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OF

INEBRIETY.

PUBLISHED UNDER THE AUSPICES OF THE AMERICAN
ASSOCIATION FOR THE CURE OF INEBRIATES.

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In July, 1882, the Supreme Court of Rhode Island, by Final Decree, enjoined William H. Hughes, Theodore S. Hughes, and the Hughesdale Manufacturing Company, from offering for sale "Acid Phosphate," so-called, in any package which shall be a substantial or a colorable imitation of Horsford's Acid Phosphate.

September 24, 1883, the Court decided that William H. Hughes and Theodore S. Hughes had violated the above Injunction by selling the "Hughes Acid Phosphate," so-called, and that a writ of attachment must issue against them.

October 13, 1883, the following was promulgated as the decision of the Court, on the writ of attachment:

Rumford Chemical Works }
vs. } Equity, 2,022.
Hughesdale Mfg. Co. et al. }

The judgment of the Court is, that the respondents, William H. and Theodore S. Hughes, each pay a fine of \$300, for the use of the State, within seven days, and in default of such payment, stand committed to the State's jail, in the county of Providence, for the term of three months, and in the meantime to remain in the custody of the Sheriff.

We hereby again warn all persons from selling *any* imitation of Horsford's Acid Phosphate; or *any* "Acid Phosphate" under any style of label, or form of package, for use as a medicine or article of diet, or ingredient to be employed in beverages or food; or any proprietary article for use as a medicine or beverage, under the name "Acid Phosphate"; as they will thereby infringe our trade-mark, copyright, or patents, and render themselves liable for damages.

RUMFORD CHEMICAL WORKS,
N. D. ARNOLD, *Treas.*

PROVIDENCE, R. I., Oct. 17, 1883.

TO THE MEDICAL PROFESSION. LACTOPEPTINE.

DEMONSTRATED SUPERIORITY OF LACTOPEPTINE AS A DIGESTIVE AGENT.

CERTIFICATE OF COMPOSITION AND PROPERTIES OF LACTOPEPTINE BY PROF. ATTFIELD,
PH.D., F.R.S., F.I.C., F.C.S., PROF. OF PRACTICAL CHEM. TO THE PHARMACRUTICAL
SOCIETY OF GREAT BRITAIN.

LONDON, May 3, 1882.

LACTOPEPTINE having been prescribed for some of my friends during the past five years—apparently with very satisfactory results—its formula, which is stated on the bottles, and its general characters, have become well known to me. But recently the manufacturer of this article has asked me to witness its preparation on a large scale, to take samples of its ingredients from large bulks and examine them, and also mix them myself, and to prepare *Lactopeptine* from ingredients made under my own direction, doing all this with the object of certifying that *Lactopeptine* is what its makers profess it to be, and that its ingredients are in quality the best that can be obtained. This I have done, and I now report that the almost inodorous and tasteless pulverulent substance termed *Lactopeptine* is a mixture of the three chief agents which enable ourselves and all animals to digest food. That is to say, *Lactopeptine* is a skillfully prepared combination of meat-converting, fat-converting, and starch-converting materials, acidified with those small proportions of acids that are always present in the healthy stomach; all being disseminated in an appropriate vehicle, namely, powdered sugar of milk. The acids used at the factory—lactic and hydrochloric—are the best to be met with, and are perfectly combined to form a permanent preparation; the milk sugar is absolutely pure; the powder known as “diastase,” or starch-digesting (bread, potato, and pastry-digesting) material, as well as the “pancreatin,” or fat-digesting ingredients, are as good as any I can prepare; while the pepsin is much superior to that ordinarily used in medicine. Indeed, as regards this chief ingredient, pepsin, I have only met with one European or American specimen equal to that made and used by the manufacturer of *Lactopeptine*. A perfectly parallel series of experiments showed that any given weight of acidified pepsin, alone, at first acts somewhat more rapidly than *Lactopeptine* containing the same weight of the same pepsin. Sooner or later, however, the action of the *Lactopeptine* overtakes and outstrips that of pepsin alone, due, no doubt, to the meat-digesting as well as the fat-digesting power of the pancreatin contained in the *Lactopeptine*. My conclusion is that *Lactopeptine* is a most valuable digesting agent, and superior to pepsin alone.

JOHN ATTFIELD.

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THE
QUARTERLY JOURNAL OF INEBRIETY.

Vol. VI. JANUARY, 1884. No. 1.

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

SEMI-ANNUAL ADDRESS ON OUR ASSOCIATION AND ITS PROGRESS.

BY DR. JOSEPH PARRISH, BURLINGTON, N. J.

About thirteen years ago, I ventured, without suggestion or counsel from anyone, to call a meeting of those persons who were known to me, as being interested in the subject that has convened us here to-day, and in answer to that call, there was assembled on the 29th of November, 1870, a conference of fifteen men in the city of New York. These fifteen men, represented six institutions which were devoted to the treatment of inebriety as a disease. There were eight papers read during the sessions of the conference, covering the Pathology and Philosophy of Intemperance, the Use of Restraint as a Remedy, the Moral and Social Treatment of Inebriates, Their Relation to the Church and Asylums for their Treatment, to Social and Political Economy, together with the History of Asylums, and the Disabilities of Inebriates, the last being a paper submitted by a number of asylum inmates. Considering the fact that there was no agreement beforehand and no arrangement as to the course of proceedings, this was a remarkable programme, which was

arranged by a committee on business, appointed at the first session of the conference.

The papers were read with deliberation and carefully considered, and as the result of such deliberate action, on the second day of the conference, a "Declaration of Principles" was announced and unanimously adopted as the basis of the organization. Finding its way to the people, through the public press, this "Declaration" at once became the target for the doubting and unbelieving to shoot at. While it served also as a welcome watchword for those who had considered the subject before, and whose minds were already settled in the acceptance of the dogma, so that they rallied around, and adhered to it, with a most loyal fidelity, until the end of time came to some of them, and continues until now with the few who still remain.

The unanimity, and the perpetuity of accord, which was given to the *Declaration*, from the time of its announcement, in 1870, till now, is simply *phenomenal* as a new departure from an old and long accredited creed, a deviation from which was regarded by many as heresy. A few men here and there, like Macnish and Rush, in the then very limited range of science, had stepped aside from the established routine, and declared inebriety to be a disease, but the doctrine did not take organic form until this time. And then it was only the beginning,—a statement of principles merely, with an imperfect shading of scientific exactness. It has only been during the decade just passed, that the dim scientific aspect of the subject has presented anything like the perspicuity or definiteness, which the bold and vigorous declaration needed to commend it to the student of etiology, or to the advocate of therapeutic appliances to the treatment of a disorder with such an obscure pathology. For these and kindred reasons there was delay and short-coming in the aggregation of material to constitute a complete organization. It had to be in the nature of things, a careful manipulation of the diverse constituents of the organization, in order that their admixture should not only prove incompatible, but har-

monious and complete. All the members were not physicians, but philanthropists, and humanitarians, and they were obliged of necessity to come in contact with medical facts, and medical problems,—facts and problems of the most unique and intricate nature. The daily secular press were generally cautious in noticing our proceedings. The religious press was not unfrequently illiterate and severe, the medical press could not deny our positions, but gave them a halting credence, so we went on from year to year. The Legislators of Great Britain in 1872 sought our counsel, and we gave it. From that date, the interest seemed to be transferred to the other side of the sea, and there was a lull for a season on this side, there was however activity, but no noise,—and so there has been from that time till now, a quiet, penetrating inquiry going on in circles of science, of philosophy, of letters, and of social intercourse, that is bringing responses from all these spheres of thought and fields of effort. Meanwhile the literature of the subject has been extending and widening. It has taken a scientific turn, the subject is studied more and more from its physical side, and if we should attempt to find out and formulate the popular mind on this we would find our early declarations endorsed on all sides.

The question is often asked, what have we done? and why we have not built up a large society with an influence that would be known all over the country? The answer is apparent to any one who stops to consider the magnitude of this disorder. Inebriety is a disease of civilization, with a chain of causes that include every phase of life. This society has sought to study this phenomena of inebriety from its physical side, believing that the causes could be known and prevented. In this they have antagonized the popular notions and moral teachings of the past. Hence its growth and popularity must be slow and delayed. Great truths are implanted in public sentiment by degrees. But if they are true principles, their adoption is a certainty and only a question of time.

A decade has passed since our first meeting, and amid all

the evolutions and revolutions of to-day, we can begin to see our principles endorsed and defended in all circles and in almost every clime.

To-day the leading public press are pronounced in urging that the inebriate be regarded as a diseased man, and housed in separate institutions where his malady can be treated.

Even the religious press admit that some of this army of inebriates may be diseased, and need physical help. While denying a diseased origin they urge physical care in so called Christian asylums.

In the medical press the disease of inebriety and its curability are generally conceded.

The literature on this subject as seen in the "Index Medicus," under the head of alcoholism, is increasing very rapidly in the past two years.

During the last year thirteen different papers have been read before medical societies in this country, on alcohol and its abuses, in which our position was either directly or indirectly endorsed.

Two medical societies have been organized, one in Germany, the other in Sweden, for the special study of the diseases which come from the abuse of alcohol. Both of these societies are modeled after our organization. Dr. Speyr of Germany, has written a large volume "On Insanity of Alcoholism," this with my work on "Alcoholic Inebriety," constitute a very important addition (to what will become) a great literature in the future.

Several pamphlets and papers of much originality have appeared in this country within a year, and in newspapers, medical and temperance journals, a great variety of papers, letters, and statements, all bearing on the physical problem of the diseased inebriate, and how to treat him are steadily increasing in number.

The pages of our journal have given some of these papers, and outlined much that is new in this field.

Asylums for the treatment of inebriates have been steadily gaining in favor, and becoming more and more

systematized. Three new institutions have been opened in this country, and four abroad during the year.

These are some of the more prominent indications that the work of our association has not been in vain; that the advent of our yearly meetings, and journal going out without noise or notice have been felt, everywhere and unconsciously we have built a wider influence and power than we are aware of.

I think we may congratulate ourselves to-day, that we have been permitted to become pioneers in a movement that is evidently destined to occupy a large place in the evolutionary struggles of civilization.

We have merely touched the shores of an unknown continent; and have indicated that a vast realm of physical law, of cause and effect, are behind this great army of inebriates; that it is in our power to discover these laws and forces, and counteract them.

The magnitude of the evils of inebriety and the increasing recognition and necessity for relief, will demand a practical test of the theories and means of remedy which we believe to be correct.

Once more I welcome you to this our regular gathering, where we may talk over this vast problem, with full consciousness that the "world moves," and the truth of our principles are forcing a recognition everywhere, because they are true, and parts of this great eternal realm of law and order.

Dr. Lee of Paris, thinks the use of tobacco, either in smoking or chewing, produces intermittent heart action, and then angina pectoris. That the coronary arteries are always ossified more or less in tobacco users.

In inebriates attacks of angina pectoris is a sure sign that arterial lesions already exist, particularly endoteritis of the coronary vessels, also degenerations and schleroses of the myocardium.

SUGGESTIONS UPON THE BEST MODE OF
PRESENTING THE SUBJECT OF ALCOHOLIC
INEBRIETY TO PUBLIC ATTENTION.

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

It is almost enough to make the worker for the reclamation of the alcoholic inebriate—and it is of him alone I speak in this place—despair, when eminent clergymen assert that drunkenness is simply *sin*; and that “the drunkard is not worth the powder spent in trying to reform him.”

Certain gentlemen of the clerical profession have imbibed the idea, that any moral disaster that overcomes humanity, which cannot be made to yield to the appeals of religion, and especially of prayer, is surely of the Devil, and must be given over to everlasting perdition as something reprobate, or infidel, or heretic in its essential nature.

And here I will premise, that I design to deal with facts mainly, not arguments; for the facts I intend to advance, are all abundantly proven by the literature on the subject of inebriety, which has been contributed by the members of this association; and to that literature I refer any one who may desire further information.

Now, if physical injury is the true and efficient cause of certain moral phenomena, then there must be a removal of this physical cause before the moral consequences can cease. But it is the fiat of the Creator that physical changes are wrought only through material agencies.

So far as inebriety being a simple matter of sin—of voluntary moral obliquity—the fact is, that it is, in common with other neuroses, nearly always the consequence of substantial injury to the nervous system; or as some would say, to the nervous centers. An illustration of this fact is afforded

by those innumerable instances, where a *desire for intoxication* arises from a depressed and melancholy condition of mind and nerve, that so often follows serious bodily injury. It is not necessary to point out to this association, clinical facts showing the establishment of such a state of nerve by means of wounds received in battle or otherwise.

Now, can any one show a material distinction between the injury received by the physical effect of a direct wound, and the equally profound and permeating injury, consequent upon the various and violent material changes incident to some acute diseases; as for instance malarial poisoning, small pox, yellow fever, and especially syphilis? The principle is the same all through.

But a good deal is said about this "sin" business as relates to alcoholic inebriety, much as though such inebriety was the voluntary falling in with a "vicious choice". A convenient expression truly, upon which to build a fallacious conclusion. Vicious choice!

Here comes the question of the Will, as contrasted with the question of Impulse. How is this? Will (for short) is the capacity for choice. This implies alternatives. This again implies a process, or several processes of reasoning, by which two or more alternatives are rounded up, finished, and rationally compared; *after which*, the effort of the will, in choosing one, *and rejecting the others*, is clearly and definitely declared. This is will, and carries responsibility. The whole ground, pro and con, has been carefully gone over and surveyed.

But in certain individuals there is a neurotic or constitutional predisposition to some sensual or insane desire, taking the place of motive, which, by virtue of its morbid constitutional nature, admits of no alternatives; but it drives on the mind to action (in extreme cases) without affording to it the opportunity of reasoning on alternatives, or, indeed, of contemplating them at all. The motive displayed in action in consequence of this neurotic stress—itsself the consequence of injury or disease—is really operating through a pseudo-

faculty called *impulse*. Here is not, and here cannot be, anything presented as alternative. There is no choice, vicious or otherwise. The simple gratification of the neurotic desire or feeling, be it what it may, is the only element presented for consideration. When this desire, springing from some morbid state of mind or body, is very urgent, a "moment's reflection" is impossible, and there is truly an *irresistible impulse*. But, if such desire or feeling should happen not to be very pressing, this "momentary reflection" may supervene, and some rational alternative being presented, (albeit at the last moment), the insane or neurotic *impulse* is aborted.

The success of the clergy, or rather their want of any, even the slightest success in reforming drunkards by religious means, should instruct those gentlemen that they are wholly upon the wrong track; for it is their special and honorable vocation, not only to point out sin, but to reform the sinner. Yet they never have, and never can reform a single neurotic inebriate by religious appliances alone; I mean, without the sensible intervention of influences, at least auxiliary, other than religious.

These gentlemen must look to the medical profession and learn what is the trouble. They must understand that inebriety is a disease, and is largely the outcome of physical injury in some form, more or less definite; and that preaching and praying will no more abolish inebriety, than the same means will set a broken limb, or reduce a dislocated joint.

I purpose to offer certain other facts for general consideration; but as I have a few observations to make for the consideration of the lawyer and the politician which will cover the whole ground, I take the liberty of inviting the attention of all, and especially the clergy, to these observations.

If the stand taken by some of the clergy—namely, that drunkenness is simply vice—is correct, there is little or no hope of accomplishing any material abatement of its evils. An appeal to the law, in that light of the subject, will be

totally in vain. The constitution of the United States, as well as of the several states, carefully abstains from interfering with either irreligion or immorality, as such, and in their own essential qualities. It is true, when immoral conduct eventuates in crime, the crime may be punished by law. But the right to commit crime, is practically protected as one of those precious jewels of "personal liberty", with which legislation must not interfere. Any reference to religion or morality in the constitutions of the several states, are the merest show and pretext, and is made in the form of the widest platitudes. "The right to worship "Almighty God" according to the dictates of his conscience is vouchsafed to every man. But that means the Almighty God of the Hindoo, or the Moslem, and for ought that can be perceived, of the fetish worshiper, and the Devil worshiper besides.

"The law prohibiting common labor on the Sabbath could not stand for a moment as the law of the State, if its sole foundation was the Christian duty of keeping that day holy." So says the Supreme Court of Ohio (Thurman, J.). That law is founded upon considerations of policy and expediency, solely. And the recognition by law of the existence of the Christian Sabbath, rests upon the same basis. The practice of reading from the bible in the common schools was quickly pronounced "unconstitutional". All this, and much more, is in the interest of so-called *personal liberty*. And such, while this government stands, will be the final decision of the highest courts, respecting the "rights" of the drinker and seller of alcoholic liquors, if the inebriate is viewed simply as an immoral or vicious personage. I repeat, vice and immorality if not fostered, are protected in the organic law of this land.

But if it can be shown that the calamities attending intemperance do *not* come out of a state of mind that is natural and healthy, but rather, out of a state of mind that is morbid and unhealthy; that *will*, and alternatives of choice are *not* elements in the initiation of drunkenness, but only blind, and often irresistible *impulse*, founded on

disease, we will have advanced a step towards the solution of the great problem of the age, the problem of human emancipation from the power of strong drink.

The cry of "personal liberty" will not avail, when it is shown that it is not liberty which induces the act of becoming intoxicated, but it is the remorseless and overwhelming bondage of disease.

But there is another consideration which, if correct, must have weight with the lawyer, politician, and statesman. The only exception to the general rule that I know of—and where repressive or preventive legislation is admitted and accepted by all—is where it becomes apparent by common observation, that the conduct of a man, or set of men, is of such a nature, that its pursuit would lead clearly to serious and wide-spread injury to the public at large, in such contingency the well being of the many justifies and demands the restraint of the few.

Now if facts can be shown which prove with certainty, that the consequences of alcoholic inebriety do actually involve the well being and safety of an innumerable body of innocent persons, as well as of the general public, we shall then have reached a point when we can claim that the legislative authority should restrain the liberty to sell and drink alcohol, in order that great personal and public interests may not be jeopardized.

We can do nothing with inebriety as a matter of vice or sin. But, by looking upon it as a disease spreading far and wide, and assuming many forms—but always hideous, and often threatening danger to the beholder,—we may accomplish something.

Let us now sketch briefly some of the prominent injuries that inebriety inflicts upon individuals, and upon the State. We will take no liberties with the subject. We will eliminate the drunkard himself, merely as a man drunk, and make no account of him in that aspect.

1st. As a public calamity, the number of days' labor lost every year in consequence of intemperance, is a factor of no

mean proportions. Such a loss to the productive interest of the body politic, amounts, each year, to millions of dollars. This would be a good subject for detailed statistical inquiry.

2d. It is universally conceded by authorities, both human and divine, that the *family* is the foundation of all the highest and best civil, religious, and political prosperity. Anything which fosters the family unity and purity, is desirable for the welfare of the State. Anything which destroys or injures the family, is detrimental to the public weal. Inebriety often destroys, and scatters abroad the family; and this is its least offensive work in that direction. When it fails to do this, it always pollutes the character of the family, and makes it a fountain of foul and deleterious influences, to contaminate and injure society.

3d. Every man of military age is required to bear his part of the burden of military service, when called upon to aid in suppressing intestinal insurrection, or repelling an invading foe. The great army of habitual drunkards is wholly incompetent to perform this duty; and to that sweeping extent the inebriate's obligations, both of hardship and danger, are necessarily imposed upon others, to whom they do not rightfully belong. Is not this an important consideration, which would justify the legislative authority in taking away from the inebriate, and the vender of drams, that vaunted "personal liberty" which operates so disastrously to the whole country, in its hour of emergency and danger?

4th. I now come to enumerate certain dangers inflicted upon the body politic, in a large degree by inebriety, which, while not so obtrusive in appearance as some I have enumerated, are, in wide extent, and in profound injury, much more deplorable.

Again, I will eliminate the drunken man himself, simply in his character of drunkenness. I will not insist that intoxication breeds its like. I will only say that it breeds other forms of trouble and disease, even when it does not reproduce itself in kind.

The members of this society know well, that the drunkard is liable to beget insanity, epilepsy, hysteria, neuralgia, chorea, and many other hopeless and direful ills. But the evil does not stop here. Inebriety produces also depravation in the moral nature of progeny, by transmitting an imperfectly organized brain, wherein the co-ordinating structures in particular, are impaired in substance or in function. This not only arises from the transmission of brain characteristics injured by the intervention of hyperplasia of the interstitial tissue, but it also comes from a brain rendered functionally inert, to a certain degree, on account of the ever present anæsthesia affecting the nervous centers of the habitually intemperate ancestry.

What is the final effect growing out of a brain so injured in the structures which minister to the manifestation of moral qualities? One effect only is possible; a low moral nature, exhibited, not through moral depravity, but through moral incapacity. Men so organized may never drink a drop, and may have reasonable intelligence; but they are thieves, gamblers, forgers, embezzlers, counterfeiters,—in short, they are *criminals* by birth and constitution.

The mere mention of these facts is enough in this place. But let us leave the dark and inhospitable regions where the victims of the neurotic temperament,—largely the children of alcoholic inebriety,—moan, and rage, and suffer; where men born to the heritage of disease, and crime, and deformity, curse the morning, and the noon, and the evening of their terrible existence. Let us go a little apart to the shore of this land, as it were, where the evils of inebriety are shaded off, and tempered;—and what do we see? One man going through life clutching his fingers in the palms of his hands; another with jaws firmly set; another with strange movements of neck, or lip, or eye; another with unnatural voice or articulation; and others still, with untold physical or moral imperfections and distempers; until in truth, it seems that all mankind is involved. Is this insanity? Is this inebriety? Strictly speaking, neither. But it is not

health, physical or mental. It is an abnormal condition; and its possibility and existence is, in no small degree, the outcome of alcoholic indulgence somewhere, and at some-time, near at hand; or it may be remote.

I think I have said enough to show that the sin and vice theory of inebriety is not only impolitic, but that, as a general principle at least, it is not true in point of fact. And I think I have also said enough to clearly indicate to the lawyer, the politician, and the statesman, that the confinement of alcohol, and the restraint of those dealing in it, are the best means to provide for the maintenance of the "personal liberty" of those hosts of human beings, upon whom in some neurotic form or other, alcohol has imposed its adamant chains.

Drunkenness is a transient insanity. Its early stage of exhilaration and mild excitement, its later of delirium and mental aberration, and in its last stage of stupor and profound insensibility, all correspond with similar stages in attacks of insanity. The inebriate in his debauch passes in a few hours through a psychical disturbance which differs in no respect from an attack of one of the forms of insanity, except in its duration. Examples of the transmission of this transitory mental aberration from parents to children are unfortunately too common. Every public institution for the care of the defective or dependent classes, shelters persons whose mental organization has been defective from birth, in consequence of the transgression of their parents in this manner—*Dr. Hurd.*

An early sign of impending paralytic dementia in inebriety is loss of memory, that is, loss of the associating faculty or power. This must be consequent upon the material basis upon which the function of association and equilibration among the nerve centers depends. It points unmistakably to disturbances affecting that important portion of the brain set apart to minister to the unifying of mind and morals, and to the individualization of mind and matter.

CURABILITY OF INEBRIETY.

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

It has long been a well recognized fact, that a certain number of cases of inebriety were permanently restored from asylum treatment. How many and what per cent. of those under treatment are thus cured cannot at present be accurately determined.

The late Dr. Dodge of Binghamton found, from a study of thirteen hundred cases, that sixty-two per cent. were temperate and well five years after being under treatment at that asylum. The Late Dr. Willetts of Fort Hamilton Inebriate Home, made a study of two hundred cases and found over fifty per cent. restored after periods from one to seven years. Dr. L. D. Mason in a late study of eight hundred cases treated in the institution found a large per cent. restored, but owing to the want of sufficient accurate data, did not feel warranted in drawing positive conclusions.

Dr. Day of Boston, from the study of over two thousand cases, declares positively that full forty per cent. are cured. Other authorities, from the study of a less number of cases, have reached similar conclusions, varying all the way from thirty to sixty-two per cent.

Obviously these are only preliminary studies, but may be relied upon as indicating a degree of curability unrecognized, and of startling significance. These facts whether confirmed by future studies or not are very important. Particularly when it is considered that a large per cent. of all cases who come to asylums are incurables, from which but little could be expected, with the very best asylum appliances. And also that not one in a hundred of all cases remain under treatment long enough to secure only the most trifling benefits. To the

facts so far accumulated I desire to add the results of a study of thirty-five cases which I have followed with considerable accuracy. In the July number of the American Journal of Medical Sciences for 1882, I gave a summary of these studies, which in the present paper will be supplemented and examined with more details. The interval of two years since this paper appeared has enabled me to follow out the results more carefully. In 1878 there were admitted in the Asylum at Walnut Lodge, Hartford, Conn., forty-two patients suffering from inebriety and the use of opium. Of this number, thirty-five left the asylum with consent, the same year of their admission. On the asylum books they were noted as follows:—

Discharged recovered,	. . . . .	10
Discharged greatly benefited,	. . . . .	20
Discharged without results,	. . . . .	4
Died,	. . . . .	1
		—
		35

It is proposed to study the history of these cases, and the results of treatment after a period of nearly six years from the time of leaving the asylum. The history of each patient was recorded at the time of admission, based on his statements and those of his friends and relatives. The constant tendency to exaggerate and cover up the real facts by the patients, and sometimes their friends, required great care and frequent reconsideration of the clinical history, to exclude all sources of error. In many instances the facts were only obtained from long correspondence, close observation, and acquaintance with the patient. Each case was studied from a physical point, and all the mental phases recorded and analyzed as far as possible.

The first question was the evidence of an inebriate diathesis, or a special inherited predisposition to use spirits, coming from the parents direct.

The number exhibiting this diathesis was eight, as follows: In two instances the father drank spirits to excess for years before and after the birth of the patient. In one case the father was intoxicated at the time of conception. In two

cases the mother used wine and spirits before and during pregnancy, and in two cases both parents used spirits to excess at times. In one case the history was obscure, but the indications were that both parents used spirits at different times, being free livers, and frequenting drinking society. In three cases the particular inheritance seemed beyond all doubt. In the next twelve cases the heredity was more removed, and less distinct, but still a prominent factor. In three cases the grandfather on the mother's side drank to excess; in four cases the grandparents were drinking people; in one case both grandparents, as far as the history can be obtained, were inebriates, and died from excess. In four cases insanity, inebriety, and consumption had been prominent in the grandparents. In eleven cases a defective brain and nerve inheritance was prominent, as follows: In seven instances, different states of monomania, paralysis, hysteria, and forms of persistent neuralgias, were present in one or both parents. In three instances insanity was present in the parents, with epilepsy in the father in one case. Thus in thirty-one out of the thirty-five cases there were positive inherited nerve and brain defects, which formed the active soil for the propagation and growth of inebriety. In the first eight cases, the probability of inebriety appearing in the next generation was almost a certainty, in view of the clinical history of the parents, and a knowledge of heredity. In the twenty-three cases which followed, the predisposition to disease was very marked, the form in which it appeared depending on some unknown factor. In the remaining cases, four in number, no history that was reliable could be ascertained of defective inheritance.

The second question was the general exciting or predisposing causes, apparent in these thirty-one cases.

In the eight cases where the inebriate inheritance was direct from the parents, inebriety began in three cases at puberty, following the evolution of the sexual function. In one case a positive pleasure in the taste and effect of spirits began at the age of seven years. Two cases appeared in which in-

briety followed great grief and disappointment, in another instance domestic trouble was the exciting cause. The last case, the inebriety began from the excitement of success in being elected to an office of much honor. A brief outline of each of the twenty-three remaining cases will more clearly bring out the chain of causes, and make them better understood.

CASE 1.—A merchant; grandfather on mother's side an inebriate; had dyspepsia from bad living and over-work; began to drink after using alcohol as a medicine.

CASE 2.—A carpenter; grandfather and two uncles on mother's side died from excessive use of spirits; was temperate up to the time of entering the army; then began to drink to excess.

CASE 3.—Was a farmer; whose grandfather on the mother's side drank at intervals to great excess; he drank first after a period of severe exposure and hardship in the Maine woods.

CASES 4 AND 5.—Both merchants; the grandfather on the mother's side drank in one case, in the other the grandmother on the mother's side used opium and spirits. In both cases inebriety came on from business troubles and mental strain.

CASE 6.—Was a workman, whose grandparents on both sides were drinking people. He first used spirits after being employed in a distillery. From his own statement it was curiosity at first, then after he became intoxicated the first time he continued to use spirits.

CASE 7.—A liveryman; both grandparents drank; he suffered from what is called fits, in childhood, and used spirits at puberty after sexual excess.

CASE 8.—A builder and carpenter; inebriety in several uncles and aunts, moderate drinking in the grandparents; when ten he drank to intoxication, and had always a passionate love for the taste of spirits.

CASES 9 AND 10.—Were clerks and bookkeepers, with a strong insane tendency, which had appeared in nearly every

branch of the family for generations back. The exciting cause was mental strain, over-work, and general neglect of healthy living.

CASE 11.—Was an editor; consumption and cancer appeared in every branch of the family extending back to the great-grandparents. After a severe attack of pneumonia inebriety appeared; two years after, the use of opium began, and alternated with alcohol for many years.

CASE 12.—Was a physician with a marked history of insanity on the mother's side. Suffered from dyspepsia and extreme hypochondria, followed by inebriety, with acute mania after protracted drinking.

CASE 13.—Was very wealthy with no business; hysteria and epilepsy very prominent in all the generations back. Began to use spirits after an extended trip to Europe.

CASES 14, 15, and 16.—Were traders and merchants, whose ancestors were eccentric, strange people; with a history of dyspepsia, hypochondria, and hysteria. In the first case inebriety began after the death of his wife, in the other cases exposure in the army was the active cause.

CASE 17.—Was a lawyer; his father, grandfather, and two uncles had paralysis agitans when about forty years of age. After a severe business reverse he began to use alcohol to intoxication.

CASE 18.—Was a farmer, whose mother was a weak, passionate woman, always complaining, and using drugs for every trouble. He drank after an attack of typhoid fever.

CASE 19.—Was a saloon-keeper; both parents low, selfish people. He drank soon after marriage, and lived a low, irregular life.

CASES 20 and 21.—Were persons without business; with insanity in the family, in grandparents and uncles; one dated all his drinking from the time of a shipwreck on a yacht and the rescue by a light-house keeper; the other drank soon after he began to gamble and spend his nights at faro.

CASE 22.—Was a clergyman; his father was a great gourmand and beer drinker. After a season of overwork and

great excitement from a revival meeting he began to use spirits to excess.

CASE 23.—Of no business ; father an epileptic ; he began to drink after some trifling business trouble.

It is apparent from this outline of cases, that heredity was a prominent factor, traceable in nearly all the cases, and that the exciting and predisposing causes were also exploding and developing influences, which determined the disease of inebriety. These exciting and predisposing causes can be traced in nearly all cases, and where it is not apparent, our knowledge and means of ascertaining it are at fault.

The third inquiry is, when inebriety begins does it follow some regular order that can be traced and anticipated in the study and treatment.

In a large proportion of cases this can be demonstrated beyond all question. In others much obscurity prevails, and a connected chain of symptoms cannot be made out from our present limited knowledge of the subject. The following cases represent the two extremes of symptomology and progress :—

In Case 13 hysteria and epilepsy prevailed in both branches of the family, and a marked entailment of nerve weakness and exhaustion existed. He grew up well and hearty until after leaving college, when he complained of exhaustion, and was very sensitive and easily excited. After marriage he visited Europe, and drank for the first time to intoxication. From this time he could not stop drinking, and during the next two years ideas of persecution appeared, and he became boastful and extravagant in his manner. Never would acknowledge that he drank to excess. Attempted to do business and failed. Became more and more excitable in his talk and actions. Tried to reform, and was sober two months after the death of his wife, then began to use spirits again. He was untruthful, and resorted to the most childish efforts to conceal his condition. He grew worse through every effort to recover, mind and body failing alike, until he was brought to the asylum. The order of the symptoms in

the case ran as follows: Excitement of travel; wine drinking to intoxication. From this the constant use of spirits, both wine and stronger alcohols, followed. The desire increased with such indulgence, and his mind grew more and more insensible to his real condition. Delusions of strength to control himself, and persecution from his family. Egotistical extravagance of action and work. Fitful unavailing efforts to recover, and loss of pride and faith in himself and others. General failure of mind and body, could not sleep unless he used large quantities of spirits. Increased use of spirits and increased debility of body and functional activity. The brain action in all these cases follows the fitful spasm-like movement of the heart. At times displaying force and energy, then relapsing into abject weakness. The mental failure and unsteadiness were more prominent than the changes in the body.

In Case 2 another type of symptoms and progress are seen. The inheritance from his grandfather on his mother's side, who died from excess in the use of spirits, was prominent. He was temperate and healthy up to eighteen, when he entered the army. Was confined in a southern prison for six months, and began to drink spirits soon after. He continued in the army until the war was over, and for the two years following drank to excess constantly. Then he signed the pledge, and was very temperate for four and a half years, when, from the sudden death of his child, he relapsed, and for two years drank severely. Then he reformed and lectured on temperance for over a year, and relapsed in this work. Then recovered and relapsed again, coming to the asylum. A table of the progress of this case may be stated as follows:—

Began to use spirits from debility and exhaustion in the army, and was a continuous inebriate. He stopped by mere will-power, and four years later began again, and this time as a periodical inebriate. Then another sudden halt and relapse again, in the mean time engaging as a temperance lecturer; stopping in a manner equally strange. But each

time he relapsed from some distinct cause; his mind exhibiting all the marks of degeneration seen in the former case. The mystery of the long halts, of uncertain duration, was certainly governed by conditions of physical and psychical laws, now unknown. These two cases are typical of a large class that often are not understood, and seem enigmas to their friends.

I have selected four cases, not mentioned in the above, for the purpose of showing a class of traumatic causes which have a marked influence over the progress and symptomatology. They are physical and psychical in their nature, and may be more clearly seen in an outline history of each case. Case 1. A lawyer, 38 years of age; no history of heredity could be obtained. Was in good health and temperate when he suffered from sunstroke. He was prostrated for many weeks with pain and exhaustion, and recovered a year after. After an exciting appeal to a jury in an important trial, he went out and drank to stupor. From this time the desire for alcohol appeared with great intensity after every period of exhaustion. His mind would foreshadow these attacks in the extreme egotism and boastful manners foreign to him at other times. Again he would manifest untruthfulness without motive. These and other mental phases were seen before and after a paroxysm of drinking, and at first disappeared during the free interval, then continued from one attack to another. Case 2, a clergyman, 48 years old, with probably an inebriate diathesis present. The death of his only daughter by accident caused him, in despair, to drink to stupor. From this time, for fourteen years his life was a perpetual struggle to control an intense craving for alcohol, and failure to do so. His mind showed a great change; he became an infidel and spiritualist; his habits, character, and actions deteriorated steadily; the mind and body were in constant antagonism to procure spirits and escape from the bondage of this impulse. The mental symptoms clearly showed which was uppermost. In the asylum a study of this phase determined the question of

the form of treatment at all times. Case 3 was a strong, vigorous farmer of 31 years of age. He suffered from a severe lacerated wound, on both legs, from a runaway, followed by great mental excitement. He remained in bed for three months after; then he began to drink to excess at once. His habits and entire character changed, and he became an unscrupulous speculator, and when not using spirits to excess, planned and executed great swindling operations. He would drink to stupor for a day or more, then recover and use spirits moderately for a long time. Case 4 was a traveling man for a mercantile house, 39 years old. One evening a train he was riding on jumped the track and dashed over the rails, breaking the windows, and causing intense consternation and alarm. The excitement was so great that he was functionally paralyzed, and had to be carried from the car. Two days elapsed before he was able to continue his journey. He used spirits to excess from this time, and went gradually down from bad to worse. Unlike many other similar cases, he had no delusions of strength, but seemed to have a decreasing faith and confidence in his power to recover. These cases were clearly traceable to traumatism. The second and last was from psychological changes in the brain centers. In all, changes of structure and function followed, of which inebriety was only a sign. It may be remarked that a large number of cases of inebriety may be traced to these traumatic causes, which are now overlooked in the prominence of the later symptoms. This is a field at present almost unknown.

In grouping the forms of inebriety, and the prominent symptoms noted on admission, the following may give some conception of the difficulties in the study of the cases and their treatment. In the first division, the periodical inebriates who used spirits to excess only at certain periods, with a free interval of from two days to a year or more, were twelve. In some of these cases the history of this periodicity was of exceeding interest. In two cases the interval could be calculated within an hour, and the impulse for

spirits burst out, irrespective of situation and surroundings, at the exact time predicted. In the second class were grouped all those who drank steadily, with no free interval of sobriety. These were called constant inebriates, and numbered sixteen; tremors, delusions, and insomnia were present in all these cases. In the third class, called paroxysmal inebriates, of which there were six, the condition resembled an attack of acute mania, in the suddenness of its onset and short duration, depending upon some special state of the nerve centres, which, after a few hours' excess in the use of spirits, recovered their control of the organism. Case 22 was of this type. He would drink to great excess for one or two days, then stop as suddenly as he began, and the interval of sobriety would be equally uncertain. In Case 19 a bar-keeper would reform, and remain sober a long time in his business, then relapse and reform again, without any special cause or reason. One case was closely allied with opium taking, so that neither was prominent, first one then the other.

The fourth inquiry is, What is the nature and character of the treatment in these cases?

Every case suffers from congestions, degenerations, and ~~nutrient~~ perversions of every description. In the treatment, the removal of all exciting causes, and building up the general strength and vigor of the organism, is the first principle. An inebriate asylum is simply a quarantine, where this object can be most easily secured. Immunity from alcohol that is almost absolute, or as near as it can be, is one of the essentials. To accomplish this, both modified and absolute restraint over all the surroundings and habits of the patient must be exercised, depending on the special wants and needs of each one. Restraint from alcohol is only one factor, and often an insignificant one; restraint from excitement, sexual excess, overwork, and many other influences equally powerful in the causation of inebriety, are absolutely necessary. In many cases the quiet, regular living and exact surroundings are a more effectual restraint

from the use of alcohol than locks and bars. Hence all restraint must be adapted to the requirements of each case, and not depend on any one thing. In a periodical inebriate and dipsomaniac, restraint at times is positively injurious, at others it is a tonic of great value. The building up process must include all the means known to science for invigorating the organism, of which electricity, baths, tonics, mineral waters, and nutrients are most prominent. With this are included exercise that is pleasant, and with full consent of the patient, mental diversion and change, as well as occupation of both mind and body. The inebriate is a thoroughly sick man, needing rest and perfect freedom from all sources of exhaustion, excitement, and debility. The mind requires more skill in the treatment than in cases of the insane, and the organic degenerations are more complex, taxing every resource of science to its utmost to combat. These means must be used for long periods, of not less than from one to three years, before any permanent restoration can be expected.

The fifth and last inquiry is, What were the results from the treatment of the cases mentioned in this article?

A period of nearly six years has elapsed since these cases were under treatment, and their present condition will approximately indicate the value and permanency of the results. Letters have been addressed to both the patients and their friends, and in some instances to the family physician, and the answers may be taken as more or less reliable. In seven cases the facts came under my personal observation, and are correct. Of the first ten cases noted on the books as discharged recovered, the following table represents their condition now and during the interval from the time of treatment. The word recovery was used on the asylum books as expressing a general restoration of the physical health and return of the mind to its normal condition, manifest in healthy thought and living, with an earnest desire and exertion to get well.

Cases who are yet temperate and well.	. . . . .
Relapsed once, recovered, and now well,	. . . . .
Relapsed twice after a long interval, now well,	. . . . .

Relapsed and now drinking,	1
Relapsed and died within a year,	1
Relapsed and developed general paralysis,	1

Of the twenty cases noted as discharged greatly benefited, four have disappeared, and no history or trace of them can be ascertained. It is probable that most of these cases have recovered or died; in either case all history would be lost. Had they relapsed they could be more easily traced. The rule is, that cases permanently cured disappear from observation, and never refer to their past life, while the chronic incurable stands about street-corners and saloons, advertising his failure to recover and the asylum to perform a miracle in his case.

Cases that are yet temperate and well,	3
Cases that were temperate up to death,	2
Cases which relapsed once and are now temperate and well,	4
Cases which have relapsed more than once at long intervals, now well,	3
Cases relapsed and still drinking,	3
Relapsed and died from excess,	1

Of those discharged as not benefited by the asylum treatment, the following is the present state:—

Relapsed and still drinking,	2
Relapsed and now in an insane asylum,	1
Relapsing at long intervals,	1

During treatment one died from obscure affection of the brain soon after admission into the asylum.

The following table is a summary of all the cases:—

Those still well and temperate,	7
Continued temperate and well up to death,	2
Relapsed once, but now temperate,	5
Relapsed twice or more, at long intervals, now well,	5
Relapsed and still drinking,	6
Relapsed and died from excess,	2
Relapsed and in an insane asylum,	1
Relapsed and developed general paralysis,	1
Relapsed at fixed intervals,	1
Died under treatment,	1
No history ascertained of,	4

The cases were under treatment from thirty-four days to six months, with an average of about four months to each one. In this time it is almost impossible to expect anything more than a beginning of permanent treatment. These results, in view of a knowledge of the difficulties of treatment, are very encouraging. Some of these obstacles may be mentioned as follows: All these cases had developed a low grade of chronicity, and exhausted every means of treatment before they came to the asylum, which is only a last resort. They come to these places credulous, and expecting results more or less miraculous, or skeptical of any good or power the treatment can give them. Hence it takes a long time to enlist the intelligent co-operation of the patient with the physician and the means applied. The treatment of inebriety had scarcely begun, and both the means and appliances are sadly wanting in every institution. The full support by the public, both legally and morally, with trained men to study and apply the means for treatment, are also wanting. Until such a time, when institutions are founded and conducted by experts, with every resource at command, similar to insane asylums, the difficulties of this work will be very formidable. The results of treatment to-day, with the worst cases, and the crudest means and methods of restoration only faintly indicate the possibility of cure in the future. The restoration of seven in thirty-one cases, after a period of nearly six years and more, is an unmistakable sign of the eminent curability of inebriety, with better means, and larger knowledge.

In a general review of the facts gleaned from a study of these cases, and the results of treatment as seen at this time, I have great confidence in believing that the following propositions are correct, and will be confirmed in all future studies:—

1. Inebriety is a disease, which may be studied, traced, and understood, and whose course or march follows a progressive line, full of hints pointing out the means of cure and prevention.

2. Inebriety is curable as other diseases are, by the application of physical remedies in proper surroundings, by competent men, who seek to apply exact means to meet every case.

3. Inebriety must be studied from a physical point of view, as the result of physiological and psychical laws, and not a matter of chance, or a low, vicious element in human nature.

4. Standing on the frontier lines, vast outlines of hills and valleys stretch out before us, all under the domain of law. When the traditional superstition, which hangs over this field, vanishes, and the causes of inebriety are known, as well as the means for prevention and cure, a new era of humanity and civilization will begin.

5. The increasing prevalence of inebriety in this country demands a scientific study of the subject, and a more thorough acquaintance with the laws and forces which govern its rise and progress; from this a knowledge of the best means of treatment will be ascertained and applied.

Dr. Williams, of Ohio, reports the case of a child eight years old drinking eight ounces of poor whiskey, followed by a state of profound coma and death some hours after. Dr. Wood, in his *Materia Medica*, reports thirty-five cases of acute alcoholism in four years in England and Wales. *Stille*, in his work, also mentions several cases of persons dying in a few hours from excessive drinking. Also of a child two years old who died after drinking an ounce of rum.

The inebriate is an egotist and always intensely introspective. He needs diversion of thoughts, feelings, and sympathies. He is always selfish and boasting of honor which he has not, and consciousness of truth and justice which grows steadily weaker as the disorder progresses. Change of living, thought, and action, with new hope, new faith, and purposes for the future. This is the mental condition which should be aimed at in all treatment.

SOME CAUSES OF INEBRIETY.

BY DR. ALBERT DAY, BOSTON, MASS.

Alcohol is only one cause of inebriety. Often degeneration exists which is merely exploded by alcohol.

Inebriety is a disease of which alcohol is only in many cases an exciting cause.

No other malady is so destructive and wide-spread in its effects on the race.

Lord Bacon forcibly tells us : "All the crimes on the earth do not destroy so many of the human race, nor alienate so much property as inebriety." Intemperance in its varied forms has become so familiar that it is viewed with far too little apprehension.

The practice of drinking is so common, so woven into the custom of every day life, that few escape its contamination. National evils grow out of individual practice, small at the start, they increase in size until we have gigantic malady. No successful treatment of this affection can be accomplished unless we learn the causes which led up to it.

Among these, I am led to believe, over-education is very prominent.

Our educational system, which seems to me with all its praised perfection and excellence, is sadly deficient in its knowledge of mental hygiene. The mental powers of our youth are overtaxed. The mind overcrowded by the teacher for the purpose of obtaining extraordinary results — and the result is premature mental development — the end is loss of sleep and loss of appetite — the brain is not nourished as it ought to be, and then comes in alcohol in its various forms as the only panacea for the ill-conditioned young man. His intention is to drink moderately, but this he cannot do. Moderation to him is excess. At the first touch of alcohol

the already overworked sensitive brain reels and staggers under the power of this new element; a new law is set up in his system, and the power of self-control is lost. The law of stimulation rules supreme, and the young man is a drunkard.

In the commercial community the young man is overworked. He dines *down town*. He has but a few minutes in which to dine. He runs to and from the dining-hall—no repose, no rest. Of course in most such cases digestion is arrested. There is no assimilation of food, and the result is debility and inability to perform the labor required of him. Then steps in this most convenient, the most grateful, and indeed the most popular of all remedies, alcohol. This for a time spurs the young man on to perform his daily duties, and in order to keep up the scale of necessary stimulation, the quantity of alcohol must be increased. This will continue until excess in stimulation is obtained, and the young man is a drunkard, turned out into the world, ruined and disgraced. Thus, work where there is great strain is always followed by conditions of degeneration, which ends rapidly in inebriety.

The confirmed inebriate relapsing from his oath of abstinence, going back again and again to the poisonous draughts he has so often foresworn, shattered in body and mind—has been given up as past all hope of rescue. But what was formerly counted a perversion of the moral nature, that could not be righted—a vice that could not be eradicated or overcome, has been found to be a disease deep seated and stubborn; involving both the body and mind, yet a disease that yields to treatment, and is susceptible to cure.

When the strongest resolutions and the most fervent prayers of the individual, joined with every safeguard and help, have failed, the remedy and treatment discovered by modern science and research have succeeded. As the whole man has been disordered, the whole man must be healed; mind and body must be restored to soundness; so intimate and vital in this relation. The physical system toned and built up, the mental and moral gains health and strength.

Experience of all asylums show that large numbers under treatment are saved and cured. As much so as cases of typhoid fever or pneumonia.

We must have a better sentiment encouraging the growth of asylums and hospitals, and the physical treatment of the inebriate, and then the evils of inebriety will be lessened.

ALCOHOLIC INSANITY.

BY LEWIS D. MASON, M. D., CONSULTING PHYSICIAN TO THE
INEBRIATE ASYLUM, FORT HAMILTON, L. I.

[Continued from October Number of Journal.]

The exciting cause is generally a debauch which ushers in the attack, or the insanity may be developed more insidiously apparently without any precursory signs; the first manifestations having the peculiar mental symptoms that characterize this condition. If, however, the attack follows a debauch, we have certain symptoms that precede the delusions, insomnia, variable temperature and pulse, poor appetite, restlessness, the general condition of a febrile state; an attack of "acute alcoholic delirium" may now supervene, with the delusions and hallucination which we have described. As these symptoms subside and the conditions of the patient approaches the normal, we do not have that return to mental health that occurs with reasonable promptitude after a simple attack of delirium tremens; in other words the mental state of the patient does not improve with his physical condition; as a rule, one central delusion remains, around which others of secondary importance cluster. I need not allude to the character of these delusions; they have been already referred to, except that, in addition to the delusions as to persecution, or the monomania of suspicion, we have that of delusions as to locality, the patient imagining that he is in some place other than the asylum, or his place of present abode, also that he visits places or goes to town regularly, whereas he does not leave his house or the asylum.

Chronic alcoholic mania may be divided into two forms. Both are characterized by the monomania of suspicion or of persecution; in one class of cases, the maniacal and homici-

dal type is presented ; in the other, the melancholic and suicidal form.

The former is one of the most dangerous types of mania that is met with, especially when the mental alienation is not ushered in or accompanied by a febrile condition, or other symptoms that usually point out a departure from health. He is therefore not regarded as a sick man by his friends, although they may think he acts a little "queer," he is moody, taciturn, he whispers his suspicions, he picks out his special enemies, he prepares himself against assault, carries weapons on his person, or conceals them in a secret place, he broods over his fancied wrongs ; finally, time and place suit his purpose, the revengeful design he has been nursing for months and hinting about to his immediate acquaintances now finds an outlet, and the press publishes a case of "murder in cold blood ;" his history by degrees comes out, experts are summoned, his true condition is ascertained, and he is sent to an asylum. One very common delusion is that of marital unfaithfulness ; some one, generally a near acquaintance who is on visiting terms with his family, is selected as the one who has destroyed the sanctity of his hearth and home. Too often his insane delusions are treated as simply jealousy, but it is a morbid jealousy of the most intense character and will in its insane fury take the life of some innocent victim. It is a good rule not to take the homicidal vagaries of an intemperate man as a matter of trifling importance, but he breathes out, it may be threatening and slaughter, although it may be in an undertone, let him be promptly arrested and examined as to his sanity. Whether the monomania of persecution in alcoholics be developed with or without febrile symptoms, this class of cases is extremely dangerous, and in or out of an asylum must be under constant watch and carefully guarded ; their tendencies are homicidal.

Dr. J. C. Lester has furnished me with the notes of the following case :— The patient is forty-three years of age, has been drinking to excess for several years past, became insane ; the insanity was the direct result of his excessive use of alco-

hol, there being no heredity taint. His grandparents lived to be over ninety years of age. His parents are now living, his father is seventy-nine years old, his mother is seventy-five years, and are exemplary people in every respect. His insanity lasted about a year, he recovered sufficiently to resume his business, he remained perfectly sober for several months only to relapse, and is now drinking as hard as ever. The immediate cause of the relapse was a severely sprained ankle, from which he suffered very much. His insanity at all times is that of the monomania of suspicion or persecution. His suspicions are mainly directed towards his wife and child. He walks about the house, and if he had his full liberty would no doubt assault them, for it was found, before his condition was fully ascertained, that he had concealed, under the stationary wash-stand of the bed-room occupied by himself and his wife, a dirk knife which was covered with some old clothes.

This class of patients show great ingenuity and cunning, combined with secretiveness, in carrying out their designs.

The following case was reported by Dr. Drake of Cincinnati, Ohio, and was published in the report of New York State Inebriate Asylum for 1866, Dr. J. E. Turner, superintendent. At the time of the occurrence it attracted the attention of the medical public in its bearings on the legal responsibility of the dipsomaniac.

"John Birdsall of Harrison, in that State, was indicted in 1829 for the murder of his wife with an axe, by dividing the spinal column in the neck. He was about fifty years old, and had been married to this, his second wife, about nineteen or twenty years, and had children by her. For some years previous he had been subject to occasional fits of intoxication. These, of late, were followed by delirium tremens, which generally lasted several days, and went off spontaneously. In these paroxysms, all its physical and moral symptoms were present. He entertained great fears for his safety, and sometimes ran about the village as if

attempting to escape from pursuit. At another time he concealed himself between a feather and a straw bed in his own house. He would point his gun from his window, as if for defense against imaginary persons. He was also very watchful. The prevailing maniacal delusion was, that his wife was in combination with his neighbors—one, his son by his first wife—against his life. He had charged her during his paroxysms with criminal intimacy with these, and had threatened to kill her.

"On Sunday he was intoxicated, Monday, Tuesday, and Wednesday presented nothing special. On Wednesday evening he complained of being unwell, but seemed to be rational. He slept none that night, and next day the family thought him crazy, but were not alarmed. In the course of it, he took an axe and went to a neighbor, whom he desired to return with him, as he stated they wanted to kill him. He spent the day at home, apparently in terror and agitation; manifested jealousy of his wife; barred the doors; and fancied that the persons of whom he was jealous were manufacturing ropes up-stairs to hang him.

"In the course of the afternoon he suddenly committed the murder. His wife was sitting by the fire, and he had been walking the room. After the fatal blow on the neck, he followed it by two or three on the face. His eldest daughter seized the axe, which he yielded, when he took a scythe and attempted to strike her. She defended herself until the door was opened. When arrested, he acknowledged the homicide, and knew, he said, that he would be hung, but ought to have done it sooner. He talked at this time so rationally that many of the witnesses could not believe him deranged. He evinced no dread of punishment, but was still in great apprehension of those who he had believed intended to kill him. After being committed, he became regular, and expressed sorrow for what he had done.

"On the trial three medical witnesses agreed that he labored under *mania á potu* when he committed the homi-

cide. For the defense, it was urged that when drunkenness gives rise to insanity it should cause immunity, and hence form a legal excuse. On the other hand, the counsel for the people remarked that Birdsall knew that this delirium followed his intoxication, and hence it was voluntary. The law, therefore, held him accountable for actions during such a state. The verdict was murder in the first degree, and he was sentenced to death."

A case has been under my observation in which during the last thirteen years there have been some twenty-five or thirty attacks of alcoholic mania, more or less protracted. In all of these attacks the monomania of suspicion was very marked, the main delusion being that his wife was unfaithful to him. In all his attacks of mania he was dangerous to those about him, and had to be kept under restraint. I have no doubt if he had had the opportunity he would have assaulted his wife. The other form of chronic alcoholic mania is characterized by melancholia. The patient is depressed, weeps readily, to a certain extent he is confidential, seems to crave sympathy. He will follow you about, and ask your aid against supposed evils that are impending over him. I recall one case where the patient believed that his funeral would take place in a few hours. He could hear people preparing for it; he begged me to delay, if possible, the ceremony; he was exceedingly sorrowful and depressed. The delusions are various; persons dead are living, and the living are dead. Events that have happened long since are being re-enacted. Delusions as to locality, as I have said, are often marked. The delusion of poison in the food or drink is oftentimes a very troublesome one. Such persons, however, will take ale or other stimulants when they refuse food, a perversion of taste being the probable cause of this form of delusion we have referred to. This delusion is usually subsidiary to more prominent or leading mental aberrations. The central or prominent delusion is the first to come, the last to leave. As his disordered intellect rights itself, he clings to this oftentimes persistently, and finally,

when his reasoning powers return, he listens to argument, and gives up his delusions as a fallacy. It is a curious fact, as in the case we have mentioned, that in subsequent attacks or relapses the same delusions so prominent in previous attacks return, and remain with the same persistency.

The differential diagnosis between chronic alcoholic mania and the more acute forms of alcoholism, and the idiopathic forms of insanity, or insanity from other causes than alcohol, should exclude delirium tremens, or acute alcoholic delirium, general paresis in its earlier stage, and insanity from syphilis, a traumatism associated with alcoholism.

We have dwelt at length upon the train of mental symptoms in delirium tremens, the great variety and variableness of the delusions, the persistent insomnia, great restlessness, incessant loquacity of the patient, those symptoms best covered and expressed by the term "busy delirium." This, with the comparatively *short duration* of the attack, exhibits a marked contrast to the more chronic form. In alcoholic insanity sleep will take the place of the "painful vigils" so characteristic of delirium tremens. The monomania of the delusions is characteristic of the more chronic form as compared with the variety and variableness of the more acute forms and the vascular or febrile excitement. He is the subject of delusions, not of delirium—Dr. Skae and others make this distinction.

We have thus drawn the distinction between the characteristic "busy delirium" of delirium tremens and the delusions and less-marked vascular excitement of chronic alcoholic mania, because this, with the comparatively short duration of the former and the protracted duration of the latter, constitute the principal features in the differential diagnosis. Cases of general paresis in the incipient stages are not unfrequently characterized by fits of intoxication, and to differentiate this from the condition under consideration, especially if preceded by an alcoholic history, involves some difficulty. However, as pointed out by Anstie and others,

the characteristic feature of "mental exaltation," which marks general paresis and tinctures the delusions, is wanting in simple alcoholic insanity; in the latter instance, depression, with morbid forebodings, or the monomania of suspicion, being the marked peculiarity. In those rare instances of general paresis where mental exaltation is not a feature, the absence of other symptoms that pertain to alcoholism will clear up the diagnosis. Again, alcoholism, with repeated attacks of alcoholic insanity, may eventually terminate in general paresis, and in these cases alcohol may have two important bearings from a medico-legal standing—whether it was causative or simply contributive.

The following statement comes from good authority. St. Lawrence Island, a few miles off the shore of Alaska, has been inhabited by Esquimaux who live by fishing and were a temperate, quiet people. Four years ago a trader with stores of spirits settled among them, and the people soon learned to like it, becoming hard drinkers. During the last three years one thousand persons have died from excess of drink. The island is rapidly becoming depopulated and the mortality dates from the first introduction of spirits. Unless some preventive measures are taken the race on that island will die out and become extinct. As they have no accessions from emigration it is a very serious matter.

At the last meeting of the Virginia Medical Society, Dr. Rogers offered a series of resolutions urging all medical men to be cautious about prescribing opium, and asserting the great danger from this source. If the profession will take up alcohol, which is infinitely more dangerous and less valuable in every respect as a medicine, progress will be made in the right direction.

A new asylum for inebriates was opened in November, at Guelph, Canada, called the Homewood Retreat. Dr. Lett is superintendent, formerly of the London Insane Asylum.

Abstracts and Reviews.

BELAIR INEBRIATE'S RETREAT.

The Sixth and Seventh Annual Reports of this far-away institution has reached us, and are of more than passing interest.

This asylum is situated seven miles south of Adelaide, in South Australia, on an elevation a thousand feet above the sea, and overlooking a wide expanse of sea and country.

It was established in 1877, as a private charity, supported by the income from patients and voluntary subscriptions, the government extending slight aid at first. In 1881 it was incorporated, and an inebriate act was passed the legislature, giving this and any other asylum for this purpose, power to hold all patients who were committed here. This could be done by the patient voluntary, or compulsory by his friends.

The features of the law are simple, and require the certificate of two physicians to each commitment, or proof before a magistrate that the person is a habitual inebriate, and can not restrain himself. This law was followed by a land grant and donation from the government.

The board of managers, made up of many of the leading citizens of the country, raised over thirty thousand dollars, and have just completed a beautiful building containing accommodations for over fifty patients.

Both sexes are received and graded into three classes, according to their condition of life and ability to pay. Work shops are provided, and the results of their labors are credited to them, to be used while in the asylum, or to go to their families.

During the year past ending in June 1883, forty persons

had been committed, and of those discharged the most satisfactory results were obtained. The discipline appears to be decided and stimulating, and each case is treated as diseased. It is a pleasing fact that these reports are clear and emphatic on the question of disease. No theological theories, or timid superstitions of half vice and disease fill the mind of the managers or physicians. The managers report that a larger number of those suffering from the disease of intemperance have applied for admission.

The superintendent, Mr. Osborn, speaks very highly of the effect of work shops, as means of treatment, and the physician, Dr. Hayward, records the fact that he never gives any alcohol to the patients even in the worst cases, and no ill results have followed. Other managers speak of the "disease of drunkenness and inebriety," and its positive curability.

No one is accepted for less time than three months, and the evident purpose is to limit the number of patients to less than fifty, and preserve a home-like atmosphere. Several gentlemen have gone about the country delivering lectures on the work of this asylum, and soliciting aid with great success.

These two modest reports contain brief accounts of the year's work, with tables, and full extracts of reports of visitors who were evidently prompted to put down their impressions of this asylum and its work.

It is a sad reflection on the discernment and enterprise of our enlightened country, that the problem of inebriate asylums should halt and be so sadly mixed up with doubts and confusion, where it is possible to reach the truth so quickly. In that far away land both this and other efforts, show that inebriate asylums are no experiments, but simply pioneer efforts, outlining a new era of positive care and recognition of inebriates as diseased, and curable in the broadest meaning of the word.

HOW TO GIVE ALCOHOL IN DISEASE.

Dr. Richardson of London, England, lately presented a paper on this subject before the British Medical Temperance Association in which he discussed the following questions:—

1. Is it advisable for members of the medical profession to recommend alcoholic beverages in general terms in the treatment of disease, as if such beverages were foods and necessaries, and distinct from medicines?
2. Ought alcohol ever to be prescribed medicinally in the form of a common alcoholic drink?
3. Ought alcohol ever to be prescribed in disease, or ought it, as some hold, to be excluded altogether from medical practice?

The first question was answered in the negative, and the present loose way of prescribing alcohol was considered to be often followed by immense mischief to the sick. Not only by intensifying the illness, but leading the mind to mistake its narcotic action for evidence of returning health.

The second question was negated, and one reason was that the common alcoholic drinks were always uncertain, and never alike, and generally artificial mixtures that could not be depended upon. Nothing but analysis could ever determine their composition.

In answer to the third question, it was urged that the only true way of using spirits, was to procure ethylic alcohol, and give it combined with water in doses to produce certain definite effects.

Such effects to be looked for, were not those of strength, nor those which would occur from taking food, but those from the prime action of alcohol, viz.: relaxation of organic muscular fiber; also for its styptic, and antiperistaltic. Dr. Richardson showed that it was a valuable vehicle for ammonia, in such a manner that ammonia in combination with chloroform could be administered by inhalation for the treatment of zymotic fevers.

He has given some extended studies of the methylic and

butylic alcohols, and concluded with the statement that the study of the action of alcohol in disease should be separated altogether from the question of alcohol drinks.

In an interesting discussion which followed, Dr. Drysdale said that alcohol should never be administered in the form of wine, brandy, whiskey, beer or any common form of spirits.

These beverages were never scientific combinations, and comprised all degrees of strength and purity.

It was mentioned that no one could tell of the effect of the alcoholic mixtures. While we had begun to know something of the effect of alcohol on the body, the action of these combinations was unknown.

MORAL INSANITY AND INEBRIETY.

The following description of moral insanity appears in the *Medico-Legal Journal*, and is given as a very accurate description of a very large class of inebriates:—

“Moral insanity is a term used to describe a distinct phase or type of insanity, in which the insane actions and conduct are shown, rather than insane ideas, delusions, or hallucinations.

“These persons seem to be unsound in the moral and emotional part of the brain. There is an entire change of character and habits, evidenced by extraordinary acts and conduct, extravagance or parsimony, false assertions and false views concerning those nearest and dearest, without absolute delusion.

“Its approach is gradual rather than sudden, and the extraordinary character of the acts may not at first be as marked as subsequently.

“Friends wonder that a man should say this or that, or do things so foreign to his nature and habits, but some time may elapse before they can convince themselves that such conduct is the result of disease, and the acts may be such that many will look upon them to the last as signs merely of depravity. When the insanity is well marked and the

conduct is outrageous, there will be no difficulty in the diagnosis. But it may be less marked and it may consist of false and malevolent assertions concerning people, even the nearest relatives, of plots and traps to annoy others, in which great ingenuity and cunning may be displayed, and there will be the greatest plausibility in the story, by which all such acts, and all other acts, will be explained away and excused. Where we can ascertain that this condition of things is something which has come on the patient, being formerly absent and that a man is altogether changed, we may suspect insanity. Such people are very acute, on the alert, have no scruples about falsehood, and will deny or justify anything with which they are charged. Where the insanity is manifest in conduct the physician may never be a witness of it, and is obliged to receive on hearsay that which the patient denies most strenuously.

"There may be in these cases a period, though short, of acute insanity, or acute mania or melancholia, which passes away and leaves a permanent condition of affective or reasoning insanity, or this may be a precursor of a more advanced style of insanity, marked by the ordinary symptoms of delusions and hallucinations.

"If the change has been rapid and progressing, if the patient has become more outrageous and eccentric, it is likely that in a short time unmistakable insanity will be displayed. He may develop general paralysis.

"His condition may be one of the alternating stages of circular insanity, in which state a period of depression alternates with one of excitement, gaiety, self-glorification or irascibility.

"The one constant and marked feature of affective or emotion insanity proper, is the absence of delusion. The intellect is not, however, sound. There is great acuteness and cunning displayed by such patients, and yet the most silly conduct, as for instance, defending and justifying the most outrageous conduct, and they cannot be made to see that such acts are outrageous.

"Close examination will probably reveal the fact that there is considerable lesion in these cases. There is a want of the power of attention and concentration of ideas on a subject. There is one form of moral insanity which is the hardest of all to estimate and diagnose. It is congenital moral defect occasionally met with in persons who have been from birth odd and peculiar, and incapable of behaving like other people. They may have some intellect and even genius in certain directions; we find that they are the offspring of parents tainted with insanity, and in childhood very likely to have fits, St. Vitus dance or other diseases. Often they are very cruel towards animals or their brothers or sisters, and seem utterly incapable of telling the truth, or understanding why they should do so. They have, so to speak, a criminal nature, a true moral imbecility, and it is very difficult to say how far they are responsible."

Insanity Considered in its Medico-Legal Relations. By T. R. Buckham, A.M., M.D. J. B. Lippincott & Co., Philadelphia, 1883.

In this book the author attempts to point out the causes and remedies of the uncertainty of verdicts in trials of insanity cases. He has succeeded in producing a very suggestive work, which, although somewhat uneven, and lacking in originality is a fair, earnest discussion on this subject, which will greatly aid in bringing about reform so much needed. It is to be regretted that so sensible a writer should repeat the almost barbaric error, in the theologico-legal conception of the responsibility of excessive drinkers. It is to be expected that jurists should still teach that inebriety is no excuse for crime, on the theological notion that it is a voluntary, self-induced state. But a physician who urges this view, has simply failed to keep pace with the teachings of science, and is only representing his non-expertness in such statements. The real remedy for this confusing uncertainty of experts in cases of insanity, and its allied disorders, must

come from a broader study of cases, irrespective of all theories, with the one object of ascertaining the facts only, no matter what the conclusions may be.

Dr. Buckham urges that a State Board of medical experts be appointed from asylum superintendents, who shall determine all these cases free of any special fee, or for any party interested. In this he is much beyond the present public sentiment. The chapters on experts are well worthy of much study, and are really the best part of the book. The chapters on insanity have an important bearing on inebriety and its complex questions, and will repay a careful reading by all interested in this special field. In general appearance the book is admirable, and we are confident it will furnish much food for all readers.

Insanity, Its Classification, Diagnosis, and Treatment, Etc.
By E. C. Spitzka, M. D. *Birmingham & Co., New York City.* 1883.

This work is suggestive, technical, original, and aggressive in tone.

In the classification appear many distinct forms of inebriety under the name of insanities; and in the chapters on special insanities are outlined wide fields for future investigation, especially in the realm of inebriety. With but slight changes of names, entire pages would describe cases of inebriety accurately. The chapter on alcoholic insanity is not a very accurate picture of these cases, and many of the distinctions drawn of insanity cannot be found in the study of cases in practical asylum work.

This book must be read by all who make mental disease a study, and although much difference of opinion may spring up between the author and reader, the latter will have a fine opportunity to strengthen and enlarge his views on many disputed topics in this field. Our readers will find this book a rich mine of thought that will throw many strong side-lights on inebriety and its nature.

The publishers have presented a handsome volume.

Die Alcoholischen Geisteskrankheiten im Basler Irrenhause, etc. By Dr. Von Speyr, Berlin, 1882.

This is a work of the transition period in the study of inebriety. It is a collection of clinical histories of cases, studied and compared. Cases that are almost exclusively due to the toxic action of alcohol, or at least do not present in the history as recorded, any special complicating diseases. They are supposed to represent pure alcoholic insanities. The author makes the following divisions. 1. Pathological intoxication, or acute alcoholism. 2. Alcoholic insanity, acute and chronic. 3. Delirium tremens. 4. Chronic alcoholism. He distinguishes between alcoholism of the acute form, and acute alcoholic insanity. The former would be the ordinary intoxication of inebriates, while the latter would be intoxication with mania, of persecution and hallucinations.

Delirium tremens is distinct from this. The author found in his studies that nearly all cases had drunken or neurotic parents or relatives. The symptoms of these different forms of inebriety are described with startling minuteness, and illustrated by cases that would be passed by (in this country) as simply "drunk;" while in reality they present whole volumes of psychological fact of fascinating interest. In delirium tremens and chronic alcoholism he draws some clear distinctions that are unknown to the profession. He shows that epilepsy is very closely associated with the former, and that injury and disease, especially apoplexy, are found with the latter. In all the cases presented, he excludes all forms of mania, in which onanism or epilepsy was supposed to have any share of the causation. Also all cases in which traumatism, hysteria, or progressive paralysis was complicated. He notes a fact that all cases who have suffered from pneumonia, or typhoid fever, or lead palsy, are worse and more chronic than others. The progressive character of these affections are noted, and the general uniformity of the symptoms from certain points of departure, are found to exist in all cases.

The author has produced a clear, critical, and complete psychological study of these cases that will be an important

contribution to a general study of inebriety. With Dr. Mason's essay, now published in this journal, and Dr. Parrish's book on inebriety, it forms the beginning of a new epoch in the exact scientific study of inebriety. Dr. Speyr has studied a class of those who are pronounced incurables, who are neglected and considered unworthy of notice. From these he has pointed out vast unknown realms of great interest. Who will take up inebriety as it is seen in this country and study it with the same scientific accuracy? Who will venture into this realm and point out the physiological and psychological laws which develop the inebriate, and control his march to the grave?

The *Popular Science Monthly* published by D. Appleton & Co., New York City, has literally become a necessity for every student of science and civilization. It brings every month a more perfect history of the world's march than can be found elsewhere. Here the student can find the best thoughts and the latest discoveries of the great pioneer workers, condensed and put in a form that can be understood by all readers. Above all, the reader can feel confident that whatever appears in its pages, comes from writers entitled to respect in both capacity and honesty. We urge all our readers to become subscribers of the *Popular Science Monthly* as the very best investment that can be made for the new year.

The *Electrician* has changed greatly, and is now the leading journal of this new field. We urge our readers to become subscribers, and thus keep up with this the great new continent of the twentieth century. It is published at 115 Nassau Street, New York City.

The *Medico-Legal Journal* should be read by every physician and lawyer. Then we can hope for a change in the present confused theories of insanity and its responsibility.

The *Scientific American*, Munn & Co., New York City, publishers, is a weekly of great value to all who are interested in the progress of science.

Editorial.

INEBRIETY FROM A LEGAL STANDPOINT.

The criminal code concerning inebriates has come down unchanged from the time Epicurus taught that inebriety could only be prevented by punishment and severe physical suffering—a period of over two thousand years. This is apparent in the following, lately pronounced by a Judge of the highest court in Connecticut: “We wish to make this doctrine emphatic, that under no circumstances is inebriety an excuse for crime, but should rather be the reason for more severe punishment. We can never hope to reach this evil until the law is administered with more severity.” And also seen recently in the following sentiment from a sermon by the chaplain of Harvard College: “The only hope of successful treatment of inebriety is to make it infamous, to increase the severity of the punishment and make it more loathesome and disgusting.”

Thus, notwithstanding all the ages of progress and development, penal civilization relating to inebriety has stood still. The same theories and doctrines are repeated that were current twenty centuries ago. The time has come for change. Such theories are literally protests against the teachings of science and the march of human progress. Carried out practically in the court room, they assume that every inebriate becomes so in health and with full knowledge of the nature and consequences of his drinking. Also that he has the power to control his desire for spirits, and the failure to do so is a willful and careless giving way to gratify a low, debasing instinct. It is also assumed that inebriety is nothing more than the lower animal nature gaining ascendancy and control; hence punishment and mortifi-

cation of the flesh enables the spirit, or better part, to triumph over this baser element. From such conceptions of inebriety the jury are charged that the use of alcohol does not destroy a knowledge of right and wrong, and hence is never an excuse for crime. They are also informed that the inebriate as a witness is incompetent, that his senses are perverted and judgment may be impaired, that his testimony cannot be relied upon, but as a principal or actor in crime he is responsible as of sound mind. It is also declared that inebriety does not impair the consciousness of the nature of crime, but rather increases the criminal tendency of the inebriate, giving him increased power for crime and its concealment.

From these views a reaction has begun, and a degree of irresponsibility is recognized in the later and more chronic stages, but the first part of the disorder is considered one of full consciousness of the nature and character of his acts. Delirium tremens is a condition in which the person is not accountable. But if delirium comes on from inebriety, and cannot be called delirium tremens, he is punished. He may be demented or delirious, but if this is traced to inebriety, it is a self-induced disorder, and he must be punished as responsible. The practical application of such dogmas are not only disastrous to the inebriate, but utterly fails to meet the ends of justice. Inebriety, instead of being prevented by it, is increased, and the inebriate is made incurable, instead of being helped or restored. The object of the law, to prevent inebriety by making it a crime to drink and punishing crime which comes from drink, not only increases the drink mania, but the tendency to crime in this State. The reason is obvious in the fact that all punishment intensifies the physical degeneration, and the mental states which precede and accompany inebriety and crime following it. They are remedies applied to correct a state which is not present, and consequently they plunge the victim into worse conditions.

The courts where inebriety is punished as inebriety, and as a cause of crime, are nothing but literal centers for the increase of crime and degeneration, graduating vast armies

of incurable criminal inebriates who are ever after a burden on society. In the same way the punishment of the insane increased insanity by making the victim more incurable. Every day's experience shows that the legal efforts to check inebriety by force and intimidation fail, and the old criminal code of centuries ago applied in these modern times means death to the victims and increasing perils to the State. The remedy for this must come from a scientific study of inebriety. The inebriate in court must be studied as a sick man by competent authorities, and his responsibility determined from the history of his case, and not from legal dogmas or decisions. The inebriate in court to-day cannot be judged with the spirit of the dark ages, or by its theories of human conduct. Inebriety, and inebriety followed by crime, must be determined in the spirit of this progressive century, and from the standpoint of a wider knowledge of the brain and its diseases.

All scientific advance and practical experience are eloquent protests against the present legal methods of treating inebriety. Science protests against every theory and effort to reach and help the inebriate that is not based on an exact knowledge of his malady. Every claim of humanity and civilization calls for reform and change, and demands that the inebriate be judged from a physical point of view, and the measure of his accountability be determined from the perfection and integrity of his organism.

The tendency of all civilization to-day, is to exhaust brain and nerve force. The difficulties which beset healthy life are increasing. A vast army of men and women are appearing, without strength or fitness to cope with life. Arrested brain and nerve development, unbalanced organisms, developing all forms of strange nervous affections, of which inebriety is a most common type. Causes as varied as the events of life are constantly converging into this affection, and yet science has scarcely touched this subject, or reached its border line.

SCIENTIFIC OUTLOOK.

The past year has been eventful in the unusual progress of the scientific study of inebriety. The disease of inebriety has been recognized in an increasing number of papers, essays and lectures, and the denials and protests against this view have been weaker and fainter, like echoes disappearing in fogs from whence they started. The world moves, and old theories and dogmas are challenged at the bar of science, for the evidence upon which they are based. The time has passed when a spiritual explanation of all that is obscure will be accepted. When investigation fails to explain the phenomena of mind and body, we must halt with confidence that the same eternal laws and operations of cause and effect exist in the regions before, that are apparent about us.

Inebriety, as a diseased condition of the brain and nervous system, is a fact about which centers great mysteries not yet understood. Like the old Northman, science has merely touched the shores of this vast continent, while moralists and reformers have mapped out its hills and valleys with an audacity only equaled by ignorance. The scientific study of inebriety is passing a stage of agitation in which all sorts of theories are urged. A period of confusion of facts and errors, and attempts to reason out its nature and character from inspiration, or other basis except that of carefully observed and recorded facts. The literature of this subject in the past year has exceeded that of any other time.

From the moral side it has been aggressive, radical, and delirious in its tone. From the scientific point of view it has been a strange mixture of truth and error; an attempt to explain boundary lines of vice and disease, to show how inebriety may be half sin and half disease, and what means will reach its morbid conditions. Other papers have been content to group the views of experts in other fields of science, whose theories of inebriety are mere repetitions of the past. Yet the number of papers in which inebriety was regarded as a diseased condition are rapidly increasing.

With but few exceptions they all commit the same blunder of attempting a full explanation of inebriety, and clearing up all mysteries that would require a century of study to understand. They forget that inebriety is a vast border-land disease, more complex than any other known, and cannot be seen and comprehended at a glance. Hence the value of these papers are merely to call attention to the subject. Like the long roll-calling to arms, it is the awakening period, the noise of thunder and storm which precedes the voice of truth. From all sides the advance is apparent, not only in medical societies, but in the press, both secular and religious, in the frequent acknowledgment that the inebriate is diseased, and at times insane.

The inebriate asylum movement has revived in many parts of the country. Several new institutions have gone into existence during the year, and inquiries are increasing as to the best methods of organization. Inebriety is not only increasing, but becoming more apparent, and the necessity for relief and help is more imperative than any love of science or a study of the facts. A necessity which is felt in unnumbered homes and firesides, rising above all dogmas and theories. A necessity which calls for a study of the inebriate, and the means which shall save him and prevent others from falling. A necessity which teaches that the inebriate is not a low, wicked sinner, who uses spirits to gratify a vicious impulse of his nature, but in some way is sick, diseased, and insane.

Our association has been denounced and the journal criticised fiercely, but this has no significance other than to indicate progress. The publication of many articles which have appeared in the journal with slight changes and variations, as original in other journals, indicate the same restless progress, and attempts to find the facts of inebriety. Medico-legally, some very grave questions have become prominent during the year, concerning the sanity of inebriates, and great revolutions of public sentiment may be expected in this direction.

Our journal seeks to record the general lines of progress in this field, fully conscious that we are only on the frontiers, and also that our best work is preparatory for another age, with better knowledge and clearer comprehension of the forces which culminate in inebriety. Our association and journal are in advance, and of necessity will not be understood, and often be misrepresented. The outlook is full of promise and encouragement, and following out the lines of these mysterious laws, the landscape will widen and change as we ascend. The unpopular truth of inebriety that is surrounded with doubt to-day, will pass through the twilight into the full morning of popular acceptance, and the inebriate will then be understood and his malady treated with success.

FACTS ABOUT ALCOHOLS.

Notwithstanding all that has been written, alcohol is the least known, chemically and physiologically, of any substance in general use. The general term, alcohol, is used to describe a vast combination of substances having different physical properties and physiological action on the body. Some of these facts have been noted in our pages, and articles that come to us, describing the action of alcohol on the body, are declined for the reason that the authors still assert that alcohol is a simple substance, having always the same effect on the body.

Contributions on this subject are of little value unless this complex nature of alcohol is recognized, and the particular form used described. Its use in medicine is dangerously empirical, except the specific nature of alcohol is understood. Chemically, the widely differing effects of alcohol on the body comes from the different alcohols taken. Their toxic action varies likewise, following a certain order of events that is known in part. Chemically, a fact of much interest has been announced by Krafft, a German chemist.

In a class of well-known alcohols, the carbon atoms increase in regular proportion from one up to nine. Here a

break occurs. The next alcohol has sixteen atoms of carbon, joined to thirty-three of hydrogen, then another break occurs, and the next alcohol has twenty-seven atoms of carbon. For a long time this break in the series has been unsolved. Krafft has succeeded in adding five new alcohols in this missing series, and some of them are solids of unusual interest. This discovery brings strong confirmation to the previously stated fact, that many of the alcohols are formed in old spirits, and combinations made by the dealer, who is merely guided by taste and color. Many of the alcoholic drinks of commerce are complex forms of alcohols that are changing and becoming more dangerous every day. Nothing but a chemical analysis can determine this, and even then more or less uncertainty must follow.

There is only one fact the physician may be confident of—viz., that pure, fresh wine which contains ethylic alcohol is the safest and most accurate form of alcohol that can be used in any way.

THE INFLUENCE OF SYPHILIS ON INEBRIETY.

The opinion that syphilis antagonizes inebriety is not sustained from a clinical study of cases. This view probably came from the fact that in some cases during the acute stage of syphilis, alcohol causes severe pain in the head, and is repelled by the inebriate for this reason. In these cases, opium or other narcotics are substituted, and after the subsidence of the acute symptoms, alcohol is used more freely than before. When the syphilitic poison manifests a tendency to center in the brain, then alcohol produces the most diverse symptoms. In other cases, where syphilis is not present, a certain uniformity of toxic symptoms appear, but when these vary widely without special cause, the suspicion is strong of syphilitic poison. Thus, an inebriate who is either periodic or continuous in the use of alcohol, and rarely exhibits any extreme symptoms, will suddenly become widely delirious or profoundly stupid; or he will exhibit criminal tendencies, and

be dangerous and violent in his delirium. Or he will be markedly paralyzed from alcohol, and demented for a long time. These symptoms coming on suddenly, point to the presence of a new cause of degeneration in the brain centers.

Cases are frequently brought to our notice, where previously quiet, inoffensive inebriates suddenly change and manifest the most extraordinary symptoms. Something has occurred in the brain centers; either the conditions of degeneration have burst into great activity, or some new, active cause has come on. In nearly all cases where any possible exposure to syphilis could have occurred, a prompt anti-syphilitic treatment is followed by a very marked subsidence of all the grave symptoms. In two cases delirium tremens was apparently checked at once by large doses of the iodide of potassium. Syphilis is always a grave complication of inebriety, and always increases the causes of degeneration upon which inebriety depends. The inebriate who, after the infection of syphilis, drinks less or stops altogether, is merely passing a formative stage, in which the diseased elements gather strength for a furious outbreak in the future. The brain and nerve centers of inebriates are peculiarly susceptible to the poison of syphilis, and undoubtedly in many cases where it is manifest in brain and nerve lesion, an inebriate diathesis has prepared the way for it.

Opium inebriety is a very common sequel in inebriates who have contracted syphilis, and found that alcohol had a different effect, especially producing more rapid intoxication than ever before, hence resorted to opium. What is called alcoholic rheumatism is often found to have a syphilitic origin, and to subside quickly from anti-syphilitic treatment. It may be safely assumed that the poison of syphilis increases and intensifies the degeneration of inebriety in all cases, whether apparent or not; also that in all cases the desire for drink is increased, and the possibility of cure diminished. Hence syphilis is the gravest complication that can take place in inebriety, opening the door for the most insidious diseases and complications known. The best clinical observ-

ers unite in urging an anti-syphilitic treatment in nearly all cases of inebriety, and the results fully sustain these conclusions.

STATISTICS OF INEBRIETY IN CONNECTICUT.

According to the returns of the county jails in the State, the number of inebriates arrested and confined in the jails during the year 1882 were four thousand six hundred and fifty-six. Of this number three thousand six hundred and twelve were sent for inebriety alone. Two thousand eight hundred and forty-six had been sent to jail before for the same cause. The remainder, seven hundred and sixty-six were presumably sent to jail for the first time for drink. In Hartford County jail nine hundred and fifty-one were received as inebriates. Of this, six hundred and twenty-seven had been in jail before for inebriety. Of the three hundred and twenty-four who claimed to never have been sent to jail before, one hundred and forty-six were chronic cases from other States, and had undoubtedly been confined for inebriety and other offences. From this it was clear that a much larger number of all the cases had been in jail before for inebriety. The total number of persons confined for all offences were four thousand eight hundred and twenty-five. The number of temperate persons were only one hundred and sixty-nine. All the others, four thousand six hundred and fifty-six were inebriates of all grades. The cost to the tax-payers to commit and take care of these inebriates in jail was over one hundred thousand dollars. This was paid out cheerfully in face of the almost universally acknowledged fact that the jails are the very worst places in which to attempt to restore the inebriate. Practical experience and observation show that the jails are schools in which the inebriate is educated to crime, and graduated with physical and mental conditions from which he never recovers. He comes from these nurseries of destruction unfitted for any better life, and without the power to change or improve. Thus the legal machinery of the

State is practically building up and growing an army of incurables who will always be a burden on the tax-payer. These returns show an increase of nearly eight hundred cases over the year 1880—an evidence of the increase of inebriety much beyond its supposed march.

OPENING OF THE DALRYMPLE HOME FOR
INEBRIATES.

This institution has at last been formally opened for the reception of patients. From the account of the exercises and speeches on that occasion, considerable uncertainty exists as to which treatment shall be most prominent, the moral and religious, or the medical and scientific. The superintendent and wife are especially commended as accomplished musicians and devoted Christians. One of the speakers held up the Religious Asylum of New York as a model for imitation. The board of managers include some very eminent scientific men, and should at once make this asylum a place for scientific work, or turn it over to moralists and temperance reformers.

No insane asylum could exist long where insanity was considered a half vice and half disease, and the treatment conducted on this theory; and no asylum work or efforts to cure inebriety can be sustained in this age, where inebriety is not studied and treated from a purely scientific standpoint.

Hence the Dalrymple Home must rise above the popular notions of to-day, and make inebriety and its treatment an exact study, or it will be a practical failure from the start.

Dr. Facon, superintendent of the Christ church insane asylum, writes: "It is a great mistake to admit inebriates into a lunatic asylum, not only because of their influence over inebriates, but the influence of the insane over them, breaking up the moral tone and pride of character so essential to aid in recovery. Inebriates should always be treated in special asylums adapted to their needs, and by special appliances not had in any other asylum."

Clinical Notes and Comments.

INEBRIETY AND LIFE INSURANCE.

The London Provident Temperance Insurance Company was organized forty years ago, designed only to insure absolutely temperate men. For a long time they struggled against many adverse elements, but success came at last and they are now ranked among the very prosperous companies of the world.

Last year they published a very interesting table of risks covering a period of seventeen years, and comparing them with other companies who did not make so positive distinction in requiring all its insured to be teetotalers.

This table was made to show the difference between this and another company, whose number of insured was the same or nearly so. The expected and actual deaths are very clearly brought out in each year, and the fluctuations that are often so puzzling. The first column represents the temperance company, the other the ordinary company to which it was compared with.

Year.	Expected.	Actual.	Year.	Expected.	Actual.
1866	100	85	1866	180	186
1867	105	71	1867	191	169
1868	109	95	1868	202	179
1869	115	73	1869	212	201
1870	120	87	1870	223	209
1871	127	72	1871	234	217
1872	137	90	1872	244	282
1873	144	118	1873	253	246
1874	153	110	1874	263	288
1875	162	121	1875	274	297
1876	168	102	1876	279	253
1877	179	132	1877	291	280
1878	187	118	1878	299	317
1879	196	164	1879	505	326
1880	203	136	1880	311	304
1881	214	131	1881	320	290
1882	225	157	1882	327	285
Total,	1,644	1,361	Total,	4,408	4,336

The temperance society, in seventeen years together, had a mortality of seventy and one-half per cent. of the expectancy, or twenty-nine and one-half per cent. below the expectancy. In the other company the mortality was ninety-eight and one-half per cent., and only eleven and one-half per cent. below its expectancy, showing a superiority of twenty-eight per cent. in favor of the temperance society.

The inference from this is significant, and the inquiry, can this difference represent the mortality from drink directly or indirectly, and would the actual death rate be diminished twenty-eight per cent. if persons should totally abstain? are questions that will be answered in the future.

We trust this subject will be taken up by some one who can bring facts that will settle it permanently.

THE DRUNKARD AND HIS RESPONSIBILITY.

Dr. Stearns of the Hartford Retreat lately read a paper on the above subject before the Connecticut Congregational Conference from which we make following extracts:—

I assume that not all persons who are accustomed to become intoxicated can properly be called drunkards; that there are those who periodically become so because of a disordered condition of the nervous system. These are termed in medical language dipsomaniacs. They rarely inherit vigorous and well-balanced nervous organizations. They are peculiarly susceptible, easily excited, introspective, or so sensitively organized, that when brought into trying circumstances, they almost instinctively contract the habit of endeavoring to fortify their nervous systems by the use of alcohol or some other drug. In other cases the nervous system has become disordered from the effects of injury to the head, by a blow, or railway accident, or by exposure to heat. In others the cause arises from disease existing in some distant part or organ of the body, the effects of which are reflected to the brain. When such conditions exist, a few indulgences only appear to be necessary in order to excite a morbid condition of the

brain into activity, though it sometimes requires a considerable period of time before a deranged mental state occurs. Such persons may be considered as insane.

We need have no question as to responsibility for acts done while in a condition of drunken automatism or trance; nor while an individual is in a condition of inebriation. I do not, however, exclude this last point from consideration, because I regard the condition of intoxication as one of disease in the ordinary acceptation of that term. A person may imbibe alcohol and become stupefied by it just as he can inhale chloroform or sulphuric ether, or the bichloride of ethylene, or swallow opium and many other substances, but when they have become eliminated, the nervous system resumes its normal activity, and cannot be said to be diseased by such experience unless it is often repeated. The immediate effects of alcohol may not pass off so quickly as those of other substances; they may differ somewhat, physiologically considered, but may be regarded as of the same general character so far as relates to the production of disease by inducing intoxication.

* * * * *

No two are born into the world with nervous systems exactly alike in all respects, and no two pass through it in exactly similar surroundings. The conditions inherited from long lines of ancestors, in respect to physical needs, cravings, and mental tendencies, early education and home influences during youth and while the brain is especially receptive and easily moulded, differ to the widest extent. The offspring of crime, who are reared in its midst, with no discipline of brain, or only one towards a violation of the laws of their own being and of society, experience thousands of impulses towards criminal acts, and the gratification of physical cravings, which are unknown, or nearly so, to those more highly favored as to inheritance and education. The susceptibilities of the brain, the ease and readiness with which it takes on or throws off influences, which are morally injurious, are as diverse as brains themselves, so that we cannot positively

decide just how much or how little of responsibility one may have in the sight of Omniscience.

I have called the inebriate unfortunate. This may be regarded by some as altogether too lenient a term, inasmuch as he voluntarily induces and continues the disability under which he labors. But we must bear in mind that large numbers of other unfortunate classes of society resemble him in this respect, both as to physical and mental conditions. In fact, character itself, aside from its inheritance, is made up in this manner, whether it be good or bad. Moreover, all character has a physical basis of quality, because it is only through the nervous system that we can act even in thought. Every voluntary act or choice necessarily establishes a bias toward others of a similar nature, and in this way in the process of time and experience both education and character become more and more ingrained in the nervous system. If choices and lines of conduct have been towards a violation of the laws of physical and mental health, then there becomes established a tendency towards deterioration and weakness, which renders opposite courses of conduct more difficult; if, on the other hand, these choices and acts have been in the direction of physical and moral health, there must result corresponding effects. The inebriate has less of intellect and judgment than he otherwise would have because he is diseased, but he has enough for self-guidance. He is not overborne by the force of his diseased condition, so that he cannot act in such a manner as to avoid suffering and obey the laws of society. If he has, in consequence of disease and the force of temptation, vastly greater difficulty in so doing than others who are in better health, he shares these disabilities in common with other classes, and may claim, with them, from society, of which he forms a part, profound sympathy and the use of all practical measures to reclaim and restore him to a condition of health and usefulness, and no more.

* * * * *

I may frankly say that my own opinion is that in a large majority of cases where individuals have habitually or daily

used alcohol as a beverage in any considerable quantity, and so as to become frequently inebriated, that there is established an abnormal state of the brain which may perhaps be sufficiently enduring to be considered as disease, and which may be transmitted to offspring; and that this takes place through the elective action of alcohol affecting the vaso-motor portion of the nervous system, and through it the capillary portion of the circulation, and ultimately the cell structure of the brain; that in consequence of this physiological action of alcohol upon the nervous system, when frequently and long used, there results a less sensitive and delicate condition of these constituent portions of brain surface, and that they become correspondingly less responsive to both objective and subjective impressions or influences, and that, therefore, there will result a less normal discharge of thought function in its various manifestations, both moral and intellectual. There can be no doubt that the mind becomes less clear and accurate in its perceptions, and loses, in some measure, the nicety of its moral sense; it does not perceive the moral side of conduct so clearly and definitely as when the brain is free from the diseased effects of alcohol; it does not judge so perfectly in reference to the claims of friends and society; the sense of propriety as to personal conduct becomes obtuse, and ultimately the mind becomes weakened and its faculties more or less impaired. Such are the conclusions toward which a study of the physiological effects of alcohol upon the nervous system and mind, as it is commonly used by inebriates, points. If they are erroneous, the future and further observations will correct the error.

ALCOHOL ON DIGESTION.

Buchner, in the *German Archives of Clinical Medicine*, reports the results of a series of experiments on the influence of alcohol on artificial and gastric digestion, as follows:—

1. Alcohol by itself, up to ten per cent., has no effect on artificial digestion.

2. Increased to twenty per cent. the process is lengthened.
3. A still higher percentage stops digestion entirely.
4. Beer has the same effect if used undiluted.
5. Likewise the red and sweet wines, while white wine, pure, merely delays it.
6. In ordinary gastric digestion, beer appears to act unfavorably, even in small quantities.
7. Wine is the same.
8. When the absorption and secreting functions of the gastric mucous membrane are impaired, alcohol completely checks the progress of digestion.

FACTORS IN INEBRIETY.

And when inebriety develops in individuals with an uneventful history, the same is usually true of them, but it is hard to allot responsibility to the several contributing causes, and the accompanying physical debility is accepted as reliable enough to answer the requirements for ordinary statistics, and the cases stand on the books charged to ill health. In the table quoted, 331 cases, or fourteen and eighteen one hundredths per cent., are so rated. In this connection, ill health is not a definite term, but significant. It conveys the idea that the final breaking down was the result of a long train of physical debility and suffering, commencing quite likely in a delicate constitution, feeble by inheritance, with subsequent over-work, anxiety, grief, want, neglect, or abuse, and insomnia almost invariably. Through such agencies, it is easy to trace the insidious advances of nervous invalidism to ultimate insanity, which on the whole is but the climax of a series of accumulating vicious influences attributable to natural heritage, and the enfeebling, disorganizing conditions to which from accident or choice the individual is subjected. From the end, how easy to follow back along the lines of causation which, in case after case, are so direct and parallel that the unmistakable drift of such conditions ought to be better understood and more successfully antagonized.

DEATH FROM SPIRITS.

A man in London, in good health, who had drunk occasionally in moderation, drank on a wager at one time one pint of whisky. In twenty minutes he was comatose, was taken to a hospital and many efforts made to restore him, all of which failed, and death followed in a little over two hours. The post mortem, three hours after, revealed congestion in patches and points all over the brain, and a strong odor of alcohol was emitted. Death was caused by shock to the nerve centers, and sudden abstraction of the water of the blood; not only shriveling the blood corpuscles, but suddenly altering the nature and character of the fluids of the body.

INVOLUNTARY REMINISCENCE of inebrates under the influence of alcohol, is a very curious mental phenomena, which is also observed occasionally following the toxic dose of opium, chloroform, and hashish. The patient in this condition frequently recalls events and circumstances long ago forgotten, and in some instances mentions events with great minuteness, which could not be remembered when free from the effects of the drug. Dr. Austie remarks, "these phenomena can only be accounted for on the supposition that impressions have been received, passively, by the brain; impressions which have been temporarily effaced by others due to the ordinary course of life and conversation, but which are revived as soon as the poisonous influence has destroyed the power of the brain to minister to the usual modes of thought."

A lawyer, who had many years been a chronic drunkard, and had sunk to the lowest grades of pauperism, was brought on the stage to act a certain part for which his habits gave him a peculiar fitness; when, to the surprise of all, he burst out into a speech of great erudition and eloquence, full of classical allusion and polished rhetoric. It appeared that this was a college oration which he had delivered thirty years before.

Inebriety is not the result of a voluntary act, but is the consequence of a diseased organism. It is a disease that is progressive, and should come under legal control at once. It is not difficult to predict what the end will be, in a man who drinks at intervals or steadily to excess. Society is morally accessory before the fact, when it permits the inebriate to go steadily down to ruin, crime, and disorder, without interposing to prevent that which is apparent. This failure to prevent the inebriate from not only bringing ruin upon himself and the community, literally destroys the moral right of society to inflict punishment upon him. The inebriate is suffering from a disorder which no penal discipline can reach. He is the product of a bad organization either inherited or acquired, developed into a positive disease by alcohol. The use of this drug is an unmistakable sign of degeneration in the past and to come.

"Nothing in clinical medicine is more certain than that the continued use of alcohol in even moderate doses stimulates the development of connective tissues all over the body; nothing in pathology is more evident than the fact that alcohol is the prolific cause of pulmonary disease, nothing in toxicology is better established than the observation of the action exerted by alcohol upon the respiratory center. For this reason it is especially dangerous in pulmonary consumption."—*Dr. Woodbury.*

Several very important papers are laid over to the next issue. We are always pleased to receive temperance literature of any kind, but of course claim the right to judge of its scientific value. From a literary point of view, great merit is often displayed, but as a grouping of facts, much of the matter we receive is but vanity and vexation of spirits.

The sixteenth century moralist was a hunter of witches and always on the war path to persecute and destroy the devil and his influence. The nineteenth century moralist is still abroad hunting down the inebriate, and persecuting him to death, as an agent and factor of the devil.

The *Popular Science Monthly* for February brings a rich table of contents covering a variety of topics that have a fascinating interest to all students of science. This monthly lifts the curtain and gives us glimpses of the frontiers of scientific work.

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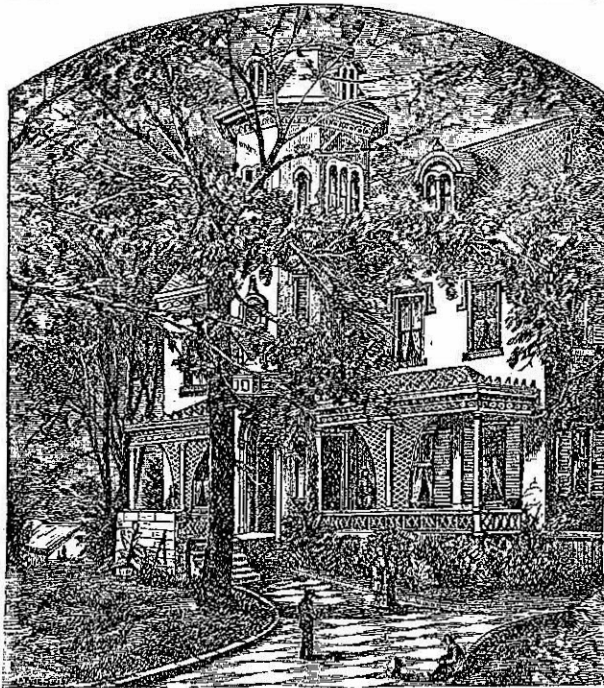
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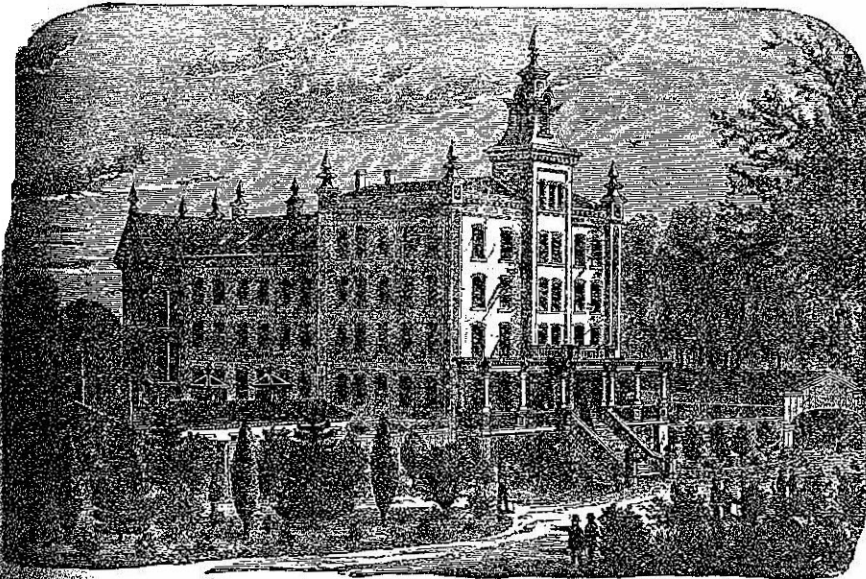
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HOW TO REACH THE INSTITUTION FROM NEW YORK.—Cross the East River to Brooklyn on Fulton Street Ferry and proceed either by Court street or Third ave. horse cars to transfer office; or, cross from Manhattan on Hamilton Avenue boat and proceed by Fort Hamilton cars to transfer office, thence by Fulton Street Ferry to the Home. Request conductor to leave you at the Lodge Gate.

COCA.

(ERYTHROXYLON COCA.)

Send for Working Bulletin.*

The properties of this drug have long been familiar to the natives of Bolivia and Peru, to which countries it is indigenous. It is a powerful nervous stimulant, and increases the power of the muscular system to sustain fatigue. It has also a pleasant, general, excitant influence, removing fatigue and languor. Its effect on the brain is to stimulate that organ to greater activity, and to relieve the mind of the depression incident to worry and anxiety.

Considerable interest has been excited in this new remedy by the report of Prof. E. R. Palmer, M.D., of the University of Louisville, on its efficacy in the

TREATMENT OF THE OPIUM HABIT.

Prof. Palmer found it of very extraordinary benefit in relieving the bodily and mental misery which follows the withdrawal of opium in the case of those addicted to its use—a misery which drives them again to the drug for temporary relief, only again to be similarly tortured when it is again withheld.

In testing a remedy with such important ends in view, it is desirable to be assured of the genuineness of the drug employed.

It was with our preparation of Coca that Prof. Palmer conducted the experiments which led him to make the favorable report on the use of the drug.

PARKE, DAVIS & CO., Mfg. Chemists,

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JAMAICA DOGWOOD.

(PISCIDIA ERYTHRINA.)

The extensive investigations of the physiological actions of this valuable narcotic agent which we have been so instrumental in bringing to the notice of the medical profession in the United States, in the hands of that distinguished investigator, Dr. Ott, would seem to point it to a special position as a therapeutic agent of peculiar value. Dr. Ott says that Jamaica Dogwood, like morphia, produces sleep, and that the sleep produced by *Piscidia* resembles in feeling that produced by bromide of potassium. In his experiment on himself, he took half a teaspoonful of the fluid extract, and soon became drowsy. The pupil was dilated. In about three hours the effect passed off, and he felt as well as ever, having no nausea, or the peculiar shaking up of the nerves that ensue after opium. From his numerous experiments with regard to the physiological action of this drug, Dr. Ott is of the opinion that in Jamaica Dogwood we possess a powerful narcotic agent, without the disagreeable after effects of opium. Like morphia it stimulates the vaso-motor centre, but it does not contract the pupil; and though it possesses with belladonna the power of dilating the pupil, it differs from it materially in its action. It cannot, therefore, be classed with either of these drugs, and must be given a special place of its own.

It is hardly to be supposed that in all cases Jamaica Dogwood will act in the pleasant manner noted in the report of Dr. Ott. It is well known that nearly all drugs under certain conditions of the system produce untoward, or side effects, and disagreeable sequela. This is true with regard to opium, bromide of potassium, chloral, belladonna, and the rest of the list of narcotics. It is, therefore, a question to be solved by clinical experience, which drug produces the best effect, with the least amount of untoward effect, or unpleasant sequela. We therefore call the attention of the profession to Jamaica Dogwood, that its true value may be ascertained in this respect. A "Working Bulletin" containing the results of the investigations of Ott and others, has been sent out by our scientific department, and will be forwarded to the address of any one who will apply for the same.

Preparation—*Extractum Piscidis Erythrinae Fluidum*. Dose— $1\frac{1}{2}$ to 2 fluidrachms.

PARKE, DAVIS & CO., Manufacturing Chemists,

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* WORKING BULLETIN.—A pamphlet containing the botanical description of each plant, with chemical, microscopical, physiological, therapeutical investigations, etc., etc. Sent free by mail on application.