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THE QUARTERLY JOURNAL
OF
INEBRIETY.

PUBLISHED UNDER THE AUSPICES OF THE AMERICAN ASSO-
CIATION FOR THE STUDY AND CURE OF INEBRIATES.

T. D. CROTHERS, M.D., Editor,
55 Fairfield Avenue.
HARTFORD, CONN.

Vol. XIX.

JULY, 1897.

No. 3.

HARTFORD, CONN.:
THE CASE, LOCKWOOD & BRAINARD CO.,
PRINTERS.

EUROPEAN AGENCY:
BAILLIERE, TINDALL & COX,
20 KING WILLIAM STREET, ON THE STRAND, LONDON, W. C.

Subscription \$2.00 Per Year.

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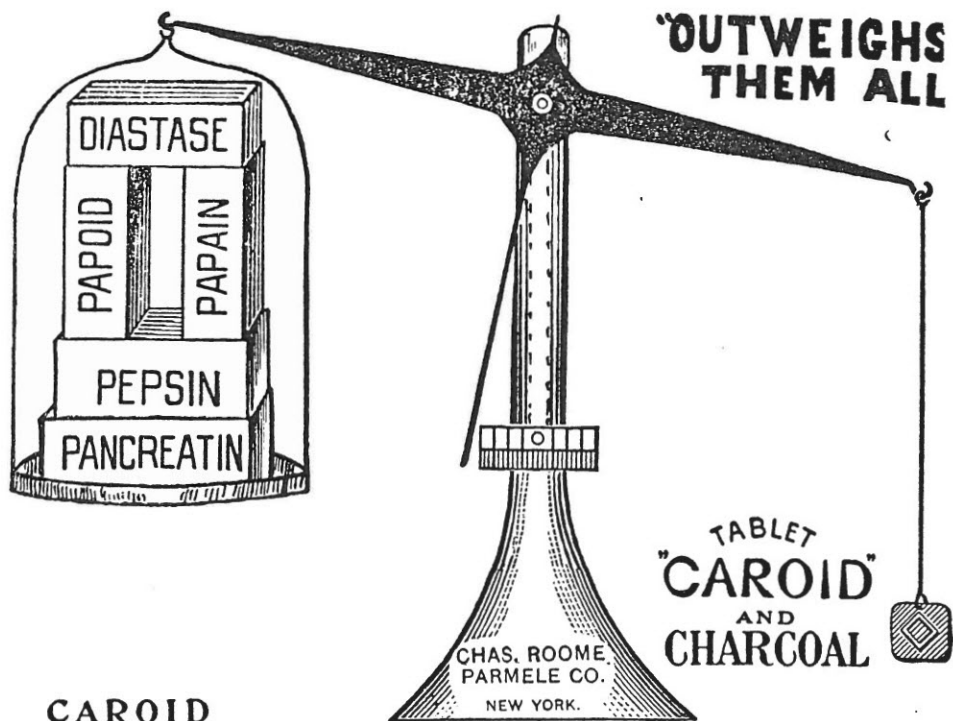
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This Journal will not be responsible for the opinions of contributors, unless indorsed by the Association.

FORMS OF SUGGESTION USEFUL IN THE TREATMENT OF INEBRIETY.

BY R. OSGOOD MASON, A.M., M.D., NEW YORK.

Author of *Telepathy and the Subliminal Self*, etc., etc.

In proportion as the nature and uses of hypnotism and hypnotic suggestion become known and realized, are their uses also being extended in the treatment of diseased conditions; and especially is this noticeable in the treatment of certain forms of insanity and of inebriety.

With all new and unfamiliar agents there may be wise and unwise methods of applying them; it is proper, therefore, to call attention to some of the ways by which those here under consideration may be most advantageously used, particularly in the treatment of inebriety.

As the different stages of inebriety demand different medical treatment and management, so the methods of suggestion applicable in their treatment vary, according to the stage of the disease and the condition of the patient; nor in any stage is it necessary to forego methods of medical treatment which have been proved to be of genuine service, such as the purge and baths in acute alcoholism and tonics in the stage of reac-

tion and prostration; but that hypnotism and suggestion will often be found to be most valuable allies to these more usual and well-known means of cure will hardly be doubted by any one who has observed their effects.

For the purpose here intended the subject may be examined under three heads, viz.: (1) Direct Suggestion; (2) Suggestion directed to physiological processes; (3) Auto-Suggestion.

In the acute stage of inebriety, when the patient is still drinking, or has recently been doing so, what we will designate as the *direct* method of suggestion will be found most useful. For this purpose bring the patient into the best hypnotic or subjective condition which it is possible to secure, and then suggest directly and positively, though not necessarily in a loud, and certainly not in a startling, tone of voice, that alcoholic drink is his worst and most dangerous enemy — that he knows this very well, and that he desires to be free from that enemy's power; suggest that his desire for alcoholic drink has now left him, and that in future he will shun and refuse it in every form and under all circumstances; that he will have no desire whatever for it, and that it will even disgust and nauseate him. Suggest also that he will sleep, that he will not suffer from nervousness, nor from unpleasant dreams and visions, and that he will soon recover from his illness. Keep the patient in this deep sleep or subjective condition, as the case may be, for one or two hours if possible, repeating at intervals the suggestions, and repeating the whole process in twelve or twenty-four hours. If the first attempt at treatment does not succeed a later one may prove more fortunate.

In the *second* stage of the disease, when the drink or drug habit has temporarily at least been abandoned, but the patient is suffering from the after effects of the poison — when the nervous system is prostrated, changes more or less profound and injurious have occurred in the cells of the brain and spinal cord, so that their action is abnormal or imperfect,

- vitality is lowered, the will power weakened: nutrition also, the very process by which alone these damaged cells can be permanently repaired and vitality restored, has been interfered with, the mucous membrane of the stomach and intestinal canal is congested, and its functions weakened or perhaps temporarily paralyzed or destroyed — of what use can hypnotism and suggestion then be? Can suggestion influence, or modify physiological processes so as to be of practical value under such circumstances?

I am aware that the general feeling in the profession is that the use of hypnotism is very limited — that its main field of usefulness is in so-called nervous or imaginary diseases; but if the reports of eminent foreign observers, such as Liebault, Bernheim, Liegois, Montpallier, Borru, Krafft-Ebing, Delbeuf, and others, as well as those which I have myself recently made, can be trusted, then physiological effects of the most positive and practical character are frequently realized from hypnotic suggestion; the functions of digestion, defecation, absorption, menstruation can be stimulated to more vigorous action, hastened, or retarded; lactation and other physiological secretions of the body can be increased, diminished, and greatly controlled; the action of the heart can be increased or diminished both in force and frequency; blisters may be raised, bleeding may be caused from the mucous surfaces, or at designated points upon the skin, as for instance upon the chest, the arms, the hands, the feet. It is not claimed that results like these can be obtained in every case, nor even in a majority of cases, but they have been obtained in cases sufficiently numerous to establish the fact, that suggestion in the hypnotic condition is capable of influencing physiological processes to a very remarkable degree.

Applying this knowledge to the treatment of alcoholism or drug addiction in the second stage, as above described, most important aid may often be obtained. Let it be suggested, for instance, that the congestion or inflammation of the mucous membrane of the stomach will rapidly diminish, and the func-

tion of digestion will be restored; that food will be desired, will be retained and digested; that the process of assimilation will go on normally, a pure and wholesome blood will be elaborated and will be distributed to the brain, the spinal cord and nervous system generally. So that each diseased and enfeebled cell will be nourished, repaired, and stimulated to renewed, normal activity, and that the whole system will in like manner be nourished, strengthened, and renewed. It may also be suggested that the intellect and the moral sentiments will be strengthened or improved if deficient, and the will be made energetic in executing the behests of the intellect.

No miraculous, nor even marvelous, results may follow in any given case, but at all events the mind of the patient, even if remaining conscious, is put in a favorable condition and attitude for improvement, and the suggestions themselves thus prove helpful in a way which every physician appreciates, and if the unconscious state be secured or even a semi-conscious or subjective one, we then invoke the aid of the sub-conscious mind or subliminal self — an ally whose good offices we are only now beginning to understand and appreciate.

Finally, the effects of *Auto-Suggestion* should not be lost sight of. Generally they are little considered, but a moment's thought will disclose to us an influence which cannot be ignored. As an example of its power, witness the hundred or more cases of stigmatization which have been reported, from St. Francis of Assisi in the thirteenth century to Louise Lateau at the present time. These cases have been looked upon with suspicion or absolute incredulity by scientific investigators, as instances of self-deception or intentional fraud. They have been so looked upon not because of lack of evidence that such conditions actually existed, nor because they were easily explained upon known principles, or had been proved fraudulent, but because they could not be explained at all excepting upon the supposition of a supernatural influence or force having been concerned in their production — a supposition which, of course, threw them out of the category of

subjects amenable to scientific treatment. But taking into account the power of the subliminal self and the known instances of physiological changes which have been produced by suggestion, and placing auto-suggestion in the place of suggestion received from another person, and these cases of stigmatization fall naturally into the same category. The recluse or religious enthusiast, with physical force greatly diminished by fasting and vigils — by intense concentration of the mind upon the sufferings of Christ and the mental picture of his five wounds, passes into a condition analogous to trance — a self-induced hypnotic or subjective state, in which the picture so vividly impressed upon the mind is realized upon corresponding portions of the patient's own body; deep red marks appear, or blood oozes from the hands, the feet and the side, at points corresponding to the mental picture which had so deeply impressed the devotee.

Analogous to these most striking though less frequently observed examples of auto-suggestion, are the multitude of cases where a dominant idea presented during moments of profound mental excitement becomes a potent factor in causing most radical changes in the action, life, and character of the person so impressed. The condition of mind favorable for receiving such potent impressions may be brought about in many and various ways — by the grandeur of architectural effects, decorations, music, ceremonials, and the associations of churches and cathedrals, by impassioned oratory, or the sympathetic action induced by a multitude of persons swayed by some common sentiment or emotion, as of patriotism, reform, or religion. Such conditions were the foundation of many of the epidemic excitements and delusions which flourished during the middle ages — the crusades, the flagellants, the dancers and the horrors of witchcraft, and in later times the trances, ecstasies, sudden conversions and reformations associated with temperance and other reform movements, and especially with religious revivals.

That dominant ideas entertained in times of such high

mental tension often become realized in a most remarkable manner is undoubtedly true, and the semi-hypnotic condition of intense concentration upon a single idea, into which such men as Wesley, Gough, or Moody have, by their peculiar power and eloquence, been able to throw large audiences, has in particular instances been utilized for good, and many an inebriate and many a slave to hurtful and degrading vices and sins under this subtle influence has, without reason, will, conscious effort, or even resolution of his own become changed, then and there, in character and action.

That these sudden changes are always permanent is, unfortunately, not true; and the effect of the highly wrought excitement upon those who go back to their old life may be a matter for consideration, but that the key to these profound changes is to be found in auto-suggestion under the influence of a dominant idea and favoring conditions of mind can hardly be doubted.

As an aid in the treatment of inebriety, auto-suggestion plays a subordinate part, nevertheless it also has its experimental uses. Let the patient, already anxious for recovery, be impressed with the idea that his recovery will be much influenced by his own mental attitude — that if it is positive and hopeful he will recover his health much more easily and rapidly than if it is despondent or indifferent, and that in this matter he can greatly assist himself. This being impressed, teach him, with earnestness and sincerity, to affirm to himself constantly, and especially while going to sleep, ideas like the following, expressed in such language as the physician thinks advisable: "The power of the alcohol habit (or drug habit) is broken; I am sufficiently strong, and my will is sufficiently firm to resist successfully every temptation; no influence can make my hand carry the poison to my lips. I shall gain strength and self-control through sleep; I shall rapidly and perfectly recover."

Such is a mere outline of a subject which in my judgment is fraught with interest of a most practical character, and

should claim the serious consideration of every physician, and especially of every one whose work lies particularly among the unfortunate victims of alcohol and drugs, or the insane; not with the idea of speedy and radical changes in their management, nor of finding a panacea, but of careful study and experiment as favorable opportunities occur, with the hope of securing another useful agent for his armamentarium.

TOBACCO AND THE EYESIGHT.

Prof. Craddock says that tobacco has a bad effect upon the sight, and a distinct disease of the eye is attributed to its immoderate use. Many cases in which complete loss of sight has occurred, and which were formerly regarded as hopeless, are now known to be curable by making the patient abstain from tobacco. These patients almost invariably at first have color blindness, taking red to be brown or black, and green to be light blue or orange. In nearly every case, the pupils are much contracted, in some cases to such an extent that the patient is unable to move about without assistance. One such man admitted that he had usually smoked from twenty to thirty cigars a day. He consented to give up smoking altogether, and his sight was fully restored in three and a half months. It has been found that chewing is much worse than smoking in its effects upon the eyesight, probably for the simple reason that more of the poison is thereby absorbed. The condition found in the eye in the early stages is that of extreme congestion only; but this, unless remedied at once, leads to gradually increasing disease of the optic nerve, and then, of course, blindness is absolute and beyond remedy. It is, therefore, evident that, to be of any value, the treatment of disease of the eye due to excessive smoking must be immediate, or it will probably be useless.

THE MORPHINE HABIT, ITS CAUSATION, TREATMENT, AND THE POSSIBILITY OF ITS CURE.

BY DR. J. W. ROBERTSON, OF LIVERMORE, CAL.
Superintendent Livermore Sanitarium.

The undue use of morphine, either to relieve pain, or for the purpose of re-establishing normal tone to the nervous system, has become so common, and its abuse is so closely connected with the same predisposing causes that underlie all neuroses, that an inquiry into its symptomatology and treatment seems pertinent. Even of more interest is the study of its causation and the establishment of the fact that, in the great majority of cases, it is as much a result of the nervous heredity as is neurasthenia, insanity, epilepsy, or dipsomania. By this is meant that morphomania belongs to the group of functional neuroses which has, as a basis, the nervous diathesis; and that, when a person possessing this constitution, even for a few times, experiences the pleasing exhilaration that opium brings, he not only becomes addicted to the drug, but, to such an extent, its slave, that he will sacrifice all in life that should restrain and stand between him and his appetite, and will barter honor, truth, and all social considerations for the relief of the craving so soon established. As a rule, the morphomaniac receives but little sympathy and, while the world readily excuses those patients who become addicted to the habit because of pain, it harshly judges the equally unfortunate who have, as an excuse, hereditary compulsion.

Opium, either refined or in its crude state, together with its alkaloid morphine, is, of all drugs, the one most frequently selected for the purposes of intoxication. Taken either as an extract or an alkaloid, smoked, eaten, or injected, its evil influences, over both body and mind, are soon established.

Opium smoking, so prevalent in China, is, to some extent, practiced in California, for every Chinatown in the state is a focus from which the infection spreads. As a rule, however, it is only the vicious and criminal who resort to these dens, and even this class soon discard the filthy and nauseous surroundings for the more seductive and less expensive needle. Opio-phagia, or the eating of opium, while chiefly practiced in the Oriental countries, was, until recently, a most common vice in both Great Britain and the United States. Of all forms it is the easiest to conceal, and can be practiced for a certain time without detection even by the immediate family. Its effects do not seem so disastrous as do the other forms, and some observers claim increased powers of resistance and endurance from its moderate use.

The invention of the hypodermic needle, and the discovery of cocaine, have added greatly to the dangers of morphine. It is possible either to smoke or eat opium for a lifetime and still not absolutely unfit a man for social life, but the hypodermic use of morphine connected, as it usually is, with cocaine, soon brings physical and mental disaster, and, in a little while, he becomes a burden either on his family or the public charities.

While the invariable excuse for the use of morphine is that it was originally taken on a physician's prescription, and for the relief of pain or some other illness that called for opium, yet even after the cause is removed, the patient cannot relinquish the drug. Many authorities assert the causative influence of pain and, while it certainly may act as an exciting cause, yet, back of all this is the question of heredity and the presence of a nervous diathesis. A normal individual, when freed from physical suffering, is often enabled to throw aside the drug, but, in the neurotic, this is not the case, and, when the disease is cured, a thousand hysterical pains spring up and demand the continuance of the drug.

The part that heredity plays in all functional diseases or states of the nervous system is not to be misunderstood. It is safe to assert that no idiopathic case of insanity, chorea, hys-

teria, megrim, dipsomania, or moral insanity, can occur except by reason of inherited predisposition; and the same family type may assume any of these psychoses, but which particular one will develop we cannot predict. It is not contended that morphinism is a physical disease such as epilepsy, for instance, but it is asserted that it has its origin in the same stalk, and while one develops naturally the other is most easily grafted. Take, for instance, a neurotic family. Its founders may be two individuals, neither of whom possesses a markedly nervous temperament, but both have similar nervous tendencies and their conjoined effect is such that their children are typical neurotics. Or suppose the mother to be tubercular and the father an alcoholic, we have a resulting family, each individual member of which in time develops a neurosis. One child may be an idiot and the rest unduly precocious. Probably some of these children die early of tubercular complications, for precocity is but another name for scrofula. In youth one may develop epilepsy, another chorea, a third, megrim, while of those who escape the neuroses of development, many later break down when tried in the crucible of human endeavor and competition and fall by the wayside, either as hysterics or neurasthenics, or they possibly manifest the more active types of insanity. Very many of us escape all pitfalls and go through life possibly eminently successful, the nervous temperament even adding to our peculiar fitness for specialized work. It is from those possessing this highly developed nervous system that the genius and the man of strong character springs, as well as the crank and that other more confirmed class, the monomaniac and the moral idiot. Why one fails when others succeed is often due to some blot on the brain, some mental defect that clogs the machinery and unfits the sufferer from association with his fellow beings, simply because of some slight but inexcusable moral weakness.

"He rode a horse with wings that would have flown,
But that his heavy rider kept him down."

To the alienist these all bear equally the marks of the neurotic stigmata. Too great concentration of energies and dis-

position in any one direction may result in an abnormal mentality, yet it is to those possessing this nervous force and energy that we owe much of the world's progress. It has been said that it is the crank that turns the world. It is not claimed that the possession of this temperament necessarily leads to the use of morphine, but it is certain that the possession of it strongly inclines to easy assumption of the habit; and that, when morphine's charms are once experienced, it is far more difficult to cure them, for they possess a hundred morbid ideas, desires, and neurotic longings that the normal man cannot realize and which only a narcotic will satisfy. They take it, not because of pleasant dreams or intoxicating oblivion, but simply for the purpose of controlling or ballasting unstable nervous organization, neither asking forbidden pleasures nor undue exhilaration, only demanding that rest and peace which is the heritage of the normal man.

The symptoms characterizing the morphine habit all refer to an unstable nervous state of either the body or the mind. The bodily symptoms are emaciation, weakness, ataxia and paresis of the sphincters which Levinstein and other writers have included under the name of morphinism in contradistinction to morphinomania, under which term they include loss of will-power, moral insanity, imbecility, and other mental perversions. For the first few months its use apparently gives mental strength and bodily vigor. The victim is exhilarated, moves with alacrity and life, is full of zest hitherto unknown. Neurotic longings and physical infirmities are forgotten, and, for the first time, possibly, the patient experiences the sensation of being normal. He is certain of his own mastery and the honeymoon following the first knowledge of the drug is bliss unspeakable; not that visions such as De Quincey has familiarized us with are of usual occurrence, or that delusions and hallucinations are generally present. These may come with overdoses of the drug, but, at least in the early stages, are temporary. The patient, probably beginning with one-quarter grain used occasionally, soon adopts it as a daily habit, and rapidly increases it to four or five grains, later find-

ing that excessive doses are necessary to produce the old-time effect, he becomes alarmed, and attempts to stop the drug. He reduces the morphine, and possibly resorts to alcohol as a stimulant, but the fight is a losing one, and, while he may temporarily reduce the amount, he cannot throw aside the habit. Finally, thoroughly frightened, he seeks relief; probably takes some advertised cure and stoutly asserts his freedom, yet secretly indulges to a greater and greater extent, and despairing of morphine bringing any relief, gradually adds cocaine. When this stage is reached, all hope of unaided recovery goes. The patient grows more infirm, more debased physically and morally, until he becomes a *pariah* amongst his fellow men. The desire for reform is a real one, and they are willing to sacrifice everything they hold dear in life — except morphine — could they only recover.

When fully under the power and the first pleasurable sensations have disappeared, the bowels become constipated, relieved by occasional diarrhoea; the appetite diminishes, and the body emaciates. Frequently there is paralysis of the sphincters, both rectal and vesical, and the heart becomes irritable with a frequent and compressible pulse. Venereal desire, at first increased by the drug, gradually lessens, until mental masturbation takes the place of virile power. The skin is sallow, the eyes sunken, the face emaciated and expressionless, giving the well known *morphine facies*, which, with an ataxic gait, constitute the main symptoms of morphinism. The morphinomaniac symptoms are equally well marked. Its early effects are an increase of the mental power and ability to carry out life's routine, but, as soon as the habit becomes firmly established, and the patient, after a few half-hearted attempts at abstinence, finds his only course one of concealment with increase of the drug, he loses all interest in his work and his former pleasures, and concentrates his whole energy on supplying himself with the opiate. He neglects business, no longer cares for social life, consorts with those similarly afflicted, and sinks into hopeless physical and mental decadence.

The effect of morphine upon the mind, whether for the relief of pain or because of natural inclination, is destructive; and no one can become its victim without lowering of moral tone and loss of will power. They may theorize as well as ever, but let a few hours elapse without their accustomed stimulant, and their unquiet nerves and uncontrollable longings cause them to jeopardize their souls for the drug, and there is no commandment in the decalogue they would not break to gain mental ease. No matter how honorable, upright, and conscientious a man's past life may have been, let him become thoroughly addicted to morphine and I would not believe any statement he might make, either with reference to the use of the drug, or on any other subject that concerned his habit. This extends further and clouds his moral perceptions in all relations of life. Authorities even go further than this and claim imbecility with organic brain changes. My experience has been large, and while I cannot claim to speak authoritatively, yet my own observations do not confirm this statement. I do not deny occasional mental deficiency, yet while at Napa, and later when temporarily in charge of the Home for Inebriates, many morphine cases were committed as insane, yet not a single one exhibited either delusion or hallucination, and all were voluntarily committed for the purpose of cure. They showed no mental change on the day of their discharge, and they were all discharged "cured," differing from their condition on admission; yet, in the broader sense of the term, they were all insane, morally insane. They could not tell the truth; they were boasters, perhaps not so much in the belief that they would never relapse, as in detailing the amount of drug taken. They ridiculed any possibility of relapse, yet many left these institutions and hardly let the day elapse before they were back in their old haunts.

Briefly summarized, morphine does not produce active insanity. Unlike alcohol, which, when long and excessively continued, produces chronic pathological changes, morphine simply destroys the bloom of the mind, obtunds moral sensibility,

and only when excessively used, produces temporary mental aberration.

The treatment of these cases is a most difficult matter, and my reason for dwelling on the nervous and mental state was to show the difficulty of caring properly for these patients, while they are allowed the slightest liberty of person or freedom of judgment. There is certainly no royal road to cure, no Sotera or other patent medicine that will in a night charm away desire. The only chance is in the slow and permanent upbuilding of the body, and the protection of the patient against himself, till his will power can reassert its old mastery.

To stop the drug is the first but not the most difficult step in treatment. Whether it be withdrawn quickly or gradually, is a matter of indifference. Our books warn us against sudden withdrawal because of probable heart failure. My experience does not bear this out. Certainly fifty cases, many of them *in extremis*, were admitted to Napa, and it is fair to presume that when so radical a step was taken, their cases were considered desperate. In every instance they presented the same general appearance, an emaciated body, a haggard face — pale, drawn and expressionless, eyes lusterless, and gait unsteady. They belonged to the dregs of society, and nearly all were graduates of opium joints in Chinatown. We could never determine on what just grounds they were committed, as none presented any mental symptoms except of moral degradation. The invariable practice was to shut them in a small room after bathing and supplying fresh clothing. This was necessary because they always came with their own clothing lined with morphine powders. Within twenty-four hours they were in a state of frenzy, begging and pleading for relief. Soon they became bedfast, vomited, and occasionally purged a viscid green bile, peculiar to this disease. Nothing either medicinally or dietetically was done for their relief. The breakfast consisted of mush, with syrup and fat bacon, and their other meals were equally unappetizing. From the sixth to the eighth day they rallied sufficiently to walk around the

ward, and, in two weeks, were usually able to go out and relish their food. Within a month their appetite was voracious. The return to physical health was rapid, and, in from six weeks to two months, the patient was strong, robust, and apparently in the full possession of both physical and mental health. They were loud, and possibly honest in their assertions of reform, but in no single case — with one exception — do I know that the patient did abstain. While death may follow any mode of treatment, our experience demonstrated that sudden withdrawal was not dangerous, even though it seemed heartless.

In private practice, the gradual reduction of the drug is the only procedure possible. The patient will not willingly endure the unnecessary suffering entailed by the sudden withdrawal. It is not a difficult matter to gradually reduce the drug from the daily five to ten grains to three-quarters of a grain within the first week, but it will probably take another week to reduce to one-quarter of a grain, and another week still to stop the drug altogether. It is not well to let the patient know when the drug is withdrawn, as the physical influence is strong, and the mind, as well as the body, demands treatment. Fortunately, we have remedies that greatly assist us in so strengthening the nervous system that it can successfully stand the shock of withdrawal — strychnia hypodermically and the red extract of cinchona internally, are excellent stimulants, and, while they are not altogether as beneficial as they are in alcoholism, yet they powerfully assist. In the lighter cases, especially where no cocaine has been used, the more serious evidences of shock, vomiting, rapid pulse and physical prostration, may be slight. But where excessive and long-continued abuse has wrecked the system, they will be pronounced, and will continue more or less during the withdrawal. In fact the rapidity of withdrawal is to be regulated by the severity of these symptoms.

The strychnia solution should be 1 to 200, and of this 10 minims can be used not less than twice, and possibly four or five times in the twenty-four hours. So specific is its action

that the system can stand one-half grain without developing physiological symptoms should the necessity be great. With this, equal parts of red cinchona and fl. ext. cocoa are prescribed, of which one drachm may be taken two to four times daily. But with all this stimulation, the system is occasionally rebellious, and the nervous system so unstable that brom. potash is added. The object in giving it is to overcome the nervous paroxysms, and when it is necessary to resort to it it should be pushed to narcotism. In other words, 90 to 120 grains are daily given, and while bromism continues, the morphine may be fully and finally withdrawn. Even from the beginning of treatment, the morphine is never given alone, but in connection with strychnia, and the patient must be kept in ignorance of the amount of drug taken, and especially of its final discontinuance. These excessive doses of strychnia and cinchona are to be decreased as rapidly as possible, and, by the end of the second week, their administration can be reduced to two daily, during the third week to one, and discontinued in the second month, the strychnia to be again resorted to when symptoms demand it. The diet to be prescribed is, at least for the first two weeks, milk, to which, as the appetite returns, scraped steak is added, and later a generous diet. By the end of six weeks the appetite is enormous, and the body responds quickly. By the end of the second month the patient presents every evidence of health, and it is now that the difficult portion of the treatment begins. Before this, a special nurse has been necessary, and the patient has welcomed his companionship, but, with returning strength, he resents surveillance, insists that his moral strength equals his physical, and, too often, persuades his friends that he is perfectly cured. But such cannot possibly be the case. Whether he stays under supervision, or goes home, the result is the same. By the end of the third month, he becomes restless, irritable, and is the prey to all the old-time neurotic longings. He still asserts his freedom from desire, yet, unless carefully watched, will resort to coffee, alcohol, or other and stronger stimulants. It may again be necessary to resort to strychnia and bromide, although

not necessary to produce bromism. Until several such attacks have been successfully combated, the patient remains in danger of backsliding. At my sanitarium, six months is the shortest time I will receive such a case, and the limit may be prolonged to twelve months. A shorter time invariably results in relapses, discouragement, and a return to hopeless slavery. For this reason, the great majority never recover; but, where sufficient time has been successfully expended, and the neurotic taint is not too strong, re-establishment of the will power may proceed to such an extent as to overcome the lessening nervous outbreaks. Where there is no hereditary taint, and the diseases for which the morphine was originally prescribed can be cured, the prognosis is as hopeful as in cases of non-hereditary alcoholism; but the treatment, even in milder cases, must be of at least six months duration. To discharge a patient at the end of the second month because his physical system is restored, is a waste of time and effort, and can only succeed in very exceptional cases. When the disease has affected the mind to such an extent that organic weakness is present, no treatment can benefit. Time, and protection of the patient against temptation till he is restored mentally as well as physically, is the only rational method of treatment.

THE TREATMENT OF INEBRIETY IN RUSSIA.

The excellent results obtained in Russia during the last few years by the treatment of inebriates in special homes have been so striking that it is now generally admitted to be the only means in dealing efficaciously with patients of this kind. The number of special hospitals for inebriates is, therefore, rapidly increasing in that country. Hospitals are being erected in Moscow and in Kieff, and the government has recently made a grant of nearly £7,000 towards the erection of one in Kasan. — *British Medical Journal*.

ALCOHOLIC MANIACAL EPILEPSY.
TRANSITORY DISTURBANCE OF CONSCIOUSNESS MEDIATING
CRIMINAL ACTS.

BY WILLIAM LEE HOWARD, M.D., BALTIMORE.

The recent cases of Duestrow, Marie Barberi, Koerner and others, have brought forward prominently the role alcoholic epileptic mania plays in heredity and medico-legal questions. The subject is also of paramount interest to the sociologist and the physician. It is of great importance that the latter should be able to distinguish between drunkenness as a vice and inebriety as an effect of an abnormal, unstable, and degenerate inherited neurotic personality.

In this country, where intoxication is no excuse for crime, it is necessary we should recognize two phases of alcoholic inebriety; acute alcoholic insanity and alcoholic maniacal epilepsy. Such forms of insanity are now recognized by leading neurologists and alienists. A very small amount of alcohol will put a person of peculiar neurotic tendencies into a state similar to psychical epilepsy (psychical epileptic equivalent). In this condition atrocious crimes are often committed for which the individual is not responsible. In a recent trial the presiding judge would not allow evidence on this fact to be given. He evidently did not recall that maxim of his profession: *Factum a iudice quod ad eius officium non spectat, non ratum est.*

Great is the confusion and misunderstanding of terms when treating of "alcoholism," "inebriety," and "drunkenness." In order to avoid confusion I shall tighten up this loose nomenclature by using the terms as given by Norman

Kerr. "Inebriety" is used to distinguish that "overpowering morbid impulse, craze or craze, which tends to drive certain individuals to excess in intoxicants." Scientifically this should be designated "narcomania" to cover the field of morphine, cocaine, chloral, and other allied intoxicants; but as I am dealing only with alcohol, inebriety will suffice for our purpose. Inebriety is a disease; an intoxication mania of such furor, intensity, and force that men will sell their honor, barter their worldly goods, and ruin those dearest to them for alcohol. The criminal acts and insane deeds of these individuals are symptoms of a diseased brain. The distinction between inebriety and drunkenness is one of perversion and perversity. This distinction as made by Krafft-Ebing is as follows: "We speak of perversion when the moral instinct is a perverted one, while we speak of perversity when it is a question of a perverse action, without taking into account the motive that has determined that action, whether it be a perverse inclination or any other motive, a criminal action, for example." Hence, perversion is an inclination independent of the will, and for which no one can be held responsible, at least in the eyes of an impartial judge; on the contrary, perversity, which is manifested in the action, must often be placed to the account of the individual.

A good example of alcoholic epileptic insanity is the Duestrow case. It also shows the powerful influence environment and heredity exerts in certain cases. Duestrow's mother was the daughter of a saloon-keeper of the lower type, and was accustomed to drink at her father's place. His father belonged to the same class and was a habitual user of alcoholic drinks. These habits continued throughout the life of both parents, and the son, Arthur Duestrow, was given beer to drink when an infant. The father became suddenly wealthy when Arthur was about thirteen years of age, who at that early period in his life began a series of dissipation which continued up to the time he committed his repulsive crime. His only child, a little boy three years of age, he was passionately fond of, and devoted all of his time at home to amusing the little fellow.

On the day of the murder he drove up to his handsome residence to take this child and its mother out sleighing. He had purchased on the way a handsome toy for the child, which he took into the house with him. He called to his wife, and asked if she was ready, and then sat down to play with his son. Suddenly, without warning, he pulled a pistol out of his pocket; shot his wife, then picked up his child and fired two bullets in the little one's brain. He walked out hatless, was found on the street in a dazed condition, went quietly to the police station and there made several contrary statements. Such in rough outline is a typical case of alcoholic epileptic mania. Remember the State could prove no motive for the crime. Afterwards he continually denied knowing anything about the deed and insisted that his family were alive.

An epileptic maniac after committing a crime will when arraigned in the police court the next day admit the crime and say he was driven to it by some irresistible impulse, but when some months later he is brought to trial he denies knowing anything about the crime, and is not believed, except by those who have made this form of insanity a study. It is a very common thing for epileptics to give some inconsistent excuses for their actions; they have no accurate knowledge of what has transpired, but have a vague and indefinite idea, and attempt to excuse their conduct by absurd and illogical stories. The suddenness, the brutality, the recklessness, the atrocity and unnaturalness of such an act as Duestrow's suggest at once the suspicion of some brain disturbance.

We have to fully realize the significance of the history of these cases to distinguish the falseness or verity of these temporary disturbances of consciousness. A careful study of individuals who have had attacks of epileptic mania would show an abnormal condition of mind and morals in early life; physical timidity except when fortified by alcohol; anesthetic morality, apprehensions of all sorts of vague and indefinite happenings and an existence, both mental and physical, un-

natural to the normal human being. As these lycanthropists continue to indulge in increasing quantities of stimulants, toxic alcoholic epilepsy insidiously develops. The sudden and very transitory attacks of loss of consciousness are scarcely noticeable to the individual's barroom comrades, or, if so noticed, are accounted for by the fact that he has been drinking.

But these fits of staring which are pathognomonic of *petit mal*, called by some minor epilepsy, but which are in reality major epilepsy as regards their ultimate results, are totally different in appearance from the well-known stare seen in drunkenness. It is this peculiar characteristic of *petit mal* that differentiates it from other forms of epilepsy. We have none of the "falling down fits," frothing at the mouth, violent muscular twitching or clonic spasms seen in major epilepsy. It also differs from the epileptiform attacks sometimes witnessed in delirium tremens. It is because the individual with commencing attacks of alcoholic epilepsy is seldom observed except by his boon companions that he continues unnoticed until the attack occurs with all its concomitant furor and ends in unaccountable and horrible deeds. These attacks of unconsciousness may be partial or complete, and last but a few seconds.

In some instances there is only slight clouding of the mind; a hazy, vague condition of the intellect, and finally during the epileptic furor complete abolition of consciousness, during which we have almost inconceivable brutality, ferocity, and violence, inhuman tiger-like devilish action, which is characteristic of alcoholic epileptic insanity. This is not the masked epilepsy of some writers. No disease can be masked whose symptoms are so plainly demonstrable. The disease is masked in so far that these cases seldom come under the notice of the physician until the epileptic explosion has taken place which has brought the individual into unenviable and often very unfortunate notoriety. The layman cannot diagnosticate a drunken stare from an epileptic stare.

It is beyond cavil that the confused disturbed mental conditions which frequently manifest themselves in persons who are habitual and hard drinkers and yet have no epilepsy, are not the same confusion seen in alcoholic epilepsy. The alcoholic stare is a drowsy, sleepy sort of stare, and there is no fixedness of the body, as well as the muscles of the eye; the attention of the person can be attracted or changed. In the drunken stare the peculiar expression of the eye continues while the individual is speaking, while, on the other hand, the epileptic stare ceases on return to consciousness.

The epileptic stare is sharp, sudden, and instantaneous and there is a fixedness of the muscles, as well as the features of the eye. This fixedness of the eye is a pronounced mark of minor epilepsy. We also frequently notice the sudden grasping by the hand of the nearest object. In court the question often arises, when the plea of alcoholic epileptic insanity is used, "Was not the deed done in a state of alcoholic furor?" The facts of the case easily decide the question.

In alcoholic epileptic insanity the period of anger is preceded by a calm attitude; then comes the sudden period of ferocity during which the deed is done; almost immediate subsidence of the furor, followed by partial or complete ignorance of the act. If the deed was committed in a state of ordinary alcoholic furor the ferocious condition would be manifest until the alcohol which was causing it lost its influence. In other words the condition would last as long as the effects of the alcohol continued. These individuals who suffer from minor epilepsy do not indicate any physical conditions which would differentiate them from normal individuals. The form of so-called alcoholic epilepsy which is unaccompanied by mania, while recognized by many authorities as being, *per se*, caused by excessive indulgence in alcohol, does not offer sufficient evidence as yet to allow us to be positive in the matter. In those suffering from attacks of idiopathic minor epilepsy the use of alcohol unquestionably causes maniacal attacks. The knowledge that such attacks are probable should prevent

the use of alcohol in any form by those who have been subject to minor epilepsy; and should such individuals with a full sense of this fact commit crime when in a state of alcoholic epileptic mania, they should be held guilty. According to Garnier the offsprings of alcoholic parents are prone during adolescence to attacks of epileptic mania. They exhibit a psychological as well as a cerebral degeneration. A certain mental condition accompanies, precedes, or follows attacks of minor epilepsy. This is mental depression and it frequently ends in insanity. Such attacks of insanity take the place of staring and the other well-known objective symptoms noticed in minor epilepsy and are known as equivalents, psychical substitutes. This condition is frequently observed in cases where not the slightest attacks of a minor epileptic nature have been manifested or known to exist.

DANGER IN NERVE STIMULANTS.

All of the so-called strengthening preparations which enable a man to accomplish more work when he is under their influence, do this not by adding units of force to his body, but by utilizing those units of force which he has already obtained and stored away as reserve force by the digestion of his food. Kola, cocoa, chocolate, coffee, tea, and similar substances, while they temporarily cause nervous work to seem lighter, only do so by adding to the units of force which a man ought to spend in his daily life, those units which he should most sacredly preserve as his reserve fund. The condition of the individual who uses these articles when tired and exhausted, with the object of accomplishing more work than his fatigued system could otherwise endure, is similar to that of a banker who, under the pressure of financial difficulties, draws upon his capital and reserve funds to supplement the use of those moneys which he can properly employ in carrying on his business. The result in both instances is the same. In a greater or less time the banker or the patient, as the case may be, finds that he is a pecuniary or nervous bankrupt.—*Popular Science News.*

PERIPHERAL NEURITIS.

BY ALEXANDER MCPHEDRAN, M.D.,

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I am of the opinion that many cases of mild neuritis pass unrecognized, being usually looked upon as rheumatism, to the poison of which no doubt, in many cases, the occurrence of the neuritis is due.

Peripheral neuritis may be isolated, confined to one or a few nerves; or it may be multiple, symmetrical in its distribution, affecting the nerves of all the extremities. These peculiarities of distribution harmonize with the pathological changes occurring in each class. In the isolated neuritis, the disease begins in the nerve-sheath, constituting a "perineuritis" at first, the inflammation extending to the nerve-fibers later. In the multiple forms, on the other hand, the nerve-fibers are themselves the seat of the primary change—a "parenchymatous" neuritis, the sheath becoming affected later. These forms of multiple "parenchymatous" neuritis are always due to some virus in the blood, an organic or inorganic chemical compound usually, which may have a special affinity for nerve tissue, and affects the periphery of the nerves, because these parts, being farthest removed from their nerve cells from which they derive their energy, are least able to resist it. The occurrence of the poison in the blood accounts for the wide symmetrical distribution of the disease.

On the other hand, isolated neuritis is due to some cause acting locally, and if several nerves are affected their distribution is irregular, not symmetrical. In these cases there is always a constitutional cause at work as well, predisposing to the disease. In proportion as the constitutional condition is

marked, the exciting cause produces the disease the more easily, and the number of nerves affected becomes greater and the attack approaches more nearly to a symmetrical one in character.

Alcoholic peripheral neuritis is the form most often met with, but it does not occur nearly so frequently in this country as in Europe, doubtless because with us much less stimulants are consumed by women than is the case in Europe. There the women are much given to regular indulgence in the stronger spirits, usually secretly, and such drinking appears to be more productive of neuritis than indulgence in occasional "bouts" of drunkenness. In men, delirium tremens is much more common, while it is rare in women. It is difficult to explain this difference; it is attributed to the fact that men drink beer rather than spirits. With us, however, spirit-drinking is more common and delirium tremens results oftener than neuritis. The cases of neuritis I have met, in which the disease was well marked, have all been among males. The following case is a well-marked example:

Case I.—Wm. G., aged seventy-three, clockmaker. He has always been healthy. He came from Scotland when a young man. He says he has taken one or two glasses of brandy or whisky daily since he was ten years old, but never drank to excess. For the last twelve years he has lived alone, doing his own cooking, and has taken two or three cups of tea or coffee with each meal.

In June, 1893, while walking on the street, he noticed his legs became weak and his calves and feet numb — although he was only a short distance from home, he found it difficult to get there. In a day or two he noticed a similar condition in his hands and forearms. In five days he was unable to walk. He was admitted to the Toronto General Hospital, under my care, on July 6, 1893. His condition was as follows: Complete paralysis of the muscles of the legs and feet, the muscles of the thighs retained some power. There was foot-drop — the foot extended, and the toes flexed. Sensation to touch was

much lessened, but great sensitiveness to painful impressions of any kind, especially on deep pressure. There was some "pins-and-needles" and burning feeling in the feet and legs, but not excessive, although sufficient to interfere somewhat with sleep. The skin was dry and harsh, the muscles flabby and tender. Knee-jerk was lost. The hands, forearms, and arms were similarly affected, but to a less degree. He could use his hands slightly, but not sufficiently even to feed himself. He was rather dull and apathetic, but healthy-looking. There was gas in the stomach and bowels. The sphincters of both bladder and anus were weak. Urine was passed every two or three hours; this may have been due to enlarged prostate, but the sphincter ani was undoubtedly considerably affected, and required many months to recover. The heart was enlarged and the arteries were sclerosed. The urine was pale and of low specific gravity, so that doubtless there was more fibrosis of the kidneys than would be accounted for by senile change. There was no reaction in either nerves or muscles to the galvanic or Faradic currents. Marked atrophy of all the muscles of the extremities followed.

On September 27th, nearly three months later, the following note was made: "Is gaining some power in both hands and feet; is able to flex toes slightly, but the foot is still markedly 'dropped.' There is slight response to Faradic current in the forearms." In January, 1894, he was able to sit up, and use his hands well, but they were weak. There was no pain, sensation was good in the hands, and fair in the feet. The toes were still flexed, and pressure to extend them caused pain, especially in the calf. There was complete control over the sphincter ani, but the urine was still troublesome, although control of it was improved.

He left the hospital the following spring considerably improved, but still unable to walk. He could stand with support, but the extension of the toes gave him pain in the feet and calves.

In this case the "pins-and-needles" sensation was not very marked for so severe a case, and there was not so much loss of mental power as is usual in alcoholic multiple neuritis; there was some dullness and apathy, but apparently no more loss of memory than age would account for. Otherwise the symptoms were very marked and typical. The weakness of the sphincter ani indicates that the neuritis extended into the lower part of the spinal cord. As he lived alone, confirmation of his statement of the quantity of spirit he took daily could not be obtained. He always told the same story, however, and seemed quite clear-headed. If his story is correct, it is difficult to see how the amount of alcohol taken could cause such extensive disease of the nervous system. Many men drink much more and just as regularly without disturbance of the peripheral nerves. The same is true, however, of diseases of other organs, of cirrhosis of the liver, for example. There must be some predisposing condition or some additional poison to enable the alcohol to cause such changes.

In the case of a man who entered the Toronto General Hospital seven years ago for alcoholic peripheral neuritis, the history differed materially from the foregoing case:

Case II.—He was about thirty-five years of age; drank freely, but irregularly; was exposed to changes of weather. He had been drinking heavily and slept out all night. It was early autumn, and the nights were cool, but without frost. He found his legs weak next day, with tingling in them, and he was soon unable to walk. The hands were slightly affected. When brought to the hospital he could neither stand nor walk, but could move the feet and toes while sitting or lying. On walking with support, the walk was ataxic. There was no atrophy. His mind was not materially affected, not more so than is usual in alcoholic cases. He made a complete recovery within three months.

In the first of these cases the symptoms are typical of peripheral multiple neuritis: the numbness and "pins-and-needles" sensations, the burning pain, the tenderness to deep

pressure, the weakness amounting to complete paralysis in the most remote parts, the atrophy, the loss of superficial and deep reflexes, the loss of electrical reaction, together form a symptom-group that cannot be misinterpreted. The absence of a history of excessive indulgence in alcohol, and of material mental disturbance, might be considered as ground for questioning it as one of alcoholic neuritis. Arsenic is the only other cause to which to attribute such an extreme attack. The mental apathy and diminished pain discriminate this case from arsenical cases, as will be seen in the following examples of arsenical peripheral neuritis:

Case III.—A man somewhat over sixty years old had a rather deeply seated tumor below the left parotid region, which a so-called cancer-doctor pronounced a cancer, and applied a plaster. The plaster was reapplied several times at intervals of two or three days, followed by poultices. By this time numbness, with painful "pins-and-needles" sensations, appeared in the fingers, soon followed by similar signs in the feet. Weakness followed, and in a few days he was unable to walk or help himself. The numbness, pain, and tenderness also grew much worse. This was the history he gave when received in to the hospital about two weeks after the appearance of the symptoms. His condition then was one of utter helplessness. The muscles of all the extremities were much atrophied, the atrophy being more marked in the feet and legs than in the thighs; and in the hands and forearms than in the arms. Ordinary sensation was lost in the feet and hands, and greatly blunted in the proximal parts of all the limbs, but there was great sensitiveness to painful impressions of all kinds. He was not able to bear even the weight of the blankets on the feet. There was a constant burning sensation in the hands and feet, especially at night, so that opiates were necessary to secure sleep. The skin was glossy, and disquamated rather freely, these changes being most marked in the peripheral parts. There was great sensitiveness in the muscles to deep pressure. The mental condition, in contrast to the alcoholic cases, was clear and active, as in health.

There was very little improvement for three months. After he was able to stand, the feet were so tender that he could not walk, and the hands so tender that holding a cup to drink was painful. The foot-drop was not nearly so marked as in Case I. He left the hospital able to walk and to attend to his dress and other wants, although with much pain and difficulty. He returned some months later to have the tumor treated, considerably improved, but still far from well. The ultimate result I am unable to give, as he has been lost sight of.

Case IV.—A young man, aged twenty-two, blacksmith, entered the Toronto General Hospital, September 29, 1894, under the care of Dr. J. L. Davison, who kindly permitted me to see the case. At five o'clock on the morning of September 8th, three weeks before admission, he ate some pie in the pantry at his boarding-house. Half an hour later he became nauseated, and on inquiry found that the pie had contained a large amount of "Rough on Rats," a mixture consisting of about fifty per cent. arsenious acid, which had been placed in the pantry to poison rats. An hour later he began vomiting, without straining. There was no pain but considerable depression with free perspiration. He worked until eleven o'clock. Then he sought advice, and was given emetics. He had no diarrhoea. There was marked metallic taste in the mouth, no appetite. He felt fairly well next morning, and went out to sit in the sun. He soon became faint and perspired profusely. The breathing was slow. He lay down, sucked some ice, and soon revived.

At the end of the first week a tingling sensation began in the hands and feet; a few days later, trembling at the knees, with much weakness. He found it difficult to hold a cane. Hands and feet became very tender, and weakness increased. He lost flesh rapidly, especially in the extremities. There was much burning pain, most marked in the feet, and there were darting pains down the legs.

He was able to be about until September 26th, when he

suddenly collapsed in the afternoon, and was unable to stand. He partially recovered in two days, and was able to stand again, but the power disappeared the next day, and he was unable to use his limbs or stand for eight months.

On admission to the hospital his extremities were much wasted. There was very little power in the arms, and still less in the legs. The skin was harsh and dry and desquamating. There was much numbness in both hands and feet. Ordinary sensation was almost lost, but there was great sensitiveness to deep pressure. Heat and cold were felt as painful impressions. All reflexes were lost. His mental condition was clear and active. Pain disturbed his nights.

The wasting, tenderness, and paralysis increased during the next few weeks, and two months later paralysis below the knees was absolute, and almost so below the elbows. The thigh-muscles were much wasted, but retained a little power. But pain was much less and only slight "pins-and-needles" sensations remained. His appetite and digestion were better. Reflexes of all kinds, including electrical, were, of course, absent.

Six months after poisoning improvement began, and has continued steadily since, so that now, eighteen months after taking the arsenic, he may be considered quite recovered. There is still slight numbness in fingers and toes, and the knee-jerk is absent. The muscles of the anterior tibial region of the right leg are still weak, and have not regained their full size. They react only to a strong current (Faradic). In walking the foot is easily turned under him, and he cannot raise the toes freely. All the other muscles have completely recovered.

This is a very remarkable case of arsenical neuritis, and a no less remarkable case of recovery from arsenical poisoning. To the dilution of the arsenic with the pie he no doubt owes his escape from a gastritis that would have proved fatal.

In both of these cases the history is typical of arsenical neuritis. In recovery also their course was regular — the

power of motion returned before the electrical reaction, and the electrical reaction before the nutrition. It is interesting to observe power of motion gradually being restored long before the muscles show increase in size.

These cases also illustrate the remarkable recuperative powers of nerve-tissue. There had been extensive degeneration of fibers, requiring months to become complete, followed by months of apparent quiescence, and then came the signs of gradual regeneration, requiring many months to become complete.

To these cases I shall add one of mild neuritis, probably due to arsenic taken in medicinal doses. It was a case of pernicious anemia I published in the *Medical News*, October 11, 1890.

Case V.—Dr. P. was extremely ill with pernicious anemia. He had been vomiting incessantly when first seen. As soon as the stomach would tolerate it he was given liquor arsenicalis, 1 minim every three hours, and this was increased gradually until he took 45 minims per day. In two months he was able to return home. He was directed to intermit the medicine for a few days from time to time, but in his anxiety to make a complete recovery, he took it continuously. In the third month of taking the medicine numbness and tingling of the hands and then of the feet began. After two or three weeks sudden advent of pain and a purpuric rash occurred. When seen about two weeks later, the anesthesia and tenderness were sufficiently marked to make the hands awkward and walking irksome. It took about three months for him to recover.

The recurrence of neuritis as the result of medicinal use of arsenic is not very rare; nevertheless, the drug is often given even more freely than in this case without any toxic effects. The sudden onset of general pains and the purpuric rash indicate the existence of some other poison in the blood, possibly of a lithemic or rheumatic nature, and this, or the toxic agent producing the pernicious anemia, may have caused the neu-

ritis. I have a patient under observation at present in whom peripheral neuritis occurs in connection with pernicious anemia.

Case VI.— A married woman, aged forty, of good family and personal history, has been ailing for over two years, growing gradually more anemic. She lost a daughter last year, after which her condition grew much worse. I saw her first on January 4, 1896. She was then very prostrate, her body fairly nourished, but her limbs were much wasted. She was unable to sit up. On careful repeated examinations the blood was found to contain only between 400,000 and 500,000 red corpuscles per c. mm., and hemoglobin twenty-two (Fleischl). There was some numbness with tingling of the hands and feet. The following week she had great pain and considerable swelling in the feet, the right being most affected. The feet and legs were partially anesthetic, and very tender, especially to deep pressure. It was thought at first that probably phlebitis was the cause of these symptoms, but there was no special tenderness along the course of the veins. The temperature varied from 99 to 102 degrees F. There was some improvement in a few days, and, within a month, the pain and swelling had disappeared, but the numbness and tenderness persisted and have not wholly disappeared yet. Her general condition has greatly improved, the blood-count being now over 3,000,000 corpuscles per c. mm. Sensation is not yet normal, and the legs especially are still much wasted. She is able to walk a little, but the knee-jerk is absent, and there is no response to a strong Faradic current below the knees, and only faint response in the forearms.

The cause of the neuritis was probably the same poison in the blood that caused the destruction of the red corpuscles. I have not met with a case of multiple neuritis occurring in pernicious anemia before this one, nor have I found it referred to in the literature of that disease. It is just possible that in Case V. the neuritis was due to the poison of pernicious anemia and to the arsenic. In isolated peripheral neuritis a

local exciting cause is the chief consideration, and is of importance in proportion as the neuritis is circumscribed, even in these cases, however, a predisposing condition probably always exists. Of these predisposing causes it is known that gouty and rheumatic conditions are among the most frequent. Lithemia should be added to these as probably one of the most frequent causes rendering the nerves liable, to become inflamed from slight local causes, such as cold and traumatism. Patients seeking advice for "torpid" liver, dyspepsia, constipation, etc., not infrequently complain of numbness and tingling in a hand, a foot, or some other part. They are usually much concerned about these symptoms, fearing that they may be the precursors of paralysis. Lithemia is probably the most frequent predisposing condition leading to the development of inflammation of the nerves, after injury to them, as often occurs in dislocation of the shoulder.

In the treatment of this disease, the first duty, of course, is the removal of the cause — the "etiological treatment." The cause may be easily demonstrated, when, as in most cases, it is alcohol, lead, or arsenic; it is more obscure in uric-acid poisoning, and in diabetes. For the neuritis we have no specific remedy. Anodynes may be required to relieve the pain. Rest and protection of the parts from injury are of importance.

Strychnine is regarded by some as a specific, and some satisfactory results are reported from its use, especially by subcutaneous injection gr. 1-20 to 1-30 twice daily. It favors the return of normal nutrition by stimulating the irritability of the affected muscles. Probably it also stimulates the multipolar cells of the spinal cord, so that they may impart greater energy to their fibers, and thus enable them to resist further destruction and hasten repair in those already degenerated. Electricity may, to some extent, effect the same purpose, but it is doubtful if it has any further effect than to stimulate contractions of muscles, if they react to the stimulus.

As soon as tenderness has abated massage and baths will

prove useful in hastening the removal of excrementitious matter, and stimulating the nutrition by increasing the flow of blood through the affected parts.

In the later stages the rousing of the patient's latent energies and encouraging him to make voluntary use of the muscles, as far as possible, will do more to accomplish the objects in view than any other plan of treatment.

With few exceptions the prognosis is good; recovery will be long delayed in severe cases, and in a few acute cases a fatal termination occurs within a few days or weeks. In the first case I have related, full recovery did not probably take place on account of age.

Bad cases grow worse for weeks or months and then remain stationary for a time. Complete recovery requires several months.

It is a well-observed fact that the less a man knows of inebriety and of its clinical varieties and causes, the more positive he is of the remedies which will cure it. The man who has had phenomenal therapeutic success in the treatment is clearly not well acquainted with the conditions he is trying to remove.

Prof. Schooling, in a recent paper before the Royal Statistical Society of London, says that there are eight principal causes of insanity, and the percentage of each as regards every 100 of lunatics as follows: Drink, 33.6; domestic troubles, 15.1; mental anxiety, 13.4; old age, 13.2; adverse circumstances, 13; accidents, 6.5; religious excitement, 4; love affairs, 3.2.

ALCOHOLISM AS A DISEASE.

BY GEORGE H. McMICHAEL, M.D., BUFFALO, N. Y.

Although the battle with alcohol still continues, there are signs that the community is ceasing to regard alcohol as a food. It is no longer considered the duty of a "gentleman" to drink wine, and in a hundred years people will wonder how the consumers of gallons of beer every week managed to live as long as they did.

The hereditary nature of the abnormal condition of which inebriety is the outward sign is not understood, even by physicians, as it should be. It is still, I regret to say, looked upon as a vice acquired by the individual, the outcome of voluntary wrong-doing. In some few cases this may be true, but in the majority of instances enquiry into the family history will reveal the presence of an inherited taint, such families usually showing a neurotic condition. No position in the social or intellectual world is, or even has been, entirely free from the tendency towards alcoholism, and a study of the family history of the great men who have fallen victims to alcohol will show that the cause has been identical with the cause among the most obscure of mankind — viz.: — that a degenerated nerve-condition has been inherited which renders the sufferer specially susceptible to this and allied neuroses, such as epilepsy, idioey, and suicide. The inheritance of an unstable nervous system makes the individual easily affected by what I must call "alcoholic surroundings." In other words, the provocation to drink which would have no influence upon an ordinary stable nervous organization, is sufficient to turn the neurotic into a confirmed drunkard.

Some evidence of the hereditary character of the pathological condition of which I am writing, is seen in the pertinacity with which the disease adheres to the sufferer in spite of medical attention. An acquired disease often gives way quite quickly when judicious treatment is resorted to, but an inherited nervous disorder is far more troublesome and may require treatment carried on through several generations.

It is admitted, of course, that habitual inebriety causes deeper degradation of the individual, more acute suffering in the family, and a greater expenditure by the taxpayer than any other disease or vice. It is nothing short of a curse to the community, for it is the starting point of both crime and pauperism. Moreover, there is no other dyscrasia which destroys the moral sense with such rapidity and such thoroughness — unless it be epilepsy, to which it is allied. The drinker at first expresses shame and regret for his weakness, and for the disgrace which it brings upon his family. But this feeling seldom lasts long, and the moral nature — never strong in such persons — becomes undermined, and we find the man or woman who, a short time before, might have been absolutely relied upon, now transformed into an unscrupulous perverter of the truth, without any sense of honor, and ready to do almost anything to obtain the poison with which to satisfy his pathological craving. Once on the down grade, a level is soon reached where ordinary honesty ceases. The descent of a woman, however, fortunately *comparatively* uncommon, is even more rapid than that of a man.

In spite of all that has been written upon alcoholism, the subject continues to be misunderstood, and the law treats the victims of the disease exactly as it treats thieves or other law-breakers. As might be expected, this method very seldom does any good. Proof of this may be found in the remarkable regularity with which the inebriates reappear, time and time again, at the police court. These persons are not responsible for their actions, and the law of the state should recognize the fact and act accordingly. They are as helpless to

fight against the craving for alcoholic drinks as is the sufferer from phthisis to fight against his cough, and their punishment is about as sensible as it would be to punish an epileptic, for creating an obstruction by falling down upon the sidewalk. Our condition will not be materially improved until habitual inebriates, instead of being fined, or sent to prison, being permitted to propagate their species when they are at large, are confined in an institution where they will be able to do useful work and to enjoy themselves as they choose, but where indulgence in alcohol and narcotics will be impossible. The sexes will, of course, be kept apart.

The craving for alcohol takes one of two forms. Either habitual drunkenness, in which case the victim is never really sober if drink is by any possibility obtainable, or dipsomania, in which the disorder takes a periodic turn, appearing at intervals — long intervals at first, which become shorter and shorter by degrees. In the latter case the drinker is quite irresponsible while the attack lasts. For a time the forms of the disease are very different, but as the dipsomaniac's periods of rationality become shorter, the differences between the disorders become much lessened or disappear altogether. Nevertheless, I think that the dipsomaniac is generally an excitable, impulsive, and active individual, while the chronic "soak" is a slow, lethargic, and obtuse specimen of humanity. The latter is most likely to die from disease of the liver, kidneys, heart, or brain. The former will probably die of delirium tremens, or will meet with a violent end. If life is sufficiently prolonged, gradual weakening of the mental faculties, terminating in complete dementia, may be anticipated. Attacks of maniacal excitement or delusions sometimes precede actual dementia. I shall return to the diseases produced by alcoholism and shall try to give an account of some of them.

I have expressed the opinion that the state should provide suitable "state hospitals" for drunkards, in place of punishing them as criminals. But until that is done, the physician must do all that he can — often gratuitously — to cure

these unfortunates. It is hardly necessary to say that wealthy drunkards would, in any event, always be placed in a competent physician's hands for treatment, if the relatives could control the matter. As a rule, they cannot.

In every form of insanity, the disease is more dangerous in the mother than in the father, as far as the next generation is concerned. This is a good and sufficient reason why the daughter of drunken parents, very often attractive to some men by reason of their excitable, vivacious, neurotic manner, should be carefully avoided by young men in search of wives. The man who marries the daughter of an inebriate, not only endangers his own happiness, but runs the risk of entailing upon his children an inheritance of degradation and misery.

No woman should marry a man who, even occasionally, drinks to excess. Further, the disposition of the sons of drunken parents ought to be investigated before any girl becomes engaged to one of them. This is one instance in which long engagements are not to be condemned, for, if the man has inherited the alcoholic craving, it may become known in time, and his fiancé may be saved from the most terrible fate that I can think of — becoming the wife of a drunkard.

One word more before I leave this aspect of the subject. As the majority of inebriates are sufferers from a disease which is partly the result of hereditary predisposition, it is foolish for any woman to marry a drunkard in the belief that she can reform him. If women would realize that alcoholism is a disease and not a vice, they would understand that, while the spirit which prompts their devotion and self-sacrifice is praiseworthy, yet the probability of its success is very remote. No doubt there are women who have made this experiment and who have managed to "reform," as it is called, confirmed inebriates; but such cases are by no means numerous. While it might not be right to attempt to interfere with any effort to benefit any representative of suffering humanity, it must be remembered that the fate of the next generation is at stake and that unborn children certainly have rights although we

are very apt to disregard them. Admitting, then, that anyone is at liberty to risk everything, even life itself, to benefit another, nevertheless it cannot be said that anyone has a moral right to jeopardize the future of a family to satisfy any instinct or feeling of affection, however noble it may be. If what I have written is true, no woman is justified in marrying a drunkard.

The diseases caused by the consumption of alcoholic drinks now claim attention. Two points must be remembered: The first is that every member of the alcohol family, if used regularly every day as a beverage or as a food, will cause disease, unless the quantity is quite small. For example, beer contains from four to nine per cent. of alcohol; the consumption of more than four glasses of it regularly every day is likely to produce disorder of the digestive system, followed by more serious diseases. The second point is that, between the man who has saturated his system so as to be able to drink a dozen glasses of beer at a sitting without becoming incapable, and the man who becomes "dead drunk" on half that number, there is no scientific difference; both are inebriates in the true sense of the term. The alcohol here referred to is ethyl-alcohol, and the first result of its baneful action is, as is quite well known, dyspepsia. The symptoms are as follows: The action of the bowels is irregular, in some cases constipation, in others relaxation being a prominent feature. The appetite is capricious, and the skin, from being hot, becomes suddenly cold. Sleep is difficult to obtain and the mind is irritable. Such is alcoholic dyspepsia, a very common disorder among persons of both sexes who would be horrified at being classed as narcotics, though that is exactly what they are.

Dipsomania is another — a much more serious complaint, due to alcohol poisoning. It is a craving for the poison until that craving becomes a mania. The most depraved animal tastes are developed and complete annihilation of all moral faculty appears. There are two forms of dipsomania, as I mentioned in the earlier part of this article, the continuous

and the intermittent. Without abstinence from all alcoholic drinks, recovery is impossible. The end is usually nervous degeneration, followed by mental and physical death.

Delirium tremens is an acute delirium brought on by the drinking of alcohol. Its symptoms are known to everybody. Terrible apprehensions and the images of various spirits, especially the devil, are often present. Thirst, and craving for drink, maniacal raving, at last coma, all come in turn. Through all this there is present an uncontrollable action of the muscles, increased by an external irritation. The presence of other alcohols, in addition to the ordinary ethyl-alcohol, is believed to assist in bringing on an attack of delirium tremens.

The heart and other organs are injured by alcohol, both functionally and organically. Whenever a distinct effect is made upon the system by alcohol, the fact is always indicated by the pulse. The action of the heart is quickened for a time, afterwards becoming enfeebled until another dose of the poison is taken to revive it. Alcohol narcomaniacs, therefore, usually present an irregular state of the circulation, which is at one period jaded, at another excited. In time this becomes the ordinary condition, supplemented by a persistent functional derangement which extends throughout the vascular system. This functional disorder of necessity leads to organic changes of the heart and the circulation. The heart from continued over-action becomes dilated, and its valves are relaxed. The membranous structures which envelop the organ are thickened, rendered cartilaginous, and occasionally calcareous. The valves, which consist of folds of membrane, lose their suppleness, and valvular disease has "come to stay." The muscular fibre of the heart is replaced by fatty cells so that the power of contraction is greatly reduced. These derangements are liable to cause death from sudden failure of the heart itself, from rupture of the blood-vessels, from effusion of blood into the brain, producing apoplexy, or from effusion of blood into the kidneys — or lungs — causing interference with the func-

tions of those organs. There is always danger of the heart failing to do its work, for alcohol has made it inefficient.

Alcohol has an injurious influence upon the blood, since its presence interferes with proper oxidation. The corpuscles undergo pathological changes, such as becoming irregular in shape or notched at the edges. The plastic portion of the blood is subjected to two distinct modifications. When it is freely diluted with alcohol, the plastic part of the blood flows too easily from the vessels and injects the surface of the body, giving the skin a mottled appearance, which, in cold weather, through the relaxation of the vessels, turns to blue, or lead color. When the blood is strongly charged with alcohol, the plastic part of it, instead of being reduced, may undergo coagulation, which impedes the course of the blood in its circulation through the finer vessels and, perhaps, through the heart.

The nervous system cannot escape injury from the ingestion of alcoholic drinks. It fails to receive correct impressions: it fails to send out correct orders — it fails to receive proper rest. As a result it is, at times, hypersensitive. It hears murmurs, or other sounds; it sees spots and shadows — unless it is so blunted by excess as to be oblivious to impressions to which it ought to be thoroughly alive.

A common functional derangement of the nervous system due to alcohol is insomnia. The action of the poison is to keep the vessels of the brain relaxed, and no inebriate is, therefore, a natural sleeper. What usually happens to him is as follows: Either his brain undergoes an unnatural activity, sleep coming and going, or a drink of alcohol being consumed, a congestion of the brain is produced, resulting in a sort of modified apoplectic condition which is recognizable by reason of the deep snoring and the frequent "startings."

Alcoholic hysteria is more common in women than in men. Its symptoms are quite well known — emotional excitement from slight causes, ringing noises in the head, spots before the eyes, uncertain action of the mind, loss of will-power.

The continued use of alcohol causes the nervous centers to

undergo degeneration, and the most serious diseases known to medical science ensue. Apoplexy is one of these, epilepsy is another, which is usually in a decided form, and often proves fatal in a very short period.

Alcoholic paralysis is known to every physician. When a person gets drunk for the first time, he passes through stages of moderate excitement, of extreme excitement, of depression, and, at last, enters a state of temporary paralysis of both mind and body. In a similar manner when a person indulges in alcoholic drinks for a period of years, he passes through a series of stages — first, excitement; second, excitement, followed by depression; third, marked depression; finally, paralysis. Alcohol is the chief cause of the general paralysis which is to be found in lunatic asylums. I think that there is little doubt that the action of the poison is chiefly upon the membranes which cover the great centers of the brain and spinal cord. There are two forms of alcoholic paralysis. In some cases it is local, one limb or one side of the body alone being affected, the mental faculties being, at first, quite normal. In other cases it commences with a stage of muscular feebleness, followed by mental incapacity and by loss of all volitional power. The muscles may retain some irritability, but the will is unable to control them.

Any one who is suffering from alcoholic disease is specially liable to the rupture of a blood-vessel of the brain; first, because of the weakened state of the vessels; secondly, because of the pressure to which the vessels are subjected during periods of alcoholic excitement.

Alcohol produces disease of the liver and of the kidneys, because these glands are most concerned in the elimination of any poison, and are always, until they are structurally deranged, engaged in removing it from the body. Cirrhosis of the liver requires no description. It affords a most striking illustration of a structural disorder induced by a known specific cause.

The numerous diseased conditions of the kidneys known as

"Bright's disease," are quite frequently due to alcoholic poisoning. Calculus is, in very many instances, the result of excessive indulgence in malt liquors.

Alcohol, of course, renders the individual specially liable to the attacks of the bacillus tuberculosis. This disease demands no attention, being quite well known.

The skin disease called acne rosacea is common among drinkers of middle age.

Everybody knows that the lunatic asylums are filled with persons who, but for alcohol, would be quite normal. Most educated men are equally aware that many inebriates are sterile, or that their children are puny and emaciated, in addition to being liable to attacks of almost every known disorder.

Ethyl alcohol, I have shown, produces a large number of diseases — probably twenty; to describe them all in detail would require a book of considerable proportions.

Even those of us who believe that "acquired characteristics" are transmitted, are not foolish enough to imagine that the process of evolution will produce a race that can tolerate alcohol. We knew too well that families in which there are inebriates have a marked tendency to die out.

There has been in the past a very strong belief that alcoholism was an incurable disease. This belief is passing away, although there are cases for which the physicians can do very little. As I have previously suggested, these are cases in which "the doctor should have been called in a hundred years earlier." According to Von Ziemssen, "we possess no medicine which can act as a direct antidote to alcohol or neutralize its pernicious effects." Dr. Hammond, in the *North American Review* for September, 1891, wrote: "It may be asserted, with perfect confidence in the absolute correctness of the assertion, that there is no medicine or combination of medicines that will cure a person of the habit of drunkenness; that is, that will destroy his or her habit or appetite for alcoholic liquors. It may be incidentally stated with equal positiveness, that there is no habit, whether chloral, opium, hashish,

or any other intoxicating substance that can be cured by medicine; and even further, that there is no habit or appetite whatever to which mankind is subject that can be got rid of by drugs, whether it be drinking coffee, or smoking tobacco, or taking a walk every day at a particular hour, or going to bed at a certain time."

The accuracy of the above statement is, I think, generally recognized. Indeed, the medical profession is beginning to realize that drugs alone cure very few diseases. Insanity and kindred complaints, such as a desire to commit suicide and a craving for some poison, are much too deeply rooted to be removed by mere ingestion of medicine. It is possible, of course, that in some instances the incessant thirst for alcoholic drinks can be temporarily satisfied by the use of some substitute; but two questions necessarily arise. First, is not this temporary "cure" as bad as the disease? Secondly, how long will the "cure" last?

An alcoholic debauch closely resembles an attack of insanity. The course of a "spree," as well as the symptoms, is similar to the course of insanity. Inebriates are seldom conscious that they are drunk, any more than lunatics are conscious of their insanity. Let us trace the disease known as dementia paralytica. First come the visions of personal grandeur, then mental perversion, finally, coma and paralysis. No medical knowledge is required to see how closely this corresponds with the progress of the drunkard's disorder, whether you take a single debauch or the inebriate's whole life. An eminent alienist — I forget whether it is Esquirol or Krafft-Ebing — defines insanity from the anatomical point of view, as a diffuse disease of the brain accompanied by nutritive, inflammatory, and degenerative changes. To this I want to add a definition of the insane diathesis, viz.: an unstable condition of the nervous organization, characterized by a desire for personal gratification and an entire disregard of the welfare of the rest of the community. Now, I do not say that all narco-maniacs are insane; but I do say that many of them are, and

that very, very few men have become drunkards who did not possess the insane diathesis.

If my opinion, as expressed above, is accurate, it is as absurd to expect medicine alone to cure alcoholism, as it would be to suppose that bichloride of mercury would cure delusions.

The inebriate should be under the personal supervision of the physician, who should have complete control of his patient during the entire course of treatment. If this plan be adhered to, and the physician understands, not only the disease, but also the temperament of the individual patient, moral suasion and the judicious use of hygienic measures, aided by medicines, will, in the majority of cases, effect a cure. The prescriptions suggested in the works of Drs. Norman Kerr and Crothers will be found of assistance, although, by themselves, they would accomplish very little. I am anxious not to be misunderstood. The authorities named realize, just as well as I do, that the drugs themselves will not cure inebriety, and they merely recommend certain medicines as an adjunct to the moral and hygienic treatment.

In conclusion, I would say that the employment of the physician in aiding the drunkard is something comparatively new. Until a few years ago the subject was not supposed to be within the province of anybody, except the drunkard himself, his relatives, and the religious minister. As a result, inebriety increased almost all over the world. Since the medical profession took hold of this remarkable disorder, its physiology and a modicum of its pathology have been gleaned; we are now trying to learn its therapeutics. My belief is that the prospects of the slow but steady decrease of alcoholism are by no means remote.

WHY DO MEN DRINK? *

BY STEPHEN LETT, M.D.,

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In reply to this question the moralist will probably tell you that men drink because social custom has instituted drinking as a mark of friendship and hospitality. He will also enumerate a number of causes leading men to imbibe alcoholic liquors, such as joy, grief, business transactions, good fortune, bad fortune, extremes of temperature or inclemency of the weather, etc., and so far as the vice aspect of the question is concerned no one can gainsay these causations. But I ask the question from a physician's standpoint, and science answers, "Because there is pain."

And what is pain? It is a feeling of disturbance within us. The perfectly healthy man has no pain. As he departs from the standard health, in like proportion does a feeling of disturbance or pain within him manifest itself. In alcohol we have a drug that temporarily paralyzes sensation and consequently deadens pain. Therefore, when this disturbance, this unrest, this pain is present, large doses of alcohol are consumed and temporary relief is obtained.

When pain returns, as it surely will when the paralyzing effect of the alcohol passes off, the natural impulse is to again invoke the god that spirited it away and once more revel in the profound pleasurable and satisfactory sensation derived from the relief of pain. But at what a cost is this elysium of happiness thus obtained purchased! Alluring, subtle, deceitful, and destroying, seeming to cure while it only masks

* Read at the July meeting of the English Society for the Study of Inebriety, London, Dr. Norman Kerr, president, in the chair.

a poison pleasing to the senses, yet slowly, surely, and secretly working destruction. Thus, then, pain from a scientific point of view is a prolific cause of inebriety; it is a physical cause, which, if we rightly understood and could successfully combat, we would then be able not only to cure, but also prevent much of the inebriety of the present day.

Whence comes this pain? There are many sources and kinds of pain, some of which the individual is responsible for, and some of which he is not. Could I enumerate its origins and varieties the list would be long and tedious; but there is one source of pain, disquietude, unrest, which it is important to realize. It comes from a secret hidden source and is of a nature that few understand or take into consideration; when present it is seldom recognized, or, if perchance the enemy is observed, one's eyes are shut to the danger and arguments are adduced to try and demonstrate that in the particular case under consideration it is a myth; nevertheless, it stands forth in all its hideous reality, like a sword suspended overhead ready to drop on its victim at any moment. I refer to the unstable nervous organization — the hereditary taint which intemperate parents bequeath to their unfortunate offsprings.

Hereditary transmission and its relation to causes and effect in the production of inebriety is most intimate; it has been shown to be a prolific factor in the production of this disease, a factor which the unfortunate offspring is not responsible for, one which he cannot get rid of, and one which entails upon him a lifelong struggle. The man who is loaded down with a burden of this nature, whose nervous system is constructed with the impression of alcohol indelibly stamped upon it, is truly to be pitied; he stands in need of our sympathy and aid, and should he successfully do battle with his ever-tormenting foe, assailing him on all sides and crying out in the voice of pain for stimulants, he is indeed a hero and is deserving of as much praise as the general who conquers his country's enemy.

Dr. Willard Parker thus refers to this subject. He says:
“ We must not omit to speak of the offspring of the inebriate.

His inheritance is a sad one: a tendency to the disease of the parents is indeed as strong, if not stronger, as is the case with that of consumption, cancer, or gout. This tendency," he goes on to say, "has its origin in the nervous system. The unfortunate children of the inebriate come into the world with a defective nervous organization."

Dr. Echiverria, of New York, in the *American Journal of Mental Science* for January, 1881, gives the following statistics, in reference to the histories of 68 males and 47 females, who had experienced alcohol in some form: The number of children born to these parents was 476, and of this total 23 were stillborn, 107 died from convulsions in infancy, 37 died from other maladies, 3 committed suicide, 96 were epileptic, 13 congenital idiots, 19 maniacal, 7 general paralytics, 5 had locomotor ataxia, 26 hysteria, 7 partial paralysis, 9 St. Vitus' dance, 7 crooked eyed, 3 deaf, and 19 scrofulous or crippled; of these children, 205, or nearly 50 per cent., have exhibited drinking tendencies.

Bearing upon this condition of affairs, the Rev. Mr. Horsley, late chaplain to H. M. Prison at Clerkenwell, testifies that, "at one time there were in separate cells for being drunk a grandmother, a mother, and a daughter, the latter nursing a baby." "What chance," he asks, "had the baby of escaping the scourge her progenitors had twisted and applied?"

From the above data, which could be easily supported by further and abundant testimony not only by the published statements by those who have made a study of alcohol and its effects, but also as furnished by the records of my own and kindred institutions, you cannot fail to note what a fearful factor in the production of disease and suffering intemperance is. Of all the nervous diseases which may be inherited there are none more surely disastrous in their results than that produced by alcohol. How can children so brought into the world be called "healthy"? How can it be said of such that harmonious action is going on everywhere within them. Is there not a condition of disquietude, unrest, pain?

Closely allied to the hereditary taint of inebriety, and almost as certain to engender a craving for alcohol in the child is the practice so common of feeding children on nourishment surcharged with alcohol. Many mothers believe they cannot do without a glass of ale at bedtime, and frequently imagine it is necessary for them to take several during the day. It is unnecessary to point out to this meeting the fallacy of such a belief.

A most painfully interesting communication was read at one of the meetings of the British Medical Association by Dr. T. M. Madden, Physician to the Hospital for Sick Children, Dublin, entitled, "Alcoholic Diseases in Children," in which he gave particulars of a marked case of delirium tremens, in a boy aged eight. In the discussion which followed Dr. Barlow recited some powerful facts as to infantile alcoholism, gathered from his experience in the Children's Hospital, Great Ormond Street. He had seen the evil of small doses of gin given to nursing babies for flatulency. He also found it customary among the poorer classes to give young babies a daily quantity of beer. He had seen several well-marked cases of hob-nailed liver in children of tender age from this cause and gave particulars of a very clear instance. It was that of a young child of an apparently healthy mother who was able to nourish it and in good circumstances. From six months old the child was given a tablespoonful of beer twice daily, and from nine months old a teaspoonful of gin in water daily. The child died, and post-mortem examination revealed the most typical hob-nailed liver that Dr. Barlow had ever seen.

Having thus briefly glanced at a few of the evils of alcohol and its deleterious effects when administered to young children, having also briefly noted the disastrous results consequent upon intemperance in the parents, why, then, we may ask, should children of such tender age be submitted to the impress of alcohol? An age at which growth and development are in active progress, and consequently the very time when impressions are most readily received and lasting. Is it any wonder

that such children so brought into the world and so fed are stunted in physical, moral, and intellectual capabilities? How careful, then, should parents be to hand down to their children a pure, healthy, untainted inheritance, and, having done so, to as far as in their power lies see that such an inheritance is preserved in all its integrity, purity, and loveliness.

Discussion.

Dr. Hazell expressed his gratification at the teaching in the paper just read. Especially could he support what Dr. Lett had stated as to inebriate heredity. Heredity played the greater part in the development of the disease of inebriety. Even in young children he had repeatedly seen evident marks of alcoholic transmission. Such alcoholized children were the subject of nervous ailments, skin diseases, dyspeptic symptoms. Infants were too apt to be poisoned by alcohol at the breast. One infant, four days old, directly after the mother took stout, was seized with colicky pains and kept shrieking.

Surgeon-Major G. K. Poole, M.D., agreed with Dr. Lett that pain was a great cause of inebriety. People craved for relief, and they secured it for the time by drinking intoxicants, till the vice became a confirmed disease. They ought to redouble their efforts to remove temptation, and to teach the poisonous character of narcotics. Even in gouty paroxysms alcohol soothes the pain, and thus gouty subjects are liable to fall into drunkenness. Thus physical causes lead to inebriety, frequently making habitual drunkards.

Mr. E. J. Gray said, that at his establishment, he was struck by the quick recovery, from the wretched state of wretchedness, of the worst and most distressed drunkards. Abstinence was the cause of this rapid improvement. Many causes contributed to inebriety. Strong drink was fascinating and cheap, and to be had everywhere. The wife of one inebriate had allowed her husband only 2/6 per fortnight, yet he had been continually drunk, he finally becoming semi-

delirious, with inability to work, and brain softening. The drink should be removed. Bands of Hope should be multiplied, and they ought to impress on the government the need for industrial homes for criminal inebriates.

Mr. Raper asked if the doctrine of alcoholic heredity were true, as its existence had recently been denied, and did the knowledge of it, if true, not tend to discourage the inebriates. He however saw great encouragement in the increasing attention now being paid to the whole subject.

The president, Dr. Kerr, replied that for him to doubt the existence of the law of inebriate heredity would be as impossible as to doubt the law of gravity. Skilled observers saw the law in operation every day. About half of his inebriate cases had exhibited this feature; and he had no doubt that, if the family history could have been accurately traced, a much greater proportion of inebriate transmission would have been found. He had not found an intelligent explanation of the fact depress any patient, nor need it. Ignorance was the mother of superstition with all its terrible depressing influences, while knowledge cleared away the fears and forebodings of the fog of obscurity. To explain, especially in the earlier stages of inebriety, to the subject that he had certain predispositions, and that with this information he could so live as to counteract these tendencies, was to arm him for the struggle with weapons of precision and value. Dr. Lett had spoken sober truth, and had used the word "pain" in its comprehensive sense, inclusive of restlessness and unrest from any pathological condition. They gladly welcomed light on this difficult subject from all parts of the world, especially from our colonies, and Dr. Lett spoke from experience in the treatment of this class of cases. On the proposition of the president, it was unanimously agreed to give a cordial vote of thanks to Dr. Lett for his valuable and suggestive paper.

EMPIRIC AND CHARLATAN EFFORTS TO CURE
INEBRIATES.*

BY N. ROE BRADNER, A.M., M.D., PHILADELPHIA, PA.

At the annual meeting of this association for the year 1889, held in the city of Brooklyn, in November of that year, you did me the honor of appointment as chairman of a committee to investigate a serious and growing evil, resulting from the sale of pernicious, fraudulent, and dangerous compounds, under the fair name of medicine.

I immediately entered upon the work with enthusiasm, and determination to do it justice, and the results were such as to astonish every person who was interested in the developments, including the writer himself, and some brief mention of, and reference to, the disclosures then made will necessarily be made at this time. To indicate how eminently important the subject was considered, even at that early stage of specifics for inebriety, permit me to here quote the opinion of one or two of the large number of eminent professional men, who wrote to me at that time.

Dr. Cyrus Edson of the Health Department of the city of New York, wrote as follows:

DR. N. ROE BRADNER, Chairman: You have a splendid field for good work against a species of fraud that is nowhere so extensive as in this country. We have a host of these things on our market, some of which are only frauds, others, however, are worse, and I believe it should be made a felonious act to put such things on the market. I have no official charge over such matters, and cannot give you authoritative state-

*An address before The American Association for the Study and Cure of Inebriates, at a memorial meeting held at the New York Academy of Medicine, on November 20, 1896.

ments. I am, however, entirely in sympathy with you, and will aid you to any extent in my power.

Yours faithfully, CYRUS EDSON."

From Dr. E. A. Craighill, president of Virginia State Pharmaceutical Association, we received valuable information, including the following:

"DR. N. ROE BRADNER, Chairman: In my experience I have known of men filling drunkards' graves *who learned to drink* taking some advertised bitters as legitimate medicine. It would be hard to estimate the number of young brains ruined, if not destroyed, and the maturer opium wrecks from nostrums of this nature. I could, if I had time, write a volume on the mischief that is being done every day, to body, mind, and soul, all over the land, by the thousands of miserable frauds that are being poured down the throats of not only ignorant people, but alas, intelligent ones, too. I will be glad for you to command me. I would like to contribute by best effort, though feeble, to destroy what I honestly believe to be one of the curses of our day and generation.

Yours truly and respectfully, E. A. CRAIGHILL."

The report that I had the honor to submit to you after some months of investigation, concluded with two remarkable catalogues, the first comprising fifty (50) different proprietary preparations, sold for special usefulness in the reformation of intemperate habits, all and each one of which contained alcohol itself, and in enormous proportions, while the second catalogue comprised twenty (20) so-called opium cures, all of which, with a single exception, contained sulphate of morphine. Be it remembered also that these very samples which were analyzed for us by eminent chemists, with the above astounding results, were all obtained as for persons who had acquired the morphine habit. When it is thus remembered and realized that these nostrums were to have been administered as recommended for the cure of inebriety or the opium habit, the snare is seen, and becomes at once the most stupendous, insidious, and dangerous frauds ever imposed upon humanity, one of these very nostrums actually containing 35 per cent. alcohol

and one-fourth grain morphine to the ounce. This article is sold as a cure and preventive of both the whisky and opium habits, and, as here shown, and abundantly proven, is a vile mixture of both those deadly drugs,— a more satanical trap for innocent unfortunates than we have ever before known or heard of.

Certainly, a course more likely to produce addiction to either, or both, alcoholic or narcotic inebriety, could not be devised than the use of this concoction, under the circumstances, and according to the direction of the proprietors of this, the most hellish of all nostrums.

And now we have met together on this occasion to commemorate the organization of this association a full score of years ago, namely, on the 30th of November, 1870. In looking backward over twenty years of the past, we are constrained to pause and sometimes to fairly tremble as we are compelled to remember those things we fain would forget. In the history of the world, the past twenty years will ever occupy a most important page, even for the discoveries in electricity, — but, the great progress of the world in general, nor even as applies to our own profession, claims not our consideration now. One of the changes, however, that have been accomplished within the last twenty years, a most important one scientifically and professionally, and a change that is largely due to the influence of this society, is the status of the inebriate.

When Dr. Joseph Parrish and handful of kindred progressive spirits met in this city just twenty-six years ago to organize this association, inebriety was undefined. By some it was regarded as a sin, by others the influence of evil spirits, but most generally as an unmitigated vice. But our honored and enlightened predecessors then declared, and afterwards maintained, that inebriety is a disease. This doctrine was at first openly and persistently ridiculed by members of the medical profession; but that period of obscurity is passed, and to-day, and I think I am safe in saying that the important advance is chiefly due to this society, of establishing beyond con-

troversy the fact that inebriety is a disease. Had we done no more than this, our work would be far from vain or fruitless. We have shown to the satisfaction of the enlightened world that, like insanity, which was formerly and equally regarded with awe, as if it was the work or influence of evil spirits, so has inebriety. The great misfortune men have had to contend with since history began, by and through the diligence of this association, has been shown to be also disease, and, as such, amenable to treatment and susceptible of cure, just as insanity is. This, gentlemen, brings me to the very battleground of a warfare I would wage with certain men, if, indeed, they are worthy the name of manhood.

All professions have their scamps. The hypocrite invades the walks and the very pulpit of the ministry. The lawyers have their sharks, and we have our quacks. It is not, however, the ordinary, unimportant quack that we are after just now, but a special type, a sort of parasite that would both degrade and devour whom they profess to serve. Dyed in the deepest colors of villainy, but of prodigious dimensions, and alas, vast resources. All quacks are not all fools, neither are all well-informed men walking in the paths of rectitude. Would that it were so! But nay! some of the most wicked schemes to ply these nefarious ways have been invented and practised by men of culture, members of our own profession, men who had previously occupied honorable places among their fellow men. "Alas, how the mighty have fallen!"

This is truly sad; but, being true, let us not deceive ourselves concerning the power and character of the enemy with whom we would wage war. Now, if it were the work of a fool or some man of insignificant mental calibre, it would be but another instance of old-time quackery, but the case in hand is different.

We have already related how through the influence of this society and kindred organizations of professional men the doctrine is established that inebriety is a disease, and there is probably no one in this room who does not know that so soon

as that theory prevailed there sprang up a herd of creatures professing to be able to cure that disease.

Some of them, indeed, go so far as to claim to and for themselves the credit of discovering the disease character of inebriety, and that they, and they alone, possess the wisdom, knowledge, and power to effect a cure. To-day our land is flooded with these vile nostrums and institutions for the cure of inebriety by means of these so-called specifics, each one claiming to be the one real antidote to the poisonous cause of the disease. How these institutions have prospered and enriched their proprietors is too well known to require comment at this time. That they have succeeded in so far as to delude thousands of people, not only inebriates themselves, but their friends and others, is a marvelous fact — marvelous, but not inexplicable. Were it not, however, for the influence of the press and especially the pulpit, I believe the delusion would have vanished long ago. Let us reason among ourselves how this great patronage has been obtained by these nostrum venders. It is well known to all of us who have had the care of such unfortunates that they are a peculiarly susceptible people, particularly craving for sympathy — childish, indeed, in their appeals to those about them for pity, kindness, and sympathy. I feel confident that this gives us the first clue. Next, we all know that the disease is curable in many cases, particularly those in which the patient retains sufficient moral courage to give his help. In such cases, I say, a cure may be effected without any specific, and I honestly believe that these wonderful miracle-workers know this and make it their fortress of opposition, while the poor deluded patient and their more inexcusable friends, believing in the theory, "*post hoc, propter hoc,*" think, as a matter of course, that the specific, even though it was in reality some inert substance, was the great and powerful means of reformation.

What is this but fraud? It is the worst kind of fraud, for it is presuming upon the innocent confidence of frail humanity in its frailest weakness. No enemy is so dangerous

as the so-called false friend: one coming clothed in the sheep-skin of friendship, with nothing but black avarice in his heart, to rob the poor inebriate who blindly trusts him of whatever means he may have, that is sure to be greatly needed by his much-to-be-pitied family. But this is not all. Nay, the half has not yet been told. Was it but robbery of his wealth to enrich themselves, there would be less in them to be despised, but it is worse, and yet worse.

We have said it may be an inert medicine that is used, and doubtless is so in some cases. But that would not serve their purpose in all cases, and we all know that powerful and most dangerous drugs have been so employed, and with what result? Insanity, crime, and death have all been attributed to the treatment received at the Keeley Institute. The records of our court bear witness to criminals of the worst type, confessing to the crime with the explanation and excuse that their brains had been maddened by treatment at a Keely institute. And yet ministers and philanthropists are still praising the wondrous discoveries of the Keeley Gold Cure. How long, oh Lord, how long!

For the benefit of those who have not read my report on nostrums, made to this association some years ago, I will append to this paper a full list of the seventy (70) nostrums already referred to, but right here wish to remark that the one exception herein referred to was concerning the Keeley Gold Cure, and to his report the chemist further clinched fraud upon that article by declaring that it did not contain even a trace of gold.

And yet the wonderful gold cure has its thousands of votaries.

Appendix "A."

State analyst of drugs, showing that fifty different proprietary preparations sold for special usefulness in the reformation of intemperate habits, all and each contain alcohol itself in the following proportions:

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	Pr. ct.
Dr. Buckland's Scotch Oats Essence,	35.
(Also ¼ gr. morphine to the ounce.) A more insidious and dangerous fraud can scarcely be imagined, especially when administered as this is recommended, for the cure of inebriety or the opium habit.	
The "Best" Tonic,	7.65
Carter's Physical Extract,	22.
Hooker's Wigwam Tonic,	20.7
Hoodland's German Tonic,	29.3
Hop Tonic,	7.
Howe's Arabian Tonic. "Not a rum drink,"	13.2
Jackson's Golden Seal Tonic,	19.6
Liebig Co.'s Coca Beef Tonic,	23.2
Mensman's Peptonized Beef Tonic,	16.5
Parker's Tonic,	41.6
"A purely vegetable extract. Stimulus to the body without intoxicating. Inebriates struggling to reform will find its tonic and sustaining influence on the nervous system a great help to their efforts."	
Schenck's Seaweed Tonic,	19.5
"Distilled from seaweed after the same manner as Jamaica spirits is from sugar-cane. It is, therefore, entirely harmless, and free from the injurious properties of corn and whisky."	
Atwood's Quinine Tonic Bitters,	29.2
L. F. Atwood's Jaundice Bitters,	22.3
Moses Atwood's Jaundice Bitters,	17.1
H. Baxter's Mandrake Bitters,	16.5
Boker's Stomach Bitters,	42.6
Brown's Iron Bitters,	19.7
"Perfectly harmless. Not a substitute for whisky."	
Burdock Blood Bitters,	25.2
Carter's Scotch Bitters,	17.6
Colton's Bitters,	27.1
Copp's White Mountain Bitters. "Not an alcoholic beverage,"	6.
Drake's Plantation Bitters,	33.2
Flint's Quaker Bitters,	21.4
Goodhue's Bitters,	16.1
Hartshorn's Bitters,	22.2
Hoodland's German Bitters,	25.6
"Entirely vegetable and free from alcoholic stimulant."	
Hop Bitters,	12.
Hostetter's Stomach Bitters,	44.3

Empiric and Charlatan Efforts to Cure Inebriates. 277

	Pr. ct.
Kaufmann's Sulphur Bitters.	20.5
"Contains no alcohol." (In fact, it contains no sulphur, but 20.5 per cent. alcohol.)	
Kingsley's Iron Tonic,	14.9
Langley's Bitters.	18.1
Liverpool's Mexican Tonic Bitters,	22.4
Oxygenated Bitters, Acid.	
Pierce's Indian Restorative Bitters,	6.1
Z. Porter's Stomach Bitters,	27.9
Rush's Bitters,	35.
Dr. Richardson's Concentrated Sherry Wine Bitters,	47.5
"Three times daily or when there is sensation of weak- ness or uneasiness at the stomach."	
Secor's Cinchona Bitters,	13.1
Shouy's German Bitters,	21.5
Job Sweet's Strengthening Bitters,	29.
Thurston's Old Continental Bitters,	11.4
Walker's Vinegar Bitters,	6.1
"Free from all alcoholic stimulants. Contains no spirit."	
Warner's Safe Tonic Bitters,	35.7
Warren's Bilious Bitters,	21.5
Wheeler's Tonic Sherry Wine Bitters,	18.8
Wheat Bitters,	13.6
Faith Whitecomb's Nerve Bitters,	20.3
Dr. Williams' Vegetable Jaundice Bitters,	18.5

One person in every thousand is arrested for drunkenness and fined and imprisoned every year in England. These are termed the criminal inebriates who are lawless whenever under the influence of spirits.

Fouillee in the *Revue des Deux Mondes* asserts that eighty per cent. of young French criminals came from parents who were inebriate criminals.

The reformed man who was to endow a great gold-cure asylum at New York has died suddenly from alcoholic delirium. The cure he was so confident would cure others failed in his case. The danger of rapid cures of inebriety is not realized by the public.

THE FIRST HOME FOR INEBRIATES AND ITS
WORK.*

BY V. A. ELLSWORTH, M.D.,

Superintendent Washingtonian Home, Boston, Mass.

Dating from the book of Genesis we find that intemperance has existed in a greater or less degree down to the present time; we find all through the ages that different methods have been employed to overcome the fell destroyer. We also find that inebriety was recognized as a disease five centuries before the Christian era, and so on all along down the centuries among the Greek, Romans, Germans, Spaniards, and French, the disease character of inebriety was recognized.

Within the past few years there has been much agitation as to whether the drunkard is sick or sinful; the outcome of the discussion is a more complete confirmation of the fact that inebriety is a disease and needs medical care and treatment.

After the notoriously drunken presidential campaign of 1840, came the great Washingtonian movement that was felt everywhere; it swept like a great wave all over the continent. Since then many temperance societies and organizations have come into existence and are each and all working in their own way to banish intemperance from the land. All of these various methods of work help to educate public sentiment to a higher standard.

Prominent among the earlier temperance organizations was the Washington Total Abstinence Society, organized in 1841, in the city of Boston. This society early recognized the need

* Read before the Association for the Study and Cure of Inebriety, at the memorial meeting at New York city, November 20, 1896.

of a room where the unfortunate victim of strong drink could be taken and cared for, conversed with, and induced to sign the pledge. The society boarded the unfortunate man, looked after the immediate needs of his family, and assisted him in finding employment when able to work and support himself. They relied wholly upon moral suasion to effect a reformation. Delegations were sent into many towns in Massachusetts, New Hampshire, Maine, Vermont, and Rhode Island, with wonderful success. So great was their enthusiasm and faith in their work that they looked forward to the time when the rumseller, for lack of patronage, would be obliged to seek some other employment. But, alas! the fulfillment of their early hopes is still far in the distance.

In 1845 a lodging-house for inebriates was opened in Boston, Mass., called the Washingtonian Hall. This was the first inebriate asylum in the world, out of which has grown the Washingtonian Home of to-day. In 1857 the Washingtonian Home first went into operation; for the first two years of its existence it was known under the cognomen of the Home for the Fallen. In its early years its plan of treatment was very similar to the one pursued by the Total Abstinence Society. In 1858 the late Dr. Day was elected and installed as superintendent, and held the position almost continuously from that date until 1893, a period of thirty-five years. Upon first taking charge of the institution he solicited the opinions of all friends of temperance, and particularly the views and opinions of the medical fraternity, desiring to ascertain whether they considered intemperance a crime or a disease. From the principle of practice adopted it would indicate that the drunkard was looked upon as a sick sinner. However, for a number of years much more stress was laid upon the moral and religious teachings to effect a reform than upon medical treatment. Morning and evening prayers were offered in the hall; one evening each week a temperance meeting was held, with good speakers in attendance, after which came a testimonial meeting, when the patients and former inmates of the institu-

tion related their experiences and testified to the great good they had received through the influence of the Home and its worthy superintendent. While no compulsion was used, it was desired and expected that all inmates would attend the meetings held in the Home, and also that they should attend some church on Sunday. The patients were not questioned as to their religious views, the institution was and is strictly non-sectarian.

The following is a facsimile of the pledge the inmates were requested to sign:

TOTAL ABSTINENCE PLEDGE.

Believing that the use of intoxicating drinks is not only useless, but injurious to health and destructive to peace and happiness; therefore, being sober and in my right mind, I do, in the presence of God, solemnly pledge myself, that I will not use any intoxicating drinks as a beverage, during my natural life.

This pledge was in use in 1876, whether it was used later than that year I have been unable to ascertain. It undoubtedly was abandoned about that time. In the early years of the existence of the Home a journal was kept, with a short report of each patient admitted. I find records from 1857 into the early months of 1861. I have copied a few of the reports, thinking they might be of some interest, and also help in showing the methods of work in the institution at that time.

Nov. 19, 1857, W—— E——, born in Ireland, twenty-nine years of age, and has been a temperance man thirteen years, but is now a moderate drinker. Came in a destitute condition. He had lodging and breakfast, signed the pledge of total abstinence, and promised to reform.

Nov. 22, 1857, J—— L——, mariner, 53 years old. Born in Pa., and has been a drunkard 30 years. Said by God's help he was determined to become a sober man. In the morning signed the pledge and left.

March 9, 1858, S—— S—— W——, came to the Home in September last. We find the following report of him at that time: "A man by the name of W—— came to the Home, having been through a long course of dissipation, which had left him destitute and in rags. He was evidently a man of good education and represented himself as being a lawyer by profession, and as having held the position of private secretary to one who had held a high political station." These representations were found to be true. His wants were properly attended to and he has remained in the institution until now (with the exception of about four weeks), in the hope that his superior advantages would enable him to fully realize his situation and cast off his evil habits. March 10. He obtained employment as a canvasser, and left the Home on the 9th inst., without giving the superintendent notice of his intention to do so. His abilities, properly directed, would reinstate him into society, but it seems that he is determined to prostitute them to his inevitable destruction, as he had no sooner left the institution than all his professions of reformation vanished, and with the blackest ingratitude he violated his pledge, thereby forfeiting all claim to further sympathy. . . .

Feb. 15, 1860, B—— L—— F—— came to the Home a few days ago and wanted to be put right and sober again. He was at the Home last summer and had delirium tremens, and has kept perfectly sober up to a few weeks ago, when he was taken sick. His doctor told him to take gin, which he did, and the consequence was he got drunk and could not get sober. This fact should have been known to the medical gentleman, but it is not generally known to them, and they are doing more harm to such men than the rumsellers can do. He is now recovered, and, when he is sick again, he has promised never to go to such a doctor again.

This is only one case showing the harm done by alcoholic medication. While the case just cited occurred in 1860, nearly thirty-seven years ago, still such cases are of far too frequent occurrence to-day. The medical profession, as a body,

are too prone to laud alcohol as a " supporter of vitality." One of the most powerful obstacles in the way of temperance reformation is the abuse of alcohol as a medicine.

Since the first organization of the Washingtonian Home 11,946 patients have been admitted for treatment. The per cent. of permanent recoveries compare favorably with other institutions for the treatment of inebriety.

As the years went by and the fact became more firmly established that inebriety is a disease and amenable to remedial treatment, more medicine was used and less dependence placed upon moral and religious treatment to effect a cure, until today the Home stands upon a medical basis.

Moral suasion is good as far as it goes, but it will not reach the unimpressive or demented inebriate. The people to-day are looking to the medical profession for relief. The times are changed and upon the whole, I believe, for the better. Inebriety is a complex insanity and involves questions and causes not thoroughly understood by the most learned students of psychology and medicine. Exact theories and remedies are as yet unknown.

In arriving at satisfactory results in scientific exploration, there are no royal roads or short-cuts, but it takes patient research along the great trunk lines to finally reach the desired goal, but the world moves and everything is possible with time.

I give records of a few cases as they appear on the notebook of those early days:

Sept. 21, 1858. Rev. J——— I———, born in Scotland, and was on his way from Canada to New York. On his arrival in this city he thought he would try a glass of brandy for the stomach's sake, intending, perhaps, to be faithful to the instructions of Paul to Timothy. But not knowing or caring to know the difference between Timothy's wine and Yankee brandy, he, before he was aware, imbibed so much that it caused a sudden flow of blood to the head, and caused him to fall in a fit somewhere at the north end. He was taken to the first police station, and by blood-letting and restoratives

of other kinds he was wrested from the jaws of death. The officers found on his person evidence of his being a clergyman, and sent for Rev. P. Stowe, who procured a coach and brought him to the Home, about eleven o'clock in the evening of the 16th inst. He was very much excited and for two days was very restless and very much alarmed about himself. He has a wife and two children in Canada, and is about thirty-two years of age. He has been on this side of the Atlantic about one year, and tells us that he has not drank any intoxicating liquor for nine months; previous to that time, however, he had been in the habit of taking liquor in small doses, of course. He is a short, fat, red-headed man, and we are of the opinion that he is fond of that which steals away the brains. I feel it my duty to record the fact that he has not conducted himself like a Christian man. He rather chose to go into the back yard and smoke his pipe than attend the religious services of the Home. He would not attend the regular meeting on Sabbath evening when requested so to do. He was all the time much alarmed for fear his conduct would be found out and prevent his getting employment at his profession. I do not think his conscience was any troubled for the reproach which he had brought on the cause of Christ. He tells us he is a Presbyterian clergyman, and has been a teacher of a high school in Scotland. He signed the pledge and left to-day for New York, thanking us for the many kindnesses received and services rendered.

Oct. 13, 1858. H—— W——, born in the West Indies, has been residing of late in New York. He calls himself a silversmith, but I think he has no particular occupation. He was sent to the Home Sept. 2 by his cousin, Dr. George H. Dodd, who promised to call and see him and make arrangements for his board, but never called and presume never will. Mr. W—— has given us much trouble. When he came he was a perfect picture of wretchedness. He was too filthy to live among the swine, and, in fact, as far as filthiness is concerned, he is not much better now. He would squirt tobacco

spittle all over the house from the cellar to the attic. We think he has abstained from intoxicating drink, however, and has improved a little. He has recently been peddling some kind of furniture polish. No one could sleep near him; he made noises all night and would sometimes alarm all in the house. His trouble appeared to be something like the *nightmare*. Last night he kept me awake about all night, and I told him I could not put up with it any longer, and he left with a promise not to return again, consequently we all feel very much relieved.

This man is a perfect *nondescript*. He may do well if he is not too lazy. He will, for he has some talent and can get a living.

Oct. 20, 1858. H—— F—— R—— came to the Home last evening and told us that Mr. Stone sent him here to stop for the night. He belongs in Conway, Mass., and said he came to Boston on a very important mission. He holds himself out as a pioneer in the true temperance reform, and goes the "*whole swine*" in the matter. His plan is this, to raise ten thousand dollars in Boston, and buy a lot of land and build a store on it, and keep nothing but temperance goods, and sell only to temperance people. But the main lever to overthrow the vile monster, intemperance, and introduce a new era in the world's history is *Sap, yes, Sap*, and it is to be introduced and managed on this plan: After the store is erected and in full tide of successful operation several branches are to be established in the city for the sale of *sap*, and Mr. R—— is to be located in Conway and gather the sap at two cents per gallon and put it into two-gallon kegs, and send it to the city to supply the stores, and the kegs are to be returned to Conway full of *brown Havana* sugar. It would be well for us to state that the only prohibited articles are to be rum, tobacco, and opium.

This individual is a *moonstruck* theorist, and no wonder he has hit upon *sap* for his hobby. We tried to open his eyes by ridiculing his ideas, but it was of no use. *Sap* was the only

article that would remove this vice from the land. We, however, shook his faith a little in relation to the probability of his raising *ten thousand* dollars, and this morning he left for *Taunton* for the purpose of bringing the *sap* question before that *dark and benighted people*.

Jan. 13, 1859. E—— P—— B——, born in Massachusetts, resides in Pawtucket, R. I., aged 30 years; occupation, tailor. He came to the Home October 31st, accompanied by his sister, who is extremely anxious to have him reform. He had been in the habit of habitual intoxication, and would even sell his clothing to procure liquor. He done very well for several weeks, and we gave him work to do, and found him a room to work in and encouraged him all we could. About four weeks ago I discovered he had been drinking. The next morning I took him before all the inmates at prayer time, and laid it to him. He undertook to deny it, but at last he owned up and asked the forgiveness of all, and begged me not to write his friends about it, and he promised never to touch liquor again. I, however, discovered last Tuesday evening that he had been drinking, and I then told him of it, but said nothing more. He had been out that P. M. and obtained employment, and promised to go to work the next morning. He left the house very early without seeing any one or taking his breakfast. Thursday, at noon, he was picked up in the street and brought home *minus* his own dress coat, overcoat, hat, etc. He had on an old thin coat and cloth cap. His overcoat was a new one, sent by his brother a few days ago. When he was brought in he looked miserable enough. His face was stove up and he was stupid drunk. His conduct has been shameful and I would not keep him, consequently, I sent him home. He has been borrowing money of different individuals under false pretenses. On the whole he is a miserable fellow.

Sept. 30, 1858. S—— D—— was brought to the Home Sept. 15th by the police of Station Four. Previous arrangement had been made by Mr. John Capp and Mr. French to have him brought to the Home. He was very

much intoxicated and began to beg for liquor when he first came to the Home. He begged to go out, and every time he went out he would drink liquor. This he continued to do for several days, and, at last, we forbid his going out at any rate, and, in order to keep him in, we locked up his clothes and kept them until he was sober, when he was permitted to dress and go out again, and, subsequently, we are of the opinion he did not drink anything intoxicating. He was all the time bringing little things into the house to eat. He took his meals by himself, and bought things and had them cooked to suit himself. He became very benevolent while stopping with us. He gave the Home a United States Dispensatory, a very valuable book. He also visited several of our friends, and all families of drunkards, and urged them to come to the Home and reform. He was also very religious (or pretended to be), but he could not join us in any of the devotion of the Home, but would keep away if possible during prayer time and the public meetings. He left this morning, since which time nothing has been seen of him. We have been informed to-day that he has been getting money under false pretenses, and is liable to prosecution. His employers have been swindled by him and he has used the name of the firm to procure money, and was discharged before he came to the Home. He was employed by the Boston Carpet Company. He is unmarried and about forty years of age. He is a man of fine appearance, and is a member of Rev. Dr. W. Adams' church. He is a periodical drunkard, and has been sober a year previous to this spree. His father was John D——, an old Boston merchant, and the oldest carpet dealer in the city. He died a short time ago. The only charitable construction we can put on his recent conduct is that he is insane, and our opinion is that he is laboring under a fit of that terrible disease, insomnia, and only will recover by being restrained and kept from intoxicating drinks. He has given us much trouble, but his conduct outside of the Home has caused us more trouble and grief than his personal trouble to us. What his end will be we cannot tell.

Abstracts and Reviews.

EFFECTS OF ALCOHOL ON THE NERVOUS SYSTEM.*

BY DR. E. N. BRUSH, OF SHEPPARD ASYLUM, MARYLAND.

Dr. E. N. Brush said that he regretted very much the absence of Dr. Berkley for he felt that after Dr. Berkley had talked of the pathology of alcoholism and Dr. Preston had given a statement of what neurologists observed in persons addicted to the inordinate use of alcohol, the ground would be so well taken that there would remain little for him to say. He believed that a description of the conditions observed clinically by neurologists were in many instances very readily applicable to those observed by the medico-psychologists, and certainly there was nothing different in the pathology of the nerve and cell changes between those observed in diseases of the peripheral nerves and the pathological effects which come under observation of those who deal mainly with the mental effects of alcoholism.

It was unnecessary, he believed, to enter upon the effects of alcohol upon the mental operations as observed either in ordinary intoxication or in delirium tremens in a discussion of this character. Aside from these we might next consider two varieties of those who use alcohol to their detriment; these are the inebriate and the dipsomaniac. The difference between these might be characterized as one of the resistance and the desire to resist. In the inebriate, before there had resulted those mental and moral changes which almost always, to a degree, follow the constant use of alcohol, there was com-

*Report of a Discussion on a Paper read by Dr. Berkley.

monly the ability to resist a temptation to drink without, however, the desire, while in the dipsomaniac there was the desire very commonly to resist periodically giving away to temptation without the ability to self-control. The inebriate had commonly a low or deficient moral sense or sense of shame, while the dipsomaniac was usually wholly conscious of his unfortunate condition, but did not seem to possess the power to resist sufficiently developed to escape the unfortunate tendency which afflicted him. In the dipsomaniac there were commonly found other neurotic conditions and not infrequently a history of marked mental and nervous heredity. Cases were cited by the speaker which illustrated this point.

Aside from these cases, and inclusive of them, there were numerous instances observed by physicians both in institutions for the insane and out of them in which as the result of alcohol there seems to be a distinct loss of mental and moral tone. Individuals who previously were active mentally, careful and scrupulous in all the relations of life and neat in appearance and correct in behavior, became dull and forgetful, indifferent in matters of veracity, careless in dress and personal appearance. These cases form the advanced guard, as it were, of the next class of cases in which there was more marked mental disturbance, a condition of actual confusion with more or less dementia, resembling in some respects the mental condition of extreme senility. These patients at times lose their senses of identity, they were unable to recognize where located, the passage of time made little impression upon them: they were unable to remember the time, day of the week or of the month, could not tell in the middle of the morning whether or not they had breakfast, would be able to talk with the visiting physician concerning their symptoms, but within a very few moments after he left forgot that he had made a visit. Sometimes these mental symptoms were ushered in by a convulsion, and occasionally the course of the case was interrupted by a seizure resembling in many respects epileptiform attacks.

Next in order to these cases would come those forms of insanity which more or less closely resemble ordinary attacks of melancholia and mania. In the melancholic attack there were usually associated symptoms of marked hypochondriacal tendency, while the maniacal attacks were commonly of the delirious order. Another form of mental disturbance which had a more constant clinical picture was characterized by delusions of persecution, by hallucinations of hearing and occasionally of sight, and these cases were not only very difficult to manage, but were frequently dangerous by reason of their sudden and unprovoked assaults on persons whom they believed were persecuting them. These assaults were not commonly made upon members of their own family. Very commonly these patients had delusions regarding their wives, believing them unfaithful. There is another form of alcoholic mental disturbance resembling general paresis or progressive general paralysis of the insane, the pseudo-paresis of alcohol. The speaker related a case of this character, recently discharged recovered from the Sheppard Asylum, which upon admission in both the physical and mental symptoms resemble general paresis. There were unequal pupils, tremor of the extremities and of the lips and tongue, parietic speech and absence of reflexes. There were in this case no extravagant delusions, but on the contrary, as in true paresis, occasionally, the delusions were of a melancholic and hypochondriacal type. It is very difficult to say to what degree alcohol is responsible for attacks of mental disturbance in proportion to the entire number of cases of insanity in the community. Statistics upon this point vary exceedingly and depend somewhat upon the bias of the person who compiles the statistical table. Moreover, there are associated with cases in which alcoholic excess plays a prominent role conditions of disturbed health, family history, etc., which may cause the observer to lose sight of the alcoholic history. It is, moreover, often the case of chronic alcoholic insanity, with ideas of persecution and hallucinations, that the

patient has been a secret drinker, going about his business in a regular and methodical way during the daytime, but rarely retiring sober at night. This course, in time, resulting in mental break-down while the physician in charge of the case does not have any intimation of the real history of the patient's life.

Dr. Brush then referred to some statistics from English asylums for ten years, 1878 to 1887 inclusive, which showed that alcohol was the cause attributed in 19.8-10 per cent. of the men admitted to the asylums of Great Britain for that period and in 7.2-10 per cent. of the women or in 13.4-10 for both. In New York State, from 1888 to 1893 inclusive, 12,207 cases were admitted, in 10.8-10 per cent. of whom alcohol was assigned as the cause of insanity. The statistics of the asylums of Pennsylvania show the same percentage of cases in which alcohol was assigned as the cause as in New York. In the opinion of the speaker, this percentage was below the actual number. Dr. Brush referred to an article which he had just seen on the day of the meeting, by Dr. Bond, pathologist and assistant medical officer of the London County Asylum, Banstead, in the *British Medical Journal* of March 2, 1895, in which Dr. Bond attempted to show by the much larger percentage of cases of renal disease found in the autopsies in the asylums of London than in the general hospitals drawing patients from the same district that the percentage of cases in whom insanity was in a measure traceable to alcohol was much higher than represented in the statistical tables. Dr. Bond, in conclusion, stated his opinion that at least more than twice the number than at present enumerated in statistical tables owed their entrance to the asylums of London partly at least to alcohol. Dr. Bond's statistics were drawn from the asylums at Hanwell, Conley Hatch, Banstead, and Cane Hill. Dr. Brush did not quote these statistics with a view of endorsing them, but as affording some interesting and suggestive facts.

Dr. John Morris said: My experience in alcoholic insanity

has been chiefly among the depraved and criminal classes. This experience has been gained as a commissioner in lunacy. More than thirty per cent. of the criminals in our prisons and in the various asylums and almshouses of our state suffering from insanity owe their condition (leaving out the law of inheritance) to the excessive use of alcoholic drinks. There is a form of acute insanity not fully recognized by writers on jurisprudence or by courts of law in which men and women become thieves and kleptomaniacs. There is a total loss of memory in these cases, and crimes are committed of which there is no recollection when reason is restored. Cocaine and morphia more particularly bring about this condition. The courts hold that excessive indulgence in alcoholic stimulants only aggravates a crime when committed under their influence. This, in my judgment, is bad reasoning and not founded on experience and observation. Of course, if a man, as occasionally happens, prepares to commit a crime, to obtain "Dutch courage," as it is vulgarly termed, his offense is doubly serious and should, if possible, receive double punishment. Cases of this kind are not frequent, but the class of cases which I have termed acute alcoholic insanity are very numerous and must have come under the observation of every medical man in general practice. It must be understood that I do not include cases of delirium tremens in this classification, for men suffering from this trouble do not, as a rule, commit crime. Of course they are insane, but this insanity, while of an acute character, lasts for many days. The symptoms, in the case I first described, in which crime is committed in a condition of apparent unconsciousness, do not last more than a day or two at the furthest. As a state expert in the criminal courts during the past thirty years I have had several criminals acquitted on the ground that the offense was committed while suffering from insanity due to the use of narcotics. Two notable cases come to my mind at this moment. In the first, a lady, the wife of a physician and daughter of a gentleman with whom I had served in the legislature more than forty years ago, was in-

dicted for stealing books from physician's offices. These thefts were committed for the purpose of procuring opium which she had taken immoderately for years. She was acquitted on the ground of insanity and was placed in Mount Hope Asylum, where she remained more than a year and when released was apparently cured. The second was that of a young man indicted for stealing jewelry. When I visited him at the city jail he was violently insane. He refused to take food and was unable to sleep for four or five days and nights. His condition was such as we observe in delirium tremens. As he was not a drinker I was puzzled at first to account for the suddenness and violence of the attack, but, on consulting his family and investigating his history I found that he was a confirmed opium fiend and that he spent all the money he could procure in "litting the pipe," as it is classically termed, and that his delirium was entirely due to the abrupt deprivation of the narcotic. Cocaine is the only drug the effects of which are more dangerous and more slavish than the inhalation of the fumes of opium. The young man was acquitted by the jury after hearing my statement. It would be well if this subject were more thoroughly studied by medical men who have the care of criminals.

DALRYMPLE HOME, RICKMANSWORTH.

Report of Medical Superintendent, Dr. J. Welch Branthwaite,
for the year 1897.

I have pleasure in again submitting some particulars of the internal working of our institution, together with statistics in tabular form relating to patients discharged and the results of treatment.

Admissions. — During the year 35 patients have been admitted, 14 under the provisions of the Inebriates Acts, and 21 as private patients.

Discharges. — 35 patients have been discharged, one from illness (a severe case of diabetes), and the remainder, in

the ordinary course, from lapse of the period for which they entered.

Twenty patients remain under treatment, adding this number to the total discharges, the result (462) is the total number of admissions since the opening of the home.

With regard to the difficulties of management under the present acts, and their inefficient application to all classes the same practical objections continue to be evident. Although our work has been and is eminently satisfactory, as far as it goes, still much more might be done by enlarging the scope and utility of the inebriates acts, so as to extend their influence to other individuals who are at present untouched by their provisions.

I almost daily receive applications from friends, in the interest of relatives, for information as to what, if anything, can be done to obtain care and treatment without the consent of patients themselves, which they are unable to obtain. I am powerless to advise in these cases, and can only reply — nothing. Another class, still more common, write at the instigation of patients desirous of entering a home, but unable to find the means — to these I can give no help. Again, some justices in London and the provinces have occasionally given the option, in cases criminally of minor importance, and distinctly due to alcoholism, of waiving all question of imprisonment if the inebriate will enter a special institution for regular treatment; in some instances this has been carried out, but in a large majority the question of means has interfered with such well-intentioned and scientifically correct procedure.

Throughout our whole experience, therefore, the want is urgently felt of some compulsory power to apply to cases too indifferent, or too unconscious of their condition, to themselves consent to restraint; some widespread organization to cope with the legion of destitute cases, and lastly some special public curative institutions for police-court cases, and instances of crime dependent solely on inebriety.

A few remarks concerning my statistics may not be out of

place here. They are now the result of between 13 and 14 years' work, reaching nearly 450 cases. With regard to *admissions*, those entering as private patients still exceed those under the act; this is easily explained and would exist in reverse order were it not for the unnecessarily formidable procedure of signature before two justices, often conducted in open court, and in country districts from a question of distance only it is by no means always easy to get two justices together. A great palliation of this condition would result and at least lessen the difficulty could one justice be considered sufficient to attest signature, instead of two, as at present. It is evident from our figures that, in addition to the legal control obtained over patients under the acts, there is also an advantage of being able to retain them longer under treatment, for, out of 211 under the act, 75 entered for twelve months, against 40 out of 231 private patients, making an aggregate of 115 entering for the full period. Turning, however, to one of the last tables in my statistics — "Terms of Residence" — it will be seen that 96 patients actually completed the twelve months; as a matter of fact only 29 of these were private, and the remaining 67 all patients under the acts. In other words, of all admissions under the acts, 31.7 per cent. remained for the full term, as against 12.5 per cent. of private patients.

Age relationship to admission has always remained fairly constant, the large majority, more than half of total entries, being between 30 and 40. This from experience also I have been led to look upon as the best age with a view to results. The very young are, as a rule, irresolute and generally without the fundamental necessities of an appreciation of their condition and a desire for reformation. Cases at the opposite extreme of life have not proved so bad, some at 50 to 60 have produced excellent results, but, as a mass, results are masked by a large number of individuals who have in their day been active, and even brilliant, business or professional men, and whose later excess may be ascribed largely to mental overaction and probably also to evidence of commencing decay;

or, on the other hand, such decay may have been induced prematurely by their excess; in either case the prognosis is unsatisfactory.

I am of opinion that in inebriety and its allied conditions it is impossible to place too much importance on the question of heredity as a predisposing cause of excess in the individual. Under "Family History" in the tables in question are important figures worthy of consideration. In 29 cases there was a history of *insanity*, and others, on close examination, revealed evidence of some allied neurosis, such as epilepsy, forms of eccentricity, hysteria, and vague "brain troubles," the diagnosis of which it was not possible to obtain from friends, mostly laymen, and consequently too uncertain to tabulate. The hereditary history of *inebriety* is still more marked — in no less than 211 cases a definite history was obtainable — 120 of these absolutely direct, 44 from grandparents, and 76 from parents. Therefore, taking insanity and inebriety together, there was a predisposing heredity in at least 240 cases out of 442, or more than 55 per cent., with a certainty of these numbers being considerably increased if reliable information could always be obtained from friends.

As heretofore, I have done all that lies in my power to make the particulars of results of treatment as complete as possible. Unfortunately, it is found impracticable to be certain of some final results, so many cases drop out of knowledge and are lost sight of, hence the heading, "Not heard from," becomes a necessity. "Improved" includes those I have reason to know are apparently right and conducting their business, of which, before treatment, they were incapable, but of whom the information is not of sufficiently reliable nature to consider as "Doing well." Of those "Dead" I know little; information of the majority was obtained from newspapers and other indirect sources, but, to my knowledge, 4 of the 31 under that heading died from "natural causes" and remained total abstainers until the end. "Doing well" numbers 149, and may be considered a reliable figure. This constitutes about

33.7 per cent. of total admissions, and I am of opinion that from this to 35 per cent. is about the result to be expected under existing circumstances. When our patients come to us at earlier periods of their conditions and do not wait until everything else has been tried and failed, and when we can eliminate those who come for periods utterly inadequate for the purpose in view, then we can reasonably expect these figures to show considerable increase. In the meantime I consider them worthy of thankfulness and congratulation, and as such venture to present them for your consideration.

Referring again to the year just closed, and excluding, as unavoidable, the usual results and complications of alcoholic excess, the general health of patients has been uniformly good. One case, however, required discharge for an illness which would probably have occurred under any conditions. . . .

ED. NOTE. — It is a pleasure to note the success of this most excellent institution, which has become the great leading pioneer asylum of England.

THE DANGERS OF ALCOHOL AND THEIR CAUSES.

In a recent lecture, M. Emile Alglave, professor at the Faculty of Paris, after describing the economic basis of monopoly of alcohol, the application of which seems very desirable in France, explained the hygienic aspect of this system as a weapon to fight against alcoholism. He recalled the classic experiments of Messrs. Dujardin-Baumetz and Audigé, which establish the relative degree of poisonousness of different alcohols mixed with ethylic alcohol, with "spirit of wine," as also the toxic or convulsive action of distilling impurities, such as aldehydes and ethers. These scientists demonstrated that the amount of amylic alcohol capable of causing immediate death is five times less than the requisite amount of pure ethylic alcohol. But, in fact, the difference is much greater on account of the variation in volatility of these two alcohols. What acts on the organism is the quantity of alcohol there ac-

cumulated at a given moment. Now ethylic alcohol, which boils at 79 deg. C., is introduced into the organism at a temperature sufficiently near boiling point to rapidly evaporate. This, in fact, occurs; the drunkard quickly exhales, in respiration, most of the ethylic alcohol he has taken, and which gives his breath that peculiar odor. Amylic alcohol, on the contrary, only boils at 142 deg. C., so that in the stomach it is at a temperature of more than 100 deg. less than boiling point. But it is a physical law well known that evaporation is less at a given temperature according as it is further from boiling point. Amylic alcohol, then, hardly evaporates at all in the human system; once there, there it remains. The amount taken to-day increases that of yesterday, so that daily drinking of very slight quantities eventually causes a great accumulation of amylic alcohol in the system, while ethylic alcohol would merely pass through. This comparison of the action of the two alcohols explains why alcoholism must be caused by amylic alcohol and inebriation by ethylic. Inebriation, in fact, is a transitory phenomenon, vanishing with the vapors of the liquor which have been its cause. Alcoholism, on the contrary, is a permanent modification of the organism which is gradually reduced, perfectly corresponding with the action of amylic alcohol as described. To cause immediate death of a human being, 130 grammes of amylic alcohol suffice administered once; this is not a very large amount. It is true that this very dangerous alcohol is only a slight proportion in most of the liquors sold, but accumulation of daily portions explains how it is they produce alcoholism. — *Revue Universelle*.

NICOTINE.

Every physician is familiar with the tobacco heart, the tobacco throat, and the general effects of nicotine upon the digestion and the nervous system. Dr. Schall, the house physician of the Hahnemann Hospital, wishing to test the effect of cigarettes upon the nervous system and the circula-

tion, obtained through a mutual friend the consent of Miss Pauline Hall, a distinguished theatrical artist, to submit to the experiment. If, Dr. Schall reasoned, a person of the almost perfect symmetry of form and robust health of Miss Hall showed the effect of nicotine on the circulation from a few whiffs of a cigarette, what might be expected in persons of less vitality among her own sex?

In a quiet room in the Hahnemann Hospital, in the presence of two or three physicians, the sphygmograph was attached to the wrist and a tracing taken of the heartbeats. The tracing showed not one particle of variation from perfect health. The whole venous and arterial circulation was perfectly normal. At the end of fifteen minutes, after having smoked the half of two cigarettes, the tracings showed a manifest disturbance of the heart's action, and, at the end of forty-five minutes, after parts of six cigarettes had been smoked, the tracing showed the beat of the heart to be unequal; at times rapid, at times in jumps, evidently under the effect of some powerful drug agent. From this fact alone may we not conclude that much of the neurasthenia, including a general disturbance of the digestive organs, now so common in that portion of the female sex who have ample means and leisure to indulge in any luxury agreeable to their taste, or which, for the time being, may contribute to their enjoyment, is due to narcotics, which should only be used medicinally? — Editorial in the *Medical Times*.

SCHLANGENHAUSEN ON PROCEDURE WITH INEBRIATES.

Herr Director Schlangenhausen recently delivered a lecture in London, on "Psychiatric Institutions, the Austrian Law of Curatel, and Separate Asylums for Drunkenness." He stated that every person in Austria, poor or rich, who was suspected of being afflicted with any form of mental disturbance, before being certified as a person of unsound mind, must

be examined by a special commission, appointed by the courts of law, consisting of a legal adviser, two medical specialists in lunacy, with a clerk. The report, in writing, the testimony of the physicians (who have power to sift and test the evidence of the witnesses) is sent to the higher courts, which determine whether the person is irresponsible, and whether the curatel should be applied.

The curatel consists in a curator being appointed, who watches over the interests of the curatee, and administers his or her estate. The curatel can be annulled by the courts on proof that the person has regained sanity and a due sense of responsibility.

Schlangenhausen recommends for Britain (1) a central authority; (2) psychiatric institutes or clinics, where alleged lunatics and inebriates can be temporarily detained for curative purposes prior to certification, and where physicians can study mental science and the law of curatel.

He remarks as follows:

• "I express my conviction and it accords with the experiences of others as regards these asylums, that when asylums for habitual drunkards have been sanctioned by the legislature, and when all those persons who are fit inmates for such asylums have been placed in them, the number of insane persons whose mental disorders have been brought about by abuse of alcohol will diminish; and those persons who at present are suffering from chronic diseases, and who consequently become inmates of poorhouses, will recover their health and become again useful members of society. Through abstinence from alcohol, without exactly becoming a member of a temperance society, and by the construction of asylums for drunkards, wherein all incurable drunkards are legally placed by compulsion and detained until they are completely cured, the chief cause for the continual increase of insanity will be considerably restricted. Tilkowsky says: — 'A solution of the question of asylums for drunkards can be delayed, but can be no longer evaded. The solution will come because it must come; it will

come in the spirit of science, of progress, and of humanity.' I concur entirely in this view, and am convinced that in Great Britain and Ireland, as well as in all other civilized countries, the construction of asylums for drunkards is only a question of time. The sooner this question is solved in the manner indicated, the greater value will the solution have for the general welfare."

DRINK AND INSANITY.

Dr. Clouston, in his last report, makes the following very significant remarks:

He speaks of nature cutting off bad stock "by killing it off in early life through mental or bodily defects." And then he says: "There were cases where the evil treatment of a man's brain by himself brought on pathological changes that no curative measures could cope with"; and as an illustration he speaks of a man pouring "such an amount of alcohol into his blood that it kept up a morbid stimulus and irritation, and his brain-cells and blood-vessels got charged thereby." The evil effects of this could be seen after death, "but by-and-by he hoped to see such damaging effects of alcohol on the brain demonstrable by teachers of schools and by preachers of social reform, so that he who runs may read, and all men and women may know them clearly in early life." Turning to the statistics of the year, and the facts they bring to light, he says: "One of the most striking facts was the universal prevalence of drink in both sexes." In seeking a cause he asks "Can it be that the hard winter of 1894-95 made work scarce and drink unattainable, while the open winter and good trade of 1895-96 made money plentiful and drink very attainable? He feared it was the common experience that we had in our cities a large class whose self-control was small and whose brain stability was not great, so that prosperity to them always meant self-indulgence, and self-indulgence meant to some of them an attack of alcoholic insanity and the asylum."

RACE DEGENERATION IN INEBRIETY.

BY T. D. CROTHERS, M.D.

All authorities agree that from sixty to eighty per cent. of all inebriates have drinking parents or grandparents. In a very large number of cases the ancestors were excessive users of spirits, and poisoned to the extent of intoxication often. While it is difficult to explain exactly what is transmitted to the next generation, and what conditions make the children of inebriates more certain to use spirits, there is one general fact overlooked in all these cases. That is, family and race degeneration.

Certain families are dying out, and the use of alcohol in the ancestors precipitate death and extinction. Other families have reached a level from which they cannot ascend, and from slight causes deteriorate. Moderate drinking, or intemperance of any form, sends them down. The union of two families on the descending scale is certain to be followed by degenerates, both physical and mental. The children of inebriates are always of an exhausted race, rushing down to extinction.

Marriage with a robust race ascending in the scale of evolution and growth, may halt this decline, and in the next generation bring them back to a level from which ascent may begin again. Marriage with a race already declining is often followed by a great fecundation or barrenness. In one case a numerous family follows, as if nature was making a supreme effort to keep alive the family by multiplying the numbers. In the other case the births are few and of low vitality, dying out early.

These sixty to eighty per cent. of all inebriates are the dying remnants of families and races. They have long ago passed the levels of growth and development, and are on the down track to dissolution and extinction. The parents, by alcoholic poisoning, have lowered the race-stock of vitality

beyond the power of ascent or possibility to rise above and overcome this downward tendency. Such parents not only destroy themselves, but cut off the race from which they sprung. It is a rule to which there are few exceptions, that extinction follows in the third generation from inebriate parents. In the exceptions, fortunate marriages, surroundings and conditions of living have checked the dissolution and started the race back to higher levels.

The practical question in every case of inebriety is this:

Did the degeneration of the present inebriate begin in the ancestors? Is he from a dying stock or race? Where is he at present? What are the present symptoms of mental and physical degeneration? How far has alcohol fixed and settled the lines of race and individual decay? What chance is there to stop this dissolution and bring back the vitality to a normal level?

These are the lines of treatment which involve more than drugs and specifics, more than the pledge or prayer, and comprises every means and rational measure that will build up and raise the entire man to higher levels of life and living. This great "drink problem," which we are so anxiously trying to understand, is a veritable disease and an organized march of dissolution, which is not checked by will-power, or means that are not radical and thorough.

The men and women who are bankrupts in health and intellectual power find in alcohol a most grateful "nepenthe" covering up the discomfort of oncoming dissolution. The young man and woman of low-grade vital power and defective, unstable brain control, although brilliant and precocious, find in alcohol the most delusive relief from the strain and exhaustion of life. No drug deteriorates so quickly these faulty, low-grade, irregular brain powers as alcohol. Practically, prevention is the highest possible attainment of science. Next, to halt this doomed class and help him back to levels of right living. Beyond this, to stop race degeneration, if pos-

sible, and save families and races from this inevitable dissolution, by bringing into operation laws of evolution and growth that will antagonize decay. Women can do more than men to bring about this new evolution of the race and clear away the mystery which shrouds the steady, slow death of over a million and half persons yearly in this country. — *Union Signal*.

THE TREATMENT OF ALCOHOLISM BY SUGGESTION.

BY F. A. BURRALL, M.D., NEW YORK.

In the *Tribune Medical* of January 13, 1897, is a notice of an article by M. Tokarsky (*Wratch*, 1896, No. 31), on the "Treatment of Alcoholism by Suggestion," and which seems to me as likely to interest both the general practitioner and the specialist in nervous diseases.

The profession and the public have come to regard the victim of chronic alcoholism as a neurotic, under the influence of a nerve degeneracy, which implicates most readily that condition of nerve tissue of which instability is the prominent feature. These terms are, perhaps, somewhat vague, yet they are sufficiently definite to convey the idea. It is not the self-contained, vigorous constitution, with strong power of resistance and obstinate vitality, which yields readily to the baleful influence of alcoholic excess, but the sensitive and the neurasthenic; such material as goes to the formation of the "nervous" part of society. Since this view has become more generally adopted and alcoholism has been treated as a disease, my experience has been that more cures have been effected. It is not strange that this should be the case, and the result also indicates how much the continuance of cure of alcoholism depends on the improvement of the mental or "nervous" condition. A man who is regarded as a brute by his neighbors, and who is scoffed at for not using his "will-

power" and throwing off a disgusting habit, is in a deplorable and crushing condition. He is often refined and cultivated when not under the influence of alcohol, yet soon transformed into an impersonation of all the lower traits of humanity by the taking of a few glasses of an alcoholic stimulant.

The habit may have been formed by the protracted use of alcohol which has been prescribed by a physician; he may have inherited a predisposition to its use; at all events, the will-power has been overcome, and he feels that society does him a great injustice by treating him as a criminal when he knows that he would give anything to rid himself of the bands which seem stronger than adamant.

Now, for such an one to feel that he is not a criminal any more than the patient who when under ether, before the operation, fights in delirium, is a great aid in the restoration of self-respect and hope. If he is a sick man he can look for sympathy and medical treatment. In fact, society has often dealt with the inebriate most unjustly. It has placed all kinds of temptation in his weak path, and then punished and degraded him for having walked into them.

Since the view that alcoholism is a neurosis has been adopted, various plans of treatment have been brought forward and used in many cases with complete success. In estimating the value of these different methods, we come in contact with the same difficulty which encounters us in the study of most nervines, in fact, of most medicines which are given in neurasthenia. Where does the medicine *per se* show its effects, and where does what is popularly called "mind cure" exert its action? Often, discrimination is impossible. I have known the use of strychnin, atropin, and chlorid of gold and sodium in very minute doses, repeated at short intervals, to be followed by cessation of the liquor habit in several cases of alcoholic habitués. We may regard, as combining to produce this effect, the "suggestion" accompanying each dose, the substitution of one habit for another, the cumulative

effect of long-continued dosage and the *personal* influence of the physician. We see how difficult it is to say surely where the curative influence exists. To turn from a digression which was naturally suggested by the subject, the following extract is subjoined.

"The treatment is as follows: The patient is hypnotized (*endormi*), preferably when he has drunk nothing during the day. For chronic alcoholics the treatment is begun during a period of abstinence. From the first *seance* the "suggestion" is made to the patient that he should drink no more. Two days afterward the same experience is repeated. Usually after two sessions there is an improvement, and the third treatment can be deferred two or three days later. Gradually, the intervals between the visits are lengthened, until they are made every two, three, or four months. The treatment cannot be considered as complete under a year, since this length of time is considered necessary to observe all the variations to which the nervous system is subject. In favorable cases, patients stop drinking from the commencement of treatment. If they continue after the third *seance* or commence during treatment, it is regarded as a proof that good results are not to be expected and that 'suggestion' is unavailable as a remedy."

With suggestion M. Tokarsky employs strychnin in combination with opium. The strychnin is given in doses of three milligrams, gradually reduced to one milligram, which is continued for six months. After strychnin, arsenic is used, or iron, etc. While the strychnin is used the watery extract of opium is advised in one dose of 15 milligrams.

In some cases of what he terms alcoholic neurasthenia, good results may be obtained by hydrotherapy. Still, all these therapeutic agents do not exert a satisfactory effect if unaccompanied by suggestion.

We believe, however, that there is an influence akin to suggestion, which is often exerted by the physician upon his unhypnotized patient, and which is very useful in the treatment of inebriety.

It is a question whether the use of opium in cases like those referred to in the above article is not attended with the danger of forming a new habit. It certainly should be used with care.

The subject of inebriety is one of such deep interest that it is at present engaging an unusual amount of study. It is of universal importance and intimately connected with human happiness and misery. — *Journal of Medical Association.*

ONE NECESSITY IN THE PROPER TREATMENT OF INEBRIATES.*

BY H. J. HALL, M.D., FRANKLIN, IND.

No man who is addicted to the chronic use of alcohol or opium possesses a healthy body. And those medical men who have frequently witnessed post mortem examinations on the bodies of inebriates do not doubt that inebriety is a disease. The cirrhotic liver, the hypertrophied kidney, the atrophied secretory glands, the degenerate cerebral nerve cells, pulmonary interstitial hyperacmia, etc., all indicate an unmistakable pathological condition.

In treating these chronic invalids, the physician has in the past had very unsatisfactory results. Why? There are more reasons than one, but the chief one that I wish to emphasize, is, that the physician has not had proper control of his patient. And the chief difficulty with the patient has not been so much himself as with his environments — and the retarding influence of his environments have exerted over his recovery. Seldom would you find a community that would sanction the arrest and imprisonment of a man because he had taken a narcotic dose of opium. But it is a daily occurrence in every city, to see men arrested and taken to prison, for no other reason than that they had taken a narcotic dose of some alco-

* Report of Committee on Inebriety to the Indiana State Medical Society.

holic preparation, that rendered their pedestrian equilibrium unsatisfactory to the police.

Humanity and science would both say that such cases should be taken to a hospital and treated for narcotic poison, in place of being taken to prison and confined with criminals. What this good state needs for the proper treatment of alcoholism is more hospitals and fewer jails. And much of the money that goes to policemen and jails should go to physicians for the proper treatment of these unfortunates. As the inebriate is a diseased man, he needs curative treatment. In the past he has not received much successful treatment. His surroundings have been overwhelmingly helpful to the continuation of the disease. As well expect to treat successfully typhoid fever in a community where the patients and well people all drink water impregnated with typhoid fever germs, as to expect to treat successfully inebriates when those persons are surrounded by saloons and saloon-drug-stores.

Much effort has been put forth in the past to remove the cause of inebriety from the man. This effort has not been very successful. Now, we propose to remove the man, that is, the diseased man, the confirmed inebriate, from the cause. As to the cause continuing and making more diseased men, we, as doctors, have to deal with that only as preventive medicine — a field that doctors have been permitted only slightly to occupy. But this much the doctor does demand — he demands an opportunity to treat his patient under at least favorable circumstances. With the inebriate it is necessary that he be removed from the cause of his disease. This is as necessary with inebriety as it is in septicemia. How is this to be done? My answer is, we must have the assistance of law. The doctor must call on the legislator to aid him in making his work more effective in the prevention and cure of disease.

When our country is threatened with cholera, the law-making power places a quarantine, keeping those affected beyond our shores, and the law is obeyed. When a city is scourged with small-pox, the law removes the afflicted to the

pest-house, and compels the inhabitants to be vaccinated. And all concede that this is a just law, and for the good of the public welfare and public health. So here is a class of afflicted citizens — diseased in body and weakened in mind. They can be cured, at least more than 50 per cent. of them, when placed under the best care of the medical profession, and under the most favorable circumstances. But the fact is, a very small per cent. of them are cured. When these inebriates are permitted to stay where the cause of the disease is fully operative, and where they are environed by influences that aggravate the disease, rather than aid their recovery, we need not expect valuable results. Hence, if the science of medicine ever cures this class of invalids, produced by alcohol and opium and other narcotics — as they are doing — they must have the aid of the law, like they now have in treating insanity and other diseases, in which the environment is of special importance, and where the health and public welfare is an important consideration.

Some states have good laws, and some nations have laws that are more or less effective. Massachusetts, and at least one other state, have quite effective laws, establishing hospital care and treatment of inebriates. And Great Britain and some of its provinces have made a small beginning in this direction. The Massachusetts state law, perhaps one of the best in this country, requires very much the same process for the commitment of an inebriate to the state hospital as is required to commit an insane person to the insane asylum.

As to this law: First, the certificate of two physicians being filed, that the person's condition requires his treatment at the hospital for inebriates — this, with oral testimony being submitted to the county or police judge, he passes upon the commitment of that person to the hospital.

Second, the time for which these persons are committed to the state inebriate asylum is two years. But if the condition of the patient and his home environments are considered safe by the superintendent and trustees of the hospital, he is

given a leave of absence, but may be returned any time within two years.

Third, such inmates of the hospital for inebriates as are able to pay for their board shall be charged for the same. The board of others shall be paid by the city or county in which they reside, and in case of no residence their board shall be paid by the commonwealth.

The other state of our Union that has a similar law, and even better in some respects than the Massachusetts law, is Connecticut. Great Britain has nine private inebriate asylums, Australia two, and Ontario one. Recently Switzerland passed a law establishing an inebriate asylum, and the minister of justice recently placed such a law before the Austrian parliament.

The natural inquiry arises, What is the result of the treatment in these hospitals or asylums? The Walnut Lodge Hospital of Connecticut, one of the oldest and most reliable institutions of the kind in the world, which is superintended by Dr. Crothers, an honored member of the American Medical Association, reports 54 per cent. cured, 32 per cent. improved, and 14 per cent. unimproved.

Professor Albutt, M.D., who has large experience in caring for inebriates in Great Britain, says that more than 50 per cent. can be cured by proper treatment and stay in retreats.

Dr. Norman Kerr, who is, perhaps, as near up-to-date authority on this question as any other man in the medical profession to-day, says: "When inebriety is rationally treated, the cure is a reality in most cases."

As the Keeley Cure has been used in a number of our Soldiers' Homes, under the sanction of our government, it leads us to say a few words of the Keeley treatment. They claim to cure 87½ per cent. Undoubtedly, a number of inebriates have been cured by this treatment. Outside of soldiers they claim to cure 90 per cent., but they do not publish statistics to prove these surprising figures. My limited observa-

tion teaches me that they cure about 25 per cent. They claim to cure their cases in from four to six weeks, while the regular profession, in treating these cases scientifically, claim it takes from six to thirty-six months. No man who has a granular degenerated kidney or a fatty heart or a cirrlosed liver from the use of alcohol, can have those organs transformed into a physiological condition in four to six weeks. And herein lies the great weakness and fallacy of the Keeley Cure. You cannot cure a chronic inebriate in five weeks and make him a safe man for society and business.

If we desire growth in any department of our profession we must face facts. And one of the facts in this question is that Dr. Keeley has induced four legislatures to pass laws sanctioning and assisting his secret unscientific treatment of inebriates; while the regular medical profession has secured the sanction and assistance of only two state legislatures for the scientific treatment and cure of inebriates.

This, ladies and gentlemen, is because the members of the medical profession are too slow in asking the law-makers of the various states for the aid they need to properly treat this class of patients. Think for a moment — 800,000 diseased men in our nation, as shown by the number of arrests for drunkenness in one year, and over 20,000 in our own state — and this, too, when the firm conviction abides in the minds of our doctors, that these chronic invalids, or a large percentage of them can be cured with the aid of the law and a hospital home.

We believe the time has come for the physicians of Indiana to ask their legislature to make provisions for the proper medical treatment and care of the inebriates of our state.

Your committee on alcohol and opium closes its report, therefore, with this recommendation:

That a committee of five members of the Indiana State Medical Society be appointed to endeavor to secure the passage of laws by the next legislature to aid in the proper treatment

and care of chronic inebriates, and those addicted to the opium, chloral, and other drug habits.

Respectfully submitted by your committee,

Homer J. Hall, Chairman,
George C. Stemen, Secretary.
G. C. Smyth,
W. J. Fairfield,
W. B. Fletcher.

The Morphine Habit. — A work recently published in Paris gives some statistics of the morphine habit. From these it would seem that morphinomania is most prevalent in Germany, France, and the United States, although it has victims in Russia, Sweden, Turkey, and the remote East. The medical profession supplies 40 per cent. of the male morphinists, which is the largest proportion; after which follow men of leisure, 15 per cent.; merchants, eight per cent; while peasants, clergymen, and politicians occupy the lowest positions numerically on the list. Among the females addicted to the habit, the largest number, 43 per cent., are women of means, and these are followed in number by the wives of medical men, who make up ten per cent. of the list. It is said that there are entire villages in Germany whose inhabitants are all addicted to the use of the drug. — *Westminster Gazette*.

Da Costa has found that the local anaesthetic effect obtained with cocaine is more rapid, more intense, and more lasting, if the solution is warm. The dangers of intoxication are thus much diminished, as the quantity of cocaine can be very much reduced if it is warmed. A solution at 0.5 or 0.4 per cent. heated will produce a powerful effect.

The *Scientific American*, by Munn & Co., grows more and more interesting as the field of science widens each month and year.

THE HAIR, ITS GROWTH, CARE, DISEASES, AND TREATMENT. — By C. Henri Leonard, A.M., M.D., Professor Medical and Surgical Diseases of Women, at Detroit Medical College, etc. Seventh edition. Illustrated Medical Journal Co., publisher, Detroit, Michigan, 1897. Price \$1.50.

The fact that seven editions of this work have been issued is sufficient evidence of its value and popularity. This work is written in a semi-popular style, and condenses a great variety of facts not well known to the profession, and of great value to laymen. The author has drawn his facts from a great variety of sources, and has the happy faculty for putting them in a clear, popular style. It is clearly the best single volume on this topic in the English language, and is one of the most valuable practical treatises that a physician can place in his library.

EYE-STRAIN IN HEALTH AND DISEASE. With Special Reference to the Amelioration or Cure of Chronic Nervous Derangements without the Aid of Drugs. By Ambrose L. Ranney, A.M., M.D., author "Lectures on Nervous Diseases," "The Applied Anatomy of the Nervous System," etc., etc., late Professor of Nervous Diseases in the Medical Department of the University of Vermont and of the Anatomy of the Nervous System in the New York Post-Graduate Medical School, etc. Illustrated with 38 wood-cuts. One volume, royal octavo, pages viii, 321. Extra cloth, beveled edges, \$2.00 net. The F. A. Davis Co., publishers, 1914 and 1916 Cherry Street, Philadelphia; 117 W. Forty-second Street, New York; 9 Lakeside Building, Chicago.

This work of ten chapters discusses the following topics: The bearings of eye-strain upon the duration of human life; the test of vision and ocular movements; eye-strain the cause

of headache and neuralgia; eye treatment of St. Vitus' dance; sleeplessness, some facts relating to its causes and cure; eye-strain the cause of chronic gastric and digestive disturbances; eye treatment of epileptics; the eye of nervous prostration and insanity; surgical treatment of anomalies of the ocular muscles; eye-strain as a cause of abnormal eye conditions. Each of these subjects is studied from a clinical point, and illustrated with numerous cases, which seem to make the conclusions very clear. The author is very enthusiastic and positive in his convictions, and gives the reader much of the evidence upon which they are based. Dr. Ranney has, undoubtedly, brought out a pioneer work, opening up a new field of treatment, which gives promise of doing much to alleviate many very intractable diseases. One merit which commends it to every reader is that it is easily understood, and very clear to the general practitioner. He does not require a dictionary to understand what the author means, or to comprehend his technique, and he is instructed to intelligently make the tests, and study these cases the same as the expert. While technical readers may differ with the author on many points, the general practitioner will feel grateful for the many new views and facts which give a larger comprehension of the obscure phenomena of the nervous system connected with the sense of seeing. The publisher has issued an attractive volume.

SOME VALUABLE EXCHANGES.

The American Journal of Psychology, by Dr. Hall, president of Clark University; *The Journal of Comparative Neurology*, by Prof. Herrick of Granville, Ohio; *The American Journal of Insanity*; *The Alienist and Neurologist*; *The Journal of Nervous and Mental Diseases*; *The Medico-Legal Journal*; *The Monist*; *The Journal of Psychological Research*. Of foreign journals, *The Journal of Mental Sciences*, and *The Brain* are the leading ones.

A number of foreign journals devoted to alcohol and its abuses are increasing rapidly. Most of them treat the subject of inebriety from both the moral and physical point of view. It is a curious fact that one journal still continues alone in the field for the scientific study of inebriety.

In the June number of the *Open Court* the editor discusses the Immorality of the Anti-Vivisection Movement. He regards certain features of the anti-vivisection crusade as extravagant and, in so far as the sentiment on which it is based is unreasoned, he views it as immoral; more than this, its narrow fatal ignorance is both obstructive and destructive to all growth of truth.

Five long papers on alcohol and the injuries which follow from its use, have appeared in separate numbers of Appleton's *Popular Science Monthly*, so far this year. In a purely scientific journal, which aims to reflect the teaching of exact facts, beyond theory and sentiments, this is significant of a great change. No other journal so fully covers the ground of general science, and is more valuable to all readers.

In the March and April numbers of Appleton's *Popular Science Monthly* are two very interesting experimental studies on the physiology of alcohol, by Prof. C. F. Hodge of Clark University.

In the June and July numbers of the same journal Prof. C. E. Pellew of Columbia College gives a history of alcohol in the past, grouping together many very curious, interesting facts that are new to modern readers.

In the August number of this journal Dr. Crothers has a paper on new questions of jurisprudence concerning inebriety. These papers cover new fields of study and form a most important advance in our knowledge of these topics.

Editorial.

THE INFLUENCE OF THE SEASONS ON INEBRIETY.

Some years ago I published an observation that inebriety was more marked and impulsive in the spring and early summer months. Since that time I have made many notes which appear to sustain this view. In a thousand cases, ninety-four drank to excess in April, May, and June, and were abstainers or very moderate drinkers during the rest of the year. No study of these cases pointed to any particular month of the spring, and no inquiry was made as to the condition of the weather at the time of the drink paroxysm. The following represents a typical case:

A. was a very active merchant who drank very moderately at meals, or dinners, and abstained for months at a time. For ten years he had a severe drink paroxysm in the month of May, and at no other time of the year. He tried repeatedly to prevent this, but always failed. With his family and a trained attendant back in the country, this craze was controlled, but with the slightest opportunity it broke out again. If he could abstain until after the fourth of July, the paroxysm seemed to die out for the year. In this case there were no exciting causes or conditions of life and living that would create this desire at this time of year. In another case a medical teacher of some eminence never drinks except about the first of June, and then to stupor for two days or more. The rest of the year he is a total abstainer. In the ninety-four cases noted, the history was about the same as the above. In two of these cases the drink paroxysm was preceded by chills and some form of fever, which subsided when spirits was used. In one case deep and sudden

melancholy preceded the drink storm. In a large number of cases, a form of mania appeared, in which cunning, intrigue, and skillful deception, were used to conceal the paroxysm, and make it appear to be some other condition. These being periodic cases were not studied except in a general way, and were not different from others, except as occurring at this particular season. My previous opinion that this season of the year, and early mid-summer, presents some favorable conditions and seasonal influences for inebriate paroxysms has been sustained by the police court records of arrests for intoxication in many cities. One reason has been advanced in explanation, that in the spring the organism is in a high state of tension and every function of the mind and body is more active, and there is more liability to explosions of nerve energy. Another is that the power of adjusting the body to the changing conditions of the season in the spring is weaker, and the will has less control. Still another theory has been mentioned: the atmospheric and electrical conditions favor explosions of nerve energy, and seeks outlets along lines where greater resistance exists at other times of the year. No doubt climate has some influence, but there is no satisfactory theory or explanation at present. My observation that persons under treatment are more liable to relapse in the spring, and require more care and watchfulness, is confirmed by others. Persons who come for treatment during these months are more restless and delusional, than others who come in the summer or later in the season. Persons who have been under treatment for some time and are supposed to be practically improved and benefited, frequently exhibit mental instability and a reckless egotism at this time that is very marked. Later in summer this is unnoticed and passes away. In a case under my care for four years, this peculiar mental condition of unrest and semi-delirium occurred every year in June, and passed away in two or more weeks, returning the next year about the same time.

I hope to take up this topic again in the future with some new facts, or at least new views of our present knowledge.

INSANITY AND INEBRIETY.

The fact is startling that insanity has increased in proportion to the population over one hundred per cent. from 1870 to 1890. The feeble-minded, idiots, and epileptics have also increased. Inebriety as a disease has come into more and more prominence during the last quarter of a century, but whether inebriety has increased in anything like the same ratio as insanity is not certain. The opinion is sustained by strong evidence, that inebriety in modern times is obscure insanity. It is certain that many cases of inebriety become insane, and an equal number are classed with the insane in statistics. A certain number of cases of insanity have an early stage of excessive drinking, and a number of insane persons will turn to spirits for relief and become inebriates. A number of cases become insane when the alcohol is withdrawn, and a number alternate between excessive use of spirits, and strange erratic conduct, for which the term insane is the best description.

The intimacy of these two so-called diseases suggests that the increase of insanity is due largely to inebriety, the latter being unrecognized as a distinct disease.

The statistics of all insane asylums recognize alcohol as a cause of insanity, varying from five to twenty per cent. A study of cases indicates a much larger number whose first sign of mental defect was the use of alcohol. After a period of excess some form of well-marked insanity appears, and the use of spirits is not regarded of interest in the history. The recognition and treatment are surrounded with great difficulties. Most cases are not treated in the early curable stage, and, on the subsidence of the acute symptoms, they are often discharged as cured. The inebriate is never recognized as requiring physical treatment until the case has reached incurable stages, and then the treatment is largely moral and empirical.

Heredity is not recognized and the evils of both insanity and inebriety are permitted to go on unrestrained to succeeding generations. In all probability inebriety is a large factor in the increase of insanity, also that this growth of mental

disease will continue until inebriety and heredity are studied as causes which can be removed. The mere housing of an army of incurable insane is a very small part of the prevention and cure of insanity. In like manner forcing total abstinence on inebriates by law in jails and asylums or by pledges and prayers is not curative, nor preventive. The cure of these disorders, of which insanity and inebriety are only names of general symptoms, must reach further back, and begin earlier. The increase of both, means inability and failure to recognize the causes and provide for their prevention.

THE USE OF ART TO INCREASE THE DRINK IMPULSE.

The modern bar, or place where spirits are sold, is arranged and fitted up by artistic experts, with the special object of appealing to the senses of the customers. Sight, smell, taste, and hearing are appealed to in the most adroit way, and along higher levels, to create a thirst and desire for fluids. This is now studied as an art, and trained men make a special business of fitting up bars to draw trade (so called).

The location and effect of light must be studied, and the entrance arranged so that the senses may be roused instantly. The flashing mirrors, the colored bottles, the works of art in delicate tints, and the polished imitations of silver and gold to arrest the eyes. Flowers which emit delicate odors, and spirit odors from the fluids that are used with highly scented liquids in open glasses, arouse the sense of smell. If the man is not a spirit drinker and calls for some acid or soda drink, it will be served in the most attractive way. Delicate dishes with condiments, spices, and cracker food are displayed most temptingly. In some bars fountains with water give out a musical murmur, and music from boxes or bands play at stated intervals. Some saloons cater to the political sentiments of their patrons, and have excellent pictures of the party leaders, and mottoes framed in the most attractive way on the walls. Other places display pictures of actors, or of horses, or sporting celeb-

rities, according to the taste of the customers. The treasures of art in every field are drawn on to make an impression on the senses. Fruits in reality and painted imitations are distributed in the most tempting manner. Statuary, exquisite clocks with melodious chimes, potted plants, aquariums, and antique curiosities all contribute to this sense suggestion. In both total abstainers and moderate drinkers a thirst is created for drink of some kind other than water. Sight and hearing with smell are roused, and taste demands a recognition. In wine and beer bars, this continuous appeal to the senses is so skillfully arranged that many persons cannot resist it, and should they do so in this place, a thirst has been created which demands gratification at once elsewhere.

The method of dispensing fluids so as to intensify the thirst is studied as a fine art, and the sound of the liquid as it is thrown from one glass to another is calculated to produce certain effects, and the foam and gas formed appeals to the sight. Every one who enters such places is subjected to the most powerful temptation of the senses, which culminates in thirst and desire to taste the liquids offered.

The man who has used spirits is unable to control his thirst in these places, and the man whose thirst has been satisfied before he comes to these places takes pleasure in rousing it again by the condiments and means at command. The neurotic and feeble-minded and persons who are dominated by the senses are powerless to resist. The acme of the art is to create a thirst and desire for drink in the mind of every person who enters the saloon. In some places well-dressed courteous men in the employ of the proprietors invite strangers to drink. The drink thirst roused in this way is overmastering. Thus art in the saloon holds a powerful sway from the highest down to the lowest places. This extends to the bottles in which wine and spirits are put up, and is growing more and more every year. The psychology of the saloon and the arts which increase the desire for spirits are unwritten, but a very wide field awaits occupation and study by some one in the future.

INEBRIATE MOBS AND AGITATORS.

The inebriate may rouse up a mob, but he can never guide or direct it. The instability of the mind and the inability to follow a line of continuous thought or act for only a brief time make it impossible to lead long.

A mob of inebriates started to burn down a temperance printing house two miles away. Before they reached the place they turned into a saloon, and expended their energy in drinking spirits and finally burned the saloon. The purpose they started to accomplish was forgotten. An inebriate mob seldom acts in harmony for the reason the brains of such persons are in all degrees of palsy, and are not long affected by the contagion of the moment, or the personality of the leader. The man in the excited stage from spirits may respond to the contagion for a brief uncertain time, then become indifferent, and change often to the exact opposite act, or opinion. If the inebriate has passed this stage, he is more uncertain and fickle, and may for the moment manifest the wildest excesses of talk and conduct, then turn and defend what he condemned before. The more he drinks, the more imbecility follows. Cowardice, uncertainty, and sudden impulsive acts deepen into general palsy and stupor. A mob of men whose excitement depends on spirits which they use, may be reckless and brutal, they may suddenly burn property and do violence, but they are without purpose or concert of action, and extremely whimsical, cowardly, and uncertain, and soon expend their energies, dissolving as quickly as they are formed. The element of suggestiveness and contagion is always superficial, and never makes a strong impression on the mind. Mobs may attract inebriates by their unreasoning and credulous exaggeration of thought and conduct, and carry them along in the wake of their path, as camp-followers, rioting along in a petty way according to circumstances and opportunities; but mobs made up of inebriates are short, uncertain explosions of psychical energy, that disappear and leave no trace behind them. In politics

the saloon may seem to control a large vote of inebriates, and yet this is a very uncertain element. The inebriate is a moral dement, and brain action and function is never harmonious or certain, never steady and along lines of fixed purpose, and never uniform and normal.

The inebriate as an agitator is also abnormal. He may appear in his free intervals from drink to be clear, resolute, and strong of thought and purpose. Yet this is often a thin varnish of a crippled brain that struggles to conceal its real condition. Many of these men who pose as apostles of some new gospel are unable to discriminate and adapt themselves to the relations of the new ideas they preach. Their minds, broken loose from all settled convictions, drift in the currents of every passing wave. Every new ism is accepted and advocated, not by trial or rejection, but in the order in which they arrive. The old is rejected and the new accepted with suspicious credulity and unreasoning faith. When the mind becomes weary with the rush of thought, the drink impulse comes on, and a drink storm passes, leaving them weaker and more feeble. Thus the inebriate agitators, as reformers and teachers of new lights, go down in the darkness they are trying to dispel. The periodical inebriate and the reformed inebriate, or one who is supposed to have recovered, cannot be leaders. Like men in mobs they may rouse attention and concentrate thought for a moment, but beyond this they are powerless. The brain has lost its power for original work, for clear leadership, or clear discernment of the relation of events, and capacity to utilize the forces of life. The fads and isms and crazes of the day succeed each other in startling rapidity. Springing up in degenerate soil, fostered by abnormal brains (particularly in inebriates), then pass on to be repeated in the next age. When the delusion that inebriety is only a transient condition from which the brain recovers quickly is fully dispelled, then the defective minds from this source will be seen and recognized.

A NEW PILASE OF INEBRIETY.

An inebriate forty-two years old, an army officer in the engineer corps, who was a thoughtful retiring man, suddenly became intensely egotistical. Delirium of grandeur and self-satisfaction, with intense ambitions to attain political prominence, came on. He had drunk steadily every day for years, and was never intoxicated or apparently confused, but seemed clear and rational on all matters. The egotism and delirium came on in a few hours, and he explained this as a sudden awakening to the realization of his latent talent. He resigned from the army, and entered upon a campaign for the mayorship of a small city. This he conducted with skill and judgment, but was defeated. He then became a candidate for Congress, and went about the district soliciting votes. He drank, but never exceeded the usual small amount of spirits every day, and talked incessantly of his ability to do what others could not, and was calm, good-natured, but intensely active. He was very proud of his personal appearance, and careful of all the little details of life, and only showed weakness in his intense egotism and delirious confidence in his brain power. He failed to secure the nomination to Congress, then he appealed to the Governor for an appointment as state engineer. His persistency created a suspicion of his mental soundness, and a commission examined him for lunacy, failing to agree. He then moved into another state, and began a colossal plan for a sanitarium. He succeeded in enlisting capital, forming a company, then he suddenly became profoundly intoxicated, and continued to drink to stupor until placed in my care. He made a good recovery, and relapsed into his former quiet ways. He went to work as engineer, and continued over two years temperate, modest, and retiring in his habits and living. Then he began to drink again, and egotism and deliriums of strength returned. He went West and entered upon a great mining scheme, and for twelve months was eminently successful, drinking sparingly, but steadily becoming more boastful, and entertaining most unusual theories of his powers of mind and

body. Opposition and ridicule made no impression, he was not irritable, or excited, but grew more delirious in his conceit of himself. His self-confidence in his schemes brought him a certain position among strangers, which enabled him to partially succeed. His mind continued in this abnormally exalted state. Sometimes he drank spirits to excess, then he would go to bed for a short time, then appear again and continue as usual, with the same exaltation of mind. He boasted of his ability to drink so much a day, and never exceed that amount, and in food and care of his body he claimed he had attained great success. No disappointment or trouble disturbed him, nothing was recognized or considered except success and his power to accomplish everything. He died from pneumonia, after three days' illness. His mental exaltation continued to the last moment of life.

This exaltation was a very unusual symptom, and came on suddenly after a long period of drinking. The subsidence when spirits were withdrawn and its recurrence on the resumption of spirits were also unusual. Certain brain centers must have been very seriously damaged, and their symptoms dominated all other conditions of degeneration. This was a very unusual case, and one in which a more careful study might have brought many new facts.

The American Medical Temperance Association met at Philadelphia in June. The old officers were re-elected and arrangements for the publication of the Bulletin were made.

Dr. Grosvenor read a paper on alcohol before the Academy of Medicine, which meets a day before the regular session. This paper made a profound impression by its calm, scientific tone and accuracy of conclusion. In the section on state medicine, Dr. Quimby read a very significant preliminary report "On Collective Studies of Alcohol, in the Practice of American Physicians." Drs. Shepard, Crothers, Drayton, and other physicians read papers on alcohol in disease, and as a food

and stimulant. In the neurological section Dr. Crothers read two papers, on "Tuberculosis in Inebriety," and "Alcohol as a Causative Factor in Central Nervous Disease."

The Medical Temperance Association held a district meeting in Prohibition Park at Staten Island, on July 5th and 6th. A number of papers on alcohol were read by Drs. Quimby, Shepard, Drayton, Watson, Ellsworth, Crothers, Mattison, Arnold, and others, which will appear in the Bulletin. Dr. Kellogg gave a very instructive lantern lecture on the effects of alcohol which was highly appreciated. A meeting of the executive committee of the Association for the Study and Cure of Inebriety was held, and Dr. L. D. Mason was appointed a delegate from this society to the congress, against the abuse of alcohol, in Brussels in August, and also to the British Medical Society for the study of inebriety. Dr. Quimby was also appointed delegate to the International Congress at Warsaw. These items give some idea of the activity in the study of alcohol and its problems. Our society for years was alone in this field, now an army increasing rapidly every year are taking up this topic, and the subject is not condemned and sneered at as formerly.

There are families in which at a certain time of life explosive neurosis breaks out. Hysteria, convulsions, unreasonable anger, excitement, depression, credulity, skepticism, and most unusual emotionalism, and faulty reasoning are some of the common symptoms of degeneration. Alcohol and drug inebriety are common symptoms of this central failure of brain and nerve power. The changes of mind and conduct are attributed to alcohol: in reality it is only a symptom and covers up the real conditions.

The July *Open Court* opens with the first of an extremely important series of articles on the "History of the People of Israel," by Prof. C. H. Cornill, of the University of Königs-

berg, Germany. This series of articles has been specially written by Professor Cornill for the *Open Court*, and will not be published in German until after their appearance in English. The first article treats of the geography and original inhabitants of Palestine, of the race-migrations of the Orient in ancient times, of the early history of Babylon, Egypt, etc.

In the second article, illustrated from classical paintings and engravings, Dr. Paul Carus discusses "Eschatology in Christian Art," reviewing the doctrines of the destiny of the world and of man from their beginnings to the present day.

Prof. G. Flamingo, of Rome, Italy, gives a sketch of "Catholicism in Italy," seeking to analyze the fundamental religious sentiments and motives of the Italians, etc., etc. Correspondence, poems, book reviews, and notes follow.

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The *Homiletic Review*, by Funk & Wagnalls, New York city, should have a place in the library of every scholar. It brings facts and studies of great interest along lines that are not familiar to the reading public.

The *Hypnotic Magazine*, edited by Sidney Flower, published at Chicago, Ill., is a most interesting and valuable journal, giving new facts and suggestions of great practical value to every physician. Send for a copy to the Psychic Publishing Company.

American Journal of Insanity will be transferred to Baltimore and published by the Johns Hopkins Press. The editorial control will be in the hands of a committee of the American Medico-Psychological Association, consisting of Dr. Henry M. Hurd and Dr. E. N. Brush, of Baltimore; Dr. G. Alder Blumer, of Utica, N. Y., and Dr. J. Montgomery Mosher, of Albany, N. Y.

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The *Acid Phosphate by Horsford* is one of the most excellent tonics for hot weather on the market. All neurotics should use this tonic daily. Inebriates and opium-takers find by experience that this tonic excels all others in its pleasing effects on the nervous system. We have used this for years with the best results, and heartily commend it to others.

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Dr. Nordeman, professor of surgery in New York city, has lately written in the *New York Polyclinic*, a very interesting and valuable paper on the value of a gold solution known as *arsenauro* and *mercauro*. He found them most valuable in sexual neuræsthenia and syphilis. In alcoholic neuræsthenia they are invaluable also, and heartily commend them.

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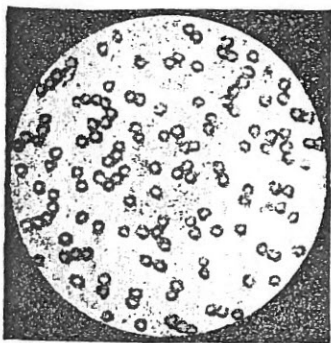
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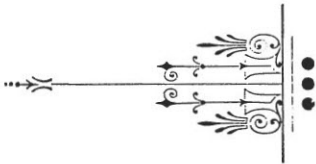
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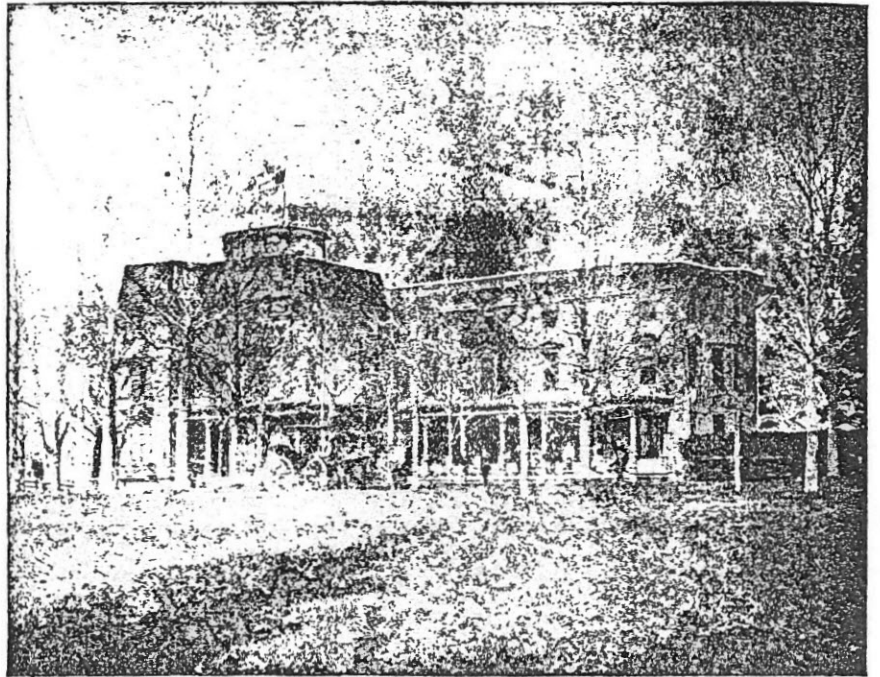
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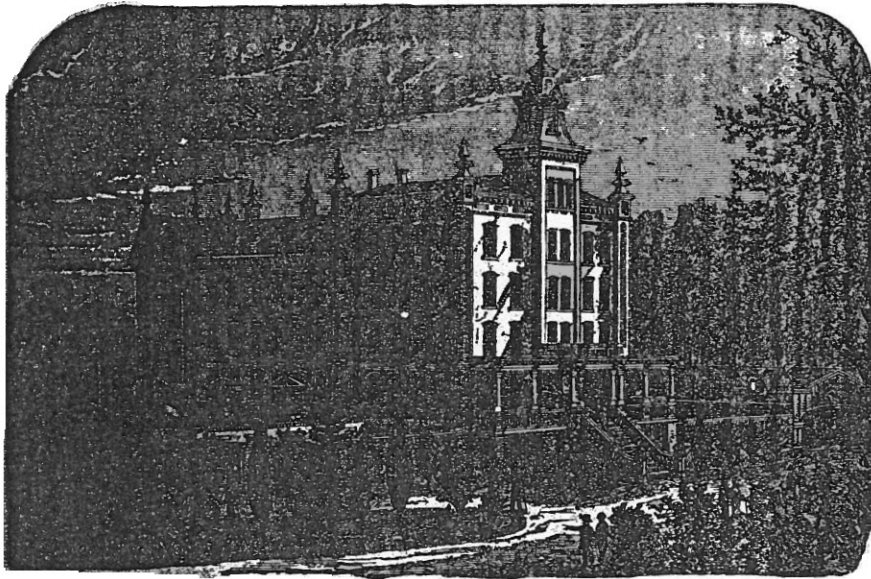
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