted in the following conclusions :

“1st. That confirmed inebriety exists in our midst to an alarming extent.

“2d. That the varied labors of philanthropists and the means used by them to lessen inebriety or reform the inebriate have proved inadequate to the end sought.

“3d. That the legal methods usually employed, and the attempts made to cure inebriety by fines and imprisonments have not only proved a complete failure, but are universally acknowledged to be irrational, unwise, and unchristian, as it is evident that the punishment of an inebriate by placing him among criminals in bad physical and worse mental surroundings, in which nothing but alcohol is withdrawn, removes him farther from hope of recovery and precipitates him lower in the scale of humanity.

“There can be no longer any doubt that the present system assists the unfortunate inebriate on the downward gradient until he becomes irretrievably sunk in the lowest depths of social degradation, a pest to society, and a costly burden upon the country. The same amount of money necessarily expended in producing the above results could be employed in making an intelligent effort to permanently cure the poor victim by a course of scientific and medical

treatment, which experience has shown may be successful in a very large percentage of the cases.

"4th. It has been proved on the best authority and by statistics that inebriety, directly and indirectly, is the cause of more than fifty per cent. of all the diseases, premature deaths, insanity, and idiocy, as well as of the crime and pauperism of this country, consequently causing a continuous gravitation to our hospitals, asylums, and prisons, and imposing a corresponding burden of taxation upon the people, and it is safe to assert that had the same unfortunate victims in the earlier stages of their course been placed in an institution with the best sanitary surroundings, intelligent watchfulness, firm but kindly supervision, under skillful medical treatment, and above all, under those Christian influences which alone are capable of lifting weak humanity above itself, elevating it to a higher level and renewing and exalting its whole nature, a large number at least would have been arrested in their downward course and restored to their family circle, fitted for the ordinary duties of life, and to become useful members of society.

"5th. The statistics of our police courts and our goal reports abundantly prove that a very large proportion of the whole number of cases brought before them are charged with the crime of drunkenness and condemned to confinement. From the reports of the inspector of prisons for 1886 we find that out of 3,200 commitments for all causes, in the City of Toronto alone, 1,705 were for drunkenness, or more than fifty per cent., and nearly fifty per cent. of the commitments for drunkenness in the Province; many of those were committed over and over again.

"6th. That in a large number of cases inebriety ceases to be a vice and becomes a disease as unmistakably such as any other disease, and which is usually described as a form of insanity, or having a close affinity to it, requiring for individual and social interests a course of physical, mental, and moral treatment under personal control which can only be accomplished in an asylum set apart for that purpose, where

the patient is under constant watchfulness and medical care. The superintendent is able to make a special study of each case in its peculiar phase, symptoms, and history, which is indispensable to successful treatment, and which could not be attained elsewhere.

"7th. That the experience of other countries, especially the United States, where inebriate asylums have been in existence for a number of years past, yields abundant proof that inebriety in its chronic form can be cured as effectually and as permanently, in the same ratio, as any other disease, and that this can be accomplished without involving serious outlay. In fact, this mode of treating the inebriate is, in the end, an actual saving in dollars and cents to the city and province. This can be shown by the comparison of the cost of arrest, trial, and support in goal of the unfortunate victim, and that which is incurred in the process of permanently curing. These facts, coupled with the knowledge of the immense advantages, both temporal and spiritual, it must bring to the unfortunate habitual drunkards and their families, ought to stir up the most lethargic community to take prompt action in establishing an institution for the treatment and cure of this dreadful disease. In addition to this it might be stated that experience has shown that wherever inebriate asylums have been established they are largely if not wholly self-supporting, partly from the surplus from paying patients and partly from work done and wages earned by non-paying inmates.

"8th. It must be admitted that under the present system the objects and purposes of the law are defeated, and a class of inebriates is raised up that is a perpetual menace to all law and order, involving in the process a monstrous waste of public money without one compensating circumstance in return.

"Your committee therefore beg to report that in its opinion it is within the province as well as the bounden duty of municipal and legislative bodies to endeavor to remedy and ameliorate such evils, and the advisability and necessity

of establishing a home or retreat for the cure and treatment of confirmed inebriates being so evident, recommend that active and immediate steps be taken to secure suitable premises in a central position, equip and furnish them with all requisite means and appliances necessary for the successful treatment of dipsomania."

ANTAGONISM OF COCAINE AND CHLORAL.

According to Mosso's observations cocaine has a stimulating effect on the psychic and motor nerve center, increases the rapidity of breathing, quickens the heart action, and increases chemical change going on in the tissues. Its action on nerve centers is such as to render it, in his opinion, "the best of known stimulants." In this respect it stands in full antagonism to chloral, which depresses the functional activity of these centers. An animal deeply narcotized by a fatal dose of chloral can be roused in a few minutes by the injection of a small dose of cocaine. Only in one particular does this antagonistic action fail, viz.: in regard to temperature. Chloral, as it is known, tends to lower the body temperature, whereas cocaine on the other hand tends to raise it, sometimes as much as 4° C. in the course of half an hour. Nevertheless after poisoning by chloral, this effect of cocaine is not seen. Otherwise the antagonism between the two drugs is of a very complete nature, large fatal doses of chloral being readily borne after the previous administration of a small dose of cocaine. It would always be desirable, however, in cases of chloral poisoning to perform artificial respiration for a short time after the administration of cocaine, since, although it is ultimately a stimulant, the first effect of the action of the drug may be rather depressing on the respiratory function. Cocaine is also antagonistic in its action to ether and chloroform. The convulsive seizures induced by the action of poisonous doses of cocaine can be at once allayed by the inhalation of either of these agents. In cases of cocaine poisoning in man he therefore recommends that ether or chlo-

roform should be administered to allay the first and severer symptoms, chloral being afterwards given in small doses to keep up the effect. Conversely, in cases of poisoning by chloral, opium, and other narcotic agents, causing great depression, especially of the respiratory and cardiac centers, cocaine should be similarly employed. As a therapeutic agent, cocaine is well qualified entirely to replace strychnine, possessing as it does all the therapeutic activity without any of the marked poisonous qualities of the latter drug.—*Arch. f. exp. Pathol. u Pharmak.*

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ALCOHOLIC PARALYSIS : OBSCURE HYSTERIA.

(From Professor Charcot's Clinic.)

The diagnosis of alcoholic paralysis is especially difficult from the fact that patients generally make every effort to conceal its origin : and this is peculiarly the case with women, who are precisely the individuals most often attacked by it.

Alcoholic paralysis is usually a paraplegia, though the arms are often involved. Paralysis first affects movement : the extensor muscles are the earliest attacked. As a result we have peculiar appearances caused by the flaccidity of the lower members and a dragging of the feet. The same is true of the hands, though in a lesser degree, and this attitude is entirely analogous to that of saturnine paralysis ; but in alcoholic paralysis the hands and feet are attacked simultaneously and the flacid effects of the malady are always more marked in the latter.

Another sign of these paraplegias is that they are painful. The pain is manifested on pressure, and this is to be especially noted, there being no other form of paraplegia in which this sign is observed as arising from the same cause. It may serve of itself to point out the direction in which to look for a diagnosis. In one case the slight pressure necessary to move a paraplegic patient in bed caused acute pain ; this sign, joined to the "foot-drop," led to close investigation as to the alcoholic cause — a fact which was soon substantiated. In locomotor ataxia even, in which the pains are often violent, the pain on pressure is not present except there be hyperesthesia of the skin ; even then it is seen that the localization is entirely different, for in alcoholism it is the pressure of the muscles and tendons which determines the pain, and not pressure upon the cutaneous surface.

Pain in this form of paraplegia shows itself spontaneously, especially at night — and diminishes during the day. Patients feel a sensation of heat, sometimes of burning, in the extremities. But there also may be shooting pains

which would render differentiation from ataxia very difficult.

Certain troubles of sensibility are also observable; at first these are manifested by more or less retardation in the transmission of sensations, and afterward by anæsthesia to cold or to pain. The rotulian reflex is wanting, which constitutes another similarity to ataxia. But alcoholic paralysis is accompanied by rapid muscular atrophy with diminution of volume, and even degenerative reaction — symptoms which are not observed in tabes.

Finally, trophic and vaso-motor troubles are very marked in alcoholic paralysis; the skin is warm and shining and of a violet color; there is also some peri-malleolar œdema — an aspect very different from that observed in ataxia. Again, tendonous retractions are easily induced; this is an important point because there comes a time when — in order to effect a cure of alcoholic paralysis — it is necessary to divide the tendons thus attacked.

Such are the principal signs of alcoholic paralysis, whose etiology is almost always misunderstood. When not of too long standing it may be cured easily enough, even when there are trophic troubles due to peripheric neuritis. The main difficulty, of course, is to get the patients to renounce their drinking habits.

Obscure Hysteria. This boy (æt. 14) presents symptoms of an hysterical nature which are almost always unrecognized because of the singular form in which they appear. Of well-developed intelligence, this child does not seem to have had nervous antecedents as far as his family is concerned; nor does his own past life present any salient points. Cryptorchidism is not present, a fact which should always be verified, because this condition is sometimes an originator of certain nervous symptoms. He was continuing to develop — after convalescence from a somewhat long attack of post-rubeolic bronchitis — when he was seized one morning with a sort of suffocation accompanied by violent constriction of the throat. This symptom soon passed off, but reappeared three times in

eight days and at the same hour (4 A. M.). Soon afterward the symptom was repeated oftener — sometimes three times a day — and was accompanied by convulsive phenomena during which the body assumed the position of the arc of a circle. Well, when the latter sign appeared there was a certainty that the phenomena belonged to the hysteric order.

The important point in this case is, that the attacks were followed by a sort of somnambulism during which the child's actions were very whimsical. But there are cases of hysteria in which the hysteric element is manifested in none of the phenomena of the attack, and in which the phenomena of the final period exist only by themselves. The child would, in this period, suddenly change expression and strike or insult persons around him toward whom, an instant before, he had shown his usual politeness. This state would continue for three-quarters of an hour or longer, after which the patient returned to his normal condition. These phenomena will sometimes be thus continued during two or three months, reappearing every three or four days.

When we study attentively the form of attack we observe that it begins with sobbing, after which the physiognomy undergoes complete transformation. From the time of this appearance the patient is suffering from acute mania with hallucinations of short duration. During this period the patient is to a certain degree controllable and replies to questions. When he returns to consciousness we find that he has no remembrance of what has passed. This particular patient imagines he is in a gymnasium and seizes the objects before him supposing them to be gymnastic apparatus. At other times he thinks he is drinking wine instead of water; or thinks that daylight is present although the lamp is lighted. In talking with him during this period we find that his mind is clear enough; he is able to avoid accidents, and make his way in the streets. But he has no memory of an attack which has terminated.

These phenomena may be compared to those we observe in epileptic vertigo. Nevertheless there are great differences,

and the prognosis is different, for the condition we describe may be quickly modified — especially if we practice isolation. Although there is no question here of simulation, we find that in these cases — as in all of those dependent upon hysteria — the removal of family influence, and the use of treatment directed by a stranger are liable to have considerable influence upon cure.

A final point is, that the time of the appearance of the attacks is in this case exceptional, for it is a general rule that hysterical crises occur oftenest at night, while those of an epileptic character takes place generally in the morning.

Briefly, this is a hysterical case with crises of a peculiar form followed by a particular condition which may be compared to somnambulism, but must not be confounded with it. The diagnosis here is relatively easy because there is present the rough outline of an hysterical attack. But we must bear in mind that the condition may be produced in a wholly isolated manner without our being able to recognize the vestige of an attack — and this would of course, render the diagnosis extremely difficult.— *N. Y. Medical Abstract.*

When Pinel, in 1794, began his work of convincing the leading men of France of the necessity of establishing a hospital for the insane, the very first argument against his grand project was that the insane person is a devil, a demon, a criminal who should be locked up in dungeons, and loaded with chains; and that the well being of society demanded this treatment.

Twenty years after Pinel's appeal to France in behalf of his humane enterprise, the good people of Massachusetts began to agitate the subject of building an insane asylum. The leading journals of that day opposed the undertaking, arguing that the building of insane asylums would have the tendency to increase lunacy and to multiply crime. Such was the intelligence of the editors of Massachusetts seventy years ago! — *Dr. Turner.*

Dr. Lewis of St. Louis, performed tracheotomy on a case of collapse from morphine poisoning, and four days later delirium tremens came on and the patient died. Dr. Fell of Buffalo, in two cases of similar character, used forced respiration by a bellows, and the patients recovered. The author urges that in all cases of opium, narcosis, tracheotomy or forced respiration by a bellows be resorted to.

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THE ETIOLOGY OF DIPSOMANIA AND HEREDITY OF "ALCOHOLIC INEBRIETY."

BY LEWIS D. MASON, M.D.,

Consulting Physician of the Inebriate Asylum, Fort Hamilton, N. Y.

The term inebriety, in a general sense, implies an intoxication from any inebriating or intoxicating agent — opium, belladonna, cannabis indica, chloroform, or alcohol. But the term, in its popular meaning, is applied to alcoholic inebriation alone. It would seem more scientific to prefix the adjective in all instances, and thus define strictly what we mean to assert when we use the term "inebriety." Dr. Anstie used the term "alcoholism" to cover the various neurotic conditions resulting from alcohol, and peculiar to it, — alcoholismus chronicus, delirium tremens, delirium potatorum, mania potatorum, ebrietas, chronic alcoholic intoxication. Some of these being convertible terms, of the two, "alcoholic inebriety" and alcoholism, the latter would seem the most preferable. It is the shortest word and most expressive of the two. But the term inebriety has been in such general use and for so long a period that it will, in all probability, continue to be used as the synonym covering the

various conditions resultant from the action of alcohol on the nervous system, just as the term insanity is applied to the various conditions incident to the different degrees and forms of mental alienation.

We cannot write or speak intelligently concerning any of the neurotic conditions resulting from alcohol, unless we specify by its special name the form of the disease we are to consider. A careful attention to this point is of paramount importance to avoid confusion, and a diffusive and irregular manner of writing or speaking on this subject.

The successful pursuit of the study of any department of medicine, science, or literature presupposes an intelligent knowledge of the terms we may desire to employ, and the ability to apply those terms to the conditions, places, and objects they are supposed to represent. When, therefore, a prominent member of the medical profession, appearing as an advocate for the moderate habitual use of alcohol, "doubts the inherited evils which are propagated and handed down from drinking ancestors," we readily see how an unfortunate use of language necessitates a more specific statement or use of terms. To what does the writer allude? To pauperism, crime, or disease in the form of alcoholism, insanity, imbecility, idiocy, or the various neuroses often due to alcohol—epilepsy, chorea, paralysis, etc. These are some of the "inherited evils" that alcohol hands down to the children of drunkards and their children's children. There may be others who doubt the "inherited evils" that alcohol gives rise to. This is our apology, then, for presenting to the profession a few facts, which are so familiar to those who have dealt with "alcoholism" in its protean types.

And, first, we would submit for consideration the fact, "*That alcoholism in progenitors will produce physical and mental degeneration in their descendants and all the neuroses that arise from a defective nerve organization—epilepsy, chorea, paralysis—and all grades of mental degeneration from slight enfeeblement of intellect to insanity and complete idiocy. And, further, that the laws which regulate those degenerative*

changes, are similar in their mode of development and action to those that govern congenital degenerative changes from other inherited causes."

Plutarch, in his essay on "Delays of Divine Justice," thus writes: "The children of vicious and wicked men are derived from the very essence of their fathers. That which was fundamental in the latter, which lived and was nurtured, which thought and spoke, is precisely what they give their sons; it must not, therefore, seem strange or difficult to believe that there exists between the being which begets and the being begotten a sort of occult identity, capable of justly subjecting the second to all the consequences attending on the acts of the first." Plutarch also taught: "One drunkard begets another." Aristotle that: "Drunken women bring forth children like unto themselves." Plato forbade the use of wine to the newly married, while a greater than they said: "The fathers have eaten sour grapes and the children's teeth are set on edge."

And, amid the thunders of Mount Sinai, the finger of God wrote on tables of stone: "The sins of the fathers shall be visited upon the children."

Elam writes concisely on this point: "It is not necessary that children should always inherit the actual alcoholic tendencies of their parents in order to present a type of progressive degradation. Some of them may enter the world completely degenerate, in the condition of hopeless imbeciles or idiots." A forcible illustration of this point is found in Norway, when the spirit duty was removed in 1825. Between that time and 1835 the increase of insanity amounted to 50 per cent. on the previous proportion, but the increase of congenital idiocy was 150 per cent.

Dr. Howe, in the State of Massachusetts, examined the family history of 300 idiots, 145 were the children of intemperate parents.

Dr. Magnus thus testifies that, in Sweden, owing to the free consumption of spirits, the whole people are degenerating; insanity, suicide, crime are frightfully on the increase;

that sterility and the premature death of children is much more common, and that congenital imbecility and idiocy are in fearful proportion to the number born. And that children born of intemperate parents live intellectually up to a certain age, after which they either remain stationary or gradually sink back into a state almost resembling idiocy.

M. Morel writes: "I constantly find the sad victims of the alcoholic intoxication of their parents in their favorite resorts — asylums for the insane, prisons, house of correction. I as constantly observe, among them, deviations from the normal type of humanity, manifesting themselves, not only by arrests of development and anomalies of constitution, but also by those vicious dispositions of the intellectual order, which seem to be deeply rooted in the organization of these unfortunates, and which are the unmistakable indices of their double fecundation in respect of both physical and moral evil."

Dr. Morel had, again, an opportunity of proving the hereditary effects of alcoholism on the "children of the Commune." He inquired into the mental state of 150 children, ranging from 10 to 17 years of age, most of whom had been taken with arms in their hands behind the barricades. "This examination," he says, "confirmed me on my previous conviction as to the baneful effects produced by alcohol, not only on individuals who use this detestable drink to excess, but also their descendants. On their depraved physiognomy is impressed the threefold stamp of physical, intellectual, and moral degeneracy."

There is no doubt in his conclusions; so acute an observer as M. Morel regarded other considerations — the environments of unhealthy habitations, improper or insufficient food and clothing, and immoral associates that surrounded these unfortunates in addition to the deteriorating effects of alcohol. This is the argument of those who insist that we claim too much for the baneful effects of alcohol and consider too little other demoralizing influences.

Maudsley writes, in his work on "Responsibility on

Mental Disease": "A host of facts might be brought forward to prove that drunkenness in parents, especially that form of drunkenness known as dipsomania, which breaks out from time to time in uncontrollable paroxysms, is a cause of idiocy, suicide, insanity in offspring."

Richardson, in his "Cantor Lectures on Alcohol," writes: "Amongst the many inscrutable designs of nature none is more manifest than this, that physical vice, like physical feature and physical virtue, descends in line. Not one of the transmitted wrongs, physical or mental, is more certainly passed on to those yet unborn than the wrongs which are inflicted by alcohol."

Blanford, writing on the causes of insanity, says: "Though the parents may not have been insane, they may have become the subjects of neuroses, which in their progeny become insanity; they may have been 'chronic drunkards,' epileptics, hypochondriacs, etc."

Dr. Sykke, physician to the city hospital, Copenhagen, Denmark, writes: "Brühl Cramer, from a long examination of this subject, concludes that drunken parents are seldom prolific, and when so the children are stupid, malicious, and full of mental defects."

Skae collected 82 cases of dipsomania. In 32 cases inheritance was clearly marked. In collateral branches he found drunkenness, dipsomania, suicide, mental disease.

Thompson, another observer, quoted by Sykke, reports 20 cases, in 19 of which the inebriety was inherited; many of these families contained 2, 4, or 8 members either drunken, epileptic, or insane. In three families, reported by Sykke, both parents were drunken and insane; every member suffered from mental defects and epilepsy; dipsomania and suicide were common.

Dr. Martin, while interne at Salpêtrière, obtained data of heredity in 83 insane epileptics out of 130. Of these 83, in 60 cases he established intemperate habits in parents. There were 244 brothers and sisters in this class of 60 cases; 130 of these were dead; 112 were still living, mostly young;

many with defective nerve organizations. From the large preponderance of epilepsy over other neuroses, and inebriate heredity being established, he draws the conclusion "that alcoholism, in ancestry, is an extraordinarily frequent cause of eclampsia and epilepsy in their descendants."

The American testimony is equally conclusive on this point. The late Dr. D. G. Dodge, superintendent of the New York State Inebriate Asylum, writes: "Like all hereditary diseases, intemperance is transmitted from parent to child as much as scrofula, gout, or consumption. It observes the laws of transmitted disease. It sometimes overlaps one generation (atavism) and appears in the succeeding, or it will miss even the third generation and then reappear in all its former activity and violence. Hereditary inebriety, like all transmitted diseases, gives the least hope of a permanent cure, and temporary relief is all that can be reasonably expected."

Dr. Joseph Parrish, in his work on "Alcoholic Inebriety," considering "hereditary inebriates" and the "alcoholic diathesis," says: "Not only is there a transmission, but a transmutation of disease by heredity. Inebriety may descend as inebriety, but it is just as likely to change the form of its appearance into insanity or other allied morbid manifestation."

Dr. Dodge, already quoted, reports 42 cases out of the records of three hundred and sixty (360), as the offspring of intemperate parents, or one in eight; 36 had intemperate fathers, or 1 in 10; 6 had intemperate mothers, or 1 in 60; 9 had intemperate brothers and sisters, or 1 in 40; 66 had intemperate ancestors, exclusive of parents, on paternal side 36, or 1 in 10—on maternal side 30, or 1 in 12.

My own observations on this point, endorse the statements of previous observers, and I therefore present the tabulated statement taken from a statistical report of 600 cases of alcoholic inebriety, treated at the Inebriates Home, Fort Hamilton, N. Y. :

Etiology of Dipsomania and Heredity of Inebriety. 307

| INEBRIETY. | INSANITY. |
|-------------------------------|----------------------------|
| Fathers, 168 | Fathers, 3 |
| Mothers, 9 | Mothers, 3 |
| Fathers and mothers, . . 12 | Brothers, 6 |
| Fathers and brothers, . . 7 | Sisters, 7 |
| Fathers and sisters, . . . 2 | Mother and grand- |
| Fathers and grandfathers, 7 | mother, 1 |
| Fathers and uncles, . . . 4 | Aunts, 4 |
| Brothers, 16 | Uncles, 6 |
| Grandfathers, 12 | Cousins, 7 |
| Grandparents, 2 | Grandparents, 1 |
| Other relatives, 26 | No insanity, 562 |
| No inebriety, 335 | |
| Total 600 | Total 600 |

Insanity of parents should be regarded as one of the predisposing causes to inebriety in their children (*vide* cases 167, 172, 204, 273, 278, 296, 360, 365, 366, 415, and 537). But the principal hereditary cause of inebriety is an inebriate father or mother, especially as these records show an inebriate father in 209 of the above 600 cases. It is also true that an inebriate parent will beget insane as well as inebriate offspring (*vide* cases 13, 123, 125, 252, and 413). Instances of atavism, a peculiarity recognized in other forms of diseases, are found in these records.

Cases 13, 116, 123, 125, 252, show an inebriate father and son and a son insane; cases 17, 87, 116, 442, show an inebriate father and two inebriate sons; cases 300, 386, 402, 445, 541, 568, 597, show father, mother, and son all to have been inebriates; cases 273 and 365, father and son were inebriates and mother insane; and in case 413, father, mother, and son were inebriates and sister was insane.

I may add that the observations of Dr. Norman Kerr, consulting physician to the "Dalrymple Home for Inebriates," and president of the Society for the Study and Cure of Inebriety, London, England, confirm these and similar statis-

tics. We might continue to quote, did space permit, from the published writings of Drs. Crothers, Parrish, Day, W. C. Wey, Wright, and other American observers. They fully endorse that which has already been presented.

Surely on the face of all this testimony we may advance the statement of Elam as an axiom. "*The offspring of the confirmed drunkard will inherit either the original vice or some of its countless protean transformations.*"

As the children of inebriates may inherit all shades and grades of a defective nervous system, we must not generalize but select from the various types of alcoholism—that type which best and most markedly demonstrates the hereditary tendencies of alcoholism. This is best shown in the form known as dipsomania—literally, thirst madness, an irresistible craving for alcohol in some form and this to intoxication—not insatiable, because the periodical dipsomaniac will have his sober interval, weeks or months perhaps, in which his craving will seem to be in abeyance. Dipsomania may be acquired; it is possible, by the frequent indulgence in alcoholic liquors, after a time to develop dipsomania, even when the subject had a good ancestral and personal history, and inherited none of the neuroses nor acquired none during his life preceding his use of alcohol. The degenerative effects of alcohol alone in this class of cases are the exciting and determining cause of the dipsomania. Some observers doubt and even deny that this class of drinkers become true dipsomaniacs; that a neurotic ancestry is essential to the development of a true dipsomaniac. Until more conclusive evidence is secured on this point we will allow it to rest as a mooted question.

A second class of dipsomaniacs are those who have had a good ancestral history and have no preceding history of alcoholic abuses or acquired disease, but after a head injury, or sunstroke, or cerebral concussion, with or without fracture or cerebral lesions from other causes, may suddenly become dipsomaniacs. Cases also in which insanity from other causes than alcohol precede or accompany the dipsomania properly belong to this class.

The third class, by far the most numerous, are those who have a history of inebriety or insanity, epilepsy, or other neuroses, in the direct line of descent generally, or in collateral branches, or in both; who inherit a weak, nervous organization; who become dipsomaniacs, not from habit or choice, but from necessity. The predisposing cause here is strongly marked and stands out vividly in the life history of the patient. The exciting cause may be of a slight character or one which a person of fair normal physique would overcome, but this class yields to and readily succumbs.

Dipsomania may then arise from one of several causes. It may be acquired from habitual use of alcohol; it may be accidental from a blow on the head, sunstroke, etc. The tendency may be and generally is inherited. The predisposing cause in this case is prominent and potent. The exciting cause is often trivial, and not always markedly present. It may be associated with the second or accidental class, constituting a mixed origin.

It is to the consideration of this latter class of cases — dipsomania by inheritance — true congenital inebriety — that we design to call attention and present in evidence the views of prominent observers.

The testimony of British medical experts before a select committee of the House of Commons, is as extensive as it is valuable. Physicians, magistrates, chiefs of police, governors and chaplains of prisons, and superintendents of insane asylums, all had their sadly uniform experience to relate of the evils of intemperance.

The investigation extended over several months and filled a blue book of over 600 pages. We will now proceed to abridge the testimony of the British experts, necessarily excluding much matter of interest not directly bearing on our subject, and confine ourselves to the medical testimony, especially as to heredity.

Dr. Francis Edmunds Anstie testifies:

“He was quite prepared to say that there is a distinction between the frequent drunkard and the man who has drunk

himself into a state of perfect want of resisting power, but he should say it is a matter of degree. But there is another affection connected with drink which is separated absolutely as a matter of kind, namely: the kind of drinking which is entirely paroxysmal, and which, so far as he knows, never occurs *except in persons of a certain hereditary conformation.*

“I know several such cases. Those persons are the children of families in which invariably, or almost invariably, insanity is hereditary, and very often drinking has been hereditary in a marked manner.”

Dr. David Skae, physician to the Royal Edinburgh Asylum for Insanity, testified: Dipsomania he regarded as a species of moral insanity. *The causes were mostly hereditary*, although some were caused by blows on the head, hemorrhage with large loss of blood, and sometimes by disease of the brain.”

Dr. Alexander Peddie, a physician of thirty-seven years' practice in Edinburgh, Scotland, has, for twenty years, paid especial attention to the causes and effects of intemperance, and also written upon the subject from a medical standpoint, testified :

“Sometimes a wasting disease, a severe nervous shock, a stroke of the sun, a blow on the head, heavy grief, or a reverse of fortune, will bring a mind which is in a somewhat weak state into the condition of an habitual drunkard, because recourse is had to stimulation in the first instance in order to overcome feebleness, to exhilarate or to comfort in some way or other. The disease may be acquired, springing out of vicious courses, *but in a large proportion of instances he believed that the habitual drunkard inherits the proclivity from drunken parents or from a constitutional insanity in his family, of which the most marked manifestation is a tendency to drink.* He could cite scores of cases that had come under his notice in proof of the transmission from drunken parents to their children, of a proclivity to drink.”

Dr. John Nugent, twenty-six years Inspector-General of Lunatics in Ireland, testified :

“ He knew of the case of a professional man who became intemperate, and each of whose four children were either malformed or insane. As to whether drunkenness leads up to disease or whether disease leads up to drinking; he thought they both acted on each other as cause and effect. If there is a predisposition to insanity, drink is sure to develop it, and, on the other hand, there are persons who show their insanity by a disposition to drink. He cited a case: one brother became a drunkard and the other brother insane, without showing any tendency to drink. In this case, the hereditary disposition showed itself in one by actual insanity; in the other by habitual drunkenness.”

Dr. Arthur Mitchell, Commissioner of Lunacy for Scotland, testified:

“ In a great many cases frequent habitual drinking precedes this state (dypsomania), but not necessarily so; it sometimes appears without previous habits of drinking as the result of cerebral injury, of fever, of hemorrhage, of mental shock, of the commotion of the system which attends the establishment of puberty, or the arrival of the climacteric period. In the latter case, the disease, dypsomania, is a symptom and product of the disease, not the cause of it. Constant drinking may beget the disease. In some men habitual drinking leads to other diseases than insanity, because the effect is always in the direction of the proclivity, but it is certain that there are many in whom there is a clear proclivity to insanity who would escape that consummation but for drinking. Excessive drinking in many persons determining the insanity to which they are at any rate predisposed.

“ The children of habitual drunkards are in a larger proportion idiotic than other children, and in a larger proportion themselves drunkards. They are also in a larger proportion liable to the ordinary forms of acquired insanity.”

Dr. Forbes Winslow testified:

“ A large proportion of frightful mental and brain disturbances can be traced to the drunkenness of parents, confirming the great physiological law that ‘ like begets like.’ ”

Dr. Robert Druitt testified:

“In many cases the condition which gives rise to inebriation is heredity, as a drunken father and mother, or a half-insane or eccentric father or mother would be likely to have drunken children.”

This will close our extracts from the testimony of British experts before the special committee, but before taking a final leave, let me call attention to the writings of the late Dr. F. E. Anstie, who was one of the first to testify before the committee, but as he has recorded his views more fully we will quote from his writings on the subject :

“There is another kind of predisposition which is *constant in its operation* (the italics are his own) and which is probably at least as influential, both in producing alcoholic excess and in aggravating its ill effects as any of these occasional causes which have been enumerated (ill health, mental shock, neurasthenia from any cause, injury) viz., *a peculiar inherited constitution of the nervous system*. In the course of a large experience of alcoholism among hospital out patients, I have been greatly struck with the number of drinkers who have informed me that their relatives either on the paternal or maternal side have been given to drink ; my own experience has led me to a firm conviction that particular causes of nervous degeneration affecting individuals, do very frequently lead to the transmission to the offspring of those persons of an enfeebled nervous organization which renders them peculiarly liable to the severer neurosis and which also makes them facile victims of the temptations to seek oblivion for their mental and bodily pains in narcotic indulgence. I believe that things often work in a vicious circle to this end, and that the nervous enfeeblement produced in an ancestor by great excesses in drink, is reproduced in his various descendants with the effect of producing insanity in one, epilepsy in another, neuralgia in a third, alcoholic excesses in a fourth, and so on. Among the higher classes where it is easier than in the case of the poor to obtain tolerably complete family histories extending over two or three generations, careful inquiry elicit facts of this kind with surprising frequency.

So strong is the impression left on my mind by what I have observed in this direction, that I am inclined to believe that the great majority of most inveterate and hopeless cases of alcoholic excesses among the higher classes are produced by two factors, of which *the least important* is the circumstance of external momentary temptation, in which the person has been placed where the *more momentous and mighty cause* is derived from an *inherited* nervous weakness, which renders all kinds of bodily and mental trouble specially hard to be borne. It need hardly be remarked that in this view of the case, the fatal rapidity with which habits of intemperance exaggerate themselves is only what might be expected.”*

Finally let us close this line of testimony by that of Dr. Andrew Clark of London, physician-in-ordinary to her majesty the Queen, and an extensive, experienced, and leading London practitioner, who, in a lecture delivered in London in 1881, thus refers to “heredity” in connection with “alcoholism”:

“There is another side as well of this question, and it is no abuse of language to say it is an *awful side*. It would be bad if we men who abuse alcohol were to suffer in ourselves, and to suffer in those around us whom we love or ought to love, surely that is terrible enough to prevent men from using alcohol freely; but there is even a more terrible statement than that behind, it is not they alone who suffer, but so soon as a man begins to take one drop more than what I have called the “physiological quantity,” the desire is not only begotten in him, but the desire becomes a part of his very nature and that nature so formed by his acts is calculated to inflict curses inexpressible upon the earth when handed down to the generations that are to follow after him as a part and parcel of their being. And I ask, what are you to think of those who are born of drunkards, who come into the world, so to speak, with a curse not only upon them, but in them, the terrible desire for that which is to blast them speedily, a desire which no human power can save them from, and which God alone in His wisdom and mercy can protect them from? What an awful thought is this. Can there be any man here present who, if he is taking more

* “Anstie on Alcoholism.” “Reynold’s System of Medicine.”

than he ought to take, is indifferent to all this? How can he think without dread of this terrible fact, for fact it is as surely as two and two make four, that this desire is becoming part of his nature, and that he is handing it down, not for good, but for the most terrible evil that man can suffer, unto generations yet unborn."

French authorities are equally explicit. Magnan, physician to St. Anne Asylum, Paris, defines dipsomania as a peculiar form of instinctive monomania having its source most frequently in heredity. M. Trélat brings out clearly the difference which exists between the alcoholic and the dipsomaniac. "Drunkards," he says, "are people who get drunk when they find an opportunity of drinking." "Dipsomaniacs are diseased persons who get drunk whenever their attack seizes them."

We might thus go on and exhaust the leading authorities of all nationalities. They all agree that there is an hereditary form of "alcoholic inebriety." But we have, I think, fully proven and are able to endorse the proposition of Elam which we again repeat: "*The offspring of the confirmed drunkard will inherit either the original vice or some of its countless protean transformations.*"

Some points of interest arise in connection with the subject of alcoholic heredity.

GINTRAC taught "that the children of female drunkards, if they escape the morbid influences which compromise their existence in the womb of their mothers or at birth, are often idiots, insane, imbeciles, or epileptics."

The life of the fœtus may be threatened, intemperate women miscarry; should this crisis be passed, the child may be born an idiot; should it at its birth be apparently normal intellectually and physically, it may develop later on mental and physical characteristics having the alcoholic imprint, it may become epileptic, choreic, or a dipsomaniac; if the latter, then at what period will the individual first exhibit his alcoholic proclivities? The following tabulated statement which I have taken from my study of 600 cases may be of interest on this point.

Etiology of Dipsomania and Heredity of Inebriety. 315

| Age. | Cases. | Age. | Cases. |
|-----------|--------|-----------|--------|
| 10 to 15, | 26 | 10 to 15, | 26 |
| 15 " 20, | 121 | 15 " 25, | 294 |
| 20 " 25, | 173 | 25 " 35, | 207 |
| 25 " 30, | 111 | 35 " 45, | 49 |
| 30 " 35, | 96 | 45 " 55, | 23 |
| 35 " 40, | 29 | 55 " 60, | 1 |
| 40 " 45, | 20 | | |
| 45 " 50, | 12 | | |
| 50 " 55, | 11 | | |
| 55 " 60, | 1 | | |
| <hr/> | | <hr/> | |
| Total, | 600 | Total, | 600 |

• In 501 cases, or in over five-sixths of the 600, the diseased tendency manifested itself between the ages of 15 and 35, and in the larger proportion of cases (294) between the ages of 15 and 25.

The question also arises, can we prognosticate which child in a family of several will be apt to follow in the footsteps of the inebriate father or mother, or inherit the terrible legacy?

Giron states that "hunters' have a proverb which says 'Chien de chienne et chienne de chien,'" meaning that the mother's qualities are found in the son and the father's in the daughter. Buffon also held to cross heredity, but we presume that the same laws that apply to other inherited diseases will apply here also, so that the subject of it can be placed under early espionage and guarded accordingly.

Another point of interest and of practical importance is suggested by the following consideration: Can a couple, otherwise sober, one or the other or both being drunk during the act of conception impress the result of that conception? In other words, will the offspring be modified injuriously by the condition of the parents at the time of the conception? will the child be idiotic, feeble-minded, imbecile, or inherit and develop the "inebriate diathesis"? Voisin reports twelve epileptics whose parents were drunk during the

honeymoon. However difficult to prove, there is a possibility in tracing out an alcoholic lesion, to overlook this intoxication of the parents, otherwise sober, at a special time as the cause.

We might continue to carry out many lines of thought: How shall we deal with the subject of the "inebriate diathesis"? How shall he conduct himself socially? Ought he to contract marriage? How shall we protect him from contact with alcohol in any form, either as a beverage or a medicine? Can we eradicate the "inebriate diathesis" from the family whose destruction it eventually threatens? The value of a knowledge of the "diathesis" in regulating our prognosis, as to the future of special cases of inebriety. The use of malt or spirituous liquors during the period of lactation.

Many other considerations might occupy our attention and repay our researches in this important field of medical science. But in this paper, we shall not be able to discuss in detail all the collateral branches of this important subject, but simply call attention to them.

In conclusion, and in view of all the testimony that we have collated as to an hereditary form of inebriety, we assert:

First—Alcoholism in parents produces a degenerate nervous system in their children, and subjects them to all forms of neuroses: epilepsy, chorea, paralysis, mental degeneracy, from slight enfeeblement to complete idiocy and insanity

Secondly—Alcoholism in parents produces a form of inebriety in their children known as dipsomania, which in the large majority of cases is inherited in the same manner that other diseases are inherited, and we can with propriety and correctness use the term "Alcoholic or Inebriate Diathesis" in the same sense that we use the term "Tubercular Diathesis," or other terms indicating special tendencies to other inheritable diseases.

Some physicians of experience will not accept the term "inebriate diathesis," and will not endorse the idea that the inebriate becomes an inebriate in the same manner the con-

sumptive inherits a "tubercular diathesis," or the scorbutic, scrofula, or the "congenital syphilitic," syphilis; but believe that the majority of cases of dipsomania are acquired; they acknowledge that the dipsomaniac is irresponsible for his acts, and cannot control his desire, and fully accord with all these views, but believe that the dipsomania, now a disease, is the result of vicious habits, that could have been avoided in the first instance, but through ignorance, social environment, the person indulged in alcoholic stimulants, and so produced the dipsomania or uncontrollable condition of drinking.

But although holding these views, they also believe that a class of persons who have insane or inebriate progenitors, or a family history of insanity or inebriety either in the line of direct descent or collateral branches, inherit a neurotic tendency to inebriety, insanity, epilepsy, hysteria, etc. That while a person with a sober and healthful ancestry may use alcohol for a long period in moderation and not degenerate into a drunkard or dipsomaniac, that class who inherit the above tendency, who have a "bad family history," will quickly, if they use alcohol, most certainly become dipsomaniacs or uncontrollable drunkards. In other words, they believe that the will-power always remains in sufficient force in those of a neurotic ancestry to resist the use of alcohol or other narcotics, if they so will, and therefore, they are irresponsible if they do not exercise that will power. They deprecate the idea of "irresponsible inebriety," of "hereditary inebriety," of inebriety from "necessity" not from "choice," and hide their faces from the truth.

That class of dipsomaniacs that result from head injuries, sunstroke, cerebral disease, or from other causes not dependent upon the exercise of the will, from causes in which there is not an opportunity to exercise the right of choice, these, observers regard as irresponsible.

Again, insane persons cannot in their opinion, be held responsible if they become inebriates, because the will power is destroyed, or at least, held in abeyance. They cannot

exercise the right of choice, they are pyromaniacs, erotomaniacs, kleptomaniacs, dipsomaniacs; but we must show that insanity preceded the inebriety or directly accompanied it.

This in brief is the doctrine of those who oppose hereditary alcoholic inebriety in any form, we confess that we would from choice select these views, we are loath to accept the idea of "irresponsible inebriety" as applied to the first class of cases, but we cannot consult our preferences when we deal with facts.

If ignorance is at the bottom of the whole difficulty, if this is the underlying cause, then the problem resolves itself into simply one of education.

Sober, temperate people with a good ancestry, must remain as such, or they may become drunkards, or if not themselves, they may impress on their children a neurotic temperament to say the least, which will predispose them to inebriety or some kindred neuroses.

Again, those who have a "bad family history," must never, under any circumstances, "touch, taste, or handle" alcohol in any form, as a beverage or as a medicine.

The advice of the old Quaker to his intemperate friend is certainly apropos: "Only open thy hand, friend, and the glass will drop," certainly if the will power is there, the glass will drop. Nevertheless, let the grand work of education go on, teach the masses what they shall eat and what they shall drink. Let temperance organizations and prohibition clubs wage an uncompromising war with liquor dealers, and pot-house politicians and those who depend on these for political preferment. Let "high license" limit the sale and "no license" stop it altogether. We endorse and fully believe in all efforts directed to suppress a nefarious traffic worse than any that has ever cursed a people. But will these measures restrain or restore a will degenerated and weakened by the excesses of an "alcoholic ancestry." Are there not those who became "inebriates from inheritance," from "necessity" not from "choice"?

We submit to all candid minds the evidence we have

presented in this essay, and ask them to sit in calm judgment on the dispassionate and uniform testimony of men who have made the subject of inebriety a life study; under whose professional eye thousands of inebriates have passed, by whose skillful treatment and advice many have been saved, men who have not presented theories or finely spun sophistries, but willingly and cheerfully give in their testimony and affirm what they know according to their "best knowledge and belief."

DIAGNOSIS OF INEBRIETY.

All cases of inebriety may be classed as persons of *undeveloped*, *degenerate*, and *disordered* minds. The first class, the *undeveloped*, represents all grades of defective retarded growths, sometimes seen in external conformations of head and body. Grades of ancestral defects and brain failures, seen in faulty acts and thoughts. The second class, of *degenerate* brains, are those who are retrograding both in mind and body. Such cases frequently date from illness, injuries, shock, diseases of all kinds, and diseases of old age, and of the nerve centers. The third class, the *disordered* brains, are those who from ill-health, bad conditions of living, and surroundings have developed inebriety. Such cases cannot bear the strains, drains, or any extreme circumstances, which tax the energies, and vigor of the body. In all these cases, inebriety starts from unknown states and exciting causes, and these marked physical conditions are both primary and secondary. Inebriety is always disease and degeneration, and the fact often disputed is, can this disease be traced in any uniformity of symptoms or progress? Dr. Jackson has clearly pointed out, that all disease follows a regular retrograde march, which can be outlived and studied as clearly as growth and development. Inebriety is no exception to the rule.

NOTES ON HEREDITARY INEBRIETY AND INEBRIETY AS A DISEASE.

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

There is considerable discussion respecting the true nature of dipsomania or constitutional drunkenness. While few will claim forbearance for the sporadic and idle drunkard, there are many who view the periodical and furious inebriate as deserving at least careful study. Is there a form of inebriety allied to those neuroses which mark a constitutional defect in nerve balance, a defect, the conditions of which are transmissible by heredity? Some noted gentlemen deny the reality of the dipsomaniacal diathesis, and especially deny that such a constitutional proclivity can be handed down from ancestry. The real importance of the subject causes one to inquire with a good deal of interest: "What do the highest authorities say on these points? The testimony of the competent gentlemen* who have conscientiously studied inebriety for some years, will not be taken. Their great interest in the subject might expose them to the imputation of prejudice in viewing the facts. Authorities who are supposed to contemplate scientific principles through an atmosphere pure and uncolored by sympathy, are the only ones who will be questioned. The attempt will be made to show that if epilepsy, spasmodic asthma, prolonged neuralgia, hysteria, suicidal melancholia, and the like, are constitutional diseases, then dipsomania, or as it is called by some, inebriety, is also a constitutional disease.

Morel, quoted by Maudsley (*Path. of Mind*, p. 114), when

* This of course will eliminate from the discussion such eminent names as Hughes, Parrish, Crothers, Mann, Mason, and others in this country; and Clouston, Mitchell, Kerr, Peddie, Cameron, Carpenter, and a host of others in Great Britain, any one of whom is fully competent to decide on the merits of the question.

speaking of the degeneration and final extinction of a neurotic family strain, gives a history from his own personal observation thus: "*First generation*—immorality, depravity, alcoholic excess, and great moral degradation in great-grandfather who was killed in a tavern brawl. *Second generation*—hereditary drunkenness, maniacal attacks ending in general paralysis in grandfather. *Third generation*—Sobriety, delusions of persecution, and homicidal tendencies in father. *Fourth generation*—defective intelligence, mania at sixteen; transition to idiocy; generative functions feeble; sisters imbecile; wife had a bastard child of good constitution." Dr. Maudsley remarks, "if this were an invention, it would be one of those inventions which teach excellent truth." When treating of heredity, Maudsley divides the subject into three branches: 1st, heredity of the same form; 2d, of allied form; 3d, with transformation of neurosis, as when the ancestral defect was simply a nervous disease. Of heredity of the same form, this author says (p. 108): "That is, when a person suffers from the same kind of mental derangement as a parent, which he seldom does, *except* in cases of suicide or dipsomania." Dr. M. says in another place: "This mingling and transformation of neurosis which is observed sometimes in the individual, is more plainly manifest when the history of the course of nervous disease is traced through generations." The book of inebriety is open everywhere and to everybody. But to study its pages aright, particularly in respect to its habits of descent through individuals and generations, the observer himself must abide for a long series of years amongst one and the same community of people. It is obvious that in this way only can he study the facts respecting the influence of alcohol upon individuals and upon families.

In the work already cited (p. 91) it is written: "With respect to an individual's legacy from his parents, he inherits not only their family nature . . . but something from their individual characters, as these have been modified by their sufferings and doings, their errors and achievements, their development or their degradation."

Dr. Blandford (*Insanity and its Treatment*, p. 139), speaks as follows: "As I have said, the particular character of the mania or melancholia depends on the constitution of the individual, . . . and the same person may at one time be maniacal and at another melancholic. It is true, we frequently see the same form in successive generations, e. g., suicidal melancholy and hereditary drunkenness." Blandford teaches that there is a vast number of cases where the descending form is different from its parent; and that the same form may, or may not, appear in posterity. The idea that the hereditary transmission of different but interchangeable neurotic form, is an indication of the insane temperament, is universal amongst alienists. That "alcoholism is more liable to produce epilepsy, or idiocy, than to repeat itself," places alcoholism (or inebriety) at once amongst the hereditary and insane neuroses. Maudsley affirms (*Path. of Mind*, p. 107) that such forms of nervous disease as "epilepsy, paroxysmal neuralgia, strong hysteria, dipsomania, spasmodic asthma, hypochondriasis, and suicidal melancholia, may predispose to mental derangement in the offspring, as conversely insanity in the parent may predispose to other forms of nervous disease in the offspring." In view of this principle the remark of Blandford (*Insanity and its Treatment*, p. 145) is important: "Making all allowance for the highly colored pictures drawn by the advocates of total abstinence, it is probable that intemperance is increasing rather than diminishing." After remarking that drunkenness is abating amongst the better classes but not in the lower classes, Dr. B. continues: "Hence, I believe springs the ever renewed insanity of our lower classes. . . . My opinion is, that amongst the lower classes of our countrymen, insanity is on the increase. . . . There is a degree of drunkenness among the lower classes of this country that is not found in the higher. . . . The amount of drunkenness is enormous, and is almost confined to the lower orders — below the shopkeeper class."

This is placing habitual drunkenness, or rather the neu-

rotic mood which craves intoxication, very closely in alliance with those neurotic states which immediately interchange with true insanity, if it does not indeed classify them together in one family. The intense desire for intoxication which is distinctive of the dipsomaniac, appears to issue from some unstable or abnormal state of the brain, as other lawless and unmanageable nervous symptoms frequently do. The observation of Maudsley (*Path. of Mind*, p. 103) is apposite in this connection: "As the form of every living creature answers to its habits, it desiring only what it can attain by means of its organs, so it is with the particular neurosis of that congeries of nerve-centers, which constitute specially the organ of mind; it (the neurosis) inspires a desire for, and determines a tendency to that form of mental activity, in other words, to that development of the psychosis, which is the fullest expression of its function."

Dr. D. Hake Tuke (*Psychological Medicine*, p. 57, Churchill, London, 1874), speaking of the influence of parentage in impressing a morbid diathesis upon posterity, uses this language: "The causes of insanity may come into operation at the period of conception. We should expect this *a priori*, and experience appears to prove it. We allude more especially to the case of a parent begetting children when drunk." Dr. Bucknill (*Psyc. Med.*, pp. 396, 397), while treating of the origin of insanity declares that "other conditions in the parent besides that of actual insanity may create this predisposition; for instance, violent and *habitual* passion, the debility of old age, and most of all *habits* of intemperance at the time of procreation." In describing the establishment *de novo* of a predisposition to insanity, Dr. Maudsley adverts to "the unquestionable influence of the particular mental and moral state of one or both the parents before and at the time of propagation." (p. 97.)

"When mental disease is transmitted, does the form of insanity descend? Very frequently this appears to be the case," says Dr. Tuke. The doctor then proceeds to give examples from various authorities of the direct descent, from

ancestry to posterity, of hallucinations, monomania, melancholia, mania, general paralysis, and idiocy; and then he adds upon his own authority: "Of dipsomania, the cases are so common that it is not necessary to detail any examples." (*Psyc. Med.*, pp. 67-70). Dr. Tuke on page 65 (same work) gives a table "Exhibiting the proportion of hereditary cases in the different forms of insanity, observed in the Crichton Institution, as reported by Dr. Stewart." Mania descends as such in 51 per cent. of cases; melancholia, 57 per cent.; monomania, 49 per cent.; moral insanity, 50 per cent.; idiocy and imbecility, 36 per cent.; dipsomania, 63 per cent.; general paralysis, 47 per cent.; dementia and fatuity, 39 per cent. Whatever may be thought of the grade of per cent. in this table, the statement clearly shows the tendency of heredity in producing, not only like morbid constitutions in generality, but also like specialization of morbid constitution in particulars.

Dr. Bucknill declares when again treating of the origin of insanity (*Psyc. Med.*, p. 401) that "Enquiring into the habits of a patient, will often discover cause for the production of insanity; habits of intemperance for instance; and habits of strong mental excitement." It would seem, however, to be a matter of indifference whether a habit can be transmitted in its own form, or in some other representative form, if it is to be resumed further on, and lower down, in an irresponsible progeny. Neither does it seem to be of much moment whether the pernicious and disabling habit in an innocent posterity is, or is not, the outcome of vice, or sin, or heedlessness in remote ancestry. Posterity itself is helpless.

Dr. Bucknill, in a work noted for the bitterness of its style (*Habitual Drunkenness and Insane Drunkards*, p. 57), assails the doctrine that drunkenness is commonly a disease, and he advocates, with the skill and subtlety of great learning, wide experience as a practical alienist, and strong intellectual endowments, the dogma, that habitual drunkenness is, in a great proportion of instances, simply vice. But he takes pains to assert with careful precision "That strong

drink does often cause disease of the nervous system with disturbance of the mental functions ; and also that such diseases coming from other sources, do give rise to the passion for drink. These are facts which can admit of no doubt. The history of such cases, their heredity, periodicity, . . . are very well known to physicians who have made madness their study." Dr. Bucknill has little sympathy with the drunkard. He says : "The thorough-going drunkard soon puts an end to his worthless existence, and there the evil stops. But he who prolongs the agony, remains for an indefinite number of years . . . and sows the seeds of hereditary mischief." In the concluding member of this sentence, Dr. Bucknill seems to recognize the greater damage flowing from habitual, steady drinking, in small quantities, over the furious periodical sprees of the neurotic inebriate.

Dr. Wynter says : "Among the more special forms of moral perversity, or, as the alienist physician would say, insanity, which are transmitted by an insane parent, may be mentioned dipsomania." (*Borderland of Insanity, London, 1875, pp. 49, 50*). Again, the same author speaks of "the known fact that persistent drunkards plant the seeds of insanity, and the other allied diseases in the offspring. Once planted there, the fruits may be diverse ; in one, there may be persistent neuralgia ; in another, the ancestral drunkenness may assume the form of dipsomania ; while another may be affiliated with partial paralysis or with epilepsy."

Dr. Forbes Winslow (*Lectures on Insanity, p. 156*), declares : "I maintain, and facts clearly demonstrate my position, that there is a vast amount of crime committed by persons who occupy a kind of neutral ground between positive mental derangement and mental sanity. I do not support the dangerous opinion that *all* crime is referable more or less to aberration of mind, but I do affirm that in estimating the *amount of punishment* to be awarded, it is the duty of the judge, not only to look at the act itself, but to consider the physical condition of the culprit, his education, moral advantages, prior social condition, his early training, the tempta-

physiological appetite, hunger for instance, is reasonable; it can be readily satisfied. When the condition called hunger is relieved, the appetite ceases and food is refused. The appetite called hunger therefore denotes good health, while the neurotic desire for intoxication (falsely called a thirst) is exaggerated and lawless. It is impossible to satisfy it. It is a storm coming no one knows whence, going no one knows where.

The Medico-Legal Society of New York, has decided to hold an International Congress of Medical Jurisprudence at which representatives from all countries will be invited to attend and contribute papers. The congress will be held in June, 1889, and continue four days. Members of the Medico-Legal Society will entertain as guests all foreign visitors, and arrangements will be made for reduced rates of ocean and railway travel for those who attend from a distance. Eminent men of Europe and this country have promised to attend and contribute papers, and the meeting promises to be the most important one ever held. All active, honorary, or corresponding members who will contribute papers, to be read at this congress, will please forward their names and the title of their papers to the secretary of the sub-committee, or to the president of the society, at No. 57 Broadway, N. Y. City.

I look upon all movements to check drunkenness, that do not include entire and physiological rest to each case, as devoid of all elements of success. So confirmed am I in this view, that I do not hesitate to say that he who stimulates his body when he is tired by the use of any ordinary excitants, or who resorts to medicines to give tone, or who rallies his flagging energies by the use of nervines of any sort, can furnish no security in the strength of his own will, in the depths of his own convictions, in the firmness of his own purpose, in the purity of his own principles, in the largeness of his own faith, against becoming an inebriate.

— DR. JACKSON *in lecture.*

TRAUMATIC INSANITY AND INEBRIETY.*

BY S. V. CLEVENGER, M.D., CHICAGO, ILL.

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etc., etc.*

Head injuries do not invariably produce mental disease, but when insanity results there are, in most cases, peculiar symptoms constant enough to justify the designation of Skae, traumatic insanity, which has been adopted by Krafft-Ebing, Spitzka, and the other leading psychiatric authors.

There are important medico-legal bearings that should induce the scientific physician to accord the traumatic etiology a just consideration even where the malady did not, upon superficial observation, appear to otherwise differ from the ordinary epilepsies, paranoias, parietic dementias, etc., which, as sequelæ, are often prominent, but which are, as a rule, modified by the traumatism markedly.

The mental ailment being apt to develop long after the receipt of the injury, surgeons do not ordinarily encounter or recognize the disorder, as is evident in the bare mention by Agnew and Bryant that insanity may follow head injury and there be no external evidence, upon the head, of the injury.

In hospitals and private practice cranial injuries are seldom followed, from lack of opportunity; even military surgeons are debarred from a satisfactory study, for in the field such cases are sent to the rear, discharged as disabled, or otherwise escape observation, after the wound, if any, has healed.

The average proportion of traumatically caused to other forms of insanity is thus 5.4 per cent., ranging with different asylums from less than 1 up to 10 per cent. of the admissions. But traumatic insanity proper, is probably related to

* Extracted from the *Alienist and Neurologist*.

other insanity in the proportion of 1 to 2 per cent. About one-fifth of all head injury insane cases.

Traumatism may precede insanity and have no relation to the insanity, just as head injury is compatible with insanity.

Traumatism may predispose to traumatic, or other forms of insanity, especially *alcoholic* and syphilitic.

Traumatism may be the exciting cause of traumatic or other forms of insanity in the predisposed, as hebephrenia and paranoia.

Traumatism may modify, complicate, or aggravate other forms without the clinical symptoms of traumatic insanity appearing. The latter may co-exist with other forms of insanity.

Traumatism may act as both predisposing and exciting cause, producing traumatic insanity by itself, but hereditary or other taint causes greater liability.

Insanity may develop at any interval after a head injury, but usually several years intervene.

While heredity renders the individual with a head injury more liable to insanity than one with the same injury would be without the heredity, and while this predisposition plays a very important part in a large but undetermined number of traumatic cases, the psychosis may exist without any previous insane tendency inherited or acquired.

The prognosis of traumatically induced insanity is unfavorable.

Under head trauma that affect the brain, with or without demonstrable cranial or cerebral lesion, may be included contusions, compressions, incisions, punctures, concussions, the effects of transmitted or direct violence (such as could be imparted by a jar of the spinal column), lightning stroke, sun-stroke, overheating, exposure to sudden alterations of intense heat and cold. Neck wounds, through probable injury to the cervical sympathetic, and injuries to the limbs or trunk, may occasion insanity.

Conspicuous as symptoms are:

Change of Character. This is very often only ascertainable by a comparison of the behavior before and after the injury upon testimony of relatives and acquaintances. Commonly the traumatic lunatic is described as "not being the man he was." These changes are often radical and consist of

Lapses of Memory, as in epilepsy, more prominently than a general failure of that faculty. Forgetfulness of names, persons, places, and transactions are occasional to frequent, but the most notable are the memory *gaps*.

Headaches and sleeplessness are noticeable, especially as preceding or accompanying the most troublesome periods of the disorder. Both conditions are apt to be hyperæmic and aggravated by constipation, liquor imbibing, business or domestic worry, etc.

Irritability, varying from occasional irascibility provoked by trifling affairs, an explosion of anger, a passionate manner, to the most violent outbursts of temper. Usually the head is flushed at such periods, and there is a swagger and bullying differing from the epileptic irascibility or *petit mal intellectuel*, which is attended with pallor, a cynical, sarcastic or sneering "hatefulness," rather than boisterousness. The usual sun-stroke or traumatic irascibility, to a lesser degree, can be observed in many cooks who are "hard to get along with." Its cause is in cerebral turgescence from heat.

Suspiciousness is a frequent feature, as in phthisical insanity.

Long apparently lucid intervals. There is no telling at what moment the insanity may explode in an outrageous act, and while hallucinations and other features of insanity exist, even though the patient may talk and act rationally, the insanity is not absent. Personal inspection of the patient may reveal nothing beyond a slight peculiarity of manner, or not even this.

Homicidal and suicidal impulses, as frequent and characteristic occurrences in traumatic cases are recorded by Spitzka and Clouston, who cite cases.

Verity* narrates a case where the pain and heat appeared upon the side of the head opposite to the part struck, with mental degradation, drunkenness, hallucinations of hearing, disagreeable in character. Three years after the hurt he struck and threatened to kill his wife; at this time he was sober. Two days later he committed suicide by hanging. Brower † observed three cases. One was an army captain, æt. twenty-three, wounded in right parietal region, suffered from headaches and insomnia and four years later became irritable, resentful, quarrelsome, and dissolute. His wife abandoned him on account of his conduct. He went to France and became conspicuous for his outrages as a leader of the Commune. He committed a murder and mail robbery. "The immorality was obviously pathological and the case has in it the evidences of logical perversion." The second case, with heredity, hurt in the army, upon the head, underwent character change, was quarrelsome and subject to fits of ungovernable fury, suspected his family of a desire to poison him. After an attack of epileptic convulsions, his delusions of conspiracy and suicide increased. He carried a knife and pistol for self-defense. The Catholic Church and clergy, to which he had been devoted, he especially regarded as persecuting him. He had attacks of fury, in one of which he killed his wife and then attempted suicide. The Illinois prosecution claimed the man's irregularities to be due to whisky. The judge instructed that if the insanity was the result of inebriety it was no defense, which resulted in the following verdict: "We, the jury, find the defendant guilty in the manner and form charged in the indictment, and fix his punishment at death by hanging. We also find the defendant insane at the present time." The prisoner committed suicide the next day.

"The propensity to suicide is very often combined with the impulse to homicide, and acts of suicide like those of homicide are generally preceded by a morbid change of character and habits.

* Amer. Journal Neurology and Psychiatry, May, 1882, p. 196.

† Alienist and Neurologist, Oct., 1883, p. 650.

In many cases of traumatic insanity murders, the previous insane predisposition is emphasized by a number of immediate relatives having been insane.

Alcoholic complications are very numerous, and where one exists, a murder, especially a wife murder, may be the result of this, as alcoholic lunatics influenced by their marital infidelity, delusions, and hallucinations commit peculiarly horrible crimes of this kind. A drunken katatonic disemboweled his wife in Chicago, running into the street in his nightgown. He was sent to the penitentiary after puzzling the doctors with the alternations of that disease.

Spitzka mentions Lennon, a New York alcoholic, who cut his wife up in regular checker-board pattern.

That both alcoholic and traumatic insanity are murderous might raise the quibble in court as to which the crime was attributable. As the head injury impels to the alcoholic lunacy it should not matter, but there is a psychological interest in the disentanglement. The delusion of the wife's unfaithfulness might shift the homicide upon the liquor lunacy.

1. Alcoholism may in the ancestry predispose through transmitted nervous or mental instability, so that traumatism will more likely induce insanity in a descendant.

2. It renders the individual liable to accidents, despite the old saying that drunkards escape injury.

3. Previous alcoholic habit complicates and aggravates traumatic cases as it does pneumonia, and may be the determining factor of insanity, where the abstemious, with the same injury would survive and may remain sane. It retards recovery and alcohol after a head wound or sunstroke readily congests the brain, a condition especially to be avoided.

4. A proneness to alcoholic addiction is observed as remarkably frequent after a head injury, sunstroke, or overheating.

5. Traumatic cases are quickly, readily, and badly affected by small amounts of liquor which previous to the injury would have had little if any effect. "A little will

always make them maniacal and often very dangerous and homicidal," says Clouston.

6. Alcoholic insanity may be superimposed upon traumatic, and many degrees of these two psychoses combined are observable.

7. The delusions peculiar to the alcoholic insane are sometimes found in traumatic cases complicated with alcohol, even though the alcoholic insanity may not fully exist. This is an important observation.

8. As a probable majority of head injury cases are addicted to liquor the relations of alcoholism to this insanity should be clearly understood as of medico-legal importance, for the law makes a distinction between acts done through insanity from liquor continuously used and those occasioned by liquor "voluntarily" taken. Fearing that advantage may be taken of the plea if drunkenness secured acquittal the legal fiction remains, to be swept away by further advance in civilization, that every drunkard is responsible for his crime. Since this is in the statutes there should be careful discrimination of the effects of alcohol in criminal cases. It should be known that injury predisposes to alcoholism and that one or the other psychosis may predominate in the same individual.

Frequently we have to combat the error of an effect or product of insanity being mistaken for the cause; and nowhere is so much injustice exhibited as in these instances.

I knew an officer of the regular army whose eye was shot out and fore-brain injured during the late war. He was jovial, but dissipated, and occasionally irascible, especially when marching. He was twice court-martialed for acts committed under liquor influence and threatened with cashiering. He had no sympathy from his brother officers, who were harsh in their condemnations. His previous brilliant record for bravery stood him in good stead, whereas the pathological condition should have been recognized in mitigation or excuse. A fireman is in an Illinois asylum with a battered head received in the course of duty. He was pre-

viously temperate, and as he drank heavily afterwards, this was blamed as the cause of the insanity and his wife is refused the customary pension.

If we adopt the Earl of Shaftesbury's dictum (he was in a position to make such an affirmation, being the head of the English Lunacy Commission for fifty years), that fifty per cent. of all insanity is due to alcohol, I think that careful tabulation will show much of this alcoholism to be induced or precipitated by cranial injury, which latter becomes the real and the former the apparent cause.

Delusions, illusions, and hallucinations are those of being persecuted and are often hypochondriacal, as in paranoia; those of grandeur as in parietic dementia; those of poisoning and marital infidelity as in alcoholic insanity.

The divisions of traumatic insanity I would suggest, are as follows :

Traumatic dementia, which usually runs a rapid course to death, and follows upon severe injuries.

Traumatic parietic dementia. This is not the ordinary paresis, but a mixed form blending the peculiarities of the traumatic with those of a shifting, illy-defined paresis, and often linked to a prominent enough paranoia, but the latter is modified by the paresis which governs the prognosis.

Traumatic paranoia may occur with or without the parietic symptoms simultaneously or successively thereto. I should judge from the accounts of the "American crowbar case" that paranoia was the prominent, if not the sole, manifestation in that instance. Left frontal hurts or heredity appear to determine the appearance of this logical perversion.

There are cases wherein paranoia, epilepsy, and parietic dementia are united, where one predominates or persists to the exclusion of the other form.

Case I. Traumatic dementia.—L., æt. forty-eight, mechanic, vigorous, cheerful, industrious, was hit in the head by a flying stone and in a year was helpless, irritable, stupid, with great intolerance to liquor which "went to his head and made him crazy."

Case II. Traumatic parietic dementia.—M., æt. thirty, machinist, struck in the forehead and top of head by conductor's lantern and soon after began drinking heavily, developed irritability, memory and business ability impairment, sleeplessness and prodigality, and is advancing to dementia.

Case III. Paranoia with traumatic insanity and alcoholism. Peter Deegan, æt. sixty, farmer, had lived in Ozaukee county, Wisconsin, about thirty years, an Irishman, surrounded by Luxemburgers with whom he was incessantly at war. He had been beaten over the head with a club and had fallen out of wagons upon his head during drunken bouts, and to use his own words, "swam in whisky." He turned his family out of doors and was cruel to his children in many ways. There was evidence that his sister and himself were primary paranoiacs. She was hemiparetic and passing into dementia. Both of them saw and talked to the fairies or "good people," left food out of doors for them, and had delusions concerning the dead not compatible with their professed religion. Deegan, in a dispute over a trivial matter (a wagon load of straw) brought two guns from the house, one of which he discharged into the thigh of a neighbor, from the effects of which he died. On a change of venue he was tried at Sheboygan, Wis. The evidence was overwhelming as to the traumatic and alcoholic nature of his insanity, but there was great popular prejudice against him, and he received a twenty years' sentence.

Case IV. Traumatic paranoia with alcoholism. Mathias Busch, æt. thirty-two, German, brewery beer vender. Grandmother threw herself in a well while insane, father "eccentric," a paternal uncle John insane and confined in a cell in his own house. A son, Henry, of this uncle is in the Jacksonville Asylum, insane; another paternal uncle, Fritz, was insane, who had two daughters, one of whom died in epileptic convulsions and the other gave birth to two idiots.

Busch had been struck on the left forehead when a boy, the scar is still visible; and also a punctured wound in left temple at outer angle of eye from a pitchfork thrust. He

had twice been sunstruck in addition. He had been industrious and kind to his family up to the date of his first sunstroke, six years ago, when stupid and depressed attacks followed with occasional irritability, and drink affected him more than formerly. His occupation led him to drink considerably. He suspected his wife of being unfaithful at times. These troubles with headaches and sleeplessness increased after the second attack, but he transacted his business as usual with occasional moroseness and accusations against his wife. Three years ago he attempted to commit suicide with a pistol. He finally cut his wife's throat, and after a two weeks' trial was given a life penitentiary sentence.

The Count de Villeneuve was tried at Hyeres, France, for selling wines falsified by arsenic. It seems several persons, noted wine drinkers, had died, having many symptoms of arsenical poisoning, and others were made very ill. The wine used was found to be heavily charged with arsenic to hold it from change, and was the direct cause of the death and illness. The trial was for damages by the friends of the victims, but the prosecution failed. The judge condemned the process of wine falsifying and the case ended. A curious sequel to this event followed in September last, when the Count de Villeneuve gave thirty thousand francs indemnity, and two plantations to over two hundred of the sufferers who had drunk this wine.

Where *inebriety* is associated with epilepsy and can be traced to head injury, dangerous impulses are common after the drink paroxysm. In nearly all of these cases the grand-mêlée is followed by explosive violence.

THE BRITISH MEDICAL ASSOCIATION INQUIRY
INTO INTEMPERANCE.

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

For some time past the Collective Investigation Committee of the British Medical Association have conducted an inquiry into the connection of disease with habits of intemperance. The report, on which Dr. Owen bestowed great pains, was published in a recent number of *The British Medical Journal*. The 13,000 members of the association were asked to fill in returns from the counterfoils of their death certificate book for the preceding three years. This investigation, however valuable as an experimental effort, is too defective to warrant any general deductions.

There are one or two serious defects, among the chief of which is the small number of reporters, and the limited total of deaths reported on. Only 178 members sent in returns, and the whole number of deaths returned was 4,234. These data are far too few to justify any dogmatic conclusion. Perhaps a still more serious drawback has arisen from the fact that the returns have been drawn from the death-certificate counterfoils of the preceding three years. The memory of a busy practitioner of medicine is too overburdened to admit of reliance being placed upon recollections of particulars of cases even a few months back, and this defect alone, in my judgment, vitiates the whole report. Besides, probably not half-a-dozen of the reporters had their attention, during the period of observation, directed to the relation of temperate or intemperate habit of life to the causes of death. I have no doubt that the reporters have all done their best to give as accurate returns as possible, but from my own experience of a previous attempt to procure a similar return on a much smaller scale — for only twelve months back — I feel con-

fidest that the only judicious plan would be to ask reports of deaths for a future period extending, say, from the 1st of January 1889, for one, two, or three years. The practitioner could then accurately fill in the particulars (to which his attention would be specially called) of each death while his memory of them would be fresh and trustworthy. A third important defect is that of classification of drinkers into (1) the habitually temperate, (2) careless drinkers, (3) free drinkers, (4) the decidedly intemperate. The habitually temperate are defined as drinking small amounts, only with meals, and rarely taking spirits except as a medicine. The latter part of this definition did not apply to whisky-drinking countries, so that the Scottish and Irish figures are on a different footing from those of England. The careless drinkers were described as neither "intemperate" nor "free," yet as not confining themselves within a rigid rule, not objecting to spirits occasionally as a beverage; at times drinking between meals, or even getting drunk occasionally, but not making either practice a habit; and on the average, not materially exceeding the so-called "physiological amount" of $1\frac{1}{2}$ ounces of pure alcohol daily. The free drinkers were stated to be men who drink a fair amount, or take their wine freely, habitually exceeding the physiological amount to a material extent, yet who could not be called drunkards or considered as having forfeited a reputation for sobriety. The decidedly intemperate were called "drinking men," "hard drinkers," and "drunkards." This distribution will, by those who have devoted much attention to the subject, be recognized as most indefinite so far as the habitually temperate, careless, and free drinkers are concerned. There is a large proportion of drinkers who are abstemious to a degree in company, but who indulge to excess in secret, their habit of intoxication, or of less pronounced drinking, never being discovered unless by accident.

Bearing in mind these, among other qualifications to be applied to the results of this investigation, let us consider the results, remembering that only males dying over 25 years

of age were included. 2.8 per cent. were abstainers, about 42 per cent. were habitually moderate, 25 per cent. were careless, and 30 per cent. more or less distinctly intemperate (one-half of these latter having been decidedly so).

The most interesting to temperance reformers, of all the figures, are the returns of the average age at death. The table is as follows :

| | Years. |
|----------------------------------|--------|
| Abstainers, | 51.22 |
| Habitually temperate, | 62.13 |
| Careless drinkers, | 59.67 |
| Free drinkers, | 57.59 |
| Decidedly intemperate, | 52.03 |

Here the average age of the habitually temperate is the highest, the careless drinkers next, the free drinkers third, and the decidedly intemperate fourth. There has thus been a difference in length of life of ten years between the habitually temperate and the decidedly intemperate.

The most remarkable feature of this table of the average age at death is, however, the apparently shorter duration of life of abstainers as compared with drinkers of all degrees. The average length of life of the nephalists was about eleven years less than the average of the habitually temperate, eight years less than the average of the careless drinkers, about six years less than the average of the free drinkers, and, wondrous to relate, actually about three-quarters of a year less than the average of the decidedly intemperate. Here's a nut for the teetotalers to crack at last! Some of our friends—the enemy—are already crowing over this marvelous demonstration (?) that teetotalism kills more quickly than habitual drunkenness!

But this dire doom of water-drinkers is, after all, but an illusion. The truth is, that drinking, as a general habit, has descended from remote antiquity, while the general adoption of abstinence has been of but comparatively recent years. The greater proportion of converts to teetotalism have been amongst the young, so that the average age of abstainers in the land of the living must, at any period within the three

years reported on, have been very much less than that of drinkers of all grades. This is Dr. Owen's explanation.

That there is much in this mode of accounting for the apparent superior longevity of drunkards and other drinkers over abstainers is apparent from two other tables constructed by Dr. Owen. When all cases of death under thirty years of age were excluded, the average age of the teetotalers was about four years more than that of the decidedly intemperate. When all deaths under forty were excluded, the average age of the teetotaler was one year greater than that of the free drinkers, and more than five years greater than that of the intemperate. Dr. Owen candidly and very properly states that we have not in these returns the means of coming to any conclusion as to the relative duration of life of total abstainers and habitually temperate drinkers of alcoholic liquors.

This explanation is sufficient to account for the returns embodied in this enquiry apparently showing an average duration of life different from that obtained from observation of the living. But, I think, a little of the discrepancy may be due to the defects in the investigation to which I have alluded, and to other defects of minor importance. The returns of the United Kingdom Temperance and General Provident Institution prove conclusively the remarkably greater length of life among abstainers than among drinkers who are not drunkards. The statistics are spread over twenty-two years, and afford the best proof attainable of the marked longevity of abstainers, as compared with drinkers, drunkards being excluded altogether :

| | Temperance Section. | | General Section. | |
|--------------------------|---------------------|----------------|------------------|----------------|
| | Expected Deaths. | Actual Deaths. | Expected Deaths. | Actual Deaths. |
| 1866-70 (5 years), . . . | 549 | 411 | 1008 | 944 |
| 1871-75 " . . . | 723 | 511 | 1268 | 1330 |
| 1876-80 " . . . | 933 | 651 | 1485 | 1480 |
| 1881-85 " . . . | 1179 | 835 | 1670 | 1530 |
| 1886-87 (2 years), . . . | 553 | 390 | 713 | 700 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 3936 | 2798 | 6144 | 5984 |

“Facts are chiefls that winna ding,” and till these, as well as other life insurance statistics telling much the same tale, are proved to be inaccurate, teetotalism is demonstrated, by the most practical and crucial test that can be applied, to be unmistakably favorable to long life.

I trust that no one will consider my criticism as in the smallest degree reflecting on the Investigating Committee, or on Dr. Owen, the latter having simply had to deal with the material placed before him. In fact, he deserves the highest praise for presenting so elaborate an analysis, and drawing up so fair a report of the returns at his disposal. Enquiries of this kind are subject to defects altogether beyond the control of the investigators. Taking the report as it stands, it is gratifying to the advocates of temperance to find the following, among other deductions drawn by Dr. Owen: That habitual indulgence in alcoholic liquors, beyond the most moderate amounts, has a distinct tendency to shorten life, the average shortening being roughly proportioned to the degree of indulgence. That cirrhosis and gout are largely caused by alcoholic excess. That the effect of alcoholic liquors is generally to predispose the body towards the attacks of disease. That total abstinence and habitual temperance considerably augment the chance of death from old age or natural decay without special pathological lesion. So it ever is. The more the effects of strong drink are enquired into, the more confirmation there is of the fundamental principle on which abstinence and prohibition are based; that intoxicating liquors are dangerous beverages, perilous to life in all quantities, of the effects of which we have as yet any means of knowledge.

Dr. Rauch has found that in the statistics of eight hundred deaths of physicians in Illinois during the past ten years, eighteen came from overdoses of opiates and hypnotics, and twelve come from alcohol.

SHOULD INEBRIATES BE PUNISHED BY
DEATH FOR CRIME?*

BY T. D. CROTHERS, M.D., OF HARTFORD, CONN.

It is a common error to suppose that law and its practice, and the facts and theories of science generally accepted to-day, are final and fixed truths. The fact is not often recognized that theories, creeds, and laws, and their application to the events of life, are only human conceptions of truth. Hence the demand for change and readjustment of the relations of life to conform to the new truths and new facts constantly appearing. Whenever human conduct, thought, and law fails to adapt itself to these new conceptions of life, great injury and loss follows.

The treatment of insanity, medically and legally, has totally changed from the past century. A better knowledge of such cases has demanded an adjustment of theory and practice to conform to the new views. The armies of the lawless and defective are no longer concealed by the fogs of superstition. Their origin and march are growing more and more distinct with every advance of the age. The hosts of the insane have been outlined and traced; the idiot has appeared as a growth from distinct causes; the epileptic has emerged from the theory of being possessed with an evil spirit; criminals are found who are not deceitful and desperately wicked, but the direct products of conditions of life and living; the inebriate, who for ages has been the subject of ridicule and punishment, comes into view as defective and diseased. Thus, from the front lines of advance come new facts, new views, requiring new laws, new adjustments of the theory and practice of yesterday to meet the clearer, wider knowledge of to-day. The farmer must put aside the old implements of his fathers; the mer-

* Read before the New York Medical Legal Society, Sept. 8, 1838.

chant must use the telegraph and telephone because correspondence is too slow ; the practice of the courts, the theory and treatment of diseases, the teaching from the pulpit, are all changing. The spirit of the age questions and demands reasons for the theories and practices of to-day. It inquires if our methods and theories are destructive or obstructive in the race march from the lower to the higher. My purpose is to show that the death penalty, as a means of punishment for inebriates, is opposed by all teachings of science and experience, and should be superseded by other means based on a more accurate knowledge.

An outline view of the present legal methods of dealing with inebriates who commit petty crime will make clear both the destruction and obstruction which follows from the failure to comprehend and utilize the facts which science and experience teach.

Of the estimated half million inebriates in this country, ten per cent. are yearly convicted of crime of all degrees. Of this number, two per cent. commit capital crime, and one per cent. of this number, or about one hundred persons, are executed every year. These statistics are only approximate estimates, but they illustrate in a general way the extent of inebriety, and how far the courts are called to restrain and check it. A study of the local statistics show that in every town and city of this country a large part of the business of courts of justice is the legal punishment of inebriates. The inmates of jails and prisons who are inebriates are variously estimated from fifty to eighty per cent. of the whole number. Year after year the courts administer the same treatment of fine and imprisonment for both inebriety and crime, and yet the number of inebriates is increasing. When this fact is studied, it appears that a species of fatality seems to follow the first legal punishment of inebriates, seen in a repetition of the same offense and the same punishment, with an ever-increasing frequency. In the courts these are called "repeaters," and the number of sentences of the same man for the same crime in some cases extend into the hundreds.

In one thousand cases confined to Blackwell's Island, nine hundred and thirty-five had been sentenced for the same offense from one to twenty-eight times before. This fatality seems to start with the first sentence and punishment; and the victim is precipitated lower and lower, becoming more degenerated and incapacitated, until finally death follows in prison, the insane asylum, or alms-house.

The natural history of such cases is continuous punishment for inebriety, assault, theft, burglary, and petty crime, and finally murder. Each period of punishment is followed by the same or more aggravated crime. The intent and purpose of the law is defeated, and this means of treatment both directly and indirectly increases crime and prepares the inebriate for worse and more hopeless states. The courts and prison officials are powerless, public opinion sustains the law and demands its execution irrespective of all consequences. The poor victims punished to-day reappear to-morrow, under arrest for the same or a worse crime. The severity of the punishment makes no difference. The inebriate who, under the influence of alcohol, commits assault to-day, will do so to-morrow, and next year, and so on, as long as his inebriety continues. No legal punishment of fines and imprisonment can stop him. These facts are sustained by the experience of all courts and prison officials. They are also equally true in the death punishment of inebriates for crime.

When the crime is the direct or indirect result of inebriety, it is only the natural outcome or logical result of conditions of brain disorder and surroundings. The assumption that inebriety is always a voluntary condition within the control of the person, is a most fatal error. On this error is based the death penalty. Its practical failure is apparent in the increase of capital crime by inebriates. The inebriate who has been arrested for petty crime while intoxicated many times before, finally commits murder in the same condition, and is executed. His friends and companions do the same thing and suffer the same penalty. Thus one brutal

murder committed in a state of intoxication is followed by another equally brutal, and the execution of the murderer makes no diminution in the number of similar crimes that follow. In every daily paper appear records of the same murders by inebriates under the same circumstances. A wave of public vengeance may dispose of the criminal by lynch law, or only be satisfied when he is hung, but the same murders are committed again by the same class of men. This is only the repetition of the same blunder of fining and imprisoning inebriates for inebriety and petty crime. In both cases the victims are destroyed and similar offenses are increased rather than diminished. In one case imprisonment and fines make the inebriate more incurable and less capable of change of life and living; in the other, the execution of the inebriate leaves a brutalizing, combative influence and a form of contagious glamour that defective brains are powerless to resist. These are the facts which experience and observation fully confirm, and which the latest teachings of science explain and point out.

To-day it is known that the action of alcohol on the brain and nervous system is anæsthetic and paralyzant. The use of alcohol to excess at intervals or continuously always benumbs and paralyzes the higher operations of the brain; the over-stimulated heart reacts and depression and feebleness follow. All the senses are disturbed and become more or less incapable of transmitting the impressions which are received. The brain is incapable of accurately comprehending the nature of acts and the relation of surroundings when under the influence of alcohol. The palsy which follows from this drug masks all brain action. Delusions of vigor and strength appear; events and their consequences and motives and conduct are all exaggerated, misconceived, and misinterpreted, and the brain is unable to correct them. The pronounced delusions, illusions, delirium, mania, imbecility, and stupor seen in states of intoxication are only the advanced stages of brain conditions which begin with the first glass of spirits. The early changed conduct and speech

of men who use spirits are the first symptoms of the paralyzing action of alcohol. More spirits are followed by more paralysis, and finally all judgment and experience and all distinctions of right and wrong, of duty and obligation, are confused and unreal. The supposed brilliancy which follows from the use of spirits is unreal and transient,—it is the glamour of the mind which has lost its balance and is unable to correct itself. No other drugs are known whose paralyzing effects on the higher brain centers are so positive and insidious. The inebriate and moderate drinker have always impaired brain force and nerve power. The automatic nature of their life and brain-work may cover up this fact; but change the surroundings and demands on the brain, and its incapacity appears. Every toxic state from alcohol more or less permanently impresses and debilitates brain integrity.

The fear of the law and consequences of acts make little impression in such cases. The brain is anæsthetized and crippled, and cannot realize events and their nature and consequences. The crime committed by an inebriate cannot be the act of a healthy brain. The more pronounced his inebriety and the longer its duration, the more positive the disease and incompetency to reason and control his acts. The effort to fix a point in all disputed cases where sanity and responsibility joins insanity and irresponsibility is an impossibility which every advance of science demonstrates. It is equally impossible to use alcohol to excess for years and have a sound, normal brain. It is impossible in such a case to fully realize the nature and consequence of acts and obligations. It is a legal fiction to suppose that a crime committed while under the influence of alcohol was the voluntary act of a sane man. It is a legal fiction to suppose that a sane man would plan a crime, then become intoxicated for the purpose of executing it. It is a legal fiction to suppose that premeditation in crime committed by inebriates is evidence of sanity and consciousness of his acts. These are some of the facts of science which bring additional evidence of the error of capital punishment in such cases.

A study of the crime committed by inebriates amply confirms the fact of brain incapacity and disease. Thus in cases of capital crime by inebriates, delusions, illusions, morbid impulses, and epileptic explosions are common symptoms. In many cases capital crime is the result of peculiar circumstances and sudden strains on the enfeebled brain, or the possession of a morbid impulse, a delusion, or illusion that suddenly dominates the mind; also epileptic explosions, that are real attacks of maniacal fury and unreasoning. Alcoholic somnambulism or trance is present in many cases. The mind in these cases is oblivious to all outside influences or considerations and is subject to passing impulses that may spring from internal causes. At the time no general indications of unconsciousness may be present, yet a certain automatic line of conduct and history of crime give clear hints of brain enfeeblement. All crime by inebriates will be found associated with concealed or open delusions, morbid and epileptic impulses, and sense deceptions. In all these cases the brain is unsound and cannot act rationally and clearly. There are present in these cases either insanity of inebriety or the inebriety of insanity. The inebriety of the prisoner has merged into insanity, or some concealed insanity or brain degeneration has developed into inebriety or dipsomania. The death penalty to such cases has no horrors. It is rather welcomed. The struggle for life is the attractive publicity that makes a hero of the man, and the mystery of the end of life intensifies the interest to the last moment.

A summary of the facts we have outlined would sustain the following statements:—

1. The legal treatment of insanity has changed in obedience to a more accurate knowledge of the brain and its diseases.
2. The legal treatment of inebriety is unchanged to-day. Although it occupies two-thirds of the time of courts, all teachings of science and a larger knowledge of the inebriate and his malady are ignored.

2. The ruinous error of punishment by fines and imprisonment of inebriety, and petty crime associated with it, which notoriously increases and perpetuates the inebriate and criminal, is a fact demonstrable in every community.

3. Thus public opinion, through mediæval theories and laws, are training and preparing a class of inebriates who first commit petty, then capital crime, with a certainty which can almost be predicted.

4. The death penalty for such crime utterly fails for the same reason. The execution of any number of this class simply opens the door for an army already prepared and trained to take their places.

5. From a scientific study of these cases, it is clearly apparent that they are diseased and incapacitated to act sanely. Alcohol has palsied the brain and made them madmen. The very fact of continuous use of alcohol is evidence of mental impairment and unreasoning act and thought.

6. To hold such men accountable for their acts, and by punishment expect to deter them from further crime, and by such punishment check others from similar crime, is an error which both scientific teaching and experience point out.

7. The object of the State, through the law, is to protect society and the individual; but if the execution of the law-breaker fails to accomplish this end, the laws are wrong.

8. The unfounded fear that the plea of insanity in crime, and the failure to punish, is an encouragement for further crime, is flatly contradicted by statistics.

9. Among the mentally defective, the insane, and inebriates, the death penalty is followed by an increase rather than a diminution of crime.

10. The inebriate should never be hung for crime committed while under the influence of alcohol.

11. This method of punishment is never deterrent, but furnishes an attraction for other inebriates who commit similar crime in the same way, following some law of mental contagion.

12. The inebriate murderer should be confined the rest

of his life in a military work-house hospital. He should be under the care of others, as incapacitated to enjoy liberty and incompetent to direct his thoughts or acts.

13. A change of public sentiment and law is demanded, and a readjustment of theory and practice called for. The criminal inebriate occupies a very large space among the armies of the defective who threaten society to-day, and his care and treatment must be based on accurate knowledge, not theory.

14. Inebriate murderers should never be placed on public trial, where the details of the crime are made prominent or the farcical questions of sanity are publicly tested. They should be made the subject of private inquiry, and placed quietly in a work-house hospital, buried away from all knowledge or observation of the world.

15. The contagion of the crime and punishment would be avoided, and his services might repair some of the losses to society and the world.

A true knowledge of inebriety always begins in observations and generalizations that are condemned as empirical and absurd. It is the accumulation of these observations and conclusions that form the bases of all true scientific advance. Spencer wrote: "Every science begins by accumulating observations and presently generalizes these empirically; but only when it reaches the stage at which its empirical generalizations are included in a rational generalization does it become a developed science."

The ideas of great men are eagerly seized by small brains and with slight modification presented again as their own. Thus the retail dealer often gets more credit for originality than the maker of the thoughts.

STATEMENTS OF PHYSICIANS ON THE HEREDITY OF INEBRIETY.

The following questions and answers are very suggestive of the great fields of facts, awaiting scientific study, and clinical explanation in the future. This grouping comprises only a part of the replies to the first question of the circular sent out to the profession by the JOURNAL OF INEBRIETY. Many replies to other questions will be given in the coming numbers of the JOURNAL, the object of which we hope will be to rouse up greater interest in the study of individual cases. The question was "Can you give any facts from observation, bearing on the heredity of inebriety; particularly as to the presence of insanity, epilepsy, phthisis, inebriety, or other neuroses in the parents or relatives of the inebriates? Give cases with histories if possible?"

Dr. Conrad of Baltimore, gives the following case: M. A., age 27, single, the son of an inebriate father. His sister is an epileptic. His father had convulsions during the drink periods, and died in one of them. His mother was of a delicate physical organization. The son, M. A., was a dipsomaniac, and during the drink periods he has to be confined to the station-houses or asylums because of his violence. During the free intervals he is restless, nervous, excitable, and very unstable. He is mischievous and full of intrigue, and in act and conversation of low moral character. Yet when it is his interest to do so, can both act and appear very well. The drink storms are irregular as to time and duration, and in the interval he loathes spirits. He has had convulsions when drinking to great excess. He thinks he can not help it as it is inherited from his father.

Dr. Hughes of St. Louis, has treated a case who had

more than twenty attacks of delirium tremens. This man's wife died early of phthisis — two surviving children are markedly neurotic. He has observed a large number of cases which brings most abundant testimony in the affirmative of this question.

Dr. Clum of Amsterdam, N. Y., mentions three cases, one of a professional gambler who drank daily for eighteen years, and died at forty years of age. He left three sons who were most carefully and religiously brought up. They were model boys in intelligence, purity, and general mental and moral culture. The oldest tasted spirits for the first time at college when eighteen years of age. A year later he was expelled from college, and after seven years of most impulsive drinking he died from suicide. The second son drank for the first time at twenty-one, from social trouble, and after a severe attack, attempted to drink moderately. In this he failed, and four years later was killed when intoxicated by jumping from a railroad train. The third son became a very reputable man in the church and society. Then began to drink in secret, and was soon intoxicated in public. He developed into a periodical drinker, and has had several attacks of delirium tremens. He is now, at thirty-five, a complete wreck in body and mind.

Dr. Colgan of Oelina, Tenn., writes: "From my extensive observation I must answer the question of hereditary inebriety in the negative. All the children of inebriates which I have seen, have been so disgusted with the inebriety of their parents as to be conspicuous for their sobriety. I can recall five cases where the fathers drank all their life time, and raised families which were exemplary for their sobriety. One of these cases had a son who became insane from a supposed concussion. A tendency existed to insanity in the family; an elder brother, who was a sober man, had three cases of insanity among his children. Another of these inebriates had two children die of phthisis. This disease seems to have been in the family a long time."

Dr. Bayles of Orange, N. J., writes that he has seen two

cases in sons of an inebriate parent. It is probable that a diathetic influence prevailed in these cases, through heredity. Both of these cases were not inordinate or habitual hard drinkers until they had reached manhood. The grandfather was a hard drinker, and the family were people of high social standing and wealth.

Dr. Trail Green of Easton, Penn., says: "I have the history of a family for three generations, five sons of which are inebriates, and all but one died from inebriety. One son did not use spirits, but his son became intoxicated. These five sons had no children. In another family all the grandchildren, like their fathers, were inebriates. When insanity exists in the family of inebriates, suicide is very common. Inebriety most commonly follows from inebriate parents. Idiocy is also a common heredity from inebriety. I knew an inebriate who was sober for years, then suddenly was seized with an overwhelming desire to drink. He went to New York to gratify it, but became so disgusted with his old friends and old haunts, that he came back without drinking, and remained sober. Several years later he died of intoxication.

Dr. Kinlock of Charleston, S. C., says: "In his long experience he has noted many instances of the heredity of inebriety and this fact is beyond all question."

Dr. Patterson of Illinois, writes: "I have seen many cases where parents were intemperate and the children would be dissolute, epileptic, or insane, or fall rapidly into vagabondage."

Dr. Otis of Boston, Mass., says: "In common with other physicians I have seen many cases where the disease of inebriety was inherited, the parents being inebriates. To be more exact, the tendency was inherited, which under favorable conditions, such as poor physical conditions, overwork, worry, etc., will assert itself. In one case a brilliant physician, who started out with most flattering prospects of life, began to drink from no apparent reason, and died a drunkard at thirty years of age. He was a colleague of mine, and his

father, a lawyer, did the same thing and died about the same way. He seemed possessed with the idea that he must do as his father had done."

Dr. Ogden of Toronto, writes: "I have seen many cases in the past twenty-five years, where I have been able especially to mark the heredity of inebriety. So numerous are these cases that I have not the slightest doubt on this subject. In some instances scarcely a member of the family of inebriates have escaped drunkenness and vagabondage. I have noticed phthisis and insanity follow from long-continued use of liquors. I cannot give particular cases for want of time, but I am perfectly sure of the facts which I have mentioned."

Dr. Blanchard of Des Moines, Iowa, says: "In one case under my observation, the grandfather and father were intemperate, the father died of alcoholism. This case was a prominent public man, of more than usual mental force. He had a son who became insane and died of phthisis at twenty-three. This was a clear illustration of heredity."

Dr. Knowlton of Agawam, Mass., answers: "In the cases I have seen, all but one gave clear histories of heredity. In one case the patient's father, grandfather, and great-grandfather all were inebriates. This patient's father had alcoholic epilepsy after a severe drink paroxysm."

Dr. Hunt of Trenton, N. J., writes: "It is always a difficult matter to prove what seems to be a heredity. I have seen many cases where facts seemed to associate imperfect developments of children with the inebriate habits of parents. I am very sure that children begotten during a debauch are apt to show imperfections."

Dr. Dana of New York City, says: "Most cases of inebriety in my experience have not been hereditary, but have been the result of exciting causes, such as bad environment, working possibly on a neurotic soil. Among over fifty cases of epilepsy I recall no case of inebriety in parents, though in some the father was a hard drinker."

Dr. Thompson of Northampton, Mass., writes: "A family

of ten children, father of chloric temper, powerful physique, temperate, and his ancestry temperate, with eccentricities and genius in the blood. Mother of gentler lineage — a *May-flower* ancestry. Insanity, suicide, inebriety, perversity, appearing here and there in their history. Mother's father and one of his sons and a nephew suicides. Mother herself a small, delicate, nervous lady, with symptoms considered to be phthysical down to her marriage; not after childbearing began. Her character sweet, intelligent, good. Hands tremulous, and given to borrowing trouble, a poor sleeper, and total abstainer. Of her children, four girls, all of them possessed of fine minds, one had congenital curvature of spine, scrofula sores; died at twenty years. One died of phthitic, one died of cancer, and the fourth of dysentery. Of the males, two were pronounced inebriates; one of the sottish, constant type, the other with distinct intermissions. In each case there was a tendency to dementia; theirs was a psychosis along with the inebriety that was not inebriety, 'a power behind the throne, greater than the throne itself.' A disease was attached to the inebriety in these cases by a Siamese twin ligament, in blood, wherein heredity of disease was present. Was not therefore the inebriety inherited, and a disease one of the twins? The other man of this family presented an instance of splendid talents and temperance, a tendency to Carlylian eccentricity, and an example of great age.

"In another case, which I call maternal impression instance, and I have seen at least two more. Patient's father temperate; mother of an intemperate, aristocratic Irish family, containing several inebriates. During the gestation of this lady, she took spirits freely for pectoral symptoms, for which she at this time had an inordinate desire. After the birth of the child she abstained. This child grew to manhood, and was the only inebriate of that family. I am pleased to say that he has become restored under my care, and has the promise of permanent recovery."

Dr. Howard of Washington, D. C., says: "This case is a

type of many I have seen. The father was an inebriate, the mother was temperate. He had four sons, three of whom died from inebriety at twenty-five, thirty-two, and forty years of age. The fourth one is a periodical drinker. In this case the father died during the childhood of his children, and their early training and surroundings were most excellent. I have no doubt insanity and phthisis are often the sequelae of inebriety, and are frequently transmitted from sire to son."

Dr. Russell of Winchendon, Mass., writes: "From long observation I am satisfied that inebriety is very commonly inherited. I am familiar with the history of several distinguished families, where the father is not an inebriate, but a free liver, making free use of stimulants, whose children became inebriates in after life. In one case a man who was a neighbor of mine, and an inebriate, had four sons, three of whom became inebriates. Insanity and phthisis I know to be transmitted from intemperate parents, and I could cite hundreds of cases. Echeveria, in *Journal of Mental Science* for January, 1881, has many very illustrative cases."

Dr. Hubbard of Winchester, Mass., writes: "I have seen many cases where inebriety on the part of the father was followed in the children by phthisis or epilepsy, although the family history from both branches showed no trace of either phthisis or epilepsy. Case 1 was a prominent illustration. A girl of seventeen years of age, whose parents were strong and healthy and with no trace of any disease in the past. The father drank from early manhood for many years, then stopped. Finally began again, then married, and continued to drink to excess up to death a few years later. He died of delirium and was much broken down. He had two children, girls, one grew to maturity and was very feeble physically; she died soon after marriage of quick consumption, that seemed to start from no special causes and terminated in two weeks. This was the first case of phthisis in the family. The second girl was conceived when the father was intoxicated, and had epileptic fits from early infancy. They stopped

for several years and appeared at puberty, then merged into an uncontrollable desire for spirits. She was a girl of average intellect, but exceedingly nervous and irritable at times. The mother married again and had four children, who grew up strong and well with no taint of disease."

Dr. Griswold of Manchester, Conn., mentions: "Family of A. Father a cider brandy distiller. Drank habitually from the age of twenty to death at sixty-two from heart disease. History of mother not known. Left two children, a son and daughter. The daughter was always called nervous; had hysteria at times from seventeen to twenty; married at twenty-one; no children. Died at twenty-six from consumption. Son a farmer, was very eccentric, called odd, but strictly temperate. Died at sixty-five from heart disease. He was married at twenty-one. The second daughter of B., whose family history will hereafter be given. Had four children — one son, three daughters. Son worked on farm till age of seventeen; while away at school at eighteen years of age, had typhoid fever. On recovering began to drink some, but seldom to excess, till at twenty-four he contracted syphilis. Afterward frequently drank to excess, and now at forty is a confirmed inebriate. Of his four children, his eldest daughter was very nervous, and has a violent temper. Her reputation for chastity was not good either before or after marriage. The second daughter married at twenty-two and has three children. No traces of neurotic troubles, and is an exemplary wife and mother. The third daughter developed a train of nervous symptoms, at sixteen had hysteria, hysterical coma; and confined for six months in an asylum for hysterical mania cases. Decided tendency to lewdness. Is now a confirmed morphine habitue, and uses a considerable amount of spirits. The A heretofore mentioned married second daughter of B. B's father was a drunkard, mother died insane. Had four daughters and one son. The son is a strictly temperate and good business man. Oldest daughter mildly insane since twenty-four years of age; second daughter (wife of A) insane when about fifty years old.

Third daughter very violent temper, fond of liquor, of bad moral reputation, married, has no children. The fourth daughter married at sixteen years, no children, very bad morals; drinks habitually, but not to excess, very eccentric. Both A and his wife were very exemplary people of high standing in church and society."

Dr. Hurd, Superintendent of Asylum at Pontiac, Michigan, writes as follows :

"In answer to your first question I would say that there are many cases of inebriety where insanity, inebriety, epilepsy, or some other neurosis exists among the ancestors of the inebriate. In one patient who had all his life been subjected to periodical attacks of inebriety, but who came to the asylum suffering from melancholia, it was found upon inquiry that his father and mother, and nine brothers and sisters, were all addicted to the immoderate use of alcoholic liquors. When sober he was quiet, capable, and industrious. He had, however, at irregular intervals an irresistible desire to drink. It was said by his friends that he had never been able to resist an attack for a longer period than five months, and most of his periods of abstinence had been of much shorter duration. He had suffered from repeated attacks of *mania a potu*. After one of them he became intensely jealous of his wife and had definite delusions about her, accusing her of criminal intimacy with a neighbor. He attempted to shoot her on several occasions. He came to the institution in a state of great depression and so continued for a couple of months, when, under judicious treatment, he so far recovered as to be able to go away from the asylum and has since been able to support his family for a period of two years. During that time he has had but one period of drinking, and from the fact that no application was made for his re-admission, I presume it was followed by no mental disturbance.

"In another instance a gentleman, occupying an extremely influential position in a neighboring city, had a large family of children. The father was a steady, systematic uniform drinker, but was not a "sot." Of his children, one

daughter was wayward in youth, and at the age of forty developed mental disease. Another son suffered from epilepsy and ended his life by suicide. Another son was an inebriate. Still another, although possessing much more than ordinary mental capacity and force of character, had periods of drinking, developed epilepsy, and finally died insane. Among his grandchildren, almost all the sons have a tendency to drink or to mental disease. They are excited upon slight disturbing causes and after an indulgence in strong drink they become 'crazy drunk.'

"In another instance which came under my observation, an inebriate father had five daughters, one of whom married and lived respectably; another was free from a tendency to drink or to use opium, but her reputation was not good; a third used opium and whisky, but seemed to retain her womanly instincts, and so far as I could get any information was not unchaste; a fourth used opium and whisky and was lewd; a fifth was addicted to a moderate use of morphine, but not to alcoholics, and was able to maintain herself. The third and fourth developed mental disease. One of them made a good recovery; the other one died a drunkard. Similar histories might be repeated indefinitely."

Dr. Horner of Marshall, Va., gives the following:

Case I.—"R. M. The father and grandfather were drunkards, who lived in the South, prior to the late civil war, when racing, gambling, and drunkenness prevailed. The grandson when drinking to excess at the public bar-rooms, was quarrelsome, belligerent, and the terror of his companions. When demanding drink of the bar-keeper, he threatened violence if refused. The barkeeper drew out a penknife, severed the arteries of the throat and killed him instantly. R. M. had no inheritance of insanity, epilepsy, or phthisis."

Case II.—"T. S. Father was of the most respectable parentage; he became and continued a confirmed sot. His wife's mother was insane and her brother is supposed to have committed suicide in a paroxysm of insanity. The son, T. S., in a few years wasted a fine estate and lost a lucrative

public office and has been a life-long drunkard, having disappeared entirely from the high social position which he at one time held and is now leading a life of infamy with low, ignorant, and drunken companions, in a state of practical "communism" of both sexes, and with the burthen of numerous illegitimate children. T. S.'s grandfather was a Scotch clergyman. No epilepsy, insanity, or phthisis on the paternal side."

Case III.—"W. S. A gallant soldier of the southern army. The mother a weakly and nervous female. Her uncle was insane and died in this condition. W. S.'s father was a healthy, vigorous, and virtuous farmer, the son in early childhood, if not from infancy, exhibited symptoms of epilepsy, which were overcome by strict hygiene, dieting, and medical treatment, and he grew to manhood in comparative good health. Unluckily his parents indulged him in every possible manner, and he became self-willed, idle, indulging in extravagant ideas of wealth not possessed, excepting by his parents. The disasters of the civil war brought to him chagrin and financial ruin, and to be relieved of depression of spirits, which seemed to affect him more in midwinter and during the spring season, he became intemperate. When drinking to excess the whisky of the country bar-rooms he was passionate and quarrelsome and at times markedly homicidal, and on two occasions during the stage of depression, would have committed suicide, had he not been closely watched and restrained. His worst paroxysms succeeded overwork on a farm, and from mental strain incident to the support of a large family. His circumstances have changed, and amid comfort and restored prosperity, he has not drunk for three years. Judicious medical treatment for twenty years has been carried out in the management of this case. The religious sentiment has exerted a salutary influence also, and he has united himself with the Christian Church."

Among the cases of inebriety whose history, symptoms, etc., of chronic alcoholism which were furnished to the columns of the *JOURNAL OF INEBRIETY* some years ago by the

writer, was one who died in a condition of mental inebriety, with all the proofs of cerebral paresis. The two sons of this individual are now drunkards, and one declares that though his surroundings are of the most favorable character, he is unable to resist his impulse to use intoxicants, and believes that he is destined to die a drunkard. Unfortunately for this class neither the intelligence of the people nor the laws in the Southern States allow any hope to save the drunkard from his inevitable ruin, when the malady is inherited. In this connection may be quoted the utterance of Forbes Winslow, M.D., in his treatise on "Obscure Diseases of the Brain and Mind," page 119: "May not all these melancholy departures from ordinary and healthy modes of thought impulse and action constitute evidence not only of depravity and vice in their ordinary signification but of undetected, unperceived, unrecognized mental disease in all probability arising from *cerebral irritation* or physical ill health necessitating not restraint but a careful attention to the physical health."

Dr. Conors of Oil City, Pa., mentions this case: C. J. married in 1848 at twenty-four years of age. Now is father of six boys and four girls, and has remained at home during all this time, excepting a period of nine and a half months spent in the far west. Two weeks before going away he took the pledge, as he was in the habit of drinking moderately. During that fortnight his wife, who was strictly temperate, conceived, and just before his return gave birth to a boy, the second child. On coming back C. J. resumed his moderate drinking, and has continued it ever since. Every child except the one who was conceived while temperate and born while he was away, uses alcohol occasionally. The man in question, although in the company of all classes of men, has not drunk or even had a desire to use alcohol, having no taste for it, though he has it constantly within reach."

Dr. Webb of Liberty, Miss., says: "I know a man who was born literally drunk. His father drank to great excess for a long lifetime, and died from its effects. His son stag-

gered and reeled along, talking and looking like a drunken man. He drank at intervals, but he was the perfect image of a man in a state of complete intoxication. This was a well-marked case of heredity."

Dr. Skirving of Tavistock, Ont., says: "There is no doubt that inebriety is a hereditary complaint, as pointed out by Dr. Gardiner, but I do not believe it will be the primary cause of insanity, unless the patient yields to the natural inherited predisposition, or acquires or indulges in a natural craving."

"The *Disease of Inebriety* is slowly and surely being recognized, and with it a revolution of treatment follows. The hospital and asylum are replacing the jail and penitentiary. The public recognition of this disease is still violently condemned, and public institutions are retarded by this opposition. Hence the number of private asylums that have arisen to meet this growing demand. Every insane asylum must open its doors for these victims, on the plea of insanity, and yet the necessity grows more and more urgent every year. Crimes and criminals grow more frequent from this class, who are neglected, unrecognized, and made worse by the present methods of treatment." — DR. DAWE.

Theoretical and moral opinions, and statements of the nature of inebriety, are contradicted by clinical observations. Theories of habit, vice, and free will to control every act, have no support in the history of cases. The theorists reason out the nature and treatment of inebriety, logically, and along the lines of moral and mental science. The clinician studies and compares the histories of many cases to find some general laws and uniform symptoms and progress. From these data he draws general conclusions of the nature and character of inebriety, always accepting these conclusions as probable facts, which further evidence will either confirm or disprove.

Abstracts and Reviews.

HISTORICAL SKETCH OF THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIETY.

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

No. 3.

DEAR DR. CROTHERS.— I shall devote No. 3 of my historical sketch to the consideration of topics discussed in some of the papers that were presented at the first meeting of the association.

The first was a "Brief Paper on the Pathological Influence of Alcohol, and The Nature of Inebriation," by N. S. Davis, M.D., of Chicago. I regard it as an important fact, that the Association was honored in the very beginning by the teaching of Dr. Davis. There is no man in the ranks of the profession in this country more deserving of the distinction to which he has attained, or more worthy of the esteem and confidence of his professional brethren than the "Professor of Principles and Practice of Medicine in the Medical College of Chicago, Ill."

As the founder of the American Medical Association in 1844, and the President of the Ninth International Medical Congress in 1887, his career of more than forty years between these two distinguished epochs has been one of uninterrupted usefulness and honor; and that he should have come into our ranks, and sounded the key-note of our doctrine and policy in the very beginning of our organized work, is a fact that should be made prominent in our history. I copy the following extracts from his paper, which was the first one offered.

"It might appear to some, superfluous to enter upon a

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serious inquiry into the nature of so familiar a condition as alcoholic inebriation. And yet, we doubt whether there is any subject relating to the social interests of man, concerning which more mischievous errors exist in the popular mind. Perhaps four-fifths of the people at the present time regard inebriation or drunkenness simply as a vice, a crime, or moral delinquency, arising from the abuse of those fermented and distilled drinks, which properly used are tonic, nutritive, and life-sustaining.

“But is inebriation really a crime or a disease? Is it a state of moral torpidity, or a morbid condition of the physical organization, induced by the action of a material agent brought in contact with such organization through the blood? It may be a crime to drink an intoxicating draught for the purpose of inducing inebriation, or with a full knowledge that such will be the result, in the same sense that it is a crime to deliberately expose ourselves to such atmospheric changes as will very certainly cause an attack of rheumatism or pneumonia, or otherwise impair our health and usefulness.

“But that the appetite for alcoholic drinks and the state of inebriation are diseased conditions of certain organs or structures, is susceptible of clearest demonstration. To procure a full recognition of this fact by the community at large, is a step of paramount importance in preparing the way for the adoption of such measures as will either prevent or cure the disease.”

He then proceeds to show that “numerous chemical analyses of the blood and different tissues” had demonstrated that “when alcoholic drinks are taken, the alcohol enters the blood and permeates with it every tissue of the body,” and that it undergoes no chemical change “but is eliminated through the excretory organs a few hours after it is taken.”

It is thus that “the alcohol like other anæsthetics, diminishes the sensibility of the brain and nervous system,” and by diminishing also the atomic changes in the tissues of the body, the strength and power of endurance are reduced with the necessary reduction of temperature. These facts are

illustrated by official records of nearly all species of manual labor.

Such change cannot go on year after year, or even month after month, without producing a condition known as disease.

“ This hasty review of the well-known pathological effects of alcoholic drinks, shows results strictly in accordance with the deductions from experiments, and the observed facts of every-day life.

“ These deductions have a most important bearing on the question of how ought we to treat the inebriate? If the inebriate is the victim of a positive disease induced by the action of an alluring and deceptive physical agent, alcohol, will any number of moral lessons addressed to his intellect, or any amount of denunciation hurled at his degradation and his vices, cure or reform him? Or will his arrest, arraignment in a police court, and extortion of a few dollars he has left as a fine, eradicate the disease that is preying upon the most delicate part of organization? Abundant experience throughout the civilized world answers these questions in the negative. The treatment demanded by the nature of inebriation, and the interests of humanity, is the same in kind as that awarded to the sick and the insane.

“ The law must recognize the important fact that inebriation is temporary insanity, caused by the morbid effect of a physical agent on the brain and nervous system. Instead of arrests, petty fines, and temporary imprisonment in police stations, Bridewell, etc., ending only in a further demoralization and speedy return to the dram-shop, the law must provide well-appointed asylums in which the victims of alcoholic disease can be legally placed, until, by the combined influence of correct instruction, abstinence, productive labor, and proper medication, the disease and morbid appetite are effectually removed. Such a change in the management of drunkenness would speedily work other changes of vital importance to society.

“ Alcoholic drinks, becoming directly associated with the

idea of disease and mental alienation in the public mind, would speedily come to be universally regarded in their true light as debilitating to body and mind, instead of tonic and life-sustaining. This would necessarily be accompanied by a corresponding change in the language of the physician at the family fireside, and in the phraseology adopted in the press and the current literature of the day. Such a change would do more to discourage dram-drinking and all its direful consequences than all other measures combined."

Such was the lesson first proclaimed at the first meeting of the Association in 1870. It is in harmony with the "Declaration of Principles" passed at the same time, and no subsequent action of the association has been contradictory to it. In reviewing the different papers that were offered at the first meeting, it is a noteworthy fact that they were prepared by gentlemen mostly unknown to each other, living hundreds of miles apart, and without any conference or arrangement as to the subjects for discussion.

Next in order is a paper by Dr. Joseph Parrish, entitled the "Philosophy of Intemperance." Its author assumes "that there is no fact in physiological history more potent, than that certain admixtures of temperaments on the one hand, and certain departures from a healthy and temperate use of natural gifts on the other, originate unsound or deficient offspring, and it is to this fact that we owe the infirmities with which many persons are born into the world.

"Blindness, deaf muteness, and idiocy, with all the grades of short and long-sightedness, hesitancy or stammering of speech, feebleness of intellect, or want of balance of mental powers, are so many indications of defects in the combination or the physiological adaptation of parents. Again, take the mental nature, with all its obliquities and perversities, its waywardness and infirmities, its eccentricities and oddities, and it is impossible to estimate the resulting effect of combination and defective training upon each new generation."

The doctrine of heredity is urged as exhibiting an important and indeed a potent factor of individual intemper-

ance. "The existence of a pre-disposition to diseases is as familiar to the people at large, as any other fact in the natural history of the race. It is a part of every family record, and is recognized as a common belief, and why it should not be admitted in connection with this form of disease, it is difficult to conceive.

"The idea that intemperance is sometimes hereditary, should not, however, be taken to mean, that the mere taste for alcoholic liquors is transmitted from generation to generation, by no means. It should rather be taken to mean, that some persons are born with temperaments and tendencies which predispose them to seek such exaltation or relief as is obtained from alcoholic stimulants."

He then proceeds to show how this predisposition is manifested, and describes the symptoms which often precede a debauch and proclaims a "Law of Inebriety," comparing it with the demonstrated statistics of crime, diseases, accidents, etc., and adding that "about the same proportion of persons annually get drowned, or get their legs broken, or meet with mishaps of other kinds."

He refers also to vital statistics which show that only a certain percentage of insanity, and of some other diseases recover, and that such results when carefully studied and compared with life insurance statistics, which claim to tell how many people of certain ages, habits of life, business, etc., die every year, and how by the extension of this principle, the longevity of races and communities is fixed with sufficient accuracy to form the basis of immense and successful financial investments. "So intoxication from alcohol has its law of origin, continuance, and result, modified by constitutional temperaments, race, climate, etc., and must be studied in connection with such facts and circumstances."

Among these facts is the one great factor of nervous disorders known as *intensity of life*. "Mortuary statistics have exhibited a large increase of diseases of the brain and nervous system, during the last generation, so that we are justified in assuming that there has been an increase

year by year, of nervous susceptibility in our race, which is clearly exhibited in the increased intensity of American life.

“The haste with which we live, is not merely an impulsive, erratic, short-lived haste, but it takes the form of method, of business system, and has infused an impetuous inspiration into the whole texture of society.”

Such a condition of society in which the wear and tear is constantly exhibited in the excitements and impulses, and re-actions of community life, men are in great danger who are the subjects either of a hereditary alcoholic diathesis, or who possess such an infirmity of will as renders them an easy prey to corrupting forces.

The author refers to *pravity of will* that is characteristic of a certain class of persons, and says: “A wide distinction exists between the terms here used, pravity and depravity, and it is important that this distinction be maintained. Depravity of will signifies a state of natural debasement without any cause. Pravity of will signifies a departure from a right purpose, and implies a cause for such departure, hence it is a disordered, enslaved will, the cause of which may be in a limited or inharmonious organization but may result from the ignorant and restless mode of life, or habits of thought which deteriorate the moral sense and blind the conscience.

“The impaired will is frequently among the first indications of the infirmity which results in intemperance. I do not mean that it appears only after men have become confirmed in habits of inebriety, but frequently as a primary defect. Such persons are so organized by nature, or so warped by early training, that a life of unsteadiness is a legitimate sequence, which is as much beyond their control, in a state of ignorance of their condition and circumstances, as other infirmities or diseases are, the incipient nature and causes of which are either unknown or misunderstood.

“There can be no question among physiologists, that this condition of the will may result from pre-natal and constitutional causes.

“It is quite natural, however, that persons who are unac-

customed to investigate the philosophy of physical causes, should fall into the error of arranging these symptoms in the reverse order, as follows: first, drunkenness; second, an increased appetite; third, a loss of will; fourth, a diseased condition of body or mind. If our philosophy be true, we have primarily a defective condition of body or mind, and an impaired will, among its earliest evidences; then an appetite, and lastly drunkenness with all its resulting evils."

The author proceeds to discuss the inebriate's relation to society, considering his responsibility, and quoting freely Blackstone, describing the nature of crime:

"When drunkenness is the result of a deliberate perversity or recklessness of will, it invariably carries with it its own punishment.

"It is in the nature of the relation between human consciousness and its Divine Author, that it should be so, and in this sense, human law can take no cognizance of it.

"When drunkenness is the result of an impaired moral nature, or of a defective physical organization, and this becomes the expression of an unbalanced system that may develop itself in this form, in melancholy, or mania, or in any other shade of insanity (whether such condition be congenital, or induced by false views and habits of life), it is to be considered as a disease, and treated accordingly.

"When it occurs from any cause whatever, be it a personal sin, or a disease, and affects the peace and safety of the community, it becomes a social offense, and is amenable to law."

The paper concludes with a consideration of "Intemperance as a disease," "The Effects of Pledges," "Temperance Societies," and "Prohibitory Legislation," and a section showing the difference between insanity and inebriety:

"The sentiment of the people, and not partisan statutes, will of necessity regulate both the demand and supply.

"I submit, therefore, whether the logic of history and science does not lead us into contact with remote causes, as the starting point of efforts at renovation, and whether we

have not been at fault in supposing it possible to reform society by legislating in behalf of special virtues, without aiming toward the region of all the virtues and the reformation of the moral character.

“An earnest protest is demanded against all excesses which enervate the nerve force; against all excitements which tend to impair the moral sense; and against every habit which engenders infirmity in one generation, in order that the next may be secured against the evils resulting from such excesses.

“The immediate channel that seems to be open for such a protest is the press; and the direct source of experimental knowledge on the subject is to be found in the several institutions for the cure of inebriates. These should be so many centres of light and information, from which may radiate the truth, which our people, who are already scourged to sadness by this evil, are eagerly waiting for.

“A literature founded upon scientific observation and experience, would largely influence the pulpit, the stage, and more important than all, the common school; and a popular education, based upon such facts, could not fail to accomplish good, while science and Christianity would gain new courage to join their kindred ministries, in the work of renovation and reform.”

COFFEE INEBRIETY.

Most physicians are doubtless able to recall numerous instances in which coffee has induced more or less serious symptoms. It seems that personal idiosyncrasies often determine the extent of the evil. The evils upon the eyes and ears of people are more frequent from coffee than from tobacco or alcohol. It does not absolutely destroy vision or hearing, but it induces functional troubles very annoying to their possessors. That coffee is the efficient agent appears from the fact that, upon the entire discontinuance of the use of coffee, the symptoms complained of disappear.

Dr. Guelliot has published twenty-three cases of chronic caffeism. Of these cases seventeen were women.

He gives as the characteristics of *caffaism*: anorexia, disturbance of sleep, trembling of the lips and tongue, attacks of *gastralgia*, different kinds of neuralgia, *dyspepsia*, and *leucorrhœa*, often profuse. In the twenty-three cases, he found in eighteen, anorexia; in sixteen, disturbance of sleep; in sixteen, trembling of the lips and tongue; in twelve *leucorrhœa*; in eleven, *gastralgia*; in ten, *dyspepsia*; in ten, neuralgia of various forms; in eight, *cephalalgia*; in four, vertigo and convulsive attacks; in four, obstinate constipation; and in three, constipation and *diarrhœa* alternating.

The evil effects of coffee are especially observable in children. The coffee drunkard is described as thin, pinched features, pale, wrinkled face, and a grayish yellow complexion. The pulse is weak, frequent, and compressible. The sleep is troubled with anxious dreams.

Although coffee does on the whole far more good than evil, it is important to bear in mind the evils that it is able to produce under favoring circumstances. In a general way it may be said that indoor brain workers do not bear coffee as well as outdoor muscle workers. Persons of nervous temperament bear coffee badly.

The effects of coffee when pushed to an excess may be to some extent confused by the alcohol and tobacco which often accompany it, but they can be studied more accurately in women, especially in those who do not drink coffee, but eat it. Dr. O. Guelliot quotes a case of this kind, a woman of thirty-five. Her pockets were always full of roasted coffee, and she ate it in unstinted quantities. Her skin, which was originally dark, took on an earthy tint; constipation was most obstinate; sleep was almost completely gone; she was restless, anxious, and emaciated. As a rule both nervous system and digestion suffer in these cases. The lips and tongue become tremulous, the tongue dry, red, and cracked; the appetite fails; there are attacks of sharp epigastric pain, much vertigo, and prolonged headache. There is less insomnia than might be supposed by those who know the weakening power of a single cup, but much dreaming and

restlessness of a non-aphrodisiac type. The pulse is weak and quick; there is often an anæmic murmur. The muscles waste quickly; the alcohol-drinker may be fat, the coffee-drinker is always thin—he may be a mere skeleton; his eyes are bright and quick in movement, dark, their pupils large; he may be mistaken for a tea-drinker. The best treatment is by exercise, baths, and water-drinking. It may be that in the insomnia which follows the giving up of his coffee a cup of the old poison is the only thing which will give sleep.—*Dietetic Gazette.*

HISTOLOGY OF ALCOHOL NEURITIS.

Prof. Eichhorst of Zurich, describes the case of a habitual drunkard, who died of alcoholic paralysis after six weeks' illness. The symptoms began with inco-ordination, and then paralysis of the legs, followed by paralysis of the extensors of the wrist, with rapid wasting of the paralyzed muscles, tenderness of the muscles, some cutaneous anæsthesia, abolition of reflexes, and ultimately vesical and rectal paralysis. At the post-mortem examination no gross lesions could be seen in the nerve-centers. The brain was not examined microscopically, but the cord showed some asymmetry in the anterior cornua, and some recent hemorrhages in the gray matter in the dorsal region, with thickening of the blood-vessels—changes which did not suffice to explain the general paralysis. The spinal nerve-roots were found to be normal. The tibial and radial nerves, on the other hand, were found to be profoundly diseased, osmic acid preparations showing very extensive degeneration and atrophy, with absence of the axis cylinders in a large proportion of the nerve-fibres. Tracing the nerves to their peripheral terminations in the muscles, Professor Eichhorst found the lesions to be more advanced and complete there than in the nerve-trunks. Indeed, within a muscle there was not a single normal nerve-fibre. Nor were the lesions of these intra-muscular nerves limited to degeneration, as in the nerve-trunks; but

each degenerated fibre was surrounded by numerous laminae of connective tissue produced from the endoneurium and perineurium. It would seem as if the existence of the degenerate nerve-substance had excited inflammatory change around it. Another remarkable fact was that the muscular fibres did not exhibit the tropic changes usually met with in neuritis, although in the vicinity of the diseased nerve-endings the muscular fibres were atrophied apparently secondary to the perineurial lesion. Professor Eichhorst, therefore, proposes to term the condition "neuritis fascians," as denoting what he considers to be the essential feature of the change, viz., the inflammation of the nerve-sheath, and the extension therefrom to the interstitial tissue of the muscles. He points out that similar changes in muscles have been described by Fraenkel in phthisis, and by Eisenlohr in infantile paralysis, the former raising the question whether the ensheathing bands of connective tissue arose from the blood-vessels or the neurilemma. Eichhorst does not infer that neuritis fascians is special to alcoholic paralysis, but that it is an important feature of it. Certainly the clinical phenomena of "peripheral neuritis" harmonize with the occurrence of lesions within the muscles themselves, and we may direct the attention of pathologists to the more precise determination of such lesions, which in all probability precede the degeneration of fibres observed in the nerve-trunks. The latter change has been amply studied, but the former, and, indeed, the essential change, has not as yet been much dealt with.—*Lancet*, May 19, 1888.

THE LATEST CONCLUSIONS ON ALCOHOL.

At the medical congress held in Wiesbaden, in which leading physicians from Germany, Austria, Switzerland, and other countries took part, the question of Alcohol as a Remedy was discussed.

Prof. Bintz gave a very careful review of the subject, in

which the following facts were stated as sustained by the best evidence up to the present time :

In small doses alcohol increases the arterial pressure, in large doses the opposite effect is produced. Alcohol increases the activity of the left ventricle of the heart, and diminishes the moments of rest, and increases the respiration. Alcohol in moderate doses is eliminated by the lungs and kidneys. Alcohol burns up into carbonic acid gas, and water taken into the system. This action produces heat, and is of value to temporarily stimulate and strengthen the system. Alcohol does not increase oxidation. Only such substances can be rightly considered as nutritives which promote the heat of the body without producing any injurious accompanying symptoms. It is known that alcohol in large doses increases the decomposition of albumen, and hence, in many cases of severe illness, tends to hasten the fatal result rather than retard it. Alcohol has the power to reduce the temperature of the body in certain conditions. Moderate doses which do not produce the least symptoms of intoxication will cause a fall of temperature of from 3° to 6° C. The habitual use of alcohol deadens the heat-reducing property until it becomes no longer observable. Narcotic doses of alcohol reduce the temperature several degrees, and this reduction remains for several hours. All the causes of this fall of temperature are not understood. One of them is an enlargement of blood vessels of the skin, and an increased radiation of heat. Alcohol seems to be a drug of great value in therapeutics, but it must be given with great discrimination. In a healthy man, it is always an injurious drug. A habitual beer drinker is as much an alcoholic as a habitual whisky drinker. It is the duty of physicians to support every effort, to break up the indiscriminate use of alcohol as a beverage, or medicine, and insist that it be used with therapeutical precision. These views were sustained by the members of the congress, and a general agreement was reached that all possible caution should be observed in the use of alcohol as a medicine, and its changing effects on different individuals.

—*Therapeutic Gazette.*

FRENCH TEMPERANCE SOCIETY.

At the last annual meeting of this society, M. Daviller and Monin each read long papers, which are summarized in the *Temperance Record* as follows :

The paper by M. Daviller, which has as its title "Alcohol and Alcoholism." The author carefully describes the symptoms of alcoholism and all the particularities of an autopsy practiced by himself, which shows the ravages caused by alcohol in the whole organism. "The facts reported by M. Daviller, victoriously refute the theory of Liebig and De Bouchardat, who, basing their views on the chemical composition of alcohol, thought that it was a respiratory aliment, and that, consequently, its use would in part dispense with the employment of facula and sugar. This thesis was combatted, long since, by Lallemand, Perrin, and Duroy, who, as M. Daviller, in the autopsy in question, have withdrawn alcohol in nature from the viscera. In a word, alcohol is a poison, which the organism endeavors to eliminate by every means at its disposal, but if it be found in excess and cannot be eliminated in sufficient quantity and in time, there is intoxication and death. Alcohol does not nourish ; it disorganizes." After an exact picture of the consequences of alcohol, M. Daviller enumerates all the dangerous drinks and their special effects on the organism. He pointed out that the innumerable 'drinks which appear every day under the name of aperients never open the appetite, that they contribute rather to lessen it, and even to destroy it in the long run. It is incontestible that more drunkards are now seen than formerly. M. Daviller explains that fact by three principal reasons : 1. The exaggerated and continued multiplication of drink shops ; 2. The cheapness and abundance of the products of distillation ; 3. The bad quality and adulteration of these products. The author only took into consideration the bad quality of the distilled products. Also what responsibility the government incur when they leave the citizens of a great country to poison themselves without opposing the least veto.

It seems to us, however, that similar arrangements should be made all through France as at the Paris Municipal Laboratory, which renders so many services, and which has become the terror of public poisoners. M. Daviller asks why, in the official mortality statistics, one never sees the alcohol cause. Alcohol, the prime cause, has as its final limit some organic malady, diseases of the liver, heart, pulmonary phthisis, epilepsy, general paralysis, albuminuria, cancer of the stomach, gout, diabetes, madness, suicide, etc. Alcohol undermines and destroys such and such viscera, according to individual or hereditary predispositions, according to the nature of drink taken. In describing the principal adulterations, M. Daviller denounced wine in which there was not one raisin, manufactured with an alcoholic liquid, mixed with various substances more or less hurtful, such as fuchsine, for example, beer in which the hop is replaced by picric acid, sulphuric acid, aloes, nux vomica, and gentian. He spoke of the fashion of sweetening with liquorice, of making it brown with hartshorn, of bringing it up to the required alcoholic strength by means of Indian berry, the means of flavoring it with sulphate of iron and sea salt, etc. He summarily described the dangers of certain alcohols which were not the product of the raisin, and the several adulterations of brandy, and entered into some interesting details on the manufacture and adulteration of kirsch.

While recognizing that it is difficult to clearly distinguish the categories of drinkers, M. Daviller truly observed that drunkenness assumes different aspects according to the individual and drink. He set up a marked distinction between one belonging to the upper classes, a member of circles each day consuming a notable quantity of alcohol without presenting the same features of intoxication as the working man who drank vile brandy, and he described the difference in form and gravity in these two classes of society. We said long since, said M. Decaisne, that we only occupy ourselves with the fatal results observed among the working classes by the abuse of alcoholic drinks, as if the superior

classes were not numbered among the intemperate. The effects of alcoholism among the latter have attracted less attention among hygienists because they present themselves under particular aspects. The phenomena of alcoholism are notably retarded among people of the moneyed classes. Chosen alimentation and certain hygienic cares attenuate their effects, and when they manifest themselves, the true cause often escapes notice, because attention is distracted by other causes of illness attaching to the richer classes.

Long experience has taught us that we must attribute a large number of maladies among the middle classes to the daily use, although moderate, of fermented drinks. This is well-known in England. In 1873 the Archbishop of Canterbury addressed a vigorous circular to the English clergy on the abuse of alcoholic drink among the middle and upper classes of society, and with the support of the celebrated surgeon, Sir Henry Thompson, he formed in England a vast association (the Church of England Temperance society). *Apropos* of this initiative taken by the English prelate, one cannot refrain from saying how regrettable it is that in France the clergy seem entirely uninterested, or nearly so, in this question of alcoholism. In a certain number of districts especially, and a little everywhere, we have the conviction that the authority of the priest, his insight, and his charity are a great help to the efforts which are being made on all sides at this present moment against drunkenness. After the exposure of the evil — the remedy. M. Daviller presents it thus: Strict inspection of distilled liquors; penalties to apply to the delinquents; taxation of alcohol and of wines of luxury; relief from taxation of *vin ordinaire*; propagation of the use of beer and cider as table drinks. The other means are moral, and for a long time the temperance society has endeavored to put them in practice.

The paper of Dr. Monin, "Alcoholism, a Medico-Social Study," more extended than that of Dr. Daviller, is a complete treatise on the subject. The author describes acute alcoholism and acute poisoning by alcohol, its principal forms,

its various periods. He afterwards goes through drinkers' diseases, the action of alcohol on the composition of blood, on the digestive tubes, on the circulation, on respiration, on the genito-urinary organs, on surgical diseases, etc. There is here a synoptical table of the diseases caused by alcohol, which is certainly the best fact which can be known. With some slight modifications, we should like to see it posted everywhere, in all public places, in every school. M. Monin graphically paints the history of alcohol, the extent of the evil among all peoples, its expansion, and its causes.

Everyone knows that alcoholism causes less damage in vine-growing countries which consume much less alcohol. In Europe, Sweden and Norway stand at the head. In these two countries there is an average consumption of 100 litres of eau de vie per head per year. England follows. In this country, out of a million poor, there are more than 800,000 drunkards. In Germany there are annually made two hundred million litres of alcohol. Alcoholism there numbers 40,000 victims a year. It ravages are greater still in Russia. In Denmark the consumption is 67 litres per head per inhabitant over twenty years of age. In Belgium more than sixty million litres of alcohol made from grain are consumed. There are in Belgium 125,000 cabarets. In Switzerland, in the single canton of Berne, there are 670 distilleries, which annually produce 2,595,016 litres of spirits. Besides which, there is an importation of a million litres. In England and America, for some time now, beer has competed to a certain extent with alcohol. The most sober Europeans are the Italians, the Greeks, and the Spaniards. In Africa the peoples of the Congo and Abyssinia get drunk on palm wine and millet beer. The Tahitians and Fijians are drunkards to the supreme degree. In France the departments which hold the lead for the consumption of alcohol are: Leine Inférieure, Calvados, Manche, and Pas de Calais, all non-vine producers. It is at Clermont-Ferrand that wine consumption is greatest, a mean of 240 litres per year per head, and at Tourcoing the least, fourteen litres. Wine is

replaced in the Nord by beer, and especially by alcohol. Rennes, Caen, and Le Mans consume most cider. At Paris the consumption of alcoholic drinks has largely increased. In 1840 a Parisian drank about 100 litres of wine a year, in 1885 he drank 225, *plus* twenty-four litres of beer and twelve litres of various other alcohols. "In the corner of every brain sleeps madness," said Moreau of Tours; "the difficulty is not to awaken it."

M. Monin, said M. Decaisne, shows how alcohol awakens madness and becomes an intellectual poison *par excellence*. He describes it as asphyxiating the globules of blood from which it chases the oxygen, to replace it by carbonic acid. Thence circulatory congestion and stagnation in the vessels of the envelopes of the brain and of the brain itself, grave alterations of the walls of these vessels, sometimes even apoplexy. It is to these congestive states, followed by thickening and opacity of the nervous tissues, that are due the cerebral symptoms of drinkers and the mental state of alcoholics.

Alcoholic Inebriety from a Medical Standpoint with cases from Clinical Records. By JOSEPH PARRISH, M.D. P. BLAKISTON, SON & CO., PHILADELPHIA.

For a considerable time, there have been floating upon the wide sea of speculative thought and inquiry, certain unclaimed and unclassified ideas of an advanced character, respecting the nature of drunkenness, and of the inebriate proclivity. This book may be esteemed to be the first great effort to systematize and arrange with respect to each other, isolated principles and facts, as well as to contribute other and new doctrines to the main subject.

"Inebriety," says our author, "is a question of nerves — a neurosis — the issue being between soundness and unsoundness of structure or function." Turn away, in other words, from mere drunkenness, and observe also the drunkard, the man himself. What ails him? Dr. Parrish attri-

butes drunkenness to disease, and he discusses the several forms of this disease at some length.

In speaking of the connection that may subsist between drunkenness and crime, we are reminded that sometimes "the criminal takes his draughts of whisky in just such quantity as will harden his conscience." The property of alcohol as a paralyzer is here recognized. The moral sensibilities are blunted by it, in common with others, and the criminal proceeds without remorse.

Our author asserts that crimes attributed to intemperance are, not infrequently, the offspring of the same depraved nature from which intemperance springs, rather than of intemperance itself. "Being children of the same stock, the various forms of crime take certain directions, in accordance with allied physical tendencies." Every prominent constitutional trait is attended by a group of kindred traits. Crime, disease, each is the head of a family. Each also in its purity, is *sui generis*, and is distinctively marked. But when modified by collateral influences and outside relationships, the distinctive markings amongst them become obscured, mixed, erased; so that it is sometimes difficult to determine whether vice or crime predominates; or whether indeed disease is, or is not, the prevailing force impelling to conduct.

As to heredity, Dr. Parrish says: "Inebriety may descend as inebriety, but it is just as likely to change the form of its appearance into insanity, or other related morbid manifestation." This principle obtains in the heredity transmission of any of the neuroses. For instance, epilepsy or hysteria, or melancholia, and so on, are not necessarily transmitted in the same form, but quite likely in some other allied form. This might be expected from the fact that heredity transmission is a compendium of multiplied characteristics, neither parent solely controlling the conditions of the transmitted constitution.

Still the fact seems to be, that the dipsomanical diathesis is fully as transmissible as any other, and probably a little more so. Daniel Hake Tuke declares that the instances of

the transmission of dipsomania in its own form "are so common that it is not necessary to detail any examples." (*Psychological Medicine*, pp. 67-70). Dr. Stewart, of the Chric-ton Institution, says the per cent. of descent of inebriety by heredity amounts to sixty-three. Dr. Blandford says (*Insanity and its Treatment*, p. 139), "we frequently see the same form in successive generations, *e. g.*, suicidal melancholia and hereditary drunkenness." Ample testimony to the same effect could easily be drawn from the highest authorities.

Dr. Parrish remarks, with the wise conservatism which is characteristic of his writings: "In the stream which flows from one generation to another, there are collateral feeders. that are modifying the old, and eliminating the new morbid forces." Is there any period in the life of man, when the conditions for reform and recovery from inebriety are more favorable than at any other? On this point our author says: "There comes a time in the course of one's life, when the forces which have been engaged in structural repair and waste come, as it were, to a standstill." This is the period when sensibilities die out, when appetites fail, the period which comes to every one in advancing years, when passion abates, and even the turbulent and unruly spirit of dipsomania may find peace and repose. This is called the "climacteric period" of inebriety, by our author, and he dates from it a frequent change and abatement of the inebriate diathesis. Every now and then, a short and pithy sentence from Dr. Parrish opens a new vista, revealing interesting and beautiful fields for inquiry and contemplation.

The unexpected and pleasing suggestiveness of the style and substance of the doctor's book clearly indicate a mind well stored with bright new facts and ideas, delightfully and naturally arranged. The disease inebriety, is defined to be "an irresistible longing for the state of drunkenness, not so much for the liquor that produces intoxication" (p. 91). The constitutional defect, is not one pertaining to simple appetite, like, for instance, an appetite for some particular article of food. There is, indeed, a remarkable unanimity in

respect to this point, among those who have carefully observed the hereditary predisposition to drunkenness.

Dr. Kerr says that inebriety is "an overpowering impulse to indulge in intoxication; . . . this impulse is not for inebriating agents for their own sake." The writer of this in a discussion of the subject in a prominent scientific journal, published the following: "It seems best to say, that dipsomania is *an irresistible desire for intoxication*, not intoxicating liquors." (*Alienist and Neurologist*, April, 1882, p. 228.)

On page 96, Dr. Parrish remarks: "A drunken carouse not infrequently arrests and forestalls an impending seizure of insanity."

It is not often that the voluntary induction of one neurotic form can be used to abort some other forms. The observation, however, is in accordance with the fact that drunkenness is of family kinship with insanity. In the section on inebriate asylums, many new and important facts are brought out. These resorts have the unqualified approbation of our author. It is, of course, a difficult matter to cure constitutional inebriety. According to the best authorities it takes many months, or even some years, to so modify the inebriate constitution that it can be controlled by the will.

Dr. Parrish deserves the thanks of all right feeling men for his excellent work. He has taken a great subject, surrounded by mists, uncertainties, doubts, darkness, and ignorance, and has placed it in the light of science and of truth. No man can contend with a courageous heart against a hidden and mysterious foe; but in the light of day, with the enemy in plain view, and his armament clearly discerned and understood, the conflict is more equal and more hopeful.

T. L. WRIGHT, M.D.

The Catholic Total Abstinence Society is one of the most active, aggressive societies of the country. Their organ, the *C. T. A. News*, is a well edited, spirited weekly, presenting the subject above the levels of politics and dogmatic theory.

**INEBRIETY—ITS CAUSES, ITS RESULTS, ITS
REMEDIES ; BY FRANKLIN D. CLUM, M.D., AUTHOR
OF "MEN AND WOMEN." PHILADELPHIA, PA.: J. B.
LIPPINCOTT COMPANY PUBLISHERS, 1888.**

From the preface it is stated "that the object of this book is to give a clear, correct, and impartial description of drunken frolics ; their consequences, and how to avoid them. The subject is treated from a scientific standpoint, and the drunkard is pictured in colors that are true to life. His habits, his diseases, his misfortunes, his miseries, are described exactly as we find them, and the easiest and best way to cure and reform him is made known so simply and clearly that all can understand."

In twenty-one chapters which covers two hundred and forty-eight pages this plan is carried out. To the non-professional reader the great number of new facts will be of much interest. The average medical man will be both pleased and greatly confused, and the expert will conclude, after reading the book, that he has been wandering through some great lumber-room of facts and theory. The book is in some respects undoubtedly the record of the author's experience, and groups many facts of psychological interest. It is written in an easy popular style, and will have a large circle of readers. The publishers have presented a very attractive volume.

**ALCOHOLISM—ITS MORAL CONSEQUENCES
AND CAUSES ; BY SEIGNOR COLAJANNI. PUBLISHED
AT CATANIA, ITALY.**

This work of four hundred pages discusses the question of inebriety in Italy. After describing the prevalence and peculiar causes which seem to prevail in that country, he shows that in a district where the least spirits were sold, the greatest number of murders were committed ; also that crime and inebriety seem to have no ultimate connection in that country. He takes the position that excesses in the

use of spirits are really manias, which the alienist should consider and treat. This is by far the clearest work that has appeared in that country, and points to a physical origin to be reached by physical remedies in all these cases. This work is another unmistakable sign of the new era of study of inebriety and its causes.

MANUAL OF MEDICAL JURISPRUDENCE ; BY
M. D. EWELL, M.D., LL.D., PROF. OF COMMON LAW IN
UNION COLLEGE OF LAW, CHICAGO, ILL. LITTLE,
BROWN, & CO. PUBLISHERS, BOSTON, MASS.

This work seems to be a very useful manual for ready reference. All the more common medico-legal topics are presented in a brief, concise way. The general principles which should govern in these cases are outlined. Such works are often of great value in guiding the student to more exhaustive studies. This work should be most heartily commended as both a student's and handy text-book. It is a fine, well-printed volume of over four hundred pages, sold at \$2.50 and \$3.00.

The New Abolitionists, the International Federation for the Abolition of the State Regulation of Vice, a paper read by Mrs. Anna Rice Powell, at the Social Purity session of the International Council of Women, which has just been published in pamphlet form, twelve pages, is a deeply interesting sketch of a great international movement for the abolition of State-sanctioned vice, and for the promotion of social purity. It is a timely, valuable contribution to social purity literature, and should be widely circulated. Price, by mail, post paid, 10 cents; per hundred, \$3.00. Address, THE PHILANTHROPIST, P. O. Box 2554, New York.

Alden's Manifest Cyclopaedia. It is generally admitted that a good cyclopaedia is a desirable possession for every home. The fifth volume of Alden's more than sustains the good reputation of the previous issues, and is in every respect to be preferred to all others where a moderate outlay and

concise information is a desideratum. The publisher will send specimen pages free to any applicant, or specimen volumes may be ordered and returned if not wanted. John B. Alden is the publisher, 393 Pearl Street, New York.

The Medical Department of the University of Vermont is one of the great popular schools of medicine in New England. The instruction and corps of instructors comprise the best methods, and leading men of the profession. It is a national college in the largest sense.

The Wide Awake, D. Lothrop & Co., Boston, Mass., is one of the best magazines for young people published. Its artistic beauty, pure tone, and exalted literary character is charming for all readers of any age.

Aesthetics, Dreams, and Association of Ideas. By Profs. Sully and Robertson. Humboldt Library. J. Fitzgerald, publishers, New York City.

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The Servant Question is the title of an excellent essay by Dr. Drayton, editor of the *Phrenological Journal*, published by The Fowler & Wells Co., of New York, in the Human Nature Library. This little work is devoted to the choosing and management of servants, and gives many excellent hints and practical points of great interest to every family.

The Homiletic Review, published by Funk & Wagnalls, is one of the best theological magazines in this country.

SOME VALUABLE JOURNALS.

The *Alienist and Neurologist*, edited by Dr. Hughes of St. Louis.

The *American Journal of Insanity*, edited by Dr. Blummer of Utica, N. Y., and the *Journal of Mental and Nervous Diseases*, edited by Dr. Hammond of New York.

The *Popular Science Monthly*, D. Appleton & Co., publishers, New York City, is one of the best presents that can be made for any professional man. Each number is a volume of itself of the latest and most matured thought of science.

The Science, a weekly paper of New York city, is exactly what its name implies, a weekly review of all that is new in the field of science. No other journal is more interesting, and we especially commend it.

The *Scientific American* is an excellent weekly giving a review of the new inventions in science and the arts, and Munn & Co. of New York city, are the publishers.

The *History of the New York State Inebriate Asylum*, by its founder, is creating quite a sensation in New York. Already several newspapers have given long extracts from it, pointing out the injustice of the State in seizing this asylum and using it for the insane.

Dr. T. D. Crothers lectured on "Inebriate Asylums and Their Work," before the Young Men's Christian Association, at Toronto, Canada, Oct. 2, 1888.

Dr. A. Baer of Berlin, Prussia, proposes to issue a monthly review of original studies and discussions of the disease of inebriety and its allied disorders. Leading men all over the world are invited to join him in the effort to group all the new facts in this field. We welcome this journal.

Editorial.

HISTORY REPEATS ITSELF.

In 1838, Dr. Duncan, a writer and medical teacher of Edinburgh, wrote that "the teachings of all science and philosophy opposed the statement that insanity was always a disease. In some cases it was the giving way to wicked impulses which should be treated differently from others where it was evidently disease. He expressed fear that in calling all cases of insanity disease, the insane would be encouraged to unlawful acts on the plea of irresponsibility."

Dr. Balch, of Philadelphia, asserted in 1840, that "many cases of insanity were more vice than disease, and the theory of disease in all cases was a delusion. He believed that unless physicians could discriminate between the vice and disease of insanity no real progress could be made in its treatment."

In 1847, a Boston clergyman condemned the notion of disease in all cases of insanity, and the folly of building asylums to encourage insanity, by false sympathy for the insane.

The following extracts from a distinguished writer and teacher in this country, shows that history is repeating itself in the study of inebriety :

"The law and the Gospel take no note of an exclusive disease theory of intemperance, nor could a view that all intemperance is disease by the product of true psychological science, but of mingled sentimentalism. . . ."

"Great harm may be done to the cause of true temperance by palliating all intemperance with the false plea of disease, to which extenuation this vice is no more entitled than are those of lechery and gluttony. . . ."

"The question for medical men and jurists to solve is how much of intemperance is the result of disease and how much

is vice. . . . Some differential sign is wanted between the man who speers of deliberate choice, and the inebriate victim of a morbid organic impulsion who has no power to control. . . . There is often vice and disease in persistent voluntary inebriety." . . .

INEBRIETY AND MANIA.

When a previously temperate man begins suddenly to drink to great excess, acute mania may be expected. Such cases should always be watched with great care, and if the drink thirst continues should be placed in an insane asylum. This drink thirst is only another form of acute mania, and unless recognized early and promptly treated, serious results may follow. In a recent case of this kind a man previously temperate began to drink to great excess, he was placed under a nurse at home; in rage at his confinement, he shot his nurse and killed himself by jumping out the window. In another case, a man, after a sudden drink impulse which he indulged freely, was taken to a hospital as merely drunken. He committed suicide by jumping out the window.

The fact of sudden impulsive drink craze is sufficient evidence of the probable onset of mania, and if the patient is placed where spirits cannot be procured, the mania will become apparent. All cases of this character should be sent promptly to an insane asylum, or, if they are kept at home, should be placed under the care of an experienced nurse, and receive the closest attention.

A correspondent sends us a long statement of a noted physician who boasted of not having used alcohol in his practice in nearly half a century. A druggist found that over half of all his prescriptions contained tinctures, most prominent for the alcohol they contain. Another physician who is almost violent in his opposition to alcohol, uses tinctures in all his remedies, asserting that the danger from alcohol is neutralized by the drugs they hold in suspension.

DISCUSSION ON THE PATHOLOGY OF ALCOHOLISM.

The discussion of the morbid anatomy and pathology of chronic alcoholism, at the Pathological Society of London, will, as has already been announced, be opened by Dr. Payne. A circular has been issued proposing that the subject should be discussed and specimens exhibited under the following heads:— 1. Effects of Alcohol on the Digestive System. (*a*) Morbid changes in the tongue. (*b*) Morbid changes in the stomach. (Microscopical or other specimens illustrating the changes of these parts, attributed to alcohol, would be valuable.) (*c*) Morbid changes in the liver. (Specimens illustrating any important or unusual features in alcoholic cirrhosis or degeneration.) 2. Effects of Alcohol on the Urinary System. Morbid changes in the kidney. (Specimens illustrating the effect of alcohol in producing Bright's disease, a question about which wide differences of opinion exist, would be valuable.) 3. Effects of Alcohol on the Nervous System. (*a*) Morbid changes in brain. (*b*) Morbid changes in spinal cord. (*c*) Morbid changes in peripheral nerves, including nerve endings and muscles. 4. Effects of Alcohol on the Respiratory Organs. (Relations of alcoholism to phthisis, chronic bronchitis, or other diseases.) 5. Effects of Alcohol on the Skin or any other organs. Members intending to contribute specimens or to take part in the debate are requested to communicate with Dr. Coupland before Oct. 15th.

TEMPERANCE CONGRESS AT SYDNEY, AUSTRALIA.

An international temperance congress was held May 14th, 15th, and 16th, at Sydney, Australia. From the transactions before us this was in some respects a very important gathering. Sir Andrew Stephen presided. The first four addresses were mainly devoted to the early history of the temperance work in Australia and New South Wales. Then followed a

larger number of papers and addresses, the following of which are some of the topics : The Scientific aspect of the temperance movement ; The social and moral phases of the temperance question ; Legislative remedies for intemperance ; Woman's influence in relation to the temperance question ; Grocer's licenses ; Temperance economics ; Temperance in relation to seamen . Clergymen, members of temperance organizations, and others without title made up the congress. No physicians or scientific men seem to have taken any part in this convention. No one seems to have had the faintest suspicion of any other view of the subject, except that of vice, habit, and immorality. Beyond this the earnestness and energy of those who took part is to be commended. This congress was an effort to discover the causes and remedies of a great marked disease, which other men and other times will make clear. As a sign of movement and progress, it is full of promise, and is really a most important event in this far away new land of civilization.

PHTHISIS AND INEBRIETY.

A large amount of space is given in this number to heredity. Several of our readers and friends have been startled at the denials of this whole subject by some physicians, who have managed to have their views widely published. Literally, all such contradiction brings out the facts more clearly, and the truth of heredity becomes more fully established in proportion to the doubts expressed. The following history bears on the question of phthisis and inebriety. George Ulmer came from England in 1798, and settled at New Haven, Conn. He was a harness-maker, a beer-drinker, and after middle life drank rum to excess, until death at sixty-one years of age. His wife was a healthy woman, and lived to eighty years of age. Eight sons grew to manhood and married. Six of them died of consumption under forty-five years of age. One was killed by an accident, and one died from excessive use of spirits. Two daughters

grew up and married, one died of consumption, the other in childbirth. They left four children, two were inebriates, and the others were eccentric and died of consumption. Of the children of the eight sons only ten grew up to manhood. Four of these drank to excess and died. Three of the six remaining died of consumption, and two others were nervous invalids until death in middle life. The last one, a physician of eminence, has become an inebriate and is under care at present. He is the only surviving member of all this family. The male members of this family were farmers, tradesmen, and men of more than average vigor in appearance. They married women (so far as can be ascertained) without any special hereditary history of consumption or inebriety. These are some of the facts from which a most reasonable inference could be drawn of the heredity of inebriety breaking out in phthisis and inebriety, depending on some favorable conditions, and resulting in the extinction of the family. An evolution backward to death.

It is rare that an author in the field of medicine has the satisfaction of realizing that his work has given form and shape to the literature of the subject of his book. Dr. Kerr's most excellent work on inebriety, although scarcely a year old, is already a power in English medical literature, and the frequent quotations and references to it are the unmistakable signs.

In this country Drs. Parrish and Wright have had the same most agreeable experience of being silent teachers, in directing scientific study in this field. Of course these authors are often quoted without credit, and long papers made up entirely of their writings are published as original. This JOURNAL has refused a number of such articles, to the disgust of the pretended authors. The field for the study of inebriety is so wide, and has so many new and unknown facts, that authors should have no reason for rivalry and repeating the experience of others as their own, without credit.

In the meantime the authors of these pioneer works may find cause for abundant congratulation at the influence and power they are exercising in calling attention to this new land of science.

CRIMINAL NEGLECT.

A good illustration of the folly of the vice theory of inebriety, is noted in the following: A cashier of the Southend bank in Columbus, Ohio, who was an inebriate, overdrew his account sixteen thousand dollars. He promised to make good the account, and after signing the pledge was allowed to remain. Later he was found to be a defaulter for a much larger amount, and had continued to drink as before only more secretly. The bank suspended and the cashier went away, and the president and directors thought they had done their full duty in having him sign the pledge. In reality it was criminal to allow an insane man to control the interests of the bank. It was culpable not to recognize the irresponsibility of a man who persisted in poisoning himself with alcohol day after day.

The following suggestive extract is from a recent lecture on the Pathology of Inebriety, by Dr. Day of Boston :

Inebriety is a disease, but not in the sense generally understood. It is the condition of the nervous system calling for alcoholic stimulants that is essentially the disease. It is the desire to drink, the insatiate demand for excitants ; not the mere act of drinking or of getting intoxicated that constitutes the disease. It is the delusion of the crazy man that constitutes his insanity, not the excitement and incoherent ideas which follow, or the extravagant acts which his delusion impel him to commit. These are the consequences of a previously existing morbid state of the brain, and correspond and are similar to the developments of inebriety as manifested in acts of drunkenness. Most cases of inebriety are brought into activity by voluntary acts — and perhaps by an inexcusable disregard of prudential measures in commencing the

practice of drinking, but this fact does not change or alter the chain of morbid sensations which attend those addicted to intemperate habits. To declare every case of intemperance to be a vice, he said, was a cruel and heartless assertion. The individual suffering from diseased appetites should be as much an object of care and treatment as though he was laboring under delusions of mind or maniacal excitement. The various and what sometimes appear to be conflicting views upon the subject under consideration are by no means obstacles to its advance, or to a successful result. When the darkened glass can be removed from before our eyes, and we can see clearly, much of the confusion now existing will be removed, and there will be many less who will oppose the plan of placing excessive drinkers in asylums for the purpose of medical treatment."

The close of the tenth volume of the *JOURNAL OF INEBRIETY* brings additional confidence and satisfaction, in the knowledge of the growth of the fact of the disease of inebriety and its curability in asylums. During the year past this fact has been recognized and urged in nearly every country of the world. The literature of the subject has grown to such an extent, that one hundred pages a week of the size of this journal would not include all that has been written, both directly and indirectly bearing on this topic. As in former years the *JOURNAL* is a source of great offense to many people, who are alarmed at its heretical doctrine of disease. It is sad to be condemned by good people, and we are forced to console ourselves with the fact that God is good, and truth is mighty and will prevail.

Dr. Shepard, of Brooklyn, N. Y., so well known as the pioneer in the development of the Turkish bath in this country, has issued a pamphlet giving an excellent summary of the facts which have been established in his experience of over a quarter of a century.

The physicians who persist in continually rebuking the *JOURNAL OF INEBRIETY* and its managers, for their unscientific heresies are like camp followers, who have never been at the front, but shout frantically from a safe position in the rear, to the men in the dust of the struggle, that they are proceeding on wrong principles, and hunting for truths that can not be found. Such men are always obstructionists of any real progress.

Dr. Mattison of Brooklyn, N. Y., gave a very interesting lecture on narcotic inebriety before the Bermuda Branch of the British Medical Association, at the town hall at Hamilton, Bermuda, recently.

In some cases the delusions of inebriates continue in all after life. An inebriate of much mental force of character had a delusion that his brother, a clergyman, wished to destroy him, and was doing all in his power to increase his troubles and cause him to drink to death. He stopped drinking and remained sober for fifteen years, freely acknowledging his delusion and living most amicably with his brother. His brother went to Europe and he relapsed and the same old delusion returned with greater intensity. He imagined his brother had sent spies who followed him all the time, and in the free interval of his drink paroxysms could not connect these false impressions. Had he committed a crime this delusion would not have been admitted in court as evidence of an unsound mind. His brother was not aware of his relapse, and at intervals wrote most kindly letters, which he construed as marks to cover up his real design. In other respects this man seemed sane, except when intoxicated, yet he was practically insane, and incapable of realizing the nature and consequences of his acts.

Clinical Notes and Comments.

DIPSOMANIA AND HEREDITY.

Dr. Kemps in the *Progress*, writes as follows :

“Dipsomania is a mental alienation due to a morbid condition of the nervous structures, generally, though not always hereditary. The strictly periodical return of active phenomena, the tendency to gradually shorten the intervals as the years pass, and the peculiar mental conditions preceding the debauch are a proof that dipsomania is a disease of the cerebral nervous centers analogous to recurring neuroses, such as epilepsy, etc. . . .

“A dipsomaniac is not always an habitual drunkard. There lives a young man near my office who gets drunk about once every two months, though the attacks are getting more frequent, and during the intervals he is honest, honorable, industrious, and upright. During a spell or spree he is a sot.

“In the earlier part of the nineteenth century there lived a worthy couple in Baden. The husband was addicted to the excessive use of alcoholics. The wife was his superior in will-power and intelligence. At her solicitation they moved to this country for the sake of the children, four girls and two boys. The husband started a saloon in ———. His rapid downfall was the consequence. The elder of the boys followed the father into a drunkard’s grave. Some of the offspring of the girls are dipsomaniacs. Among the number one granddaughter fell a victim to the destroyer.

“The younger son, who had inherited all of his mother’s ambition and family pride, determined to better his lot. He studied medicine and graduated, and engaged in the practice of his profession in the backwoods of ———. Acquiring an immense practice for his extent of territory, and his physical

condition being much below the average, his health broke down, and now appeared on the surface the dormant hankering for liquor. A tremendous will-power enabled him to struggle successfully against what seemed to him 'fate.' This physician, a surgeon of no mean repute, is now dead. He left three sons and four daughters. One of the daughters is a chronic sufferer of hysteria, palpitation being the predominant symptom. Two of the boys are extremely melancholic. One other of the boys is a confirmed dipsomaniac. The oldest son was in a worse condition six years ago, as far as periodical drinking is concerned, than his brother, but he has not been intoxicated from alcoholic liquor since 1882. He considers himself cured." . . .

Bromide of Ethyle has assumed a new value as a narcotic in alcohol delirium. *Simulo*, from a fruit of that name, has been found to have a peculiar power in nerve irritation from alcohol. In hysteria, epilepsy, and general nervousness it promises to be an excellent remedy. *Sulphonal* is a new hypnotic of great power which seems to exceed all others in value and safety. *Sparteine* is another narcotic which will take the place of digitalis in reducing heart action, and with more safety. These preparations are prepared by Merck & Co., the great German chemists.

ALCOHOLIC AND URÆMIC INTOXICATION.

The close resemblance between the delirium from uræmia and alcohol, makes the diagnosis often difficult. In most cases uræmic delirium is ushered in with severe headache, vomiting, and some form of a convulsion. In some cases a continuous or occasional excessive user of spirits will have Bright's disease, and convulsions from some central irritation, then delirium. In these complex cases no distinct diagnosis is possible. In cases where the delirium is continuous and of a changeable type, renal complications may be expected.

Sudden melancholy in an inebriate whose urine shows albumen and casts may arise from uræmia. The same condition may follow from a blow on the head or severe shock to the nervous system; the urine suddenly becomes loaded with albumen and delirium and melancholy following. The urine should be examined in all cases of inebriates especially where delirium or melancholy appears. The treatment should be salines and hot baths. An early diagnosis is essential with regulation of the diet, and full control of the case and the surroundings. A grave diagnosis should always be made, as these cases are uncertain and difficult to understand.

M. Miramhat presented a paper before the French Academy of Medicine, showing the intimate relation between inebriety and criminality. He found in three thousand criminals seventy-nine per cent. of confirmed inebriates; sixty-four per cent. of all persons under twenty years of age were excessive users of spirits. Of the crimes of violence, eighty-eight per cent. were inebriates.—*Medical Journal.*

Unfermented wines are in nearly all cases nothing but acidulated and colored fluids made at the cost of a few cents per gallon, and sold for as many dollars. A correspondent reports a thrifty deacon making up a few gallons of unfermented wine for sacramental purposes from Horsford acid phosphate, and cochineal as coloring with brown sugar. The church paid him two dollars and a half a gallon.

Cocaine Usage, and Cocaine Addiction; also Cocaine Toxæmia, with other reprints by Dr. J. B. Mattison of Brooklyn, N. Y.

These most excellent reprints will well repay reading. Send to the author for copies.

A FAMILY OF OPIUM EATERS.

Near Wilton, Connecticut, resides Mr. Edward Britto, 75 years old and the father of twenty-two children, fourteen by Mary Lynes, whom he married about the year 1828, and eight by Martha Jump, to whom he joined himself in 1850. Six of the latter and ten of the former are living. Some of these children have married and now reside in neighboring towns, but there is still under the paternal roof a numerous family. So far as can be learned they are ordinarily intelligent, sober, industrious, and without any bad habits save an inclination to partake of a drug, to obtain which they exercise their best efforts and often practice wonderful self-denial. Mr. and Mrs. Britto eat, and have learned to love opium. How the habit was induced cannot be learned. Mr. Britto was never given to excesses, and from youth till the present time has been a hard laboring man, and while he has not accumulated very much of this world's goods, has always been considered a useful citizen of Wilton on account of his varied knowledge of farm work. At the age of about 40 years he is said to have practiced reducing alcohol for drinking purposes, and in talking about it always pronounced the product superior to and cheaper than other distilled liquors. His past history does not show a tendency to indulge extravagantly in the ardent, though he had been known to use considerable quantities of laudanum and alcohol. Gradually alcohol was dropped and crude opium substituted. This he eats at stated times during the day. Mrs. Britto eats it, as do the children. The drug has become a necessity with them, and in the absence of bread, which those living near declare is often the case, is the staff of their lives. The children have all been, and with one exception are now, opium eaters. The amount consumed by each depends mainly upon their ability to buy, and neighboring druggists study the demand which regularly comes from their direction, prepare for it, and often fill their orders on credit and they have yet to note in their ledgers the first charge on the Britto score to "profit and loss account." One ounce of the drug each per week is not a large estimate of the quantity

used, though they cannot always get so much. None of the children appear to care for alcoholic stimulants, and do not exhibit that tendency to dissolute ways so often seen among those swayed by the besetting sin of too much drink. They are all bold when talking, and picture mighty deeds which they have performed or would like to, but are notoriously timid in the presence of physical force. They cannot be called cowards, because they are never seen outside their portals after nightfall, but, on the contrary, they are brave in that regard, setting an example which many of those about them would do well to imitate. In conversation they appear to prefer imagination to reality, and have been known to advance theories which well-balanced, educated minds might study and ponder, though they are not very reliable as character models for writers of Sunday-school books. In the line of literature their achievements are limited, only one of the family, so far as known, having learned to read and write, and yet they are gifted by nature with brains. Socially, they do not mingle with the higher classes, preferring the retirement which their humble cottage affords and the dreamy exhilarations which their peculiar indulgence secures. Like induces like. The parents being opium eaters, the children follow in their footsteps, and have yet to learn that by so doing they are infringing known natural laws. The continual use of the drug does not appear to have affected their physical growth. They are tall, well-formed, and to all appearances perfectly developed children. Their nervous forces are powerless though unless stimulated by opium, and they engage in no undertaking or routine duty without first dosing themselves with it. There are few days in the year that they are not in some way employed, and the result is a fair aggregate income in money. A large share of it, however, goes into the hands of the drug sellers who do a sure business to that extent on their account. Without opium they are depressed, gloomy, petulant, with it cheerful, bright, and pleasantly talkative, and strange as it may seem their habits have not tended to induce disease, or to shorten the term of their lives. At the age of 75 years, having been a slave to opium so long, Mr. Britto walks nearly erect, engages in light work every day during his summers, and the winters he devotes to basket making, the children doing him good service as assistants. His hair is but slightly gray, and his face indicates a man who has not yet reached his 50th year. A difficulty of breathing, a sort of asthmatic trouble is the

only physical infirmity with which he is afflicted. Suffering from this many years may serve as an explanation of his own indulgences. As yet there is nothing in his personal appearance indicative that he may not reach, and even exceed four score years.

The Lactated Food, by Wells, Richardson & Co., has attained such a wide sale, and become a remedy of such value, as to rouse up bitter opposition. This in itself is evidence of its real value. Send for a package and try it.

Fellows' Hypophosphites is an international remedy for all forms of nerve diseases. Its uniform character and increasing excellence has been praised by leading physicians in all parts of the world.

Elixir Native Coca, prepared by Parke, Davis & Co., is an excellent preparation which is of great value in exhaustion due to physical and mental strain and resulting disease.

Hosford's Acid Phosphate is made and sold by the hog-head, and is one of the great remedies of the times.

Bromidia and Papine are two most excellent combinations that can be used with great safety and satisfaction. They are made by Battle & Co., of St. Louis.

London Essence of Beef is pure concentrated beef juice, which has been used for over twenty-five years, and has become established in the market.

Robinson's Elixir of Paraldehyde is a very satisfactory narcotic in most cases after the withdrawal of alcohol and opium. We have found it a very valuable remedy.

Valentine's Beef Extract is a special meat stimulant that can be used in place of spirits.

Lactopeptine with the various tonics has become a standard remedy, which is practically indispensable in general practice. This is the only preparation of this kind on the market, and is always reliable.

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