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DIPSOMANIA AND HYPNOTISM.

BY JOHN GORDON DILL, M.A., M.D.,

Assistant Physician to the Sussex County Hospital, England.

Among the many disorders of the mind, one of the most prevalent in this country is that form of moral insanity which leads to dipsomania, and there is none which causes such widespread misery, or which leads oftener to crime. For, in the course of his unfortunate life, the drunkard not only becomes himself a physical and moral wreck, and in time swells the immense army of paupers and criminals, but he is a perpetual source of grief and disgrace to his relations and friends, and his children inherit from him in a marked degree an intellectual, a moral, or a nervous instability, which may hopelessly cripple them from their earliest years, or develop later into some neurotic disease. Now it cannot be too strongly insisted upon that habitual drunkenness is a disease — a moral, as opposed to an intellectual insanity — and that, no matter how real the resolution to reform, or how intense the pangs of remorse for the past may be, it is a positive fact that the power of resistance does not equal the impelling force of the temptation and craving to drink. The drunkard, in other words, is not his own master.

The English law, unfortunately, does not recognize this, and the penalty for drunkenness serves to keep many a miserable being in existence, by the periods of enforced abstinence between his orgies, which he passes in prison. Nor has any system of treatment been discovered which can be relied upon, although innumerable specifics have been introduced from time to time, only to be discredited after trial. Certainly the power of resistance does increase during total abstinence, and, given the will to reform, a long period of compulsory abstinence has often the effect of getting rid of the craving to drink, and the patient is cured if he remain a total abstainer; but even thus, one glass of alcohol may be enough to restore the disease, and cases are by no means uncommon in which, after many years of apparent cure, the patient has felt confident of his power to drink in moderation, and the disease has returned. In so terrible and often hopeless a malady, the merest straw of possible salvation is naturally grasped, and the encouraging results which hypnotism had given in the hands of other observers led me to give it a trial.

Time alone can prove the value of any treatment, even if it is apparently successful at the outset, and I shall therefore only record the results of the first few cases which came under my observation some years ago, with their subsequent history as far as I have been able to trace it.

Case I.—Mrs. J. was a lady between 40 and 50 years of age, a confirmed drunkard, who had been deprived of the care of her children, and was subjected to more or less control. There was no apparent wish to reform, but considerable violence and impatience of restraint when the desire to drink was strong.

I first saw her in 1886, and about a year later determined to try the effects of hypnotism. She was not very susceptible, and the unconscious stage, which was not often reached during a course extending over many weeks, was not deep, but she became very much quieter, and the craving for drink abated for a time. It was thought wise, however, to place

her under stricter surveillance in the country, and I have lost sight of her.

I may here mention that I have noticed with some drunkards that the craving for drink comes on with great intensity at more or less regular intervals, with periods of intermission, during which they may have little or no temptation. Moreover, in the course of many cases, this "lucid interval" appears in time to shorten, until it almost disappears.

Case II.—A. W. was a housemaid, aged about 32, who had lost her character and her virtue by her drunken habits.

I first saw her at "St. Monica's Home," to which, at the time, I was Honorary Physician, and after three or four suggestions that she should dislike all forms of alcohol and be unable to take it, she lost all desire for drink.

Eventually a situation in a gentleman's family was found for her, which she has retained for the past six years, and she is a most valued and trusted servant.

It is worth notice, that when she was suffering from influenza and had been ordered port wine by another medical man who was attending her, she resisted strenuously, and deceived her mistress by pouring it away.

Case III.—Miss I. was a well-connected woman, whose relations had disowned her, and who had found a temporary asylum in the home above mentioned.

Although she really wished to be cured, I was unable to produce the slightest effect upon her, nor were two other more experienced hypnotists than myself, who very kindly came with me to see her, more successful.

A curious point about this case was that the craving for drink came on with a hallucination that she could smell brandy, and then nothing could stop her drinking.

Case IV.—Captain A., an officer retired from the army, had been an inebriate for at least nine years. Mr. Hugh Wingfield, who happened to be at Brighton, very kindly came with me to see him, and at his first visit attempted hypnotism, and managed to render Captain A. powerless to get up from his chair. He then arranged to see him again

the next morning, but unfortunately during the night Captain A. developed the first symptoms of an attack of pneumonia, which became complicated by delirium tremens. After six weeks of a most dangerous illness, I advised him to go to Cambridge, and to put himself under Mr. Wingfield, who had most kindly offered to do all he could for him, but apparently he had become quite insusceptible to hypnotism. He had been a total abstainer during his convalescence, but after leaving Cambridge he relapsed into his former habits, and I have since heard of his death.

Case V.—Mrs. P., a lady aged about 55, had contracted habits of intemperance during a period of great domestic anxiety. I had very few opportunities of hypnotism, but the effect appeared to be good at the time, and although I have seen very little of her during the past few years, she has never, to my knowledge, caused any scandal by a relapse, though it is quite possible that she may drink secretly.

Case VI.—Captain B., a retired officer of the navy, aged 42, had been a drunkard for years. Although a wealthy man, he was accustomed to leave home when he began to drink hard, and would sometimes return covered with vermin, and without having changed his clothes since the day he went away.

He expressed no wish to reform, and although he was treated under my direction by a most experienced hypnotist, he was not very deeply affected, nor was absolute unconsciousness ever reached. At the same time he was quieter and more reasonable during the course of hypnotism, but after a few weeks he grew tired of it, and had a relapse shortly afterwards.

Case VII.—Mrs. A., aged 40, was the widow of a clergyman. The discovery of her failing had been made during the life of her husband, and for a time all forms of alcohol were kept from her, but when his decease took place, she bribed one of the undertaker's men to put a bottle of brandy into the coffin when it was brought into the house, and then got drunk in the room with the corpse.

I first saw her, some years later, when she had been rescued from the lowest depth of depravity by her sister. She was treated by the hypnotist mentioned in the last case, and was easily influenced, but although a post-hypnotic suggestion, that any alcoholic liquor would make her violently sick was effectual for about three days, at the end of that time it had apparently quite passed away, nor did repeated trials lengthen the period during which it took effect. This could not be continued indefinitely, and she was finally sent to a retreat under the act. I regret to say that I have had no information about her during the past few years.

Case VIII. — Mrs. E. was an excellent cook, but she had lost situation after situation, owing to her drunken habits. When I first heard of her, some former friends, who believed in the sincerity of her remorse, and trusted her promises of amendment, having found a place for her with a lady who knew her history, collected a small sum of money, part of which they expended in the purchase of some respectable clothes, which they gave her, with the balance of the money, some three or four days before the time when she was to enter upon her new duties. Needless to say that she had sold the clothes and spent the money, and was hopelessly drunk when the day arrived. I found her in a state of great destitution, in a miserable lodging with her half-starved child, and for about three weeks supplied them with the bare necessities of life, while I hypnotized her diligently. She was very susceptible, and soon found, to her surprise, that she was unable to take her share in a bottle of gin, which some boon companion had offered her. She rapidly regained respectability of manner and appearance, and in the course of about three weeks found herself a situation as cook, while her little daughter was admitted to an orphanage. From that time to this — now nearly five years — she has maintained her character as a most respectable servant, and was so highly valued by her employers that they kept the place open for her when she was obliged to go into a hospital to be treated for a varicose ulcer of the leg.

An interesting point about the case is that the effect of the suggestion has gradually worn off, and she is now able to take a glass of beer at dinner, but as yet she has suffered from no temptation to drink in excess.

Although it would be rash to base any conclusions upon the results of so very meagre a series of cases, they served, perhaps, to indicate that there is a possibility that this mode of treatment may be successful, or that, at any rate, until hypnotism has been tried, no case of dipsomania should be pronounced hopeless. Doubtless, in more experienced hands better results might have been obtained, and had we any certain means of ensuring a susceptibility to hypnotism, there is no reason that it should not be much more uniformly successful. I have noticed in more than one case that the best time to make an attempt is very shortly after a bout of drunkenness, and that the patient is less easily hypnotized the longer he is kept sober. Possibly, therefore, it may be discovered that some drug may have the effect of increasing susceptibility, but the few experiments which I have had an opportunity of making in this direction have hitherto yielded barren results. Such experiments, however, might well repay the trouble they entail, for could we but discover a certain and reliable method of dealing with dipsomania, it would be difficult to exaggerate its beneficent results, not only in the present by lightening the heavy burden of human misery, but in the future by promoting the health and happiness of unborn generations.

SMOKING. — The use of tobacco does not decline, despite the warnings of hygienists and moralists. According to a tobacco trade journal, there is a steady increase in the number of cigars and cigarettes smoked in this country, and notably in the consumption of cigarettes. During the fiscal year just closed there were sold in the United States 3,333,845,560 cigarettes, and 4,130,440,370 cigars. The increase in the consumption of cigars over the previous year was 68,522,938.

THE TREATMENT BY SUGGESTION, WITH CURE
IN FOUR SITTINGS, OF A MAN ADDICTED
TO THE ABUSE OF ALCOHOL, BROMIDES,
AND CHLORAL.

BY MR. C. THEODORE GREEN, M.R.C.S., L.R.C.P., OF
BIRKENHEAD, ENGLAND.

On October 6, 1893, a man aged 32, came to me complaining that for two months past he had been unable to get a night's rest without bromides and chloral; and also that he had an irresistible craving for whisky, and that his brain was not able for his work — that of cashier in a very large wholesale business. His account of himself was incoherent and vague, and he presented the restless appearance and excited manner of a person very near dementia. He was of fair complexion and hair, 5 feet 10 inches in height, in good physical condition of body, and having a cerebral development decidedly above the average. I gathered from his conversation that in 1887 he had a serious bout of drinking, from which he recovered.

Some few months ago he began to be worried about his work, and then commenced taking a single glass of whisky or beer in the evening. He soon found that one glass was not enough, so he had two, in this manner increasing his daily dose of stimulant till the craving for it was present all the time. He consulted some doctor, who told him to "go to Llandudno and drink lots of stout." Well, he went to Llandudno and drank several bottles of stout daily; but as he was nothing bettered, but rather grew worse, from the development of insomnia, he consulted another medical man, who gave him a prescription for "bromides and chloral." Without the nightly use of this sedative draught he got very little sleep, and, of course, his brain became more and more unfitted for the accurate work required of him.

He told me he had never been hypnotized before. As he expressed disgust for his unconquerable craving, and a belief that he could be influenced by hypnotism, I agreed to try what it could do for him. I insisted that this form of treatment would give him back his normal strength of will, so that he would be able to conquer his unnatural cravings. In fact, I made him understand that it was not *I* who was curing him, but that I was merely showing him how to cure himself by the exercise of his will. So, throughout the four sittings that I gave him I suggested that his will was growing stronger, and that all his functions were coming more and more under his own control. I also ridiculed the idea that the person hypnotized need give up or lose all his will power to that of the operator.

On October 6th he fell into a hypnotic slumber in seven minutes by gazing at a diamond. I then made suggestions that he would sleep well, and not awake at 2 A.M., as usual; that alcohol in all forms would taste vile, and, if swallowed, would be vomited. The next day he telephoned, saying that he had slept right on to breakfast time — the best sleep he had had for two months, and that he had had a glass of whisky, but had difficulty in keeping it down.

He now went away into North Wales with some friends, and I did not see him for a fortnight. Shortly before he returned he wrote me a long and very rambling letter that made me fear still more for his sanity. He said that he slept very well for four or five night after being hypnotized, but that since then he had been getting worse in every way. I advised his speedy return.

So, on October 22d, I hypnotized him again. This time the sleep was more profound, and he seemed unable to answer my questions till I suggested that he could do so quite easily. I repeated the former suggestions, and made use of ordinary mesmeric "passes," which I regard as a most useful form of suggestion.

On October 24th hypnosis was produced by my gazing into his eyes for two minutes. On this occasion he seemed

rather less excitable. He said he had been sleeping well except for a billious attack that occurred during the night of the 22d. He also said that he had taken no more sedative draughts, and that he had very little desire for alcohol.

On October 28th he said he slept quite well each night, and had no desire either for alcohol or sedatives, and that his brain was clear. As a test of the latter he procured one of his cash books on the 27th, and worked at it for two hours, and was delighted to find that he could work as well as ever. His manner is totally changed. He is restful, and acts and speaks as a man should when in perfect possession of his faculties. I now hypnotized him for the last time, and repeated the former suggestions.

Also I found I could inhibit all the special senses. I also gave him a crystal, and bade him see a picture of his dining-room, which I had not seen. He described it and the persons he saw moving about in it. But I was unable to make him see the picture of a room he had never seen, but of which I was thinking intently at the time.

Up to date (March, 1894), there has been no relapse. Time only can show whether this cure be permanent; but I think I am safe in assuming that any recurrence of the above symptoms will be as easily abolished by hypnotism as they were before.

ALCOHOL IN SHOCK.—Dr. Wood is authority for the statement; "That alcohol is probably of no value whatever in shock: indeed, I am perfectly sure that a large dose of alcohol in shock puts one nail in the coffin of the patient, and if you want your patients to come out of shock you will be very careful in giving them alcohol. Alcohol stimulates the heart, but it paralyzes rather than stimulates the blood vessels." The theory is, "by its action on the blood cells it checks oxidation and limits the power of absorbing oxygen and eliminating carbonic gas."

POST-ALCOHOLISM AND INEBRIETY.

BY S. V. CLEVINGER, M.D., CHICAGO.

Alienist and Neurologist of the Reese and Alexian Hospital, Chicago; Late Medical Superintendent of the Illinois Eastern Hospital for the Insane, and Pathologist of the Cook County Insane Asylum; Author of "Comparative Physiology and Psychology," "Spinal Concussion," etc.

Ethyl alcohol, spirit of wine, is commercially assumed to be the base of intoxicating drinks, and the purest of these is capable of working great havoc when abused, but the demand for cheap liquor in vast quantities substitutes for portions of the less harmful ethyl or vinic alcohol what is known to chemists as the poisonous amyl alcohol (potato spirit or fusel oil). The aroma or bouquet of liquors is largely due to certain ethers of the more poisonous amyl and butyl alcohols, notably the acetic and valeric; then super-added, all too often, by distiller, rectifier, wholesaler, and especially by the retailer, are sophistications, flavors, and perfumes for the purpose of cheapening the resulting compound, which, by the time it reaches the average consumer, contains, in addition to the alcohol diluents to increase bulk, articles to give it false strength, fictitious appearance, odor, and taste.

In the English Licensing Act of 1872 (35 and 36 Vict., c. 94) there is a schedule of substances called "deleterious ingredients" found to have been used in adulterating intoxicating liquors; they are cocculus indicus, common salt, copperas, opium, Indian hemp, strychnine, tobacco, darnel seed, logwood, salts of zinc or lead, and alum. Since then, ingenuity and cupidity have extended the list indefinitely among dye materials, both organic and inorganic; and there are also added correctives of acidity, such as litharge, lime, soda, potash; astringents like catechu, oak bark, and aloe leaves; earths for decolorizing; sweetening agents, and ethers for

flavoring. Most of these articles are unwholesome, to say the least, and tend to debilitate and otherwise set up depraved bodily states.

Chronic alcoholism in its most obvious features is a condition of functional poisoning such as is seen in its production of lethargy, stupidity, and acute narcosis. Less noticeably, but gradually, it operates as a tissue poison, affecting parenchymatous elements, particularly epithelial and nerve structure, if not to a greater or lesser degree all the cellular components of the body. A slow degeneration is produced until the blood vessels are involved in thickening and fibroid changes. Oxidation of tissues is checked, since alcohol is consumed in place of the fat, leading to fatty changes which may advance to general steatosis.

Dr. Magnus Huss of Stockholm in 1849 first prominently directed the attention of physicians to the subject of alcoholism, a term he was the first to use. He described the paralytic and anesthetic forms of chronic alcoholism, also later referred to by Hammond ("Diseases of the Nervous System," 1881), Ross ("Diseases of the Nervous System," 1885), and other neurologists.

Gowers ("Diseases of the Nervous System," vol. 1, 110, *et seq.*, 1892) under the heading "Multiple Neuritis," gives still more recent details of these distressing consequences of drinking alcoholics.

Magnan (*De L'Alcoolisme des diverses formes du Delire Alcoolique, et de leur traitement*, 1874), Virenque, Hammond, and others observed an occasional loss of sensation involving only one lateral half of the body, as in hysteria. The other special senses are generally implicated. Thus the patient loses the sight of one eye, cannot hear with one ear, can taste with only half the tongue, and smells with but one nostril.

Gowers (op. cit. 119) states that alcoholic polyneuritis is most frequently met with and preponderates over all other forms of nerve inflammation. It results chiefly from the stronger forms of alcoholic drinks, and especially from spirit

drinking. It is more common among those who take small quantities frequently, than among those who indulge in an occasional spree, probably because the total quantity is greater by the former. It is far more frequent among women than among men; probably three times as frequent. Other causes often co-operate with alcohol in exciting polyneuritis, especially exposure to cold, and, in the poor, insufficient nourishment.

The symptoms consist in motor weakness, sensory disturbance, and inco-ordination. The weakness involves first and chiefly the flexors of the ankle and extensors of the wrist and fingers in the forearm; the result is wrist-drop and foot-drop. Other muscles suffer in severe cases. The sensory symptoms are tinglings, pains, varying in place and degree, tenderness and loss of cutaneous sensibility. The inco-ordination resembles that present in the slighter forms of locomotor ataxia.

Neuritis is the most common finding in chronic alcoholic autopsies.

Catarrh of the stomach, with furred tongue, heavy breath, a feeling of epigastric distress or "sinking," impaired appetite, and constipation are ordinarily experienced.

The liver may undergo changes leading to various forms of cirrhosis. Sometimes moderate drinking may reveal a special liability to hepatic cirrhosis, while, on the other hand, hard drinking for thirty years may leave the liver nearly intact.

The stomach and liver disorders of drunkards produce dilated veins of the cheeks and nose, causing suffusion of those parts; acne rosacea. The eyes are watery, the conjunctivæ hyperemic and often tinged with bile.

Formad claims that the kidneys are hypertrophied without other change as a rule, and Guy's Hospital Reports verify this finding. Pitt places this as occurring in 43 per cent. of hard drinkers, and where the typical granular kidney occurs it is indirectly caused by arterial changes. (Osler, "Practice of Medicine," 1001, 1892.)

The greatest variability in general manifestations can be found in different patients amounting to idiosyncrasies in particular cases, and in other patients are classifiable into groups of a great or less number.

The organic changes seem to be erratic, but are according to the resistance of organs. As a forerunner of serious alterations in the spinal cord, neuritis is not a simple and harmless disorder.

Magnan has demonstrated an alcoholic paraplegia in which Buzzard found electrical degeneration reaction. Some cases end fatally, though Bramwell ("Diseases of the Spinal Cord," 307, 1884), considers it for the most part functional. Broadbent's description (*Medical Times and Gazette*, Feb. 16, 1884), in which myalgic pains, hyperesthesia and double wrist-drop is included, should be compared with the pathologic changes found by Eichorst of Zurich (London *Lancet*, May 19, 1888) attending alcoholic neuritis, in cases of inco-ordination followed by paraplegia and wrist-drop, tenderness of muscles, anesthesia, abolition of reflexes, and, finally, vesical and rectal paralysis. The pathologic anatomy consisted in cord hemorrhages in the dorsal, gray, thickened blood vessels, degenerated and atrophied tibial and radial nerves with axis cylinders destroyed; the peripheral extremities were worst diseased; connective tissue proliferations of endo and perineurium and inflammatory changes in their vicinity. A muscular atrophy was secondary to the neuritis, the nerve sheath inflammation extended to the interstitial muscular tissue. Bramwell notes that myelitis and other forms of organic disease may be caused by alcoholic excess, hence the paralysis may be permanent and incurable.

The enfeeblement of judgment and will may finally end in dementia.

Post-mortem does not show any particularly characteristic changes in the nervous system invariable for all cases of chronic alcoholism, showing that resistance is greater in some than in others. Sometimes hemorrhagic pachymen-

ingitis is observed with thickening and opacity of the pia-arachnoid membranes and wasting of the convolutions, or there may be a chronic encephalo-meningitis with membrane adhesions, but most of these pathologic states are in advanced cases of alcoholism, the more incorrigible sort, as can be readily believed when we note the fact of many chronic drunkards having been reclaimed and restored to the world about as they were before the habit was formed. The older the patient and the longer the addiction, the greater probability would there be of finding organic changes in the brain and its envelopes and blood vessels.

Many chronic alcoholic insane exhibit remarkably close resemblance of symptoms to those commonly found as the result of injury to the brain, in traumatic insanity. These symptoms are: changes of character, lapses of memory, headaches, sleeplessness, irritability, suspiciousness, long apparently lucid intervals, homicidal and suicidal impulses, delusions of persecution. These peculiarities appearing in the alcoholic insane long after being incarcerated in an asylum, during which time no intoxicating liquor has been taken by them, point clearly to organic brain destruction, accomplished from within, but as severe and hopeless as when the brain had been injured by a blow upon the head, with subsequent extension of inflammation to the membranes and cerebral tissues.

It is when the mental degradation which temporarily occurs in alcoholism becomes permanent that chronic alcoholic insanity may be said to exist. During the acute stages there may be hallucinations, illusions, and delusions which disappear on recovery from the blood poisoning; the persistence of some of these states betokens permanent damage to the mental apparatus, and the brains of the chronic alcoholic insane invariably exhibit evidences of destructive organic changes.

It is with astonishing frequency that jealousy of the wife or mistress exists to an exaggerated degree in most forms of drunkenness, from simple suspicion to delusions of marital

infidelity, which in extreme cases may originate hallucinations of gross amours being carried on in the patient's presence.

It sometimes happens that the alcoholic may have grounds for suspicion in facts, but this does not lessen the delusional origin of his accusations. A frequent outcome of the notorious marital unhappiness thus caused is a brutal wife murder, the body of the victim sometimes being found hacked to pieces or partly destroyed by fire. The insane fiend may make but a stupid attempt to escape, or none at all, either expressing surprise at, or doubt of the reality of the event, or attempting justification in explanations.

The memory and intelligence suffer gravely, though not always obviously, for it may require considerable familiarity with the former peculiarities of the patient to determine the degree of mental impairment, and comparisons of his past and present are often possible only when he has been under observation for a greater or lesser period; in some cases, months may be necessary. He may be able to attend to routine duties, but is inconstant and easily diverted. The reasoning powers are lessened in varying degrees, and many such changes are not determinable off-hand.

Delusions, particularly such as relate to the wife's unfaithfulness, are fixed, but not systematized, for his explanations concerning them are vague and illogical. There is a melancholic persecutory tinge to all his ideas.

Some cases of chronic alcoholism on the verge of chronic alcoholic insanity experience auditory hallucinations of mandatory and accusatory kinds, and these may become so distressing as to lead to suicide, homicide, or insane acts generally. The dangerous character of insanity with auditory hallucinations is fully recognized by alienists.

In asylums for the insane will be found many cases of insanity that have been complicated with alcoholism, particularly a peculiar form called traumatic insanity, the result of head injuries, after the receipt of which there is a remarkable tendency to drink to excess, and the alcoholism may be

combined with the traumatic insanity in every conceivable degree, sometimes outrunning the original psychosis in its influence for evil. Epileptics are sometimes incorrigible drunkards, and epilepsy may appear for the first time when an alcoholic has abstained from liquor for some unusual length of time. In such cases there may have existed *petit mal*, unnoticed previously, or even convulsions may have occurred at night, during sleep, and after stopping the use of liquor the fits have appeared during the day, through the alterations in habits. Any other form of insanity may have, to some degree, the impress of alcoholism to modify it, and where this complication is extreme, as it is frequently in the head injury cases mentioned (sunstroke victims fall into this category), there are characteristics in common with those of chronic alcoholic insanity that are well recognized by asylum physicians and that often cause considerable annoyance.

Soon after the commitment of a chronic alcoholic insane case to the asylum or hospital, he appears to improve remarkably, if he escape the consequences of his last debauch and does not die of pneumonia or exhaustion; locked up at first in a ward, he is sooner or later trusted about the grounds, and can be made very useful as a workman of some sort. He may refrain from asking for a discharge for a long while for the purpose of convincing the superintendent of his recovery, but unless the patient conceal his delusions, as many insane do, he is liable, with a little questioning or in his letters to friends or relatives, to reveal the permanency of his delusions of persecution. The writings of some of these apparently sane alcoholics contain the foulest abuse of mother, wife, or children, without the least warrant for it in their former treatment of the patient.

Sometimes a weak-minded relative may be found espousing the cause of the "unjustly detained" alcoholic, or well-meaning but misguided friends may satisfy themselves of the "recovery," and even resort to *habeas corpus* proceedings to secure the patient's discharge.

Under the watch and restraint of hospital sojourn and their gradual admission to parole, with occasional breaks thereof, many of these patients assume, to all appearances, their original mental condition. To the superficial observer they are perfectly sane; many work cheerfully in the shops and talk quite intelligently about the possibility of relapses if allowed to go. But a large percentage are importunate, and these are the least to be trusted, for their anxiety to flit is born of their inability to gauge their feeble will power to resist temptation. If they are discharged, back they come, not infrequently with newspaper and other criticism of the hospital authorities for having liberated such a dangerous character. These same critics are just as liable to write up sensational comments on the injustice of keeping perfectly sane persons at the behest of relatives who, the critics affirm, have some pecuniary motive in the patient's being deprived of liberty. Nor is the trouble taken to inquire whether the county is charged with the case as a pauper or not.

When *habeas corpus* proceedings are begun, the natural inference is that there must be some malign reason for the detention. Probably it is just as well in the long run that the public should be suspicious, but the conscientious hospital physicians are put to unnecessary trouble in explaining matters of pathology and general medical experience to laymen who are much more familiar with business affairs.

The hospital physicians will congratulate themselves that cases of this kind are improving, and discuss the advisability of trusting them on parole, preliminary to letting them go home on trial, but the records of the cases suggest caution, such as domestic horrors, including attempted wife murder, brutality to children, improvidence to a criminal degree, the wife usually faring the worst, though when he is not drinking she claims her husband to be the "best and kindest of men."

Notwithstanding all this, such near relatives often beset those in charge of the hospitals to liberate their husbands, sons, or fathers; poor ignorant creatures, because they can

only see the hopeful side of matters for themselves, and can not appreciate the vast fund of information possessed by the doctors as to the frequently disastrous consequences of too early discharges, or, sometimes, any discharge at all.

The alcoholic insane have been apparently sane while at the asylum, and even after ten years' trial when they were allowed to return home they would resume all their bad habits, such as furniture smashing, chasing the family into the streets with axes or knives, and after being returned to the asylum in a maniacal state they would resume all their apparent sanity and sweetness of disposition, which arouse the suspicion of the visitor that some unworthy motive on the part of somebody withholds so useful a person from society at large.

Among the sadly comic instances of this kind appear liberations after carefully weighing probabilities and enduring the threats, entreaties, and promises of the family and the patient, against the better judgment and misgivings of the physicians; and when something does occur from the risk, as too often happens, forthwith not only the public but the relatives censure the weakness of the doctors for having listened to them at all.

A washerwoman, who had about as much experience with the inner life of a large city as some physicians acquire, used to dub the defects produced by alcoholism as "street angels and home devils." Much danger to the community exists in the seeming sanity of such cases. There is no provision for their incarceration on the ground of their great liability to be homicidal, and when they do commit a murder it is a difficult matter for the public to comprehend the insanity during the quiet stage induced by imprisonment and liquor deprivation.

Alcoholic dementia is simply a secondary or terminal dementia of profound type, that has usually supervened upon alcoholism, the intermediate stage of chronic insanity being often short, or having escaped notice altogether, as such; being merged from the general alcoholism. It is as perma-

nent and incurable as any other secondary dementia. The organic brain and blood vessel changes in this, and other chronic alcoholic insane states often shorten the lives of patients: many succumb from pneumonia which proves so fatal to drunkards generally.

Post-alcoholic conditions are such as become evident during abstinence after the protracted use of liquor.

If the shock of abstinence is rallied from, we can then determine how much is left of the patient. Destructive changes in the brain may be, to an extent, masked by drinking; that is, the behavior of the patient may be erroneously ascribed to the drinking when it in larger part may be due to brain alterations produced by over-indulgence.

The extreme ground is taken that by whatsoever means recovery from habitual drunkenness is made, the health is never regained. Dr. Clum (*Quarterly Journal of Inebriety*, October, 1891, 382), observes that those who have been addicted to the excessive use of alcoholic beverages for a number of years may be restored to a state of sobriety, but they are generally left with an entail of chronic disease which eventually ends their career. They die temperance men, but die as a result of disease contracted by the excessive use of liquor. The habit is abandoned and nature and remedies are given a chance to do their part toward reinstating the individual, but the vital organs have been injured beyond reparation.

This gloomy outlook for the "reformed" inebriate concerns a large percentage of cases, but is far from being universal. Drunkenness is not the only consideration; the health previous to and during the addiction should be regarded, aside from, as well as with, the drinking habit and its extent; the age, associations, and conditions, such as exposure and immoral practices, as incidental or consequential matters, need consideration in ascertaining how far a breakdown is ascribable to drink or its stoppage.

Heart weakness, that had previously been compensated to some extent by stimulants, whether created by their use

or not, often becomes apparent in post-alcoholic life. Syphilis is known to have become modified and somewhat checked through alcoholic poison acting upon the syphilitic poison, and when this antagonism ceases the syphilis has become more virulent. Livers, kidneys, nerves, and brains that have been structurally degraded cannot be restored by mere change of habit; indeed paralytic states may become evident immediately after liquor withdrawal through the shock of readjustment to new vascular workings. For example, when an alcoholic neuritis with membrane thickening and beginning spinal cord myelitis has been inaugurated through alcoholism, the sudden change in the circulation caused by abstinence will inevitably render the physical consequences of such inflammatory and neoplastic states more apparent. Pressure symptoms, debility, and marked sensory and motor impairment are liable to occur, from monoplegias to complete paraplegia.

Tremens begins during the abstinence of drinkers, and from circulation changes in the brain; temporary sobriety causes a dazed, bewildered mental state in the hard drinker. Even were the craving destroyed, and were the will-power to resist drinking to be imparted, by any means, too often the inebriate then finds himself so completely out of his environment, so changed are inner to outer relations as to what constituted his previous existence, that he rushes back to his former habits about as a fish would take to water, and for analogous reasons.

Hard drinkers are the first to succumb to epidemics, such as cholera and yellow fever, and abstinence merely uncovers the debased organic weaknesses that these epidemics cooperated with destructively.

After prolonged use of liquor, abstinence sometimes is followed by acute melancholia, in which the delusions of that psychosis are commingled with some that are peculiar to alcoholic insanity. This depressed state seems to be owing to exhaustion of the system habituated to alcoholic sustenance, and not yet readjusted to the assimilation of proper food.

A demented condition, more or less profound, may set in from the same causes. A well-known stock-yards millionaire of Chicago had, up to his sixtieth year, guzzled fusel oil in all its disguises as ethyl alcohol compounds, and a sharper, shrewder person was hard to find; but he abandoned his drinking suddenly, utterly and completely, and during the succeeding three or four years gradually became incapable of attending to business, presenting the apathy, memory loss, and other characteristics of what was known as "primary mental deterioration," but which Voisin claims to be "atheromatous insanity," the blood-vessel destruction found *post-mortem* justifying the designation. While this mental malady is often independent of alcoholic habits, its appearance as apparently connected with the stoppage of drinking is worth noting. In those who indulge many years and then quit drinking, the alteration in behavior is quite observable; they are certainly quieter, calmer, and while doubtless far better off than when stimulating, the general tone is below what it used to be, or what it would have been had they not drunk at all; meddling with fire must be at the expense of some scars. While atheromatous insanity may occur in the temperate, a condition like it, if not identical with it, could readily be conceived as consequent upon abstinence after long addiction, or the pathologic condition mentioned itself could be directly induced by alcohol, and persist, whether alcohol is or is not taken after the condition is instituted. The tendency to steatosis in the intemperate can be recalled in this connection, and doubtless many cases of so-called dementia from abuse of alcohol may be found to be of Voisin's type of atheromatous insanity.

The hyperemic state of chronic alcoholism necessarily alters the cerebral circulation in various ways in many, but not in all cases, causing endarteritis, leucocytic exudation, neoplastic organization, and capillary extravasation into the cerebral tissues, comparable to the rosacea observable in some drunkards' cheeks and noses. In my autopsies of the alcoholic insane at the county asylum, I invariably noticed

a rusty discoloration of the dura matter along the course of the superior longitudinal sinus, and other evidences of old inflammatory conditions such as adhesions of the membranes and cerebral tissue of the convexity and basilar regions. The vascular and meningeal alterations varied in degree according to the patient's age. Where frailty of blood vessel organization existed congenitally there was greater liability to pathologic change in such cases.

The finer mental coördinations in any one are maintained by effort; being the latest faculties acquired, and their tenure being so dependent upon full brain integrity, it is plain that the moral nature has been superimposed upon the less easily destroyed brute nature, through finer and weaker histologic arrangements acquired and inherited, demanding for their exercise the clearest kind of brain activity. Vitiating blood quickly blots out these better but feebler functions for the time being, just as exhaustion is felt first in our weakest joints. So the moral nature, which is merely a higher intelligence, may depart when the seat of intellect is weakened by any cause such as senility, drinking, insanity, arrest of development, traumatism, and some diseases.

When certain pathologic adjustments, involving imperfect compensation, occur, such as thickened arterial walls which resist the increased flow of blood, then a new plane of mental operation is established, which, if disturbed by change of habits, as by withdrawal of the customary greater heart impulse, it is but partially and inadequately recompensated by the pure blood. Practically, the adjacent cerebral tissue must suffer from anemia to a greater or lesser extent, and where previously the blood was driven through disarranged avenues, it now makes its way feebly and in places not at all. Nor is this all; the sclerosed and otherwise changed tissue becomes a more prominent hindrance to function when the artificial nutrition and circulation is cut off. So the poor fool of a drunkard is too often thus "damned if he does, and damned if he don't" continue.

Summarizing post-alcoholic bodily and mental states there

may be found many organic destructive changes in the blood vessels, liver, nerves, and brain, which were not so evident during the addiction, owing to the somewhat compensatory effect of the alcohol, and hence the masking of diseases.

The simple privation may kill through the weak heart losing its wonted stimulant, but such cases are not very common; debility is the most frequent consequence of "reform," but this is often a return to what preceded and may have led to the over-indulgence. Cerebral blood vessels subjected to engorgement are liable to rupture at any time where weak points exist, and fatty degeneration of vessel walls, induced by the liquor, may culminate in apoplexy, whether drinking is continued or not.

A single severe attack of delirium tremens may make profound changes for the worse in the future workings of the brain, and the typhoid stage of some cases of delirium tremens show the ravages of the poison often in life-long sequelæ.

Chronic alcoholic insanity may make its first gross appearance after abstinence enforced in jail or otherwise.

Necessarily, when liquor is withdrawn, a change for the better is ordinarily the rule, but such withdrawal in some cases may operate as a shock, and in all cases a readjustment of the entire physiologic make-up must occur. It is conceivable that epilepsy or insanity may find in such shock a potent exciting cause and the whisky soaking is ample as a predisposing influence, when it can alter the brain structure, in time, as thoroughly as a contusion or a concussion.

But what the inebriate has drunk, how long he has been drinking, and his power of resistance, associated diseases, hereditary and other tendencies, are to be taken into account; and with these it is surprising how large a number of heavy drinkers escape any obvious trouble due to such excesses. A well-known druggist of Chicago was a sot until his fortieth year, stopped drinking and died at 70 years, having built up a large business; while others who had not taken half his

risks with liquor succumbed during or after ceasing their bad habits.

Post-alcoholic conditions, such as insanity, paralysis, weak heart, etc., that occur in a minority of cases after alcoholic disuse, only the most thoughtless or perverted could use as arguments against the stopping of drink; as the liquor in such cases produced the trouble which merely culminated after the habits were changed; such climax, being inevitable in any case, and impending, might have been reached earlier, or in a graver form, had the inebriety continued.

In a few words, drunkenness is a constant menace to the mental and bodily health, and it is far safer to escape from its ravages scarred and maimed, than to go on sooner or later to certain destruction. Though the vast majority may be rescued entire, or nearly so from intemperance, no one can tell what the chemic devil has left of him until months or years of sobriety have passed.

A CONTINENTAL MEDICAL TEMPERANCE SOCIETY. — We are very glad to hear (says the *Medical Pioneer*) that one of the results of the International Congress against the abuse of intoxicating liquors, recently held at Basle, Switzerland, is the formation of a Medical Temperance Association among the medical men on the Continent. We believe that total abstinence is one of the conditions of membership, and very properly so, as nothing short of this can be effectual. The president is Dr. A. Smith of Grossherz, Baden, and the honorary secretary, Dr. Fuer, assistant professor of psychology in Heidelberg. Both these gentlemen read excellent and thoroughgoing papers, from a temperance point of view, at the recent Congress. About five-and-twenty names were, we believe, given in as desiring membership at the first meeting. This is a good beginning, and we trust that this infant society will speedily grow in strength, and accomplish a great work. The number of medical men on the Continent being so very large, we may expect it will have a large membership in course of time.

THE INFLUENCE OF ALCOHOL UPON URINARY TOXICITY, AND ITS RELATION TO THE MEDICAL USE OF ALCOHOL.*

BY J. H. KELLOGG, M.D., BATTLE CREEK, MICH.

The biologic test for the urine, perfected by Bouchard, is a most important addition to our means of studying disease processes in the body and the effects of various infectious and toxic agents upon the animal organism. Bouchard demonstrated what had previously been suspected, that urea is not the most important toxic agent of urine, although the most abundant excretory product. His researches demonstrated the fact that urea is only very slightly toxic in character, and that it, in fact, serves a very important and useful rôle in the economy by stimulating renal activity, acting thus as a true physiologic diuretic. The experiments of Bouchard and Rogers have shown very clearly that the urine contains more than half a dozen toxic agents, most of which are far more important in character than urea. Urea is, however, a useful measure of these agents under ordinary circumstances, that is, when the urine contains only the normal toxins; but, under unusual morbid conditions produced either artificially for experimental purposes, or naturally as the result of an infection of some sort, the quantitative determination of urea is no longer a reliable guide; in fact, it may give no suggestion in relation to grave morbid processes resulting in the formation of large quantities of toxic substances and a consequent condition of general toxemia. The same is true with reference to the various other modes of examining urine in common use.

The biologic test of the urine does not require a chemic examination of the urine, hence does not depend upon the

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chemic recognition, by reagents, of minute quantities of chemic substances, the reactions for which may be obscured by the presence of other known or unknown substances, but makes a direct determination, both quantitatively, and, to some extent qualitatively, respecting the toxic character of the urine in both normal and pathologic conditions. The following is the method: The urine collected for a definite time, and, if necessary, calculated for twenty-four hours, is carefully neutralized and then injected at the rate of 1 c.c. per second into the venous system of a rabbit which has previously been carefully weighed; the weight of the patient must also be known. The exact quantity required to cause the death of the rabbit, and the symptoms occasioned as the result of the injection are carefully noted. The following are obtained, directly or indirectly:

1. The amount of urine required to kill a kilogram of rabbit.

2. The number of kilograms of rabbit which might be killed by the total amount of urine produced in twenty-four hours.

3. The amount of rabbit which might be killed by the quantity of toxic substances produced in twenty-four hours by each kilogram of the patient. The latter quantity is termed the urotoxic coefficient, and is represented normally by the fraction $\frac{1}{44}$, that is, the quantity of urine produced in twenty-four hours by each kilogram of normal human being is capable of destroying the life of $\frac{1}{44}$ kilogram of living being; consequently, if these substances were retained within the body by failure of the kidneys to eliminate them, death would result, approximately, in about two and a half days. Clinical observation with reference to the effects of complete suppression of the urinary function agrees with the results of experimental study.

I have employed the biologic test a very considerable number of times, some hundreds of times in all, and am fully satisfied with regard to its reliability and accuracy. It is, indeed, a most remarkably delicate test of the condition

of the system in general, and of the renal function in particular. A few observations which I have made will serve to illustrate the value of these means of investigation. In a case of tuberculosis the toxicity of the urine was found to be double the normal. Among the most prominent symptoms occasioned by the injection was a very great rise in temperature, the elevation in temperature amounting to over three degrees C. In a considerable number of tests made, in which the urine of a patient suffering from typhoid fever was employed, the toxicity of the urine was found to be greatly increased in every instance, and occasioned a marked elevation of temperature. In a case of intermittent fever of malarial origin, the urotoxic coefficient of 2.36 was found during the paroxysm, the coefficient of being .76 before, and .78 after. This observation seems to show that during the paroxysm of malarial fever there is produced by the parasites of this disease a febrile substance to which the febrile action is due. This subject the writer has considered at length elsewhere.

One of the most interesting observations I have made was in a case of idiopathic epilepsy; the urine employed was collected while the patient was just recovering from a succession of epileptic seizures, having been in what is known as the epileptic state, or static epilepticus, for nearly thirty-six hours. The urine was found to be extremely toxic, the degree of toxicity being three times the normal. The rabbit died in convulsions which were distinctly epileptiform in character.

The biologic test applied to the urine of pneumonia, erysipelas, scarlet fever, diphtheria, and all other infectious maladies shows a marked increase in the toxicity, when the patient is doing well, that is, when the poison is being eliminated by the kidneys. In pneumonia, for example, the toxicity of the urine may be considerably diminished during the first few days, but when the critical period is passed and favorable symptoms make their appearance the toxicity of the urine is found to be three or four times the normal.

Delicate chemic investigations of the urine which have been made by Gauthier, Brieger, and others, have revealed the presence in the urine of definite organic compounds which possess characteristic toxic properties. Chemic researches, when sufficiently refined and delicate, thus agree with the biologic test, but the modes of investigation employed are too troublesome to be ordinarily used, hence the value of the biologic test.

The above-mentioned observations, and many others, having fully established my confidence in the biologic test as a reliable mode of investigation, I determined to make an experiment for the purpose of determining the influence of alcohol upon urinary toxicity. The subject of the experiment was a healthy man of 30 years, weighing 66 kilos. For fifty days prior to the experiment he had taken a carefully regulated diet and the urotoxic coefficient had remained very nearly uniform. The urine carefully collected for the first eight hours after the administration of eight ounces of brandy diluted with water, showed an enormous diminution in the urotoxic coefficient, which was, in fact, scarcely more than half the normal coefficient for the individual in question. The urine collected for the second period of eight hours showed an increase of toxicity, and that for the third period of eight hours showed still further increase of toxicity, the coefficient having nearly returned to its normal standard.

The bearing of the results of this experiment upon the use of alcohol in pneumonia, typhoid fever, erysipelas, cholera, and other infectious disorders will be clearly seen. In all the maladies named, and in nearly all other infectious diseases, which includes the greater number of acute maladies, the symptoms which give the patient the greatest inconvenience, and those which have a fatal termination, when such is the result, are directly attributable to the influence of the toxic substances generated within the system of the patient as the result of the presence of the specific microbes to which the disease owes its origin. The activity of the liver

in destroying these poisons, and of the kidneys in eliminating them, are the physiologic processes which stand between the patient and death. In a very grave case of infectious disease, without this destructive and eliminative activity the accumulation of poison within the system would quickly reach a fatal point. The symptoms of the patient vary for better or worse just in relation to the augmentation or diminution of the quantity of toxic substances within the body.

It is the recognition of this fact which has led to the recent general revival of hydrotherapy in the treatment of acute febrile disorders. Water applied externally stimulates cutaneous elimination, and employed freely internally by water drinking and the introduction of water in quantities into the colon to be retained for absorption, aids liver and kidney activity. If the patient dies it is because his liver and kidneys have failed to destroy and eliminate the poisons with sufficient rapidity to prevent their producing fatal mischief among the delicate mechanisms of the body.

In view of these facts, is it not a pertinent question to ask how alcohol can be of service in the treatment of such disorders as pneumonia, typhoid fever, cholera, erysipelas, and other infections, since it acts in such a decided and powerful manner in diminishing urinary toxicity — in other words, in lessening the ability of the kidney to eliminate toxic substances? In infectious diseases of every sort, the body is struggling under the influence of toxic agents, the result of the action of microbes. Alcohol is another toxic agent of precisely the same origin. Like other toxins resulting from like processes of bacterial growth, its influence upon the human organism is unfriendly; it disturbs the vital processes; it disturbs every vital function, and, as we have shown, in a most marked degree diminishes the efficiency of the kidneys in the removal of the toxins which constitute the most active factor in the diseases named, and in others of analogous character. If a patient is struggling under the influence of the pneumococcus, or Eberth's bacillus, Koch's cholera microbe, or the pus-producing germs which give rise

to erysipelalous inflammation, his kidneys laboring to undo, so far as possible, the mischief done by the invading parasites, by eliminating the poisons formed by them, what good could possibly be accomplished by the administration of a drug, one of the characteristic effects of which is to diminish renal activity, thereby diminishing also the quantity of poisons eliminated through this channel? Is not such a course in the highest degree calculated to add fuel to the flame? Is it not placing obstacles in the way of the vital forces which are already hampered in their work by the powerfully toxic agents to the influence of which they are subjected?

In his address before the American Medical Association at Milwaukee, Dr. Ernest Hart very aptly suggested in relation to the treatment of cholera the inutility of alcohol, basing his suggestion upon the fact that in a case of cholera the system of the patient is combating the specific poison which is the product of the microbe of this disease, and hence is not likely to be aided by the introduction of a poison produced by another microbe, namely, alcohol. This logic seems very sound, and the facts in relation to the influence of alcohol upon urinary toxicity or renal activity, which is elucidated by our experiment, fully sustain this observation of Dr. Hart.

It is also easy to show the important bearing of the fact to which we have called attention upon the relation of alcohol to chronic disease. Alcohol is doubtless, at the present time, much less frequently prescribed as a remedy in chronic disease than a quarter of a century ago.

In a recent number of the *British Medical Journal*, Dr. Lauder Brunton, the eminent English physiologist and neurologist, in mentioning the fact that death from chloroform anesthesia rarely occurs in India, but is not infrequent in England, attributed the fact to the meat-eating habits of the English people, the natives of India being almost strictly vegetarian in diet, partly from force of circumstances, doubtless, but largely also, no doubt, as the result of their religious

belief, the larger proportion of the population being more or less strict adherents to the doctrines of Buddha, which strictly prohibit the use of flesh foods.

The theory advanced by Dr. Lauder Brunton in relation to death from chloroform poisoning, is that the patient does not die directly from the influence of chloroform upon the nerve centers, but that death is due to the influence of chloroform upon the kidneys, whereby the elimination of the ptomaines and leucomaines naturally produced within the body ceases, their destruction by the liver also ceasing, so that the system is suddenly overwhelmed by a great quantity of poison and succumbs to its influence, its power of resistance being lessened by the inhalation of the chloroform.

The affinity between alcohol and chloroform is very great. Both are anesthetic. Both chloroform and alcohol are simply different compounds of the same radical, and the results of our experiment certainly suggest the same thought as that expressed by Dr. Brunton. How absurd, then, is the administration of alcohol in conditions in which the highest degree of kidney activity is required for the elimination of toxic agents.

Another thought is suggested in this same connection, namely, the absurdity of injecting alcohol in a case of threatened death in chloroform anesthesia. Notwithstanding the extensive use of alcohol for this purpose during many years, can any person testify that he has seen a single life saved by it? The evident danger of establishing the alcohol habit by such a use of the drug doubtless influences most intelligent physicians sufficiently to lead them to consider it better for the patient to forego any possible benefit which he might receive from the use of alcohol, rather than become a confirmed inebriate. Nevertheless, there are still many practitioners who recommend to certain classes of patients the habitual use of beer, wine, or some other of the so-called light liquors, with the idea that by their use nutrition may be improved, and appetite, digestion, or assimilation im-

creased, or some good be accomplished in some way which no one has attempted to explain.

In a certain proportion of these chronic cases there is a tendency to tissue degeneration. Modern investigations have given good ground for the belief that these degenerations are the result of the influence of ptomaines, leucomaines, and other poisons produced within the body upon the tissues. It is well known that many of these toxic agents, even in very small quantity, give rise to degenerations of the kidney. It is this fact which explains the occurrence of nephritis in connection with diphtheria, scarlet fever, and other infectious maladies. Dana has called attention to the probable rôle played by ptomaines produced in the alimentary canal in the development of organic disease of the central nervous system.

It is thus apparent that the integrity of the renal functions is a matter of as great importance in chronic as in acute disease; hence any agent which diminishes the efficiency of these organs in ridding the system of poisons, either those normally and regularly produced, or those of an accidental or unusual character must be pernicious and dangerous in use.

THE MORPHINE HABIT IN CHINA. — According to the *London Lancet* the British consuls in China have repeatedly drawn attention to the increasing prevalence in several ports of the pernicious habit of injecting preparations of morphine, practiced by unqualified persons among the natives. This custom was originally introduced as a cure for opium smoking, but it is a case in which the remedy is worse than the disease. Those who sell morphine and make the injections procure a profit of from two hundred to four hundred per cent. The charge for making an injection is one cent. One of the victims of the practice said: "It is much cheaper than opium smoking, and I get the same satisfaction out of it. I know of ten Chinese doctors, each of whom treats fifty to one hundred men daily with this medicine."

THE CIGARETTE HABIT.*

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As a member of this and the Climatological Association, and as one who has smoked cigarettes for twenty-five years, I feel that I may speak with a certain amount of authority on this subject. "You, a throat doctor, and smoke cigarettes!" is a phrase that has finally wearied my ears, and, bubbling with mild wrath, I "rise to explain."

The pleasure and the penalty of this vice have never been rationally described, to my knowledge, other than by myself. This I did in a paper published in the *St. Louis Courier of Medicine*, some eight years ago, but so little notice was given it that what I now say will be practically new.

A word as to the tobacco habit in general. Mankind pursues various methods in using it. By chewing it, by dipping, by cigar or pipe, by snuffing, and by cigarettes. There is a reason why each one pursues a particular plan. Early associations have much to do with the selection of the plan; but, apart from this, each method has its own particular pleasure. The man who both chews and smokes derives a different kind of satisfaction from each method, and he would derive a still different kind did he take snuff. Cigarette smokers may be divided into those who inhale the smoke and those who do not. The latter class is a very small one, and the pleasure derived is the same, in a milder degree, as that of the cigar and pipe smoker, wherein the smoke chamber is the mouth. But all real devotees of the cigarette inhale. That is, with a quick respiratory act, the smoke is drawn through the larynx, into the trachea, and, as far as I have been able by different experiments to learn, into the first division of the bronchial tubes; not, as the public believes, into the lungs proper. These inspirations are

* Read before the American Laryngological Association, May, 1895.

nearly always superficial, and the fact alone that there is a tidal and residual air would teach that the smoke does not reach beyond the bronchial tubes. Inhalation explains the pleasure of cigarette smoking. If the cigarette smoker did not *feel* the smoke in his larynx and windpipe his pleasure would be gone. Every old cigarette inhaler will tell you this fact : that if he perchance smokes a brand of cigarette very much milder than that to which he has been accustomed, he will at once reject it, simply for the reason that larynx and trachea have been accustomed to a certain degree of irritation. The larynx and trachea have, so to speak, acquired a habit which rejects any unusual departure. For the same reason the inhaler rejects a brand of cigarettes much stronger than that to which he is accustomed ; nor will he inhale the smoke of a cigar, vastly more irritating than that of any cigarette. The inhaler may change his cigarette for one more pleasing to his sense of flavor, provided always, however, that it satisfies his accustomed degree of laryngeal and tracheal irritation.

The pleasure in cigarette smoking, therefore, as compared with other tobacco habits, may be said to be a pleasurable irritation of the laryngeal and tracheal sensory branches of the pneumogastric nerve.

Another question frequently hurled at me in all these years has been : "What satisfaction can you get out of those weak little things?" The question means nicotine satisfaction. I once more rise to explain.

One absorbs nicotine in accordance with the amount of absorbent surface in contact with the column of smoke. In ordinary smoking the mouth alone is the smoke chamber ; but when one inhales, one must add to the mouth the mucous membrane of the larynx, windpipe, and larger bronchi. There is hence, roughly speaking, three times as much surface for the absorption of nicotine ; and consequently, though a cigar contains vastly more nicotine, three-fourths of it is wasted as far as the question of nicotine intoxication is concerned, as compared with the cigarette. Moreover, the cigar-

ette smoker consumes two or three cigarettes while the cigar smoker consumes one cigar. The puny cigarette is therefore not so weak as it appears, and with this explanation begins to seem worthy of the newspaper term "deadly." Again, the cigar smoker as compared with the cigarette smoker, is an infrequent consumer. We know that, with most drugs, if we divide an ordinary dose into ten equal parts and give one part every ten minutes until the ten parts are taken, we get a more powerful effect than if the whole were given at one dose. So it is with cigarettes. The dose of nicotine is smaller, but the doses are much more frequently repeated. I can smoke one large, strong cigar in the ordinary manner without evidence of nicotine intoxication, but I cannot smoke three cigarettes inhaled, in succession, without nausea or vertigo or a rapid pulse.

The evil effects of cigarette smoking may be divided into the local and constitutional. As compared with other tobacco habits, if the cigarette were composed of other ingredients than tobacco and paper, we should as clinicians be prepared to look for different signs and symptoms. As far as the constitutional effects are concerned, I wish to state, as one who has carefully watched this question for fifteen years, that they are absolutely the same as that of tobacco used in any other form. The evil symptoms are always those of nicotine poisoning; not those of any other drug. The only chemist of high standing who, to my knowledge, has analyzed cigarettes is Dr. Ledoux, who last winter presented to the New York Society of Medical Jurisprudence a report of the analysis of several popular brands of cigarettes. The dealers from whom he obtained the samples expressed their hope to him that he might find all kinds of narcotics in them; that all the profit accrued to the Cigarette Trust. He found absolutely no evidence of any other drug but nicotine in the tobacco, and in the paper a harmless quantity of cellulose.

The W. C. T. U. has endeavored to crush the cigarette evil by asserting that opium, *cannabis indica*, and other narcotics were present in cigarettes. Vice cannot be cured by

misrepresentation. The only narcotic present is nicotine, and this is an evil or not according to a great many different circumstances. That chief circumstance when, without exception, it is always productive of great harm, is youth. Every medical man will admit, theoretically, that this should be a fact, and the few who, like myself, have made practical observations, will tell you that they never saw a child (I mean by this term those who have not reached puberty) who used tobacco habitually whose health was not in some manner badly impaired. What else could one expect the tender, growing, nervous organism to do but wilt under the steady daily influence of a drug like nicotine? In adolescence,—and practically this may be said to be from puberty until 18 in females and 21 in males,—the evil is not so great, but is still a great one. For though the nervous crisis of puberty has been passed, the nervous system is still rapidly developing. The nerves are more resistant than in childhood, but on the other hand, greater demands are correspondingly made upon them, either by the higher phases of education in one class, or by the actual daily struggle for existence in the other. That the use of tobacco is a serious handicap in adolescence is proved by the investigations of others than myself. At several of our great universities it has been found by exact and scientific investigation that the percentage of winners in intellectual and athletic contests is considerably higher in the total abstainers from tobacco. Sammy, the best-known newsboy of St. Louis, who, by his wit and energy at the age of fourteen, has accumulated quite a bank account, at my instigation made a series of unbiased observations concerning the newsboys of St. Louis. He found, other things being equal, that the selling capacity of the boy who used no tobacco was much greater than that of the boy who used tobacco, either by chewing or smoking.

It being admitted that the use of tobacco is a great evil, in the young, it follows as a self-evident proposition that any method which encourages its use must be more reprehensible than a method which discourages its use, and the cigarette

above all other methods presents this encouragement to the use of tobacco. In its mildness is concealed its very capacity for doing harm, for the reason that it *teaches the use of tobacco*. Every one knows the picture, by Brown, of a news-boy clinging to a lamp-post, limp, pallid, and vomiting, entitled, "His First Cigar." Had it been "His First Cigarette," the picture would not have been true to nature, for, unfortunately for our growing youth, the first cigarette does not induce this deathly nausea. Were this only the case, there would be but one cigarette smoker in youth where there is now one hundred. The boy at first uses only the mouth as a smoke chamber, and as a cigarette is so mild he absorbs but a minute quantity of nicotine, — insufficient for nausea. He gradually becomes able to consume more cigarettes, and quickly acquires nicotine tolerance. He is not allowed to pursue this method long. Invariably some other boy teaches him to inhale. At first it causes violent cough, and many would never repeat the attempt, but the taunts of the other boy are heard, and with the bravado of boyhood he perseveres. The larynx and windpipe soon tolerate the smoke, then demand it, and the boy is a full-fledged cigarette fiend.

The mildness of the cigarette explains also its fast-spreading use among young women, especially the leisure class of young ladies. As a rule they do not inhale, for, at the first attempt, the violent cough ensuing quenches ambition in this direction, and, unlike the youth or the boy, she is seldom encouraged to persevere. The fear of a tobacco-tainted breath also curbs her habit. In young ladies who smoke cigarettes very moderately, and who do not inhale, I have never seen evidences of nicotine poisoning. Their immoderate use, even without inhalation, may, of course, afford sufficient nicotine to disturb the health. Apart from this, however, I join hands with the ladies of the W. C. T. U., who in New England have established anti-cigarette leagues among young ladies reformed of the habit, because of the pernicious example these young ladies may set to the youth and childhood which surround them.

Personally I may add that when I am appealed to on the same ground I freely admit the force of the argument. I, however, do not pose as a reformer or advocate,—only as an expert.

The great evil of tobacco is its constitutional effect on the nervous system. The much lesser evil, local, namely, on the upper respiratory organs. My experience, like that of Morrell Mackenzie, is that, provided there be no other factor, the use of tobacco provokes little or no disturbance to these organs. That it may aggravate a throat or nose trouble, occasioned by other causes, I will admit; or that by its constitutional depressing effect it may aggravate such trouble, I will also admit; but, excluding all other causes, and looking at tobacco purely in respect of its local effect, I must deny that it ever causes, as ordinarily used, throat disease worthy of the name. There are a few exceptions, as there are to all laws in medicine. There are idiosyncracies in regard to the use of tobacco, both with reference to the throat and the nervous system. They are rare. Tobacco, in its ordinary use, at most, produces a slight hyperæmia, or insignificant catarrh, in the healthy throat. As used in cigarettes, that is by inhalation, the smoke comes in contact with the laryngeal, tracheal, and bronchial mucous membrane, and here produces in many the same trivial hyperæmia and secretion. This latter is pearly, and is ejected with a single gentle cough. I am unaware that I have this slight cough unless reminded by others. I have occasionally heard whistling rales in the bronchi of those who inhale very deeply and are immoderate smokers. Hyperæmia, not inflammation, acute or chronic, is the sole disturbance. The effects in the larynx of the ordinary healthy man seem almost nil. Mario, the great tenor, inhaled cigarette smoke between the acts. I experience no vocal difficulty in delivering lectures. Maxwell, the murderer of Preller, was confined in the St. Louis jail for two years, during which time he inhaled an average of forty cigarettes a day. I secured the larynx and trachea of Maxwell, but could discover no evidence of morbid change, other

than a fracture of the hyoid bone, caused by the hangman's rope.

Twenty years ago, in this country, this habit existed, but was unusual; probably because each consumer was compelled to make his own cigarettes. But since the American manufacturer, with his advertising genius, has scattered them over this country, ready-made and very cheap, the habit has grown enormously. Nervous diseases and insanity are rapidly increasing in the American people, we are assured by our own neurologists. Our nation was already noted as furnishing proportionately more neurasthenics than any other. If to such an inheritance American youth then adds the nerve-destroying nicotine habit, which the cigarette so materially assists in spreading, there is grave reason to hope that the cry of reform may be echoed and re-echoed throughout our glorious country. There is no such instructor of the people as the press, and I trust that our newspapers will publish broadcast such information as this, and kindred essays may give them on what is fast becoming a national vice in American youth, — the cigarette habit.

There is in a large number of inebriates an underlying strata of mental impairment and defect of organization which prevents them acting along lines of rational self-control. They have feeble powers of resistance to pain and suffering, and act on any suggestion, both within or from without, for relief. Such persons suffer from physical pain and exhaustion, and alcohol or any narcotic is a grateful exemption.

In estimating the crime of an inebriate, his life history, with heredity, and all the circumstances and conditions which entered into the act, are necessary to form some conception of the responsibility and power to have done otherwise.

DIAGNOSING OPIUM HABITUÉS BY SNAP-SHOT.*

BY W. W. POTTER, M.D., SPOKANE, WASH.

We are frequently asked, "Is not so-and-so addicted to opium?" and our invariable answer is, "I cannot tell." Sometimes the answer means that "I really do not know," sometimes that "I do not know enough to be positive," but it always means that "I do not tell what I know to disinterested parties."

Opium addiction has become so common of late years that the above question has become a frequent one to the physician, and a hasty diagnosis has often been a false one, from lack of sufficient data.

One difficulty of diagnosis is, that misconception as to prominent symptoms exists. Many a one, reading the usual descriptions of a confirmed opium-taker, as given in the text-books, is led to believe that all such habitués can be diagnosed by "sallowiness," "emaciation," "premature grayness and aged appearance," "a small pupil," and "nervous action;" but this is erroneous; the above symptoms are not "characteristics," and are frequently wanting altogether in very pronounced cases. The "sallowiness" is more frequently only pallor, and tells us only of a greater or less degree of anæmia. There is nothing "pathognomonic" in this symptom. I have noted its absence recently in two well-marked chronic cases.

"Emaciation" may be the rule, but it has many exceptions. I recall five cases, four male and one female, all long-time habitués, and not one of them weighing less than 160 pounds. The female recently died of an intercurrent affection; was using three grains of morphia daily and weighed over 200 pounds. One man has used opium in several forms

* Read before the Washington State Medical Society, May, 1895.

and various ways for twelve years (cocaine has also been added during the past few months). He has taken as much as thirty grains of morphia daily, and is now using fifteen by syringe, but to my certain knowledge has not materially changed in weight during the past two years. He is still well nourished, though his arms and thighs are thickly tattooed by the marks of the needle, and cicatrices of superficial abscesses. The fact is that the world is full of robust appearing opium slaves, who ordinarily escape attention.

As to "growing gray and prematurely aged," I have never noted the former, and the latter only in children. On the contrary, opium, by its retarding action of all the organs, has sometimes seemed to act as a preservative of the body, and that, too, in cases of surprisingly large dosage.

The "small pupil," a usual symptoms of opium, is sometimes unaccountably absent in the habitué. I have notes of one case using fifteen grains of morphia daily hypodermatically, whose pupil was nearly normal at all times. His addiction had lasted eight years, and I am positive no other drug was used. Another case of smaller dosage and shorter term presented this same exception, which can only be explained on the grounds of idiosyncrasy or habituation. And when it is remembered that the pupils of an habitué, when not under the direct act of opium, are dilated, and sometimes unequally, then the appearance of a small pupil as a prominent diagnostic aid loses its weight.

"Nervousness" is never seen when the habitué has his accustomed dose; it is the want of the opium that causes this symptom, and many others. Its severity will depend much upon the physique and temperament of the individual, and the physician will rarely have the opportunity of observing this if the habitué can help himself.

All these are the symptoms usually sought for by the hasty diagnostician, and in my experience are the ones least to be relied upon. They are the only ones on which a "snap-shot" or hurried diagnosis can be made. When found they may indicate some wasting disease or neurasthe-

nia as well as opium habituation. Nor will the absence of these symptoms settle the question of opium using in the negative. A physician recently testified in court that "he was able to tell an opium user across the street." He "had met the accused only casually" and declared "there was not a symptom of opium about him." But his testimony was false as to fact, for three reputable physicians who had carefully observed the case, gave opposite testimony. Snap-shot diagnoses resulting in an opinion that brands a man as an habitué have too often been made, and great injustice done.

But there are other difficulties than those first mentioned in the way of correct diagnosis. The drug-user himself hides all the symptoms possible of his drug using. It is even difficult to find where he purchases his drug, and when or how he takes it, and he resorts to many tricks that are blinding to the uninitiated.

Opium contracts the pupil; he therefore resorts to some mydriatic like atropia, or preferably, on account of its stimulating effect, cocaine. By experience he learns to gauge his dosage so as to hold the pupil at a certain size. But this ruse can be detected easily; the pupil will not respond to the varying light.

Alcohol in some form is sometimes combined with opium taking, not for the sake of the alcohol, but that its odor may lead the enquirer astray, and blind him as to the real stimulant used. The odium of being "a drinker" is always preferable to the detested and detestable term "fiend."

Less frequently we find the opium habitué combining chloral or some other hypnotic, and occasionally one will be found where it will be difficult to tell what intoxicating drug he does not use in combination. It is quite safe to assume that if the habitué be a physician, and the habit one of long standing, that many substitutes for opium will be tested alone or in combination, and he is likely to run the gamut of chloroform, ether, conium, cocaine, hyosciamus, cannibis indica, and proprietary remedies like bromidia, chlorodyne,

chloranodyne, and the like, thus obscuring his opium by complexing symptoms, and his ever-ready lying explanations. I know of one who successfully hid his opium habit for two years by just such practices.

The most surprising deceptions will sometimes be resorted to, particularly upon the laity. I am familiar with a case where a man accused of using morphine by the syringe made a great show of courting a full and free investigation, and stripped himself to the waist for the purpose of examination; the investigating committee reported that "his skin was as smooth as a new-born babe's." In this case the site of injection was unusual, it being the posterior aspect of the upper arm, or triceps region. It is easy to conceive how he could make such a display of himself, and with outstretched arms and rotating motion still hide the needle marks from discovery by superficial examination.

Another surprise sometimes awaits the doctor who attends opium habitués. He may be rewarded not only with ingratitude, but calumny as well from those he has attended, while some whom he has never seen will proclaim him as the man who cured or failed to cure them. But such is the lot of a physician, and it will probably never change. We think it sufficient to here add in paraphrase that —

"For ways that are dark,
And for tricks that are vain,
The modern drug-user is peculiar,
Which the same, we've tried to explain."

But there are some symptoms of opium which the habitué cannot hide. It will congest the conjunctiva and suffuse the eyes. The vision will have a peculiar stare, like one in constant day-dream. He looks not at you, but beyond and through you. His voice will be husky under a full dose. His skin usually itching. He will complain of disturbed digestion. His appetite, to-day ravenous, will be entirely wanting to-morrow; to-day he complains of diarrhœa, to-morrow it is constipation; he is all activity to-day, to-morrow overcome by extreme lassitude; his sleep is disturbed

and never restful. He "stretches out the hours of recumbence to their last possible extent — with a secret wish to have lain on still." In older cases night sweats, with rapidly alternating hot and cold flashes over the spine, tremors, neuralgias, nervous excitability and restlessness, all these changing in a very short time to serene composure, somnolence, or sleep. These represent in brief outline two distinct states, one of a satisfying dose, the other the period of abstinence when the whole system is loudly demanding its accustomed opium.

The evidence of these two states must be established, and other causes than opium removed by exclusion. Then, and then only, are we justified in our diagnosis of opium addiction, and, in view of our great liability to err, I here enter a vigorous protest against "snap-shot" opinions, knowing full well how they hurt, and the difficulties of removing such a stigma. — *Medical Sentinel.*

It is very evident that at no distant day some change must be made in the law governing the sale of intoxicating drinks. In the preparation of that law, we respectfully urge upon our law-makers and law-enforcers a careful consideration of the law adopted in Denmark, and rigidly enforced by the police. The police, when they find a drunken man in the streets, summon a cab, place him inside, and drive to a police station, where he is detained until he is sober. Then he is driven home, the police never leaving him till he is safe with his family. The cabman then makes his charge, the police surgeon his, the constables theirs, and this bill is presented to the proprietor of the establishment where the culprit took his last and overpowering glass. This system works well in Copenhagen. Why would it not be equally effectually in New York? It would not only be much more easily enforced than the present excise law, but also be productive of much more good.

ALCOHOLISM, WITH SUGGESTIONS AS TO
TREATMENT—STATISTICS FOR BUFFALO.*

BY SIDNEY A. DUNHAM, M.D., BUFFALO, N. Y.

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Dipsomania.*

From the police reports we find from 1890 to 1894, inclusive, that there were 33,909 arrests for drunkenness in Buffalo. Of this number of arrests 29,895 were men, 4,014 were women, or an average for each month of 498 men and 66 women. During the same period of five years there were 16,213 arrests for disorderly conduct. Of this number 13,480 were men, 2,733 were women, or an average for each month of 224 men and 45 women. Of those classed under this head, it is safe to say that the majority were drunk as well as disorderly. During the same period 490 were classed under the head of dipsomaniacs and sent to the jail to sober up. The Erie county penitentiary reports for the five years show that 16,949 men were there for drunkenness and 3,080 women were sent to the same place. While more than one-half of the arrests for drunkenness were sent to the penitentiary, about one-third of those arrested for disorderly conduct were also sent to the penitentiary. One man has a history of being sent to the penitentiary for drunkenness fourteen times in one year and another thirteen times. Of those sent to the jail for dipsomania nineteen were in twice and nine three times.

During this period of five years, reports from the coroner's office show that 79 died from alcoholism, and out of the 221 suicides 73 were known to have been hard drinkers. According to French authorities, the preponderate cause of suicide is alcoholism. The reports quoted show that nearly half of the suicides in the city are due, directly or indirectly,

* Read before the Buffalo Academy of Medicine.

to alcoholism; and if a correct history of these cases could always be obtained there is no doubt that the majority of suicides would be found of that class.

Comparing the small number treated at hospitals, where drink was the cause of their confinement, with those that were retained for punishment, we find that only 264 men and 43 women were in the Buffalo General Hospital during those five years, and that 169 men and 39 women were at the Buffalo State Hospital or asylum. Probably an equal number were treated at the Sisters of Charity Hospital. However, the reports show a very small number receiving treatment for a disease which held these habituates as slaves to appetite.

Dealing with it as a crime against law and order, severe fines and heavy punishments have been applied in all ages. But a very small percentage have been benefited of the large number of those thus treated. Treating it as a disease, the last decade has revolutionized the theories as to the cause, also care, of such maladies, and the progress has been as great in this direction as that which has marked the treatment of many other diseases. Experience teaches us that it is a disease which can be successfully treated, the time and course of treatment depending upon the stage and character of the disease. The treatment of this class of patients has varied from the heroic method of blood-letting in olden times to the empiric method of hypnotic suggestion of the present day.

Like other diseases, dipsomania or chronic alcoholism may be inherited or acquired. In either case the treatment is the same, although the results may be different. The more chronic the case, the more persistent should be the treatment. Habit leads to disease just as exposure leads to rheumatism. The strong-nerved man finds appetite often more than he can overcome. Therefore, we should expect that the one who has inherited a nervous weakness should frequently find accustomed appetites uncontrollable.

Heredity predisposes to dipsomania, the same as it pre-

THE PHYSICAL, INTELLECTUAL, AND MORAL ADVANTAGES OF CHASTITY. By M. E. HOLBROOK, M.D., Editor *Journal of Hygiene and Herald of Health*, etc., etc., etc. M. Holbrook & Co., Publishers, New York City, 1895. Price \$1.00, postpaid.

This work of one hundred and fifty pages presents the reasons for chastity and the various advantages in a clear, graphic way.

The physical laws and the penalties of their violation, also the advantages from their observances, are set forth in a very plain, sensible manner. Such works are invaluable for young men and women, by removing false impressions and giving correct ideas of sensual life and control, and inspiring to a higher ideal of living. Such works in the hands of young persons would be of immense service to the cause of purity, and a power against the evils of unchastity. We most heartily commend this book, and thank the author for his excellent contribution to the uplifting of humanity and clearing away many of the doubts and present obstacles.

THE FEMALE OFFENDER. BY PROFS. LOMBROSO AND FERRERO, with an Introduction by W. D. Morrison of Her Majesty's Prison, Wandsworth, England. D. Appleton & Co., N. Y., 1895.

This is the first of the "Criminology Series," by Dr. Morrison, and is designed to embody the results of extended investigations into the physical conditions of crime and degeneracy.

Beginning with the great teacher Lombroso, the criminal and abnormal woman is studied in a most exhaustive way. The anthropology, pathology, psychology, and physiology of the criminal woman and prostitute is treated in seventeen chapters, fully illustrated by groups of pictures. Many of these chapters are most suggestive studies of women who are constantly under the care and observation of physicians. The anomalies and types of these classes, with their special degenerations and defects, is a wonderful study, especially

when the fact appears that alcohol in the parents is a prominent source of this degeneration. Our readers will find in this work a vast field of allied disease to that of inebriety, another branch of the same family dissolution. Crime in women is always fascinating, and always obscure, and yet it follows organized lines of movement. This work is a revelation to most readers and calls attention to the vast range of physical causes, that are practically unknown in crime by both sexes. As a new work, in a new field, by a great student of science, it should be in the library of every student and thinker. This is literally one of the epoch-making works of this century, particularly in calling attention and opening up a new field of anthropological study.

THE DISEASES OF PERSONALITY. By T. W. RIBOT, Professor of Comparative and Experimental Psychology in the College de France. Authorized translation. Second revised edition. Chicago. The Open Court Publishing Co., 1895.

That the works of Ribot are appreciated in this country is manifested by the number of excellent translations which have been published in America. It is not so long ago that Professor Baldwin, late of Toronto University, translated Ribot's "German Psychology of To-day," while the Open Court Publishing Company have authorized translations of his "Psychology of Attention," "The Diseases of the Will," and, lastly, "The Diseases of Personality."

Ribot is a strong advocate of the new psychology, *i. e.*, a psychology which repudiates metaphysics. Experimental psychology presents a wide field for future research, and it is from a more thorough and practical study of the pathological and physiological manifestations of the nervous system that we are to expect much advance in psychological lore. For purposes of analysis of the human personality, Ribot has made a division into the organic, affective, and intellectual conditions of personality.

Among the organic disorders he discusses slight variations of the personality in the normal state, cases of double personality, personality of doubles, monsters, and the personality of twins. Among the affective disorders he discusses depressions and exaltations of the personality, their alteration in circular insanity, complete metamorphosis of the personality, sexual characters, eunuchs, hermaphrodites, opposite sexuality, total transformation of the character, etc. In disorders of the intellect he discusses the alterations proceeding from paræsthesia and dysæsthesia, alterations proceeding from hallucinations, cerebral dualism, and double personality, the role of memory, and the role of ideas. In another chapter on the dissolution of personality the changes of personality in progressive dementia are discussed.

The medical practitioner interested in psychology will peruse with interest this excellent translation of one of Ribot's latest works.

The *Scientific American* by Munn & Company is a paper of rare value and usefulness in every family, stimulating interest in all scientific movements of the day.

The *Homiletic Review* should occupy a place with all the great monthlies on the library table. Its topics are cheering and helpful. They lead the mind into ranges of peace and quietness, out from the excitement of the present.

The Voice, still echoes the roar and clash of the battle with rum, a conflict that must end in the abolition of our present delusions concerning alcohol as a beverage. *The Voice*, as a weekly paper, has caught the sounds of the oncoming revolution, and its tone is more confident and emphatic. It demands a place in every library and family of the land.

The *Appleton's Popular Science Monthly* is the new title of our old friend whose monthly visits brings stirring news from the scientific frontiers. No other journal is so stimulating and positively healthful to the medical man in every possible relation. Every asylum should have a copy in its library, if for nothing more than to show a desire to keep up with the restless march of truth.

A Noble Life is the title of a memorial pamphlet with portrait of John Newton Stearns, who was so long and prominently identified as secretary of the National Temperance Society. It is an excellent sketch of a good man who was very influential in the cause of temperance in the country.

The Review of Reviews is practically a busy man's journal, where he can see at a glance an epitome of the world's progress, and all the varied discoveries of the hour. Every new paper that is published is noticed here, and all the new thoughts of the best thinkers are brought in review. Send for a copy and examine its merits.

PILOCARPINE IN ALCOHOLISM.—Dr. Josham recommends one-third grain doses of Pilocarpine hypodermatically, and declares "its sobering effects are remarkable"; sleep ensues, and the patient wakes up a perfectly rational being. "The tense, red, bloated countenance and bleared, congested eyes pass away, the features become calm and easy, the skin soft and clear."—*Provincial Medical Journal*.

INEBRIETY IN FRANCE.—The following statistics by M. Magnan give an idea of the prevalence of alcoholism in the department of the Seine. Among 3,740 patients (2,072 men and 1,668 women) admitted to the Sainte Anne Asylum in 1894, there were 775 suffering from alcoholism; of these 624 were men and 151 were women.

A petition has been presented to the English House of Lords praying that any person who has been twice convicted of drunkenness within two years shall be defined as an habitual drunkard, and that any licensed dealer serving or harboring him, after due notice, shall be liable to penalties and forfeiture of license.

Editorial.

THE QUESTION OF NUTRITION IN INEBRIETY.

Many cases of inebriety have a hereditary predisposition to unbalanced and defective nutrition. From early life food has been used with great irregularity, as to time, quality, and quantity. Various complex derangements of digestion, with defective assimilation, and excretion are common. Wide variations of appetite, and periods in which the person becomes fleshy or grows thin follow each other. This nutritional variation was noted in the army where, under similar surroundings and conditions of living, excretion and assimilation varied widely. One man would become fleshy, another would lose flesh, and constipation, diarrhoea, defective or increased appetite, together with other changing nutrient disorders were common. In a certain number of cases of inebriety, nutrient irregularities were provoked in early childhood, by reckless and indiscriminate choice of foods; permitting the child to have everything its taste or inclination desired. From this a defective nutritive control and want of balance are started which continue through life. This derangement is always imperfect assimilation and excretion, and the toxic products retained in the system become sources of poisoning. Alcohol in some form is the basis of many digestive remedies, and while acting as an anæsthetic, quieting the irritations from the poisons, is the cause and source of new and more dangerous degenerations. This nutritive derangement is manifest functionally by states of nervous irritability and rapid exhaustion all through life. Derangements from the slightest causes, strains and varied states of exhaustion all center on nutrition, and disturbances here become the exciting cause of the craze for spirits. After spirits or any narcotic drugs are used continuously or in

so-called moderation, the formation of toxic products are increased, and their excretion and elimination diminished. The inebriate is always in a semi-poisoned condition, in which nutrition is most seriously and specifically affected. The rational treatment should be directed, first, to elimination, and to assist in throwing off the poisoned products, also to correct and improve the nutrition. Baths, saline purgatives, and easily assimilated foods that do not tax digestion are required in all cases. These are increased in value by nerve rest, quietness, and correct psychical surroundings. It will be apparent that the nutrition of all cases of inebriety is of great importance in the treatment, but should not absorb the entire attention. In certain cases the correction and restoration of nutrition is the practical cure of the inebriate ; in others it is the beginning the cure. Questions of particular diets, such as grains, fruits, and meats, or mixtures of these foods, are all practically unknown fields of study. It is not possible at present to dogmatize or assert positively concerning the value of any special diet in the treatment of inebriety. From the facts at command there can be no doubt that more particular attention should be given to the nutritive treatment of these cases. Assimilation and elimination are functions of supreme importance in the building up and restoration of the degenerate states which are at the bottom in inebriety.

TRAINING ESSENTIAL IN THE STUDY OF INEBRIETY.

It is one of the curious facts rarely noticed, that many of the voluminous authors on inebriety and the drink evil are without training and experience in the study of this disorder. One man, the author of three books and many papers minutely describing the cause and cure of inebriety, is a clergyman who denounces physicians and scientists as infidels and unsafe, unreasonable teachers. Another famous author is an editor who began as a printer, and a widely

known reformer who boasts of his power to teach the world the truths of alcohol, spent twenty years of his life in excessive drinking, then stopped and became a teacher. Another man who is very dogmatic and assertive, and has written voluminously on inebriety is a retired merchant who has spent most of his life behind the counter selling goods. The list might be extended almost indefinitely, and in every case we look in vain for the training and preparation to become competent observers and teachers of what inebriety is or is not. The reformed inebriate may talk glibly and with great earnestness about inebriety, but he is beyond the period of carefully gleaning, storing, and tabulating facts concerning inebriety. He is incompetent to reason from the facts alone, above all dogma, theory, or intuition. His brain cannot proceed along the lines of logical equations, of similarity and diversity, of identity and difference, and on these range the facts under some general law. The clergyman and reformer who start from some theory, then pile up evidence to support it, are unable to understand the real facts and their true meaning. The study of inebriety is not advanced by such men; they may keep up a certain agitation and conflict of theory and opinion, but they never enter into the real territory of facts. This is only done by the trained student, who brings to the work capacity for collecting, discriminating, and grouping facts, and from this, discovering laws and lines of generalization that point out the real forces at work. All this must be done without the bias of theories or previous conceptions. Facts concerning inebriety collected by the reformed inebriate, by the emotional enthusiast, are incomplete, faulty and fictitious, however honestly they are held. They are so largely the products of the emotions and feelings as to be practically rubbish. Yet every one assumes that such men are competent to judge why men drink, and how they can stop. In the lowest haunts, and in the most intellectual circles, this great drink problem is discussed with the familiarity and assumption of a common every-day topic, while in reality it

is one of the most difficult psycho-scientific topics of the age. It is toxicological anthropology, which requires not only special training to understand, but great natural tastes and adaptabilities for such a work. The strongest, clearest brain powers are demanded. No one who has been poisoned by alcohols and drugs can do this work ; no desires or emotionalism, or zeal or oratory, or excellence in humanitarian labors, will prepare one for this great field of exploration. The time is not far away when trained men will appear to occupy and open up this new dark continent of truth.

LEGAL TREATMENT OF INEBRIETY.

The failure of the present legal methods of treating inebriety, and its inability to check drunkenness and protect society is emphasized by the statistics of each year. From police and other court records of persons arrested for inebriety, there is evidence of a marked increase in numbers. This is in the aggregate, not in any one place or time, but in the course of years. While there are noted fluctuations, such as a great decrease, then a sudden increase of persons arrested for inebriety, the rise has been continuous, and parallel with crime and pauperism. The present methods of dealing with inebriety are evidently powerless ; immense expenditure of energy and money is lost in every community and nothing is accomplished. Why are these efforts of legislatures through laws, and the application of them by judges, police, and prisons, such disastrous failures ? One of the obvious reasons is the delusion that inebriates can be controlled through fear of pain and punishment and dread of the law. It fails to recognize that alcohol produces anæsthesia and paralysis of all the higher nerve centers. The inebriate is abnormal ; no fear of punishment has any marked impression on his mind. He might shrink momentarily from the consequence of his conduct, but this would give way to the delusions of strength to overcome all possible conditions. The higher brain centres are more or less pow-

erless to recognize the claims of duty and obligation and responsibility to others. Another reason for this failure of penal methods is a similar delusion that all inebriates are alike, and the same conditions provoke and continue the use of spirits. Hence one law and one method apply to all. No treatment that is based on exclusive theories which apply to all cases of inebriety will succeed. It is assumed that alcohol is transient in its effects, and the same in all conditions of life, and that the inebriate is normal, and conscious of his conditions and relation to others. This is fatal to any plan of treatment based on it. The treatment of any diseases by routine methods with the same drugs, the same diet, the same surroundings and means is always a failure. The vast army of inebriates arrested for inebriety and petty crime are all treated alike, all subjected to the same penalties, and as a result they become more incurable. No recognition of causes and conditions, of biological anomalies, of degenerations, of mental and physical peculiarities, of environments, of relations to lunacy, to epilepsy, to criminality and pauperism, and hence the treatment is disastrous. Inebriety will increase until it can be studied and treated from the physical side; until the inebriate will be recognized as a product of pathological and atavistic degenerations; until the physiological action of alcohol on a defective organism is understood; until he is known biologically, pathologically, psychologically, and physiologically. Legal theories and legal remedies will continue to destroy and increase the evils they aim to lessen until this is done.

INEBRIATE TRAMPS.

Every one is familiar with the wretched looking degenerate tramp, whose red eyes and nose and alcoholic breath are unmistakable symptoms. There are other tramps that are not recognized, seen in the club houses, homes of the wealthy, rich hotels, up-town flats, and in churches, theatres, in Pullmans, steamers, ocean liners, watering places, and noted resorts everywhere.

They do not always have an alcoholic breath, but they are inebriated in every sense of the word. They drink at meals, early in the morning, late at night, and any time during the day. They are rarely intoxicated, but always garrulous, or stupid, and simple in conversation. They talk loud and long of religion, science, politics, and social questions, but have no real knowledge or clear views of anything. Their whole life is a round of selfish efforts to gratify every appetite, and every impulse that comes to the brain. They never have a thought of humanity outside of themselves, and regard everything of value only as it ministers to their selfishness. Such persons are consumers, never producers. They are degenerates, with steadily increasing paralyzed alcoholic brains, and belong to the same genus and same family with the ragged, wandering nomads called tramps. They are parasites living on the products of others, and doing nothing for the race; nothing to make humanity better, but by conduct and example destroying and breaking up every good impulse to rise. They are clogs and obstacles to all civilization. They require the same sanitary police care that the wandering nomad receives, and should come under the same rules. In the near future these tramps will be recognized, and treated by larger and clearer psychological laws of prevention and cure.

USE OF COCAINE ON THE RACE TRACK.

Within a recent period cocaine has come into use on the race track, as a stimulant. Horses that are worn and exhausted, or are uncertain as to speed and endurance, are given ten to fifteen grains of cocaine by the needle under the skin at the time of starting, or a few moments before.

The effects are very prominent, and a veritable muscular delirium follows, in which the horse displays unusual speed, and often unexpectedly wins the race. This agitation continues, and the driver has difficulty in "slowing down" the horse after the race is over; not unfrequently the horse will

go half round again before he can be stopped. The exhaustion which follows is not marked except in the great thirst and loss of appetite. Sometimes diarrhoea and trembling follows. But good grooms give unusual attention to rubbing and bathing the legs in hot water and stimulants. The general effect on the horse is depression from which he soon recovers, but it is found essential to give cocaine again to make sure of his speed. The action of cocaine grows more transient as the use increases, and when a long period of scoring follows before the race begins, drivers give a second dose secretly while in the saddle. Sometimes the horse becomes delirious and unmanageable, and leaves the track in a wild frenzy, often killing the driver, or he drops dead on the track from the cocaine, although the cause is unknown to any but the owner and driver. Some horses have been given as high as twenty grains at a time, but this is dangerous and only given to worn out animals, who may by this means win a race. It appears that cocaine is only used in running races, and as a temporary stimulant for the time. It is claimed that the flashing eyes and trembling excitement of the horse is strong evidence of the use of cocaine.

ALCOHOL BY SYNTHESIS.

M. Maisson of Paris has succeeded in making alcohol that can be sold for five cents a gallon with profit. The process is subjecting coke and quicklime to the heat of electricity in which carbide of calcium is formed. This preparation in water becomes acetylene. This is transformed into ethylene by heat, and by passing through hot sulphuric acid becomes alcohol when treated with water.

Clinical Notes and Comments.

TEACHING THE DANGER OF ALCOHOL IN THE FRENCH SCHOOLS.

The committee formed by the French Minister of Public Instruction to seek a means of combating alcoholism by the school has approved of the terms of a report by M. Steeg, inspector-general of primary education, in which those means were practically indicated. In his turn the minister has approved the conclusions of the report, and, by a double circular, dated August 2d, has addressed it to the prefects and clerics, recommending them to ensure its application on the return of the scholars. In this circular M. Poincaré expresses his confidence that "the devoted staff of teachers will not fail to collaborate in a humanitarian work which has for its object the preservation of at least the younger generations from the evils caused by alcoholism." We have M. Steeg's report before us, and desire to place its principal features before our readers. It is not necessary, in order to organize anti-alcoholic instruction in primary schools, to alter or enlarge the present curriculum. This curriculum, at the different primary degrees, contains formulæ to point out the shame and dangers of intemperance. Here is the proof for the primary normal schools. The course of morals which is given there the second year by the director of the school himself includes, after an exposition of the principles, a portion entitled "Practical Morals; Application." Now, is there a more striking application of moral principles than that which relates to alcoholism, that destructive scourge of the individual, the family, and society. The sub-chapters which treat of "Respect for one's self, of temperance, and of domestic and social duties," do not they explicitly call for the developments suggested by the terrible extension of the

evil? The course of zoölogy in the normal schools treats of human anatomy and physiology. In this the teacher, after having described the organs in a healthy state, will only have to show, by means of special blackboards and designs, which, I assure you, will be impressive, the morbid troubles and the grave deterioration caused by alcoholic intoxication. Lastly, the chemistry course, under the heading entitled, "Alcohols; Ordinary Alcohol and Fermentation (wine, beer, cider), Trials of Alcohols"; the course of hygiene, under the heading of "Water," and that of political economy, do they not present in the most simple and frequent manner the opportunity of pointing out from different and topical points of view the ravages and miseries of all sorts which alcoholism brings with it? Even the official programme adds the decisive word "Alcoholism," and it has wittingly done so, though when the curriculum was drawn up in 1887, the evil had not its present intensity, nor had public opinion conceived its present alarm. This method of combating alcoholism in dispersed order in normal and higher schools has the evident advantage of causing different professors to compete for the same object, and thus add the force of persuasion to this teaching. In order to summarize and condense what may be too vague, lectures in each of the normal and higher establishments will be given by competent doctors, placing the principal features of the subject in a clear light. But it is especially in the primary elementary school, to which all children are obligatorily called, that it is essential to warn them of the terrible danger which threatens them and their country. It is, then, with perfect reason that the ministerial committee and the minister have regarded as sufficient, as regards anti-alcoholic instruction, the present primary instruction curriculum. An immediate advantage arises from this; it is possible to commence without delay, and a ministerial circular suffices for everything.

— *Le Temps.*

A NEW BLOOD CORPUSCLE.—When Hayem announced the discovery of a third corpuscle, there was great enthusiasm among all biologists. When he later announced the relation of these corpuscles to the coagulation of the blood, the interest was greatly deepened. But when Laveran published to the world his discovery of a parasite in the blood of persons suffering from malaria, the very climax was reached. It was far greater than the discovery of a new blood corpuscle; for it told of a parasite which developed and multiplied within the red corpuscle, causing untold misery and large loss of life. We need no longer say we think a patient has malaria; for it is now possible, thanks to Laveran and the microscope, to give a positive answer. Now we know why quinine has such controlling power in this disease; it destroys the parasite and thus removes the cause. As the heel of man shall crush the serpent's head, so, definitely and positively, does the alkaloid of Peruvian bark crush out the life of the malarial parasite. But how can one describe the aches and pains which form a part of a malarial attack? Shall we give an opiate and quiet the pain at the expense of locking up the secretion of the body? There appears to be but one rational method: Give a remedy, if there be one, which will quiet the pain without affecting in the slightest degree any of the secretory or excretory organs. Such a remedy exists in Antikamnia. Antikamnia and quinine, therefore, are the two remedies which science has selected for the treatment of malaria and all malarial conditions. These are now prepared in the form of tablets, each containing $2\frac{1}{2}$ grains of Antikamnia and $2\frac{1}{2}$ grains of Sulph. Quinine.

In an editorial in the *Therapeutic Gazette* in 1892, the importance of discovering some substance possessing diastatic properties which could be administered in concentrated form to persons suffering from indigestion of the starches was urged, and since that time they have continued to urge

this need upon those best qualified to prepare such an active digestive substance.

The profession have tried to aid the digestion of starch for many years by the use of various preparations of malt, which have been largely given with little direct good as a result, for the diastatic properties of most of these preparations are so slight as to render them practically of no value as digestants, whatever may be their usefulness when acting as nutritives. Within the last few months a Japanese investigator has obtained such a valuable diastatic product that his researches deserve careful study and his results thorough trial. If, as he has apparently proved, we possess in Taka-Diastase a starch digestant equal to or exceeding in power pepsin or pancreatin for proteids, we have made an extraordinary gain in therapeutics, for we are now able to relieve a large number of persons suffering from faulty digestion of starch, and can aid our patients, during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods.

We trust that the readers of the *Gazette* will at once give this interesting ferment, which is capable of converting over one hundred times its own weight of starch, a thorough clinical trial, administering it in the dose of from 1 to 5 grains, which is best given in powder, or, if the patient objects to the powder, in capsule. We also trust that those who employ this digestant will, as soon as they obtain definite results, communicate them to the original columns of the *Gazette* for the benefit of other readers.

INDICATIONS FOR THE USE OF SULFONAL. — Among the hypnotics brought before the profession within the last few years, two, Sulfonal and Trional, have been received with much favor. After careful trial each was found to have its own field of usefulness in the treatment of the various forms of insomnia. Of course, it is not always possible in

any case to foretell with certainty which one of these is likely to prove of most value, although a knowledge of their physiological actions throws much light on this subject. Trional acts more promptly, but its effects are dissipated more rapidly, so that the action of one dose is less apt to be prolonged over the following night than in the case of Sulfonal. On the other hand, drowsiness on awakening is more common with the latter. We recommend Sulfonal especially for that class of patients who have no difficulty in going to sleep when they first go to bed, but wake in a short time and lie awake, two, three, or four hours, or may have no more sleep that night. In these cases Sulfonal does not interfere with the first early sleep of the night, and acts later so that the patient does not awake at midnight as usual. Given in small doses, not more than ten grains, it may be employed with advantage to quiet restlessness in neurasthenia, and various disorders which cause inebriety and opium disorders. The chief advantage of Sulfonal over Trional, therefore, is that the effect of a full dose continues longer, and that it will frequently produce sleep on the second night, and in a few cases even the third.

In a paper on Acute Mania by Dr. DeWitt, read before the Cincinnati Academy of Medicine: "To procure sleep and quiet is perhaps the greatest desideratum, and I know of nothing so certain in its action as chloral hydrate, given in 40 or 60 grains. It may be given alone or combined with one of the bromides. The "Bromidia" of Battle & Co. I have always found very reliable. It is almost certain to quiet and produce sleep. You will occasionally meet with cases that resist the influence of chloral even in large repeated doses; here opium or some one of its derivatives, either given alone or in connection with the chloral, will be found of service. If hypodermically administered, not less than one-third grain should be given. Small doses only excite the patient, and do more harm than good."

disposes to consumption. Both are developed under favorable surroundings. Asthma is a neurotic disease, inherited, but there is a climate for every asthmatic. Also, there is a climate for every hard drinker (temperate climate).

How They are Treated at Present.—Medically, the patient is confined to his room, either because he is unable to go out of his own accord or because he is constrained by friends. The physician prescribes medicines to overcome the alarming symptoms, such as uneasiness and sleeplessness, together with a steady withdrawal of stimulants. As soon as the patient talks rationally and walks steadily the physician discharges his patient or the patient discharges his physician. This course of treatment lasts from three days to one week, and is the sum of the entire medical attention the patient receives when he has been suffering from a chronic disease for several years. We need not be surprised that relapses occur very shortly and frequently. No other disease, so grave in character, so dangerous to the community and fatal to the patient, is to-day treated so carelessly and unscientifically.

Legally, the misdemeanant is arrested, spends a night in a cell at the station-house and is fined \$5.00 to \$10.00 in the morning, or an equal number of days at the workhouse. If he be well connected, socially and financially, he may be detained in the jail until his physical and mental condition is sufficiently improved to warrant the authorities in discharging him on the promise that it will be "the last time." When the patient is given an opportunity to go out into the world to do better, it is only a short time ere he finds himself again overcome by his tempter. In those cases where drunkenness is a vice, this treatment is insufficient; and in those where it is a disease, it is cruel and barbarous.

Why They Should be Differently Treated.—Because a careful physical examination reveals lessened nervous energy, weakened cerebral functions, interference with co-ordination and reflex action, altered secretions and diminished excretions. And further, because a mental examination reveals

hallucinations (painful or pleasant), delusions, melancholia, suicidal tendencies, and the like, and shows weakened will power, temporary loss of memory, the finer sensibilities numbed, perceptions and emotions dulled, truth, decency, duty, honor, and felicity doubtful or altogether lost. In every case there is evidence of the paralyzing effect of alcohol upon the inhibiting power of the brain, which is one of its highest faculties; and herein the greatest damage is wrought and the will undermined.

Again, because the pathology of this disease, in advanced stages, shows degeneration of the nerve tissue, hyperemia of the meninges of the brain, diffused interstitial sclerosis of the cord, with cirrhotic changes of the internal organs.

Charpentier, out of 135 victims of general paresis, found 83 cases were confirmed alcoholics. He adds alcohol to syphilis and heredity and calls them the triad of general paresis. As in severe forms of indigestion, with altered secretion and functional disturbances, when the *post mortem* shows no pathological changes, so in severe and dangerous forms of alcoholism, with perverted faculties and impulses, the brain itself may reveal no structural changes. Sonderegger considers drunkenness the effect and not the cause of the disease; that it is an irregular development and distribution of the cells through which the will and conscience act.

There are premonitory symptoms in periodic drinkers, such as nervousness, irritable disposition, forgetfulness, deep meditation, poor appetite, and sleeplessness. Baker (*Boston Medical and Surgical Journal*) reports a case of hereditary dipsomania, in which the patient, during his craving for alcohol, though prevented from getting it, would become sleepless, lose his appetite, appear silly, incoherent, staggering in gait, with some delusions of persecution manifested. As a patient expressed it to me the other day: "I am in another world during the drinking period."

How They Should be Treated.—From a criminal standpoint, the penalties should be multiplied by ten. It should be 100 days' imprisonment where it is now only ten days.

This would give the patient an idea of the gravity of the offense and will also give Nature time in which to gain strength and fortify herself against future temptations and indulgence. While thus restrained, the patient should be kept at light work and receive medical aid for at least four weeks, according to the most advanced and successful methods of the present day.

The medical treatment, where it is now continued for about five days on the average, is about one-tenth the time required to materially benefit these cases. The indications to be met generally are largely a disturbance of the nervous system, which manifest themselves in an irritable disposition, sleeplessness, fits of depression, and, later, excitability, with all the phenomena of mania-a-potu. The digestive processes are sluggish and weak in character, the excretions are deficient, and there is a general loss of muscular tone.

The excitable stages are best controlled by chloral and bromides; or, when there is much delirium with a strong pulse, hypodermic injections of hydrobromate of hyoscine 1-100th to 1-150th of a grain, to be repeated in six hours, or smaller doses every four hours. Ergotin, added in small doses to the above, will overcome the unpleasant effects of hyoscine with a good result on the cerebral congestion. Stimulants should be rapidly withdrawn, and when given should be administered in milk and other foods, but never should be given clear or "straight." If there is much nausea, it can be controlled by small doses of calomel and bismuth, frequently repeated, with nourishment given a little at a time and often. As soon as the patient is able to take nourishment, it should be fluid in character and large in quantity, highly seasoned. If the bowels are constipated, they should be opened by injections of water and glycerine, when the patient is not able to take alkaline aperients through the stomach in the ordinary manner. An infusion of digitalis, tablespoonful doses, with ten grains of citrate of potash every four hours, will increase the urinary excretions when they are diminished. Hypodermics of the nitrate or

sulphate of strychnine, with a little digitalin, are the best to overcome heart weakness and often relieves the delirium. Mulford's tablets for dipsomania for hypodermic use will be found very serviceable — namely, gold and sodium chloride, 1-24 gr.; strychnine nitrate, 1-60 gr.; nitroglycerin, 1-300 gr.; atropine sulph., 1-200 gr.; digitalin, 1-60 gr.; sodium chloride, $\frac{1}{3}$ gr.

Cold to the head overcomes delirium when due to congestion or active hyperemia of the meninges.

When the acute symptoms have subsided, a three or four weeks' course of curative treatment should begin. A tonic, consisting of nux vomica, hydrastis, capsicum, and an infusion of gentian, should be given four times a day and in full doses. Also hypodermics of the chloride of gold in solution — one-tenth of a grain to ten minims of distilled water — should be given three or four times a day.

Tablets of the above formula are good for the first week or ten days, followed by the gold solution. The platinum needle will not corrode by the gold solution and should be used for this reason. The infusion of gentian is used because it contains less alcohol than the tincture.

Because the chloride of gold meets so many indications in the treatment of dipsomania, there is no more reason to call it a "gold cure for dipsomania" than there is to call it a gold cure for consumption, where it has been used with a certain degree of success; or a "gold cure" for rheumatism with deformed joints, where it has been found valuable; or a "gold cure" for paralysis of the insane, where it is one of the most efficacious remedies.

The chloride of gold I consider one of the chief therapeutic agents in the treatment of chronic alcoholism. It has been used in cases of melancholia, hysteria, chorea, and especially nervous troubles due to syphilis. In its physiological action it seems to be a tonic for the brain and spinal cord — an alterative like mercury; it stimulates nutrition and digestion, increases secretions and excretions, and is an aphrodisiac. Its action in this respect is like that of strychnine and phosphorus.

The belief that the impotency for a time following the treatment is due to the chloride of gold, is a delusion on the part of the patient.

Strychnine tones up the nerve centers and the walls of arteries are able to contract to the normal caliber, while muscular fibres return to their healthful response.

If the alcoholic should require both punishment and medicine, as they usually do, the hypodermic method, four times a day, meets the indication beautifully. If the arms swell from the effects of the hypodermics, Goulard's extract will overcome the difficulty.

In some cases, craving for drink can only be removed by treating physical ailments. Lawson Tait reports cases of cure following the removal of the uterine appendages in women. Indigestion is to be treated, neuralgia and nervous exhaustion to be remedied, irregular and weak heart action to be overcome, environment and habits to be changed, syphilis and kidney trouble to receive attention. Irregular hours at meals and for sleep, the futile attempt to drink moderately, old associations in drinking, the intention to drink only beer and cider, all predispose to alcoholic excess in those already habituated to excessive drinking.

Some believe in inebriate asylums under the control of the state. Our insane asylums are just as good, and this class of patients go as willingly to the latter as to the former. The difficulty at present with our hospitals is their having no power to hold these patients as long as is required for successful treatment. Every city of the size of Buffalo, showing the amount of alcoholism that Buffalo does, is in need of a hospital for inebriates, endowed with power to retain patients until dismissed as cured. Our present overcrowded penitentiary would be greatly relieved of some of its very heavy burdens, the community better protected, and the reformation and cure of the victim would be more pronounced and permanent. I agree with Dr. T. D. Crothers of Hartford that public sentiment should not permit one to become an inebriate, or tolerate him after that stage, unless under legal guardianship and restriction, until he recovers.

Our morning justices should impose larger fines for drunkenness, which means longer terms of confinement. Medical treatment should be enforced for not less than four weeks while serving time. Our habitual drinkers who do not voluntarily take treatment should be committed to the asylum until a more suitable institution can be established. The state should arrange for the proper treatment of these cases when in penal institutions. A law is required to meet this end. Every municipality should have this done.

Drunkenness, with beginners, is of so great moment, because of its demoralizing effect upon youth, that, to be a preventive, fines must be large in order to be commensurate with the offense. While there may be a question about the responsibility of acts committed while under the influence of liquor, there is no doubt about the great responsibility of such persons getting drunk as a beginner.

A portion of mankind have proven in the past that they could not drink moderately, and ought not, therefore, to have taken liquor at all, as the first drinks (socially, it may be,) developed the uncontrollable desire which previous to that time had been latent and ought never to have been cultivated.

The moderate drinkers of to-day are going to furnish us with the dipsomaniacs to-morrow.

Those who have inherited a predisposition to consumption would not hazard their lives by continually nursing and associating with the consumptive. This applies to all those who have inherited irritable, nervous systems and thereby are predisposed to drink.

It is almost impossible to carry out this system of treatment in private practice. It can be more thoroughly done and the psychical effect upon the patient far more beneficial when sent to an institution. The Lexington Heights Hospital of this city has arranged particularly for these cases, and when treated according to this method the results are very satisfactory. Those who manifest a desire to take treatment and admit that they are unable themselves to dis-

continue the use of liquor, give the highest percentage of cures. Those who receive the least benefit remind one, when asked why they do not take treatment, of Rogers's lines:

"Go! you may call it madness, folly,
You shall not chase my grief away;
There's such a joy in melancholy
I would not, if I could, be gay."

The report of two prominent French medical authorities, Brouardel and Bouchet, to the French hygienic government committee, declare that the future belongs to abstemious nations; that it is not only a social danger everywhere, but that the body and mind of posterity are weakened. My object in presenting this paper is not to stir your emotions and entertain your higher sensibilities for the present, but to appeal to your intellectual, scientific, and executive powers for the better treatment and control, in the future, of these victims of habit and disease.

Dr. J. B. Mattison of Brooklyn, N. Y., read four papers on opium in October, before the New York Academy of Medicine. One on "Morphinism in the Young." The second paper on "A tale of the Poppy, and its Moral." The third paper on "Morphinism in old cases — three score and ten — with recovery." The fourth, "Morphinism in Woman." These papers were read before large audiences, and created much interest.

Maurel says that cocaine kills by: 1. Dilating the small vessels. 2. Paralyzing the leucocytes; strong doses taken by the stomach act in this way. The toxic effect is proportional to the number of leucocytes paralyzed. Small doses, hypodermically, or in the veins, may act by paralyzing some cells which then become emboli. Large doses may be injected into the arteries without killing. — *Omaha Clinic.*

A CASE ILLUSTRATING THE IMPORTANCE OF
AN ACCURATE DIAGNOSIS IN INEBRIETY
AND MENTAL DISEASES.*

BY DANIEL H. ARTHUR, M.D.;

Assistant Physician State Hospital for Insane, Middletown, N. Y.

W. S., age 48, married, two children, native of the U. S., occupation hotel-keeper. Habits said to be intemperate. No history of insanity. Remote cause — predisposition.

Exciting cause said to be intemperance, over work, and worry.

T. 99 $\frac{2}{3}$. P. 90. Tongue furred and dry, and very tremulous. Pupils contracted irregularly, non-responsive. Speech, hesitating, thick, unable to give any account of himself. Heart's action weak. Face dark, mottled. Paralysis of extremities.

Family history states that the condition of change was first noticed a year and a half before his admission to the hospital. Had alternate attacks of depression, and mild excitement: at times slight attacks of vertigo and loss of consciousness. In a few months he was unable to attend to his ordinary business properly. Unable to make change; would demand the payment of a bill twice; became dull and easily confused.

It was said that about six months before his admission to an asylum for the insane, that he commenced to drink to excess, which (if so, although not authentic), was undoubtedly a result of the course of the disease. His symptoms progressed rapidly the last few months before admission to a hospital. His gait became very ataxic. Memory almost gone; inco-ordinate speech; hands and the fibular muscles of face became very tremulous; unable to control them.

* Read before the Medico-Legal Society, February meeting, 1895.

He sat about the house in a stupor, too weak, physically, to move about much, and too demented to take notice of his surroundings. He was admitted to the hospital December 9, 1891, unable to give an account of himself, but with the preceding history and symptoms.

He died a few days later from simple exhaustion following — general paresis.

The patient was a member of a prominent beneficiary association, the benefit from which, two thousand dollars, was to go to his wife in case of death, providing the deceased had lived strictly according to the by-laws of the order. A prominent by-law of the order as a requisite to membership was temperance, as to the use of alcoholic stimulants, and also a continuance of such habits while a member of the association.

Temperance, as mentioned here, is not to be interpreted as absolute teetotalism, but a freedom from excess in the use of stimulants. Of course a man's excessive use of alcohol, at the time of application to an order for admission, would be known, and his name for membership rejected accordingly; but having been admitted to the order, should he at any time become so addicted to the use of alcohol, to the extent that would be called excess, as might precipitate a diseased condition, and in consequence shorten life, his family would forfeit the right to any benefit in the event of his death — the insurance would also be forfeited in case of the non-payment of dues. His wife ceased the payment of dues to the order some time previous to his commitment, as it was refused by an officer of the lodge with the remark that it would be money thrown away, as his family could not benefit in any manner at his death on account of his acquired intemperate habits. The wife insisted on paying the dues with the statement that she knew him not to be intemperate; that she was near him all the day and night, and had never seen him drink to excess. She stated that her husband was a sick man. The dues were, however, refused.

On the death of the patient the beneficiaries made a de-

mand on the association for the amount of the insurance, two thousand dollars, which was refused on the ground of a violation of the insurance contract. In the suit that was brought by the relatives of the deceased for the amount of the benefit, the defense brought forward about twenty witnesses, including the officers of the lodge, of the town, and could undoubtedly have brought half the village to testify that they had seen deceased staggering about the streets of the village almost daily; that they had seen him as often sitting about the hotel in a drunken stupor; that his general appearance was that of intoxication, and that it was recognized as a fact by most of the inhabitants of the village that W. S. had been intoxicated almost continuously for at least three months previous to his admission to an asylum. There was no special time during the day mentioned but he was, from the evidence given, as intoxicated in the early morning as in the evening. There was no sobering-up process observed, but a continuous condition of intoxication. Although all these witnesses were positive of the deceased's condition during this time, but one, and he a brother member of the lodge, had ever seen him drink. This member testified that he had drank liquor with him but had never seen him drink to excess; yet he insisted he had often seen him in a condition which he believed to be the result of excessive drinking.

All these witnesses were frequenters of the hotel at different times during the day and night, of which deceased was proprietor. His wife, clerk, bar tender, and other attaches of the hotel, who were more closely associated with him, testified just as positively that his condition was not the result of excessive alcoholic indulgence, knowing it could not be so without their positive knowledge. His family recognized a condition of progressive mental and physical deterioration, yet delayed sending him to a hospital until there was almost a complete paralysis. He was committed by the village physicians who diagnosed the case, and the cause that of alcoholism. These physicians (who diagnosed this case) testified that they were unacquainted in any degree with the different

forms of mental diseases, and in consequence were unable to differentiate between general paresis in the last stages and chronic alcoholism, but had made the diagnosis from the general appearance of the patient and village gossip. The interest in this case centers in the differential diagnosis of chronic alcoholism and general paresis, a proper diagnosis of which was the means of preventing the perpetration of a grave injustice upon the widow of the deceased. Chronic alcoholism, in many cases, recall more and more the general appearance of paralytic dementia (the last stages of general paresis) — “the brutishness of the chronic drinker; the soft, puffy, smooth appearance of the whole face; the apparent ruin of all his faculties; his incessant stammering, tremor, and the motor derangement he presents causes him to resemble clinically the general paralytic,” and the average general practitioner is very liable to error in his diagnosis.

The case in question had many symptoms in common with alcoholism, to such an extent, that a very careful analysis of the patient's mental and physical state was imperative in order to determine the real condition. A characteristic physical symptom common in both diseases is muscular weakness and muscular twitchings. Here, however, you find in chronic alcoholism the fibrillary muscular twitchings general all over the body; while in general paresis this is more limited, affecting mainly the tongue, orbicular muscles of the face, and the muscles of the hand. Rarely do you find in alcoholism the pupils of the eye contracted, while in general paresis this is a common symptom, and very often the pupils are contracted unequally and unresponsive; the speech disorder in chronic alcoholism is usually less than in paresis; in paresis the disorder increases as the disease progresses, while in chronic alcoholism it decreases and may entirely disappear under the influence of abstinence and treatment.

In alcoholism the embarrassed speech is dependent somewhat upon fear, with a constant apprehensive look; also upon the tremulousness of muscles of the tongue and face; while in paresis it is due to feebleness of the mind, and paralysis of

muscles. We have again, in chronic alcoholism, a diminution of appetite with eruptions; vomiting of mucus in mornings, and often a complete paralysis of stomach and consequent inability to retain anything.

While in general paresis, the appetite is augmented and the patient eats ravenously.

The hesitating, ataxic gait is a common symptom in both conditions; however, in alcoholism it is a recognized condition by the patient himself; he is ashamed of it, and tries to rectify it, while in paresis there is a quiet contentment with himself in all respects.

These were a few of the prominent physical symptoms observed in *this* case of general paresis and their differentiation from chronic alcoholism.

Among the mental symptoms of chronic alcoholism we have headaches, active hallucinations and illusions affecting all the senses; delirious conceptions depending on these hallucinations and illusions. We have, very often, great depression, with tendency to suicide, delusions of persecution, etc.; with all these symptoms, there is a consciousness of his condition. With the paralytic dement of this article there was never any pain, no hallucinations or illusions; the paralytic is seldom ever suicidal, there is an enfeeblement of the understanding with delusions of grandeur, wealth, and power. Here it took the form of strength and ability, the patient believing himself perfectly well and competent. There are many cases of general paresis with simply a progressive mental enfeeblement and no delusions whatever, but all the physical symptoms prevalent.

A characteristic symptom of general paresis (very marked in this case) is the utter indifference of the patient towards his family, and his temporary but apparently unconscious fits of emotion, as anger and crying; these are also symptoms of chronic alcoholism, but differ; the alcohol patient may become affected by the pleadings and reproaches of a mother or daughter, give way to grief, appreciating his condition, and make promises of reform; while the enfeebled mind of

general paresis is thoroughly content with himself and unappreciative of interest taken in him by even friends and relatives. The emotions of the chronic alcoholic are due to depression, the result of a periodic acute appreciation of his condition; while those of general paresis, alternate sobs and laughter, are utterly without order or consistency. The symptoms of general paresis which we have recorded here were prominent in this case, and I have endeavored to show where they differ from chronic alcoholism without going into minute detail. These considerations may aid in forming a diagnosis, yet by becoming acquainted with the antecedent habits and history of the case, extending through a considerable period of time, it will help very materially in clearing up the case. The initial history of the disorder here dates back a year and a half, when no accusation was made of intemperance: there was slight dementia with failure of memory, slight attacks of vertigo, and occasionally periods of unconsciousness for a short time. The court introduced expert testimony in the case and the jury allowed the amount of the benefit to the widow, with interest from the time of death.

Is there an inebriate neurosis? If the doubters will study the inebriates who appear in the police courts and jails, and the inmates of asylums, the answer will be clear and unmistakable. The defective degenerates both in appearance and history furnish abundant facts, far more impressive, than any theories however well presented.

NERVOUS PROSTRATION. — My son, aged 12, had been growing nervous over the shock of his brother's death, and seemed to derive no benefit from any remedies used in his case. Had him to the seashore, change of surroundings and everything that could be done for his benefit, he still grew thinner and worse all the time. I put him on *Celerina*, and had marked benefit before the first bottle was used, and he has almost entirely gotten over it with the help of another bottle I got for him. I consider it a very nice and efficient nervine, just the thing for the children and nervous and delicate persons, where there is great prostration. I shall use it freely. — N. P. FRASSONI, M.D., *Measick, Pa.*

ALCOHOL AND CHASTITY.*

BY DR. M. L. HOLBROOK,

Editor of the Journal of Hygiene.

In presenting what I have to say on the subject of this paper I shall be very brief and will not try to go over all the ground that might be traversed. Any one who is interested in the subject can easily do this. The Bible and many historical and temperance works, and even the common observation of most persons, tell the story of shame caused by strong drink. What I desire to say will come under another head than that this subject is usually discussed.

It is now generally admitted by scientists that man has come to his present estate by a process called evolution, that is, the development from lower forms to higher ones, or from simple forms to more complex ones. In this process of evolution there has been added new functions and new powers to man as they were required by the necessities of his life and his environment. And it is one of the fundamental laws of being that newly acquired traits are not so fixed and well established in the nature of men as the older or first acquired ones.

It is believed by our psychologists (a science, by the way, we ought to study more) that one of the last acquisitions of man is the power of *self-control*.

Let us stop a moment to inquire what self-control is and how useful it has been and can be to us. If we study animals and low organisms we see the power to control their own acts is wanting or nearly so. Let any one observe for an hour under the microscope living micro-organisms and what will he behold? Endless movement, perfectly meaningless to him. They rush along the line of least resistance without the slightest control of their acts.

* Read before the National Purity Congress, Baltimore, October 16, 1895.

With insects it is the same. Does the silk worm say, Now I will make a cocoon and undergo my transformations in it, or I will not make one, but go and enjoy myself in some other way? Nothing of the sort; it makes it under the law of its instinct without any volition of its own. When the time comes *it must* spin it whether it will or no. It cannot say, I will not, but will do something else.

Do the bees or the butterflies plan out and control their movements as they go from flower to flower? Do they stop to reflect before they visit a blossom, or say we will gather no more honey to-day? No. They too are guided by an instinct. See them fly through the air, now this way, now that. They have practically no power of constructing their own lines, or directing their own ways.

When it comes to higher animals, the horse, the dog, the bull, and cow, there may be slight intimation of self-mastery, but they are slight indeed.

With man, however, the case is different. He has had a story or several of them added to his intellect. It takes in a wider range, a larger view. *Man has developed the power of self-control. He takes charge of his own life and his own conduct.* He is able to say I will do this, for it is wise: I will not do that, for it is unwise. Even though his *desires* prompt him to do one thing, he can by this inhibitory power given by self-control, hold himself back and do something far different, something actually disagreeable, painful. He can even plan out a course of action which will continue for years and hold himself up to it during a long life. With most successful men in whatever field, this is the case. We can hardly estimate how very valuable it has been for man to do this. We get some notion of the use of this new power by comparing a man whose whole life is aimed at the accomplishment of some noble work and the man who has no aim, but is carried about daily by the whims and caprices of that day. Can any animal take its life under control as man can? No, not even the highest ape, and hardly the lowest man.

I said in the beginning, this power of self-control has

been one of the last acquired by man and that it has not been so firmly fixed in his nature as some other of his faculties, as that of the desire for food, for air, for procreation, etc. Many persons have it in a low degree, and, such by just so much come short of having the full stature of men. They yield to their likes and dislikes, their whims and caprices, their passions and temptations, even when their best judgment tells them that it is not wise to do so. The inebriate is a good illustration. He does not control his appetite for drink, often cannot. The glutton is another. Our insane asylums are full of men and women who have lost all control over their own minds and they think and act wildly, disorderly.

The sexual impulses are less under control than they should be, often even in those who otherwise live well ordered lives. These impulses are very important and will be so long as reproduction of the race must go on. The greatest good as well as the greatest evil results from them. There is no use in denying this. But as the evolution of man goes on, these impulses should and must more and more come under self-control. If social purity is ever to make any headway this new power in man's character, new comparatively only, must have a far larger influence in his sexual life, without perhaps knowing it from this point of view, this is what the organization convened here is for, to induce men and women to place the sexual nature under the guidance of reason, of conscience, of hygiene.

Now if I am right in what I have said, anything that makes it harder, or impossible to keep a mastery over one's own nature is a potent evil, and it is here that the relation of what I have said to the use of alcohol comes in. Do alcoholic drinks increase or diminish man's self-control over any part of his nature? If they increase it then they are in this respect a positive good. If any food or drink could be discovered which would make man more his own master than he now is, we might cease half of our efforts for reform and induce people to take them. Nor would it be difficult, even

though they might be unpalatable. But no such food or drink has been or is likely to be discovered, and as relates to alcoholic drinks, they always and invariably act reversely and lessen the inhibitory power of man over his own acts. If his powers in this direction are great when sober, they grow less and less the more alcohol he puts into his blood. If his powers are small in this respect a little alcohol upsets it and control is gone till nature removes the poison from his blood.

We have abundant evidence of this in that class of inebriates which are found in our asylums and institutions for their treatment. If they had not lost self-mastery, they would not have put themselves under the care of another to guide them back to health of body and mind. Let me now enumerate some of the simple facts which go to show that alcohol destroys self-mastery. I will take first the muscular system. In health and in the prime of life the voluntary muscles of a man whose body has had proper training yield obedience and all the movements are correlated into one movement of almost ideal perfection. Take a gymnast, a sleight of hand performer, a dancer as extreme illustrations. Take even a skilled wood-chopper in some of our western forests. How perfectly the number of each obey the dictates of the brain. But how is it when the dancer, the gymnast, or the axeman, are intoxicated? The power of control is lost in proportion to the degree of intoxication. No longer do the muscles obey the will, but the person reels, staggers, and falls helpless on the ground. Many of us no doubt have had slight experiences of this power of alcohol to take away self-control of the muscles when it has been used only medicinally, and in very small quantities.

The same thing happens to the mind. Under alcoholic influence the brain begins to think awry. It cannot think straight. The judgment becomes warped. The intellect clouded. A man under liquor once said to me: "Do you see that horrid creature coming down from the stars with a load of snakes and throwing them right and left about the room?"

It was a case of *delirium tremens*, his brain was no longer his own, it ran wild like an engine in full motion, and no engineer to guide it. Who of us would knowingly trust our lives on a railway train with an intemperate engineer? We know his judgment cannot be depended on to bring us safe to our journey's end. Many a battle has been lost, many a ship sunk, because the captain had lost control of his faculties by drink.

Shakspeare tells the whole story when he says: "Drink, and speak parrot and squabble, swagger, swear, and *discourse fustian with one's own shadow.*"

In the effect on the moral nature we find the same result of alcohol in taking away man's power over his own acts. Seneca said, ages ago: "Men will do many things in their drink they are ashamed of when sober. It emboldens men to do all sorts of mischief. It irritates wickedness. It was in a drunken fit that Alexander slew Clytus. It makes him who is insolent prouder, him who was fierce more cruel. *It takes away shame. The tongue trips, the head turns round.*"

I have thus by degrees led up to the final point, the effect of alcohol on chastity. The sexual impulse is one of the most powerful in man. It is necessary that it should be strong, but it is equally necessary that it should be under right guidance. There are no such checks to its abuse in the human being that are in the animal creation. Its wrong action must be prevented by self-mastery. In the normal man if he knows the benefits to health and happiness which result from chastity, he will take this part of his nature under the dominion of his reason and his better judgment. But the experience of the ages shows that intemperance, drink, alcohol so lessens the inhibitory power which is slowly growing up in man and which distinguishes him from all lower animals that this is impossible. Under its influence he drops back to a primal state—yes, worse than a primal state—and gives way to his impulses whatever they may be, the very worst thing it seems to me that can happen to a human creature. He now becomes a degenerate, insane, mad.

I could give abundant testimony that the use of alcoholic drinks is one of the strongholds of unchastity, but it is not necessary — you all know this. With the advance of universal temperance its worst forms will, I believe, disappear, and whatever of it remains will be easily managed by the right kind of education and a knowledge that happiness is the result of obedience to the laws of life, and that misery comes from disobedience to the same.

A PRACTICAL move is on foot in England under the direct supervision of Lady Henry Somerset whereby an inebriate home is provided for women of the better class needing other than the help of their own resolutions to reform. The Duxhurst Home includes first what is called the Mansion. This building, which has been rented by the National B. W. T. A., will accommodate seven guests. Its entire conduct will be that of a home wherein comfort and refinement abound. Knowing full well the value of the exercise of a spirit of sympathy and helpfulness, during the summer months a holiday home for poor children from London will be established within walking distance of the Mansion, whose inmates will, with Lady Somerset, form a council for management, doing all they can to forward the happiness of the homeless little ones. The profits arising from the Mansion are to be expended in the support of a home farm for poorer women in the thrall of the drink habit, and besides these there will be a nursery cottage and an intermediate home for ladies' maids, wives of small shopkeepers, etc. Into this home patients will only be admitted upon a pledge to remain at the home under entire abstinence for twelve months at least. This home is now ready, and the others will soon be. The plan commends itself as thoroughly practical, and as one of Lady Somerset's boundless charities. We wish for it abiding success.

Abstracts and Reviews.

RESTORATION OF INEBRIATE WOMEN.

The fifteenth report of the inspector under the Inebriate Acts for the year 1891 was published on September 17th. Respecting the work done at Fallowfield, the Manchester Retreat for Inebriate Women, the inspector gives the following remarks of the licensee :

“The Grove is one of the largest retreats for women open under government license. It is visited by an inspector appointed by the crown. Rich and poor patients are received, the former paying for their board, the others paying smaller sums and employing themselves in useful and remunerative work. There is abundant need for such retreats. Among the well-to-do alone, no domestic miseries are more hopeless, and few more frequent, than those which are caused by the father or mother being a drunkard; probably the drunkenness of the mother is the saddest of all. Again, it is painfully common for a woman to be brought before the bench scores and hundreds of times for being drunk, and punished over and over again with short terms of imprisonment. Imprisonment in such cases is the most futile of resources: the poor creature is released just when the pains of debauch are over, and the craving for drink has returned, but too early for any cure of her disease, moral or physical, to have been made. The fact cannot be too frequently reiterated that nothing short of prolonged restraint from the use of stimulants — until the craving has died away and the constitution recovers its normal condition of health — is of any avail as a remedy. Even the twelvemonth prescribed by law proves not a day too long.

“The following figures will describe the work of the Grove during the year ending December 31, 1894 :

Number of applications,	128
Number admitted,	24
Left after a year's stay,	23
At present in the Retreat,	25

"The methods adopted at the Grove are simple and natural. They are immediate and entire abstinence from strong drink, strict regularity of life, constant and cheerful employment, gentle firmness, and unfailing sympathy, and a religious influence always present and often directly urged. The Grove and its beautiful grounds form bright and healthful surroundings, while skillful and kindly medical help is always at hand, thanks to the unfailing kindness of our honorary medical advisers. It may be of interest to note that among the patients we have had one in whom the habit of cigarette smoking was combined with inebriety; another case was complicated by the opium habit. It may be added that our experience has confirmed what has often been proved before, that even in the case of the worse habitual drinkers, no harm, but the reverse, is done to the health by the sudden and complete disuse of all alcoholic drinks.

"It is a common opinion that when once a woman has taken to drink recovery is impossible. It is, therefore, natural for the question to be asked, How far has the Grove achieved success? Do the patients who leave us stand firm? Before answering this question it should be remembered what sort of patients we receive. They are not persons who have just begun to drink to excess, and have suddenly awoke to their peril. Such persons do not seek refuge in a licensed retreat; they try, often vainly, to recover themselves by easier methods. The patients who come to the Grove are those who have run their course, and come to utter misery. They are often destitute and outcast from their friends, broken down in health and self-respect, and utterly degraded. They are the wreck of womanhood. They are among the worst cases that can be dealt with. If then we find that 25 per cent. is the average proportion of patients who give evidence of permanent recovery, we need not express either wonder or regret. The wonder is that so

many should stand firm, considering the abundant temptations which meet them upon leaving the Grove in the allurements of the ubiquitous liquor trade and the pernicious customs of society. And it should further be mentioned that if one of our old patients is known to take stimulants in ever so small a quantity she is recorded in our books as relapsed, although she may not be known, as yet, to have become an inebriate. It is, meantime, an enormous comfort to the committee and workers at the Grove, to receive frequent letters and visits from former patients, who testify to the blessings they have received. Four women who left in 1891, our first year, still remain steadfast abstainers, and are doing well in their several stations of life. Six who left in 1892 have stood firm; nine from 1893."

A REMARKABLE CASE OF THEAISM, BY JAMES WOOD, M.D., OF BROOKLYN, N. Y.

During investigations lately carried on to determine the existence of a tea-drinking habit, its frequency and the effects of the constituents of the tea-leaf upon the human body, a very remarkable case was encountered. I had become accustomed to meeting individuals who drank from ten to fifteen pints as their daily amount, but when the case to be reported presented itself it was thought rare enough to report.

Case 306 was a tall blonde, twenty-six years of age, who had come to this country from Ireland when quite a young girl. She was married in her eighteenth year to a strong, burly man, much addicted to the use of alcoholic beverages. One year after marriage their first child was born, and from this time she commenced to use tea. Why she should have begun at this particular time she could not explain. At first she said the amount was very small, but the quantity necessary has grown greater and greater. In all four children have been born to her, and while nursing them she has

always kept a quart-pitcher of tea by her side from which she frequently regaled herself. She said she had become more irritable and cross every year, and found it harder to content herself with her husband and his drinking habits, and that in consequence domestic infelicities had increased in number yearly. She had also found that tea would take the place of food, and when not particularly hungry, or too busy to prepare meals, she had recourse to the teacup with complete satisfaction.

This is briefly the history of the patient when she presented herself for treatment for, as she said, nervousness and sleeplessness.

At the time of her first visit she had paroxysms of what she termed "cruel and fierce" headaches, either temporal, frontal, occipital, or general, persistent neuralgia of the face and neck, and dull, heavy pains in the lumbar region. She had also attacks of vertigo and mental disquietude and confusion, and was conscious of increasing forgetfulness. After these attacks she would have periods of despondency, alternating with great anxiety, a feeling of impending accident and death, either to herself or children. There would be times when her sleep was restless and troubled; nightmares and dreams were frequent; after which there would ensue insomnia, at times complete, and of several nights' duration. She was very nervous, easily startled, and very prone to be hysterical. The hallucinations usually met with in cases of tea-intoxication were also present in her case. She had at times an almost irresistible desire to look around or under the bed, because she imagined that some one was in the room. She said that when she stopped to think she "knew it was not so, but that she *must* look and see." When walking on the street there seemed to be shadows on the sidewalk beside her, as if made by some huge animal.

This is a brief detail of the most prominent nervous symptoms, so called. Her bowels were very much constipated, several days elapsing without an evacuation. She had no appetite, was subject to attacks of severe cardiac pal-

pitiation, and complained of a sinking sensation at the pit of the stomach. Her menses occurred every three weeks and lasted about eight days, and at this time all of the symptoms were much aggravated.

The amount of the infusion of the tea-leaf drunk by this woman is astonishing, and the case is for this reason by far the most remarkable one in a large collection of tea-inebriates.

When asked how much tea she drank a day, she hesitated, and then said, "Oh, I drink about thirty cups a day." After closer questioning by both my associate, Dr. Alexander C. Howe, and myself, she confessed that she drank five cups before and five at breakfast, but did not know how many during the day, because she drank from a pitcher or bowl, as drinking from a cup was too slow a process and unsatisfactory. She said that her husband, who did not use tea, would let her buy only two pounds a week. From this she could make about seven "pots" of tea per day. The teapot, she explained, had a capacity of two quarts.

Here, then, is a woman who drank on an average twenty-eight pints of the infusion of tea every twenty-four hours, and who said that she could have drunk more had not her husband prohibited such an extravagance. From the history and from her own story the reason for drinking tea in this large amount lay solely in its stimulating effects. From a study of the physiologic action of thein and the essential oil on the system, this is not surprising, nor could a better and at the same time more pernicious non-alcoholic agent be found in common use.—*Medical News.*

LEGISLATION FOR INEBRIATES IN AUSTRIA.

The first instance in which a continental legislative assembly has treated the drink craze as a disease rendering its victim a source of danger to the state, has just been provided by a bill now about to be introduced to the Austrian Reichsrath. This bill proposes to treat the persistent inebriate as

a person who is mentally incapable and likely to inflict injury upon the community, not only by actual violence, but by his example. It is therefore proposed that the authorities shall keep him under control, both during good behavior and for such a longer time as in the opinion of competent physicians will serve to wean him from his craving for strong drink.

This bill is the result of a long continued series of efforts by the medical profession of Austria, founded on the advice and experience of the American Association for the Study and Cure of Inebriates. The ground has been taken that the position of the drunkard in social life has not been hitherto properly estimated. It is argued that he should be regarded more as a lunatic than is at present the case, and that he should be treated accordingly. There has always existed a feeling that the craving for drink, with its consequences, ought to be treated as a mere bad habit, a temporary and recoverable error, not really a form of mental disorder. This, there can be but little doubt, is a false reasoning, for evidence has multiplied in recent years that the victim to alcohol is subject to a disease, just as much as a maniac or a lunatic. The disease has received all sorts of names, but as to its nature it seems agreed that it consists in a weakening or decay of the will power coupled with a craving for stimulants.

The restraint which the Austrian Reichsrath proposes to put upon the drunkard may take the form either of voluntary or compulsory detention in especially appointed retreats. In cases where the confinement is compulsory provision is made for a regular trial in which witnesses, both lay and medical, will be heard. The justification for detention will consist in such facts as repeated previous convictions of drunkenness, proof of danger to life, and other evidence strong enough to leave no doubt that the alcoholic passion has become ungovernable and has rendered its victim morally or physically a source of danger to himself or others.

The term of detention will be two years, and this term is liable to reduction or renewal, as the occasion may require.

The drunkard will therefore be made to feel that he is not merely committing a misdemeanor when he tips to excess, but a grave crime, for which the state will lock him up and treat him as a person who ought not to be allowed at large.

There is a vast difference between this mode of treatment and that in practice in other countries, where a drunkard is locked up for a few days as a punishment for his offense, no effort being made either to better his condition or to prevent any injury he might possibly inflict when under the influence of alcohol. The danger in the latter case is, of course, much greater if the period of alcoholic excitement is a long one. In case the bill passes (and there is but little doubt of this), the Austrian citizen will have little opportunity to go on a long spree.

The bill may be taken as fairly representing medical opinions on this subject. Modification in detail may, perhaps, be found advisable as time goes on, but the profession will probably approve the bill on its general outlines. The attempt to repress the excessive drinking habit and to treat it as an ingrained vice, which has absorbed all traces of a resisting will, certainly deserves a fair trial. Every precaution will be made to render the preliminary investigation as searching as possible, and no personal privileges will be lost by detention.

It is rather the purpose of the bill to protect the state and improve the condition of the victim than to inflict punishment. The patient's own interests will be served in a degree at least equal to that of his relatives and friends.

It is true that such measure will be adopted in all civilized countries in the course of time. A treatment such as this one here outlined would certainly result in the benefit of the patient, and the confinement would not be much lamented by his family.

ANCIENT PUNISHMENT FOR DRUNKENNESS.

The offense of drunkenness seems to have been a source of great perplexity to the ancients, who tried any number of ways of dealing with it. If none of them succeeded, it was, in all probability, because they failed to suppress the means by which this insidious disease is incited and propagated. Severe treatment was often attempted without any satisfactory results.

The Romans prohibited the drinking of wine upon the part of men under thirty years of age, a rule which applied to women of all ages. If a wife were declared guilty of consuming fermented liquor, her husband might legally scourge her to death.

The Carthaginians prohibited governors, magistrates, soldiers, and servants from drinking anything stronger than water, and the Athenians made it a capital offense for a magistrate to be drunk.

The Suevi seem to have realized the necessity of drastic measures, as they went so far as to prevent the importation of wine into their country.

The Locrians, under Zalenous (660 B.C.) made it a capital offense to drink wine unless it were mixed with water; even an invalid was not exempt from punishment, unless his physician had ordered him to drink undiluted wine. History does not relate whether physicians were in the habit of giving such instructions.

Pittacus of Mytilene (651-569 B.C.) made a law that he who, when drunk, committed any crime should receive double the sentence which he would have received had he been sober. Aristotle and Plato considered this law the height of wisdom. The Roman censors were empowered to expel a senator for drunkenness, and were at liberty to confiscate his horse.

Mohammed ordered drunkards to be bastinadoed with eighty blows.

Some nations seem to have approved of "moderate" drinking, as they limited the quantity to be consumed at one

sitting. This was the system adopted in ancient Egypt, but the limit does not appear to be stated in any history now extant. The Arabians fixed the quantity at twelve glasses a man. Unfortunately, however, the size of the glasses was not clearly defined. The Anglo-Saxons ordered silver nails to be fixed on the side of drinking cups, so that each person might know how much he had consumed. This method is said to have been introduced in consequence of King Edgar noticing the drunken habits of the Danes.

Lycurgus of Thrace (about 900 B.C.) was a thorough prohibitionist; he ordered the vines to be cut down.

The Spartans tried to turn the vice (as it was then regarded) of drunkenness into contempt by systematically making their slaves drunk once a year, in order to show their children how contemptible men looked when in an inebriated condition.

Drunkenness was considered much more vicious in some classes of persons than in others. The ancient Indians, for example, held it lawful to kill a king when he was drunk. Charlemagne (A.D. 742-814) enacted a law that judges and pleaders should do their business fasting.

The English expression "drunk as a lord" proves that at one time to become intoxicated was regarded as indicative of aristocratic birth and breeding. Moreover, "a three-bottle man" was respected as one who displayed qualities which his friends might well envy.

It is not a great many years since people supposed total abstinence from alcoholic stimulants actually shortened life, and there exists in London (England) to-day a gentleman whose life was refused by an insurance company solely upon the ground that he was a teetotaler!—*Lawrence Irwell in "The Voice."*

THE TWENTIETH CENTURY PRACTICE OF MEDICINE, EDITED BY T. L. STEDMAN, M.D., New York City. In twenty volumes. Vol. III, Occupation, Diseases, Drug Habits. and Poisons. William Wood & Co., New York, 1895.

Volume third of this magnificent work contains Dr. Norman Kerr's splendid paper "On Alcoholism and Drug Habits." Verily the world of science has moved on and upwards. One hundred and thirty-seven pages are devoted to a subject which has been looked down at with lofty contempt as a "fad" and a delusional whim in many circles of science. The bitter critics of twenty years ago have turned round and are now the enthusiastic defenders of the disease of inebriety. Dr. Kerr's paper is admirable in its tone and spirit, and presents the best review in print of the entire subject. The American reader will be astonished to find that American authors have been among the foremost leaders in this field. They will be also pleased to have grouped in such a convenient form all the leading known facts of the toxic drugs used for narcotism. The causes of inebriety and its relations to other diseases, its physiology, pathology, and medico-legal relations are presented concisely and in a most practical way. We shall give our readers full extracts in the next number of the JOURNAL of parts of this article.

Beyond Dr. Kerr's paper, there are exhaustive articles "On Shock and Collapse," by Dr. Shrady; also "On Seasickness," by Dr. Gihon; and "On Mountain Sickness," by Dr. Liebig; "On Osteomalacia," by Dr. Councilman; "On Heat Stroke," by Dr. Gihon; "On Frost Bite," by the same author; "On Diseases of Occupations," by Dr. Lloyd; "On Poisoning," by Dr. Small. It will be seen from these titles that this great work is thoroughly an international encyclopedia of practice, one that should be in the library of every physician and asylum. So far it gives promise of presenting the largest number of exhaustive monographs on practical medicine which has ever been issued from the press. Send to William Wood & Co., New York City, for circulars.

PHYSIOLOGICAL ACTION OF ALCOHOL.

These gray cells are brought into action by coming in contact with the blood. The blood reaches the cortical structure of the brain through the vascular membrane known as the pia mater, which fits the convolutions, like a glove fits the fingers of the hand. It is a physiological fact, that, owing to the vascularity of this membrane and other blood vessels that pass into this great center, one-fifth of the blood of the body continuously circulates in the brain, especially during the waking hours. During great mental excitement there is more blood even than this in contact with the cephalic structure. We find, too, that the brain is capable of contracting and expanding as the blood fills the organ, and recedes from it during the hour of sleep. There is another known physiological fact of importance in studying this center, and that is this: As we all know, many people drink alcohol to excess, and we know too that alcohol is indigestible; that when taken into the stomach it is absorbed into the blood without undergoing any catalytic change. When absorbed it circulates in the blood as alcohol. When eliminated by the excretory organs it is thrown off as alcohol, and if not, then one-fifth of the amount of alcohol that is in the blood must necessarily come in contact with the tissues of this important structure. It is also a known fact that when nerve tissue is exposed to diluted alcohol, it excites it, and when brought in contact with a strong solution of alcohol, or alcohol that is not properly diluted, it paralyzes it; so that if one-fifth of the blood of the body continuously circulates in the brain, then one-fifth of the alcohol that is taken by man and absorbed into the blood must necessarily come in contact with this delicate structure, and when it does, it first, in small amounts, excites the action of the cells. But when the blood is overcharged with alcohol it then paralyzes these cells—a fact that we see demonstrated when men are under the influence of this agent. We find that the gray cells are incapable on account of this paralyzation of performing their functions, and the man

talks incoherently or at random and is temporarily insane. If the man is very much under the influence of alcohol, it paralyzes the gray cells that preside over the motor functions first, and we find him incapable of moving his limbs as he should, and as the effect increases it invades the center that presides over sensation, and he is completely narcotized from it, so much so that he is not conscious of bodily injuries that he may receive while under the influence of the drug. If this alcoholism is crowded still further, it may not only invade the intellectual, motor, and sensory ganglia, but it may go on and paralyze the centers that preside over respiration and circulation, and when this is the case the individual dies from alcoholic poison.

Understanding, as we do, the physiological action of this agent upon the nerve centers, we cannot help condemning, in the strongest terms, the use of an agent that has for its end the continuous exhaustion of the important part of man.

— *Medical and Surgical Reporter.*

COGNAC vs. CORN SPIRIT.

At the recent meeting of the French Académie de Médecine M. Daremberg endeavored to prove that while both beverages are hurtful, if not poisonous, the higher-priced cognac brandies are relatively much less wholesome than (as one commentator puts it) the *caux-de-vie* that are sold for two *sous* over "the zinc" — that is, retailed in the low drinking establishments which are just as common in Paris as gin palaces are in London. Chemical analysis shows that what are generally esteemed as the best brands contain a far larger proportion of furfurol and amylic alcohol than do the cheaper spirits distilled from corn, and for this reason alone, even though there were no other, the use of cognac must be injurious to health. M. Daremberg, however, does not rely solely upon chemistry in support of his theory, but maintains that his thesis is sustained and confirmed by the results of his experiments on animals. Ten cubic centimetres of "au-

thetic" cognac, costing sixty francs the bottle, when injected into a vein in a rabbit's ear caused instantaneous death, whereas a similar dose of promiscuously purchased *eaux-de-vie* was not attended by immediately fatal effects. The opposition was represented chiefly by M. Laborde, who pleaded the extreme sensitiveness of rabbits to the action of alcohol, as well as the uncertainty attending intra-venous injections, which may kill the subject quite irrespectively of the nature of the fluid introduced. The speaker had, moreover, analyzed cognac himself, and found it to contain little or no furfural. In his opinion the alcohol of commerce must necessarily be more injurious than that derived solely from the grape. M. Magnan agreed with the originator of the discussion that all alcohols were poisons. He, too, had performed some experiments, but the subjects operated upon were dogs. Fifty grammes of wine alcohol caused depression and drunkenness, which disappeared in about five hours. Alcohol made from beet-root produced a comatose slumber with complete anæsthesia after from eight to ten minutes, this condition lasting twenty-four hours, and the animal continuing out of sorts for several days. Alcohol extracted from maize gave similar results, with the addition during the coma stage of subsultus tendinum. No alteration of the consecutive phenomena was observable on repetition of the experiments after rectification of the three alcohols. On conclusion of the discussion the Academy decided to submit the question to a commission consisting of MM. Bergeron, Laborde, Lancereaux, Riche, Motet, and Magnan. The commenter already alluded to terminates his annotation with the following sensible remarks: "When the best cognac is misused it becomes worthless. What should be avoided is the habitual consumption of eau-de-vie, the *petit verre* after each repast, even though it should be 'authentic' cognac. *Petits verres* soon accumulate in the organism; the hardest stone yields to the constant drops." — *Lancet*. *Temperance Record*.

ALCOHOLIC NEURITIS IN OLD AGE.

In the last number of *Brain*, Dr. Maude publishes a brief account of a most interesting case. The patient, who was a robust country gentleman of sporting habits, and used to an out-of-door life, had taken stimulants in considerable excess for at least twenty years. Even eighteen years ago no unusual daily allowance was half a gallon of beer, a bottle of sherry, and eight or ten liqueur glasses of "neat" whisky. His favorite drink was beer, and even in the summer of 1894, although over seventy-five years old, he would often consume two quarts of beer, a bottle of sherry, and half a bottle of whisky in a day. He had had no serious illnesses except broken bones from riding accidents and a fractured humerus at the age of seventy-three from a fall downstairs one evening after dinner. During the year 1894 his great muscular power became much impaired, and towards the end of the year he began to complain of severe darting pains in the left lower limb. A few weeks later the hands and feet began to swell rather suddenly, the skin became thin and glossy, while there were small ecchymoses over it. A similar condition was present on the insteps of both feet, while the calves and thighs were œdematous and the muscles shrunken. The knee jerk could not be elicited, and the pupils were small and did not react to light. The heart sounds were somewhat feeble, but they were regular, and there was no sign of dilatation. Without any previous marked change in his symptoms he died suddenly after a few minutes' dyspnœa about two months after the onset of the symptoms. Dr. Maude considers the case to have been one of peripheral neuritis, and directs attention to several interesting points, such as the advanced age of the patient, the excess of his alcoholic indulgence, and the absence of mental change; the fact also that he was essentially a beer-drinker is interesting, with reference especially to the views of the late Dr. James Ross as to the kind of alcoholic beverage most likely to produce neuritis.—*Lancet*, October 19.

FARM COTTAGES FOR INEBRIATE WOMEN.

There is a woman in London, Jane Cakebread, who is brought constantly to public notice on account of the recurrent charges of drunk and disorderly. In fact, she has been arrested two hundred and twenty-seven times, and every one who knows about her naturally asks, What can be done for such a woman as that? Much interest is being shown in the question, and I have taken the opportunity to call attention once more to the scheme that is just being set on foot by the British Women's Temperance Association, which will enable magistrates to consign such a woman, if they deem it wise, to what is practically a reformatory, instead of to short terms of imprisonment.

A large farm has been secured in Surrey on which cottages are in process of erection, and a little village is rising, clustered around a main building. Here habitual inebriates will be received for not less than one year. Each cottage accommodates a group of women with a matron, and thus a small family circle is formed, which will enable the sister in charge to deal individually with her patients, and remove from the undertaking all the features of an "institution."

In the main building the women will dine together, but their other meals will be taken in the cottage, and a more domestic life will be secured in this way. The patients will be employed on the farm in poultry rearing, fruit-picking, bee-keeping, flower-growing, and dairy work. The maximum charge will be 5s., but where patients can afford no payment, cases will be taken free. One cottage will be set aside as a nursery for infants in order to enable mothers to become inmates of the home without being parted from their babies. As those who have studied this question know only too well that inebriety is often most common when a woman has a young child, one of the most frequent difficulties will thus be overcome — one which often prevents women from seeking any place of safety in order to conquer the drink crave.

We shall, when the home is ready, be prepared to take

Jane Cakebread, and will gladly do our utmost to save this most unfortunate victim from the misery of her surroundings.

We sincerely hope that those who are interested in this matter will give us all possible help in this most difficult undertaking. When the home is open we shall gladly welcome any who would desire to pay a personal visit to the little village.

Yours truly, ISABEL SOMERSET.
Reigate Priory, Surrey.

DEGENERACY FROM ALCOHOLISM.

Dr. Lannelongue, who is a member of the House of Deputies as well as professor at the Academy, has made a vigorous appeal against the lax laws of France concerning the manufacture and sale of alcohol. "Among other statements made by Dr. Lannelongue, he said that 'alcoholism, at the present day, was not only endangering the public health, but also threatening the very existence of the species; it filled the hospitals, the asylums, the prisons, and populated the penal settlements.' Previous to 1850, alcoholism was almost unknown; or rather it had not the same character; the effects were temporary because the drink taken was pure and natural. But four years afterwards, alcohol of vinous origin failed, and immediately it was replaced by that derived from molasses, beet-root, and potatoes, which poisoned the race. In 1830 the number of suicides from alcoholism were 5 per 100,000 persons; they were 21 in 1881, while 46 per cent. of homicides, 74 per cent. of grievous wounding, 54 per cent. of family quarrels, 77 per cent. of outrages against public decency were due to drink. Against the many afflictions which attack man, against the large number of contagious maladies, epidemic or other, the characteristic of the healthy individual is his organic resistance, which enables him to triumph over all the assaults from his most terrible enemies — microbes. The drunkard, on the other hand, has lost all

resistance, and falls an easy prey to disease. At 40 he is already an old man; his tissues are degenerated, so that he makes the worst of patients. It is not the richer classes in France who saturate their bodies with alcohol, because they know better, but the lower classes, and especially the workmen, who are ill-fed, clothed, and lodged. In Brittany, however, women of good position give themselves up to alcohol. Out of 107 young married women who died from drink 8 were sterile, and of the 99 others there only remained as posterity 6 sickly children. On the other hand, these same women had 28 children before having taken to alcohol, who are very healthy, showing what the others might have been if the mothers had led a sober life. What is still worse,' continued Dr. Lannelongue, 'is the fact that the passion of the parents is transmitted to the children. The drunkard engenders an offspring with the same tendency, be they girls or boys, and, curious to say, they begin to drink at the same age that the father began to drink.'" Dr. Lannelongue, who spoke for nearly two hours, interrupted by frequent applause, concluded by appealing to the government to take under its own control the manufacture of alcohol, and to forbid entirely all those liquors made from essences, and more especially from absinthe.

TREATMENT OF INEBRIATES.

Consequent on the 277th appearance of the sexagenarian inebriate, Jane Cakebread, before a police magistrate, Lady Henry Somerset has written to the *Daily Chronicle* that the projected British Women's Temperance Home will be glad to receive and care for this unfortunate woman, on the magistrate consigning her to such a reformatory instead of to short terms of imprisonment. We have repeatedly advocated the reformatory and curative treatment of such cases. The adoption of therapeutic restraint instead of the existing penal procedure of a few days' or weeks' incarceration in a police cell or gaol, which latter plan is neither curative nor

deterrent, but on the contrary, tends to confirm an inebriate career, inasmuch as a brief enforced residence where intoxicants are not supplied suffices to enable the inebriate to recover that capacity for intoxication which had been for the moment lost.

But the law must be amended if such judicious and ameliorative procedure is to be applied to police court inebriate "repeaters." Four British Parliamentary or Governmental Committees, and a Canadian Royal Commission, have strongly recommended such amended legislation, which was embodied in Lord Herschell's Inebriates Bill, which had passed a second reading in the House of Lords just before the dissolution of the last Parliament. Again and again existing homes have undertaken the care of cases similar to that of Jane Cakebread, but have been foiled by having no power to retain the inebriate against his or her will.

Every one interested in the necessary and valuable work done by genuine homes for the treatment of inebriety should therefore strenuously support the Inebriates Legislation Committee of the Association and the Society for the Study of Inebriety in their sustained effort to secure the compulsory reception and detention for a period long enough to afford a reasonable hope of cure, or at least improvement. In the end such a method would be truly economical, as 277 committals of one person involve a large expenditure of public moneys. Magistrates can at present aid the curative seclusion of inebriate offenders only by the moral pressure of recognizances, for a few months at most, on the understanding that the offender remain in a home. What is required is power of committal for from one to two or three years, or more if required. There is some reason to believe that the Government, if not able to see their way to establish and carry on such reformatory institutions, may lend their influence to the empowering of magistrates to send such offenders to a genuine philanthropic home. — *British Medical Journal*.

TOBACCO INSOMNIA.

Many brain-workers suffer from inability to sleep. This is frequently met with among those who work late at night. The sufferers complain that they feel most lively just when the time for retiring has come, and that a long period of restlessness precedes a troubled slumber, from which the slightest noise awakens them. This is very often caused almost entirely by over-indulgence in tobacco. They smoke just before going to bed, ignorant of the fact that not only may tobacco prevent sleep temporarily, but that it may render it less deep, and consequently less refreshing. A grave responsibility attaches to those who lightly seek to relieve a symptom which is really a warning by recourse to a dangerous palliative. The inability to sleep is often merely the outcome of an unnatural mode of life, and if this be corrected the disability disappears of itself. Men who work late are commonly addicted to the tobacco habit. To them tobacco is not a relaxation after a day's work, but a nerve stimulant which enables them to accomplish tasks which would otherwise be difficult of accomplishment. When the mouth becomes dry, alcohol in some form or other is resorted to as a fillip to enable the smoker to tolerate still another cigar or two. Under these circumstances tobacco acts as a cerebral irritant and interferes with the vaso-motor centers of the brain to such an extent that the vessels are unable to adjust themselves forthwith to the condition required for healthy and untroubled sleep. Discretion in tobacco use would save many from this distressing condition of chronic insomnia. Smoking early in the day should be discountenanced, and it is equally undesirable within an hour or so of retiring to rest. The best remedy for the tobacco habit, short of total abstention, is to take a short walk in the open air after the last pipe. Under no circumstances should drugs be used for this form of nocturnal restlessness.—*Pacific Medical Journal.*

FRENCH DRINK LEGISLATION. — The French law courts reassembled last week, and at one of them, the Cour de Cassation, Councillor Rau asked for some alterations in the law relating to drunkenness and alcoholism, the following being a summary of that gentleman's views: For drunkenness the term of imprisonment to be increased for those already convicted, the cumulation of penalties to apply to a second infraction. Lastly, drunkenness should become an aggravating circumstance for crimes and offenses against the public, especially homicide and injuries through imprudence. It was desirable that the public ministry should make larger use of the rights conferred on it by the law of 1889, and bring about the fall of the paternal power against drunkenness when the interest of the family appeared to demand it. The work of justice would not be complete without further powers. It was necessary for the courts to obtain the right to order that, after the expiry of his sentence, the alcoholic should be detained for a determined period in special asylums. This sequestration would at least ensure the momentary cure of the drunkard, and would temporarily relieve society from the perils unceasingly presented by alcohol degenerates. M. Rau thought it was necessary to go further in that direction, and to authorize the placing in special asylums of alcoholics who had been acquitted or an ordinance of no case, whatever be the infraction of the law against drunkenness charged against them.

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OF
INEBRIETY.

*Published under the Auspices of the American Association
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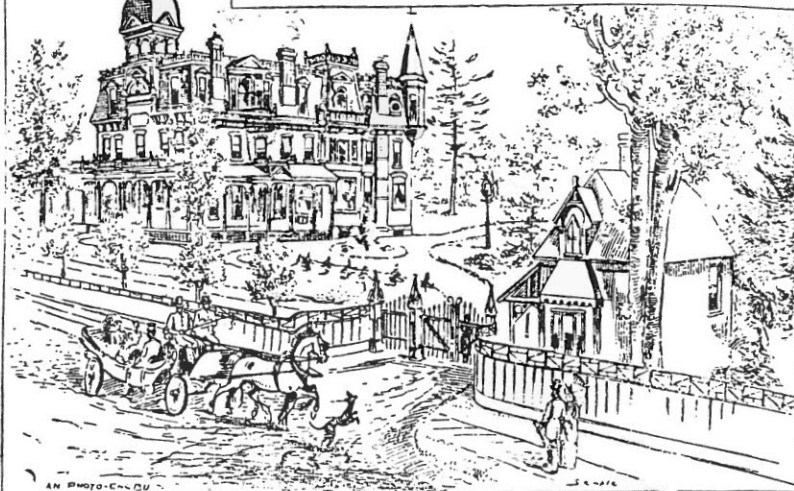
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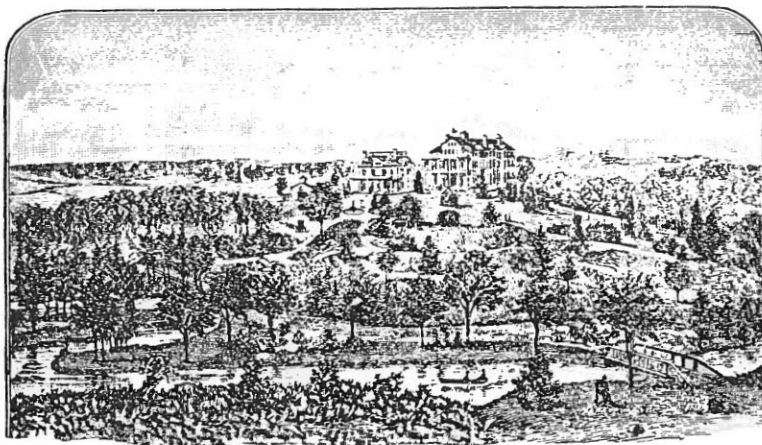
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
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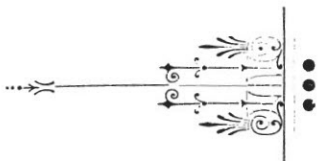
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