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ALCOHOLIC HEREDITY.

DR. F. LENTZ,

Medical Director Government Insane Asylum at Tournai, of Belgium.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ALCOHOL ON THE BRAIN.*

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

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

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

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

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

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

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

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

PRISON EXPERIENCES WITH INEBRIATES.

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

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

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

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

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

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

* Read before the Medico-Legal Society.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DUTY OF THE STATE WITH REGARD TO
INEBRIATES.*

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

Honorary Surgeon to the Dunedin Hospital, New Zealand.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

I would then propose the establishment of hospitals for

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

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

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

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

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

THE PATHOLOGY OF INEBRIETY.*

BY DR. NORMAN KERR, F.R.S., LONDON, ENGLAND.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Profuse loss of blood is followed by a deep faintness.

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

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

pathological antecedent is one of indescribable physical depression.

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

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

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

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

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

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

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

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

All men and women are endowed with some amount of

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BY DR. C. S. ELLIOT.*

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

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

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

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

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

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

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

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

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

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

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

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

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

"... is a true epilepsy. or drink is rounding effects of system."

"I pe are evident physical, has gout to say the natural p am certain ance ther for habit of their (they will Perhaps bye reco and with them to Gospel. cussion - especially seem in past, the gious me many in strong e to aband good ten hope tha so much make th by taking own, viz.

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

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

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

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

Their asylums or retreats may be divided into two classes:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BY LEWIS D. MASON, M.D.

Consulting Physician in the Inebriate Home, Fort Hamilton, L. I.

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

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

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

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

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

"Wirtzung's Physicke, 1617,

entitled

"THE GENERAL PRACTISE OF PHYSICKE

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

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

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

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

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

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

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

"Of the detestable sicknesse, Drunkennesse.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Abstracts and Reviews.

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

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

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

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

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

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

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

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

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

The faults and imperfections of this work are of small

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

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

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

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

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

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

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

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

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

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

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

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

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

Editorial.

SOME PRACTICAL FACTS.

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

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

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

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

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

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

DISEASE NOT VICE IN INEBRIETY.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CONCEALED INEBRIETY.

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

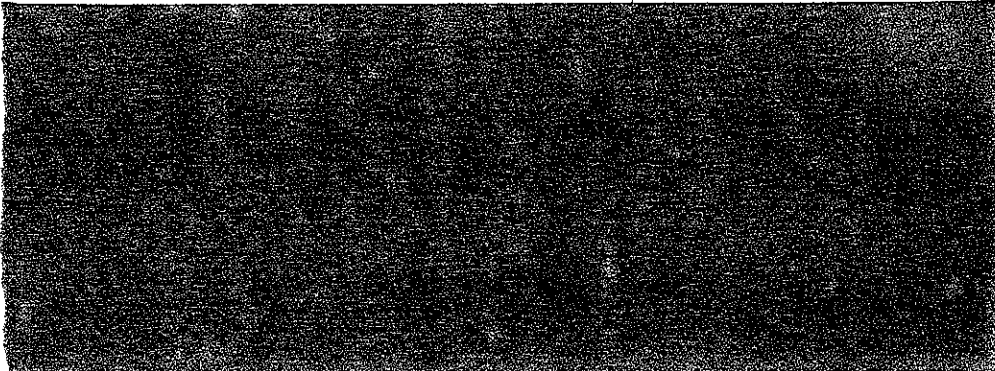
referred to me. It appeared from the history of the case that Mr. Duncan came from a neurotic family, other members of which were hysteric, epileptic, and feeble-minded. He was in early and later life a deeply religious and moral man, and always very conscientious in all his business transactions, and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

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

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

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

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



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

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

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

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

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

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

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

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

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

Clinical Notes and Comments.

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

IN A LETTER FROM JOSEPH PARRISH, M.D.

BURLINGTON, N. J.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ALCOHOLIC ETHERS.

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

CARPENTER.

CIRRHOSIS OF THE LIVER.

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

The editor of the *Northwestern Lancet* writes thus of the law in inebriety: "One of the strongest arguments for the general recognition of inebriety as a disease and the putting of confirmed inebriates under restraint in State asylums, is the anomalous condition of the laws with regard to responsibility for crimes committed by the intoxicated. The language of the New York penal code is: 'No act committed by a person, while in a state of intoxication, shall be deemed less criminal by reason of his having been in such condition. But whenever the actual existence of any particular purpose, motive or intent is a necessary element to constitute a particular species or degree of crime, the jury may take into consideration the fact that the accused was intoxicated at the time, in determining the purpose, motive or intent with which he committed the act.' That is to say, if a man, suffering from the disease of inebriety, whose paroxysms of intoxication he can no more avoid than the epileptic can avoid a fit, if such a man commit homicide in the frenzy of drunkenness, he is to be hung if the letter of the law be followed. To hang a madman for any crime would be regarded as the greatest barbarity, yet insanity is not more clearly a disease than is inebriety. Why should so much distinction be made between two forms of disease of the nervous system?"

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Useful in all Diseases of the Intestines and Stomach.

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Physical characteristics. A heavy amber liquid. Delicate in flavor. When placed on ice becomes a jelly. Administered in that form, is grateful and refreshing in all cases. Is taken just as it is from the can. No further preparation needed.

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The stomach retains Essence when rejecting all else.

NOTE.—Add a teaspoonful of Essence to each pint of babies' food; it will prevent intestinal disorders.

In 4-oz. tins, 50 cents.

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Paraldehyd $C_6 H_{12} O_3$ is a therapeutical agent which has been in use for the past few years only. It is formed by the action of mineral acids upon Aldehyd, $C_2 H_4 O$

"In doses of 45 grains it is said to calm restlessness and insomnia, and procure unbroken sleep of from 4 to 7 hours' duration, and to leave behind neither languor, nausea, nor digestive disorders. It also acts as a diuretic. It has been found efficient in the INSOMNIA of various acute diseases, and also in acute MANIA and the excited paroxysms of chronic insanity and dementia. It is proposed as possessing the good without the evil qualities of chloral. (Nat. Dis., 3d Edit., p. 151.)"

It is also claimed to be a valuable *antidote* to *Strychnine*.

In Delirium Tremens and Morphiomania it has been used with good results.

Our Elixir contains forty-five grains of the Paraldehyd in each fluidounce, dissolved in an aromatic menstruum, whereby the objectionable taste of the Chemical is, to a great extent, disguised, and the preparation rendered palatable.

DOSE—2 to 8 fluidrachms.

Pint Bottles, Retail Price, \$1.50.

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WINCHENDON, MASS.

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

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

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

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

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

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|--|--|
| C. F. Folsom, M. D., Prof. Mental Disease, Harvard College, 15 Marlboro St., Boston. | G. F. Jelly, M.D., 123 Boylston St., Boston. |
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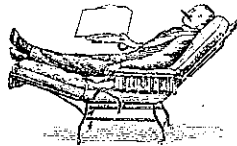
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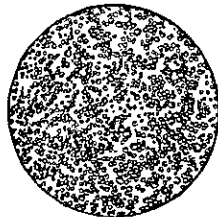
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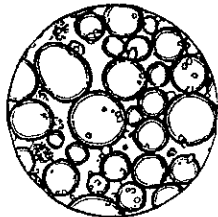


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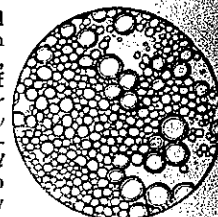


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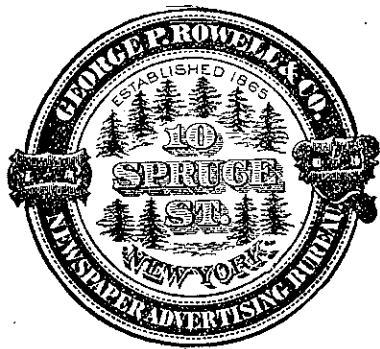
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FORMULA.—

Every fluid drachm contains 15 grains EACH of pure Chloral Hydrat. and purified Brom. Pot., and one-eighth grain EACH of gen. imp. ext. Cannabis Ind. and Hyoscyam.

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One-half to one fluid drachm in WATER or SYRUP every hour until sleep is produced.

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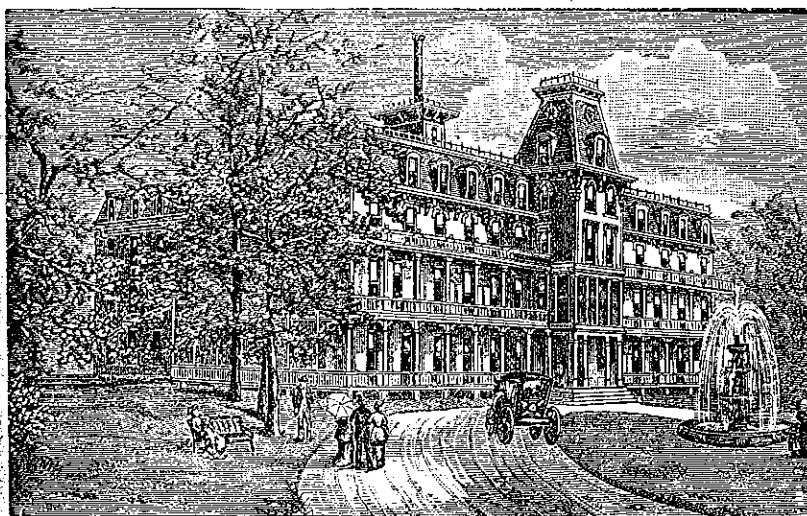
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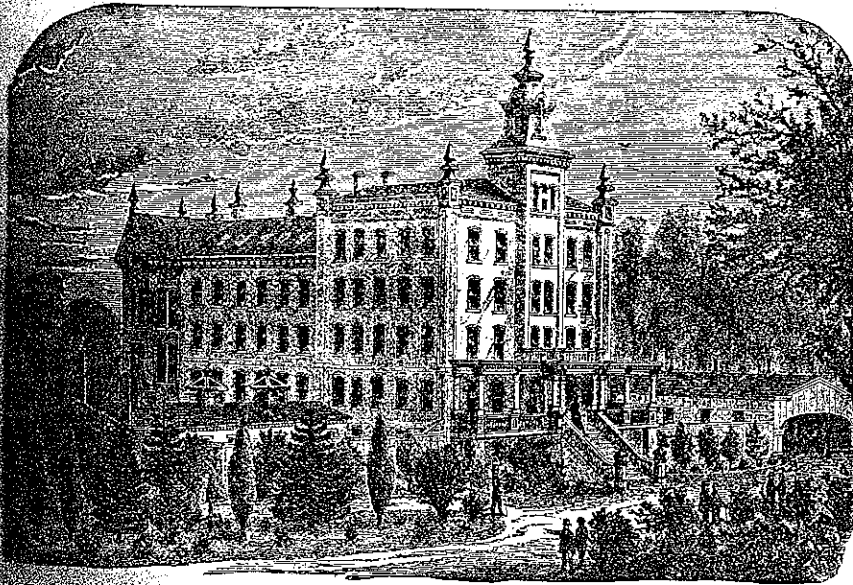
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THE MANAGEMENT is systematic, thorough and adequate. There has been no change in the staff of officers since the inauguration of the Home.

THE CLASSIFICATION of patients originated with and is peculiar to this institution. Being determined and regulated upon a strictly commercial basis, it is made to depend upon the character of the lodgings and other accommodations which the patients or their friends are willing to pay for.

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Patients are received either on their application or by due process of law. For mode and terms of admission apply to the Superintendent, at the Home, Fort Hamilton (L. I.), New York.

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A Palatable Preparation of Coca Erythroxyton.

Containing in an agreeable vehicle the active medicinal principle, free from the bitter astringent constituents of the drug.

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Coca has been extensively used with gratifying success for the relief of morbid conditions depending on nervous exhaustion, in the nervous irritability following excesses of any kind, in neurasthenia, to facilitate digestion in dyspepsia, to relieve the morbid depression of spirits resulting from exhausting mental labor, in nausea and vomiting of reflex origin, and in the treatment of the alcohol and opium habits.

In a great variety of affections it has proved itself to be a drug ranking in therapeutic importance with opium and quinine.

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