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#### THE

## QUARTERLY JOURNAL OF INEBRIETY.

Vol. VIII.

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#### ALCOHOLIC PARALYSIS.

By J. Dreschfield, M. D., F. R. C. P.,

Professor Pathology, Victoria University, etc., Manchester,

England.

I have divided clinically this peculiar affection into two groups: the alcoholic ataxia, and the alcoholic paralysis. In considering the ataxic form, a distinction must be made between those cases of marked inco-ordination without much paralysis, and those where the gait resembles the ataxic gait, but is in some measure due to the paralysis of the muscles of the lower extremities. Of the purely ataxic form I have observed three cases, two of which have quite recovered, while the third died of uræmia, due to contracted gouty kidney.

The first case was a man aged 32, who had been for many years an excessive drinker, and had also indulged to a morbid degree in venereal excesses, but has never had syphilis. Complained of severe lancinating and shooting pains in lower extremities, sometimes in upper extremities; both lower extremities showed some spots of anæsthesia and of retarded sensibility, the muscles of the calf were painful on pressure; no atrophy or paralysis of either the upper or lower extrem-

ities, but there was marked inco-ordination. With his eyes open, the patient could walk fairly well and lifted the feet well from the ground, the heels coming down first; with the eyes shut, he showed marked ataxia, there was also distinct inco-ordination for finer movements in the upper extremities; tendon reflexes absent; no ophthalmoscopic changes. The patient gave up the use of alcohol and completely recovered. The tendon reflexes, which were absent, have now returned.

The second case was a patient suffering from dipsomania at Cheadle Asylum. He was single, age 33. Had an attack of sunstroke at Ceylon when 26, and after became very nervous and took to alcohol. He returned to England and drank heavily, then went back again, and finally returned and went into an inebriate asylum, and then into an insane asy-He has never had syphilis. His brothers are hard drinkers, and one of them has epileptic mania. In May, 1884, he began to complain of pains in both legs and feet, especially on dorsal surface of the feet, near the toes, which were swollen; the pains were shooting in character. There was hyperaesthesia of the skin over these parts, and some spots of anaesthesia; he had also pain in his fingers, became very irritable, lost his memory for recent events, and refused food. There was loss of tendon-reflex, some slight atrophy of both legs, and marked ataxic gait. No bladder or rectum symptoms; atrophy increased, the pains, however, became less, and patient walked better. Towards the end of September, 1884, the pains ceased altogether; the atrophy, however, remained, yet the patient walked much better. At the beginning of March, 1885, he had pains over the distribution of the left supra-orbital nerve; again complained of pains in his legs, burning sensation in the soles of his feet, and cramps in his legs. In May, 1885, I saw the patient myself. I found him somewhat irritable; otherwise, but little affected mentally, except that he had lost his memory for recent events. The gait was feeble and slow; walked with the help of one stick, but his gait was distinctly ataxic, and became more so when he attempted to walk with his eyes shut.

There was some emaciation of lower extremities, but no marked paralysis of the muscles; movements of extensors of toes were, however, sluggish. Some slight atrophy of the muscles of the back and also of the arms, but the patient could flex and extend both fingers and wrists very well. The patient complained of shooting pains down the legs to the toes; occurring in paroxysms, and leaving a numb feeling behind. Firm pressure on the soles of the feet, and on the legs, was very painful. Patient also noticed a cold feeling when touched by any object. Limbs showed no vaso-motor disturbances. Tendon-reflexes were absent. The galvanic reactions were taken; the contractions were slow, and followed by fribullar-tremens. A very strong magnetic electric current was necessary to get contractions of the extensors of the toes and calf muscles. The muscles of the upper extremities reacted well. There were no eye or bladder symptoms. There was loss of appetite, craving for drink, the tongue was furred; there was morning vomiting and occasional hæmatemesis. The bowels somewhat constipated. The liver and spleen were not found to be enlarged. The pulse was feeble and irregular.

As the patient refused to eat unless he had some drink, he was allowed beer. For the pains he had morphia injections at night, which gave him great relief. The patient soon began to improve and is now quite well. Has gained flesh, has no pains; there is no ataxia, and he shows no abnormality in walking. The tendon-reflexes are normal, and the patient is now only kept as a boarder at his own request. He has never discontinued to drink beer, but avoids all other stimulants.

The third case was a female, age 53, complaining of pains of shooting character in lower extremities. Three years ago suffered from gout in her hands. For some time she has been troubled with paroxysms of pain in her legs, without any swelling of the toes or any of the joints; has also noticed that her gait was awkward, and that she could not walk well in the dark. She had a typical alcoholic appearance; skin was dry, there was a nodular swelling on the metacarpo-

phalangeal joint of left index finger. Patient looked thin; no œdema, and no marked paralysis of any of the muscles. Could walk, but felt weak on her legs; walk was ataxic, and it was impossible for her to stand or walk with her eyes shut. Could move her limbs freely when in bed, tendon-reflexes absent; some anæsthesia of skin of lower extremities, but very marked hyperæsthesia of muscles of the calf and of the muscles of the forearm; pressure on these parts caused most The heart was found hypertrophied; excruciating pain. urine sp. gr. 1010, profuse in quantity, contained albumen. and granular casts; anorexia with vomiting. Pupils reacted well; fundus of the eye normal. Some time after admission. the patient became delirious; there was incessant vomiting for twelve hours, and then the patient had a convulsion and died. At the post-mortem, the kidneys were found small and granular: left 12 oz., right I oz.; on section, the cortical substance was found very much diminished, and streaks of urate sodium were seen passing to the medullary part. Microscopically, marked interstitial nephritis was seen, with extensive deposits of urate sodium crystals in the renal tubes. The heart was very much hypertrophied, and weighed 131 oz.; the myocardium was healthy, the valves normal. Liver 3 lbs, and microscopic examination showed marked amyloid changes, together with monolobular cirrhosis, the fibrous tissue being still of very embryonic type; spleen II oz.; brain, anæmic; the ventricles contained more fluid than usual; the membranes of the brain were healthy; the piamater, however, slightly opaque. Pons, medulla, and spinal cord, had a perfectly healthy appearance, and were of firm consistence. Muscles of the leg and forearm were thin and pale. The spinal cord, examined carefully, after having been hardened, was found perfectly normal in all its parts. The sciatic nerves appeared thin, grayish, and were surrounded by a great deal of adipose tissue. Vertical sections showed, when treated with perosmic acid, and stained afterwards with picrocarmine, a moniliform appearance of the nerve tubes, due to breaking up of the myelin; the nuclei were increased, and there was also some interstitial cell infiltration. Transverse sections showed in some few places an increase in diameter of the axis-cylinder, and again the interstitial infiltration. The muscles showed chiefly, increase of the muscles nuclei and an interstitial deposit of small round cells, and in some few places the striation was not well marked.

The following case, which was admitted only a few days ago, shows the combination of alcoholic ataxia with alcoholic paralysis. W. B., age 41, November 10, 1884. Had been very intemperate and has a distinctly alcoholic appearance. Has had rheumatic fever, and has lately been very much troubled with pain in his limbs. Has had three attacks like the present, but not so bad, from which he recovered, after rest and abstention from drink. Looks strong and stout, some of the muscles feel flabby, but there is no marked atrophy, though paralysis of some of the muscles is distinct. In the upper extremity there is marked paralysis of the extensors of the fingers and of the wrists on both sides; some of the other nuclei are slightly affected; the flexors act very well. Such movements as the patient is able to carry out show some inco-ordination. In the lower extremity, the extensors of the toes and of the big toe are but slightly affected; the peronei on both sides, however, are considerably paralyzed; the arch of the foot is flattened, and the inner border is raised, while abduction is impossible. Is able to walk with some assistance, but walk is ataxic; keeps his legs apart, and looks to the ground for fear of falling; cannot walk with his eyes shut. Isolated movements with either of the lower extremities, show equally marked inco-ordination. With the eyes shut the patient does not know exactly the position into which his limb is put. The sensory phenomena are those of alcoholic paralysis; shooting pain in the legs; cutaneous anæsthesia in both upper and lower extremity. irregularly disturbed, with extreme muscular hyperæsthesia. Also great pain if the skin apart from the muscles is firmly grasped. Rightly distinguishes a cold body, but contact with a hot body gives him a sensation which he compares to those of an electric shock. Some analgesia, and the prick of a pin is felt only after some time. Tendon-reflexes absent;

superficial reflexes fairly normal. Pupils normal, and react to light and accommodation; the special sense organs are normal. The mental condition of the patient shows symptoms which are often found in cases of alcoholic paralysis. Answers questions rationally; memory, however, is very defective, and he suffers from delusions. Thus he tells you that he gets up every day, goes into the next ward, and converses with the other patients, though as a fact, he has never left the ward since his admission. When further pressed, he even gives a description of the ward, details his conversation with the patients with a minuteness and readiness which is astonishing. I have noticed exactly the same peculiarity of the mental state in some other cases. The condition of the other organs calls for no special notice. Heart sounds normal, but weak; pulse 120, compressible; appetite fairly good; liver normal; urine free from albumen. We have so far been able to take the electric reactions to the galvanic currents only once, and muscles showed degenerative changes. The other cases which I have yet to describe belong to the typical class of alcoholic paralysis, characterised by wellmarked paralysis with atrophy, affecting chiefly the extensors of the fingers and toes. The paralysis and atrophy sometimes come on very acutely, at others more slowly. When these cases come urder observation, the patients are as a rule unable to stand or walk, and it is therefore not easy to make out whether the paralytic stage is here preceded by an ataxic stage. As the sensory phenomena in these cases are the same as in the first group, it is highly probable that where paralysis comes on slowly, pseudo-ataxic symptoms, as in the case just given, precede it. Of this group I have within the last twelve months seen four cases, all females, two of which have quite recovered, one is beginning to improve, while the fourth, when last heard of, had as yet shown no signs of improvement. Case 1st. Lady, age 25, August, 1884. The patient had freely partaken of spirits, and had a constant craving for stimulants. Had complained of pain for some time; the pains were soon followed by paralysis and atrophy of extensors of both fingers and toes, with

paresis of the other muscles, so that the patient could neither stand nor walk, and could raise herself only with difficulty from the recumbent posture. Cutaneous anæsthesia and muscular hyperæsthesia were well marked. Tendon-reflexes absent, superficial reflexes much diminished. Exhibited the same peculiar delusions just referred to. When I saw her she told me she could walk very well, that she had paid several visits that morning, and minutely described all she had seen and done when visiting her friends. When her helpless condition was pointed out to her, she became highly emotional and burst into tears. She was kept from drink and completely recovered in three months. Now walks very vell, and the tendon-reflexes have re-appeared. Case 2. Lady, ige 42, Sept., 1884. Symptoms somewhat resembled those of Case 1. The paralysis had come on rather more slowly, ind the atrophy was much more marked, and affected the greater part of the body. Also had the same peculiar delu-Though entirely confined to bed she told us that she went out every afternoon for a walk to the seaside; that she sits on the sand at the seashore, watching the waves and the passing steamers. (Her residence was at least twenty miles away from the sea.) It was astonishing to fisten to the account she gave of her seaside rambles, which had every semblance of truth, and yet was entirely imaginary. We advised the patient's removal, as we were sure that the patient, unknown to her husband, was still supplied with stimulants. Our suggestion was, however, not acted upon, and when I last heard of the patient, she was still in the same helpless state, and rather more emaciated. There is no difficulty in diagnosis; the peculiar form of delirium is almost as characteristic, though by no means as constant as the muscular hyperæsthesia. As regards the pathology, we have now abundant evidence in the post-mortem appearances that alcoholic paralysis is a multiple peripheric neuritis. This view is again supported by the third case of alcoholic ataxia given above. For an analysis of the results of the postmortem examinations in alcoholic paralysis, I must refer to Shulz, Neurol, Contralb, 1885.

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#### INEBRIETY AND HEREDITY.

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

Two thousand years ago the inebriate was declared to be a madman, to be diseased, to be suffering from a fearful malady. But only within the last forty years has any effort been made to formulate this fact, to organize it into the realm of practical science. This was a discovery in science, and its truth is evident from the sharp contradiction it has provoked. Thus, whenever a great fact bursts through the soil of ages, storms of denial and opposition only give it firmer root and surer growth.

If we were to gather a large number of inebriates, from all ranks and conditions of life, and make a careful study and comparison of the histories of each one, the following are some of, the facts which would appear:

- I. Inebriety would be found to be one of a family group of diseases. The other members of this family would be insanity, consumption, epilepsy, idiocy, paralysis, hysteria, and many others not so clearly related. Thus, whenever we find one of these diseases, the others are very likely to appear, or be closely associated with them. Inebriety is very often followed by insanity, epilepsy, or consumption, and these diseases often precede inebriety. All these affections may be associated as forms of disease, and some one or the other be prominent. Nervous diseases, brain disorders, and degenerations of a great variety, very commonly go before and frequently follow inebriety.
- 2. Among the causes, heredity is prominent. Then comes injury to the brain and spinal cord from falls, blows, etc.; brain shocks from fear, grief, joy, or great excitement of any kind; great strains and drains on the body and mind; imperfect nutrition, bad surroundings, bad training, over-

<sup>\*</sup>Part of a lecture delivered before the Temperance Institute of Presbyterian Churches, N. Y., Feb., 1886.

work and under-work. These and other causes will appear in most cases.

- 3. When the history of each case is compared with others, they are all found to follow a uniform line of march. Beginning at a certain point they all pass down the same road, and cross the same bridges, and reach the same destination. Of course there may be halts, variations, and changes, but the main body move along one line, the same as in consumption or typhoid fever, a regular progressive history from one stage to another. The expert has only to find out where the case started, and where it is at present, to predict the future, and how far it can be changed by treatment.
- 4. From a great variety of evidence, as yet in outline, it appears that inebriety moves in waves and currents, prevailing like an epidemic, then dying away. The statistics of persons arrested for inebriety extending over years, show that during certain years this epidemic has prevailed with great activity, then declined to a minimum point. In Swethen two of these high points were noted at intervals of seventeen years; the last occurring in 1879. In England, France, Australia, and in Massachusetts, this steady increase of inebriety up to a certain point, then a regular decrease to Wlow level, has been noted. The mortality statistics from spirits, and the history of the consumption of alcohol, both Indicate high tidal waves of drink excess and then a regular ebb and decline. These are mere hints of some of the forces which govern the march of inebriety. They throw light on those strange temperance revivals which spring up from the slightest causes and sweep over the country, dying away with the same mystery and suddenness. These wave-like remperance movements are more than the rumblings of revofution in the public sentiment; they are re-actions of inebriate waves, the backward swing of some great cycle or drink orbit.

Alcoholic Heredity, or the transmission of a special tendency to use spirits, or any narcotic, to excess, is much more common than is supposed. In the study of a large number of cases, several distinct groups will be apparent.

First will appear the direct heredities. Those inebriates whose parents and grandparents used spirits to excess. The line of the inheritance will be from father to daughter, and mother to son; that is, if the father is a drinking man, the daughter will inherit his disease more frequently than the son. While the daughter may not, from absence of some special exciting causes, be an inebriate, her sons will in a large proportion of cases fall from the most insignificant exciting causes. About one in every three cases can be traced to inebriate ancestors. Quite a large proportion of these parents are moderate or only occasional excessive users of spirits. If the father is a moderate drinker, and the mother a nervous, consumptive woman, or one with a weak, nervous organization, inebriety very often follows in the children. If both parents use wine or beer on the table continuously, temperate, sober children will be the exception to the rule. If the mother uses various forms of alcoholic drinks, as medicines, or narcotic drugs for real or imaginary purposes, the inebriety of the children is very common. Many cases have been noted of mothers using wine, beer, or some form of alcoholic drinks, for lung trouble or other affections, and the children born during this period have been inebriates, while others born before and after this drink period have been temperate.

The second group of these alcoholic heredities are called the indirect. They are cases where the inebriety of some ancestor has left a stream of diseases, such as minor forms of insanity, consumption, and various nerve defects, which may have run through one or two generations, then suddenly develop into inebriety, with or without any special exciting cause. In such cases the moderate or excessive drinking parents will be followed by nervous, feeble-minded, consumptive, or very precocious children, or eccentric and odd people who are born extremists in every relation of life. They are persons who die early, and leave a large progeny, who suffer from nerve and nutrient troubles, and neuralgia, and find in alcohol and opium a most seductive relief from all their troubles. About one-fourth of all cases of inebriety are examples of this form of indirect heredity.

A third group of heredities in these cases of inebriety, are the complex borderland cases. They are persons whose ancestors have been insane, epileptic, consumptives, criminals, paupers, and had other forms of degeneration. Victims driven along by a tide of degenerate heredity, which burst out in varied forms and phases of diseases. This class are seen among the very wealthy and the very poor. Fully onefourth of all inebriates are of this class, and their inebriety is only another stage of profound degeneration in the march to dissolution. In these cases there seems to be in certain families a regular cycle of degenerative diseases. Thus in one generation great eccentricity, genius, and a high order of emotional development. Extreme religious zeal, or unreasonable skepticism, pioneers or martyrs for an idea, and extremists in all matters. In the next generation, insanity, inebriety, feeble-minded, or idiots. In the third generation, paupers, criminals, tramps, epileptics, idiots, insanity, consumption, and inebriety. In the fourth generation, they die out, or may swing back to great genius, pioneers, and heroes, or leaders of extreme movements.

In the study of a large number of cases of inebriates, a physical and mental heredity will appear. Thus the children of inebriates for one or two generations will be found to have, as a rule, physical defects and deformities. Bad-shaped heads and bodies, an inharmonious development, retarded or excessive growths, club feet, cleft palate, defective eyesight, great grossness of organization, or extreme frailty of development. This can be seen in the observation of almost anyone, and indicates the defective nutrition and cell growth caused by injuries from alcohol transmitted to the children. The mental heredity from inebriate parents is equally clear and apparent to any close observation. Mental instability, and mental feebleness are common signs. Impulsive, excitable, emotional persons, who are on the two extremes, either buoyed with great faith and hope, or depressed to the verge of despair. Extravagant self-esteem, boundless faith in the most absurd schemes of politics, religion, and science.

Men and women who are called "border liners," meaning those whose good judgment and reason alternate back and forth over the line where sanity and insanity join. They are found in the great army of the irregulars, the intellectual and moral quacks, the badly-balanced, and weak, unstable mentality. Genius and precocity often appear in these persons. They frequently come into prominence like blazing comets, dazzling for a time, then disappearing in some cloud of insanity, inebriety, or other disease. This mental heredity will be often seen in the perverted nutrient tastes of children, the impulsive appetites, and dominant animal desires. With the very wealthy and very poor, these signs of alcoholic heritage are prominent. One of the reasons are the excessive nutrient stimulation from excess of quality and quantity of food, among the wealthy, and the opposite among the poor; also the underwork and overwork of those classes.

These are only hints and intimations along the shore of a great continent of facts, which some future explorer will reveal. It will be of interest to point out some of the results which follow from alcoholic heredity. First, the longevity is diminished. It is impossible for a generation with this entailment to have the same vigor to resist disease and death. Exhaustive physical and intellectual exertion is not repaired, and overcome so readily, and death from slight causes are more common. Thus exposure merges into pneumonia, and other fatal conditions, more quickly than in others without this entailment.

In epidemics of fevers and other diseases these children of alcoholic parents, and inebriates themselves, die first. They die from injury, shock, strain, worry, and care. In brief, this alcoholic legacy from ancestors means a shortened life, an early death, from varied insignificant causes and general incapacity to bear the strains and drains of the ordinary activities of life. Second, by a wise limitation of nature the race with this heritage must die out. Only by a prudent ingrafting and marriage with a healthier stock can it be con-

tinued into the future. A family with this heritage is on the road to extinction, it is switched on a side track, and is moving on a down grade of rapidly-increasing degeneration. Nature seems to often make an effort to put on the brakes and check the speed in some remarkable fecundity.

Thus in these degenerate families you will often see a great number of children who, as a rule, exhibit many of the defects of the parents, and are short lived.

The large families of children in inebriate parents may be taken as a hint of the approach of extinction for that race. In the same way, great genius in certain directions, as for instance a poet, an orator, an inventor, or a reformer, starting far away above the levels of his ancestors and surroundings, are often the last members of families far down towards the rapids that precede the final plunge into oblivion, like the flicker of a lamp bursting into full blaze before extinction. Third. Where this alcoholic heredity is retarded or accelerated by the union with different currents of heredity, very strange compounds are the result. Thus, if to this alcoholic heredity are united a heritage of insanity, idiocy, or any other pronounced defective influence, all grades of criminals, paupers, and mixed insanities follow. While most of these defects are apparent to ordinary observation, vet there is a class of defectives springing from this soil which may be termed moral paralytics, which will be the subject of bitter controversy in psychological circles in the near future. Along this frontier line the great questions of free will and moral responsibility must be settled. The injury from alcohol first numbs, then finally paralyzes the higher brain forces, which includes all the moral elements. This paralysis goes down into the next generation as a congenital deformity, a retarded growth, in the same way that in some families cross-eyes, hare-lip, defective hands or legs, are seen in every generation. This form of heredity produces criminals of the most dangerous type; men and women born without any consciousness of duty, of right and wrong, of obligation to live a moral, consistent life. From these mixed heredities some central brain region has become malformed and degenerate, and the victim is without power to change or comprehend the normal relations of mental or moral life. Many of these persons occupy places of wealth and influence in society, holding positions of honor and respect, by force of surroundings and absence of opportunity to reveal their incapacity to follow lives of truth and justice. . . . .

If this subject is seen higher up, other and more startling conclusions appear. First, this heredity from alcohol is intensified and increased by the misapplication of the educational forces of to-day. The highest culture of the best colleges applied without regard to the natural capacity of the individual, and along unphysiological lines, most clearly unfits and destroys him. Often this higher culture is abnormal stimulation and growth, particularly for the entailments of past generations.

First of all, the educational systems do not always build up healthy brain and nerve force. Second, they ignore all heredity, and influences of food, climate, surroundings, and natural capacity, and the result is that all abnormal impulses are intensified in certain directions, and the power of control is diminished in a positive substratum of exhaustion from which there is no relief. The highest modern culture applied indiscriminately to children of inebriates, will result in their ruin as positively as any degree of ignorance. This is seen in the inordinate self-esteem, feeble common sense, unstable will power, extravagant idealities, and general mental dyspepsia of many college graduates. In actual life the college graduate who has an alcoholic heredity, and is an inebriate, is more incurable than his brother who has never had a college culture. It has been truly said that ignorance will give more promise of longevity, and a final triumph over this heredity than the highest indiscriminate culture of to-day.

Another view reveals the fact that the present legal methods to restrain inebriety, and the result of alcoholic heredity, produce results exactly opposite. Thus the army of

inebriates and irregulars of this family group are held accountable as healthy, responsible beings, and confined in most dangerous mental and physical surroundings, actually intensifying their defects and removing them farther from all hope of recovery. The police courts and jails are to inebriates literal training stations, for mustering in armies, that never desert or leave the ranks until crushed out forever. A Chinese law enacted a thousand years ago, and in force to-day, contains a flash of truth. When a criminal comes before the courts, careful inquiry is made into his ancestry. If they are found to have any of the traits common to the prisoner he is killed and they are punished. His death ends all possibility of transmitted crime, and their punishment and recorded history puts a check on any farther propagation of the evil. Common law and public opinion are far behind the march of science in a practical knowledge of this evil and the means to correct it. Not far away in the future this terrible shadow will vanish before a larger, clearer intelligence, and all our blind efforts of to-day will be found to be but a repetition of history—the stage of empiricism, quackery, and superstition, which precedes every great advance of humanity. From a higher point of view, civilization and the increasing complexities and changing conditions increase this heritage. Thus every new invention which changes the direction of human activities, brings greater strain on the brain and nerve force, demanding new energies, which the alcoholic heredity victim cannot give. He is unfitted and crippled for these new conditions of life by his forefathers, left dismantled and without strength for the race, and by that great law of our being is crushed out, driven out, and crowded out in the struggle and survival of the fittest.

One great fact comes out prominently in this outline review, namely, that alcoholic heredity or a predisposition to inebriety, and many other nerve and brain degenerations, will certainly follow in the next generation from the moderate or excessive use of spirits. Parents who do not recognize this fact, practically, are committing unpardonable sins, by

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crippling the coming generations and switching them on the side-tracks, away from the main line of development.

Another fact appears: education and marriage should be governed by a knowledge of heredity. Education should be determined by the family physician, and have for its object to control and antagonize all the predisposition of heredity. Marriage should be under control of law, and from the judgment of the family physician. The time is coming when every family will have its scientific medical advisers, and these vital questions of heredity and practical life will be determined from a scientific basis. Still another fact comes up prominently. The great armies of the insane, inebriates, criminals, and paupers are largely the doomed victims of the sins of our forefathers. Our duty to them is to house them, to protect them from perpetuating their defects and injuring others. Science tells us that this army of hereditary defectives are wards of the State, and should be housed, quarantined, made self-supporting, and forced into conditions of healthy living. The present indiscriminate freedom of this class is a sad reflection on the intelligence of this century. The study of alcohol heredity furnishes not only the strongest reasons for total abstinence in each person, but reveals the laws and forces which govern its march in each individual, revealing a wider range of the subject. Along this line of heredity will be found the practical solution of many of the mysteries and remedies of this great drink problem. To those who make heredity a study, and discover its laws, and apply them, is given the key to fathom greater mysteries and control larger destinies than any king or warrior that ever lived. Here we shall find some of the great central forces of life which have controlled the race yesterday, and will go on to-day, and forever.

. This great procession of human life may have begun in some more favored period, and crossed the earth with less loss and suffering. But to-day the scientists can see abundant intimations and gleams of light in the present, that more favorable conditions of the march can be obtained.

#### INEBRIETY IN AUSTRIA.

By Chevalier Max Proskowetz de Proskow-Marstorff, of Vienda,

President of the Austrian Society for the Study and Cure of Inebriety.

- (a) The Austrian Anti-alcoholism Society tries to have the number of brandy-shops settled by authority in a strict and appropriate manner proportioned to the number of the inhabitants. The margraviate of Moravia contains 9,700 brandy-shops for 2,153,000 inhabitants—viz., one brandy-shop for 222 inhabitants. We try to establish, as a rule, that one brandy-shop should be licensed to 500 inhabitants—that is to say, our work endeavors to diminish the brandy-shops by more than one-half.
- (b) The number of drunkards arrested in Vienna by the police department was: 5.955 in 1881; 6,349 in 1882; 5,878 in 1883 = 5,338 men + 540 women; 6,555 in 1884 = 5,771 men + 784 women.
- (c) We try to generalize a regulation for factories, by which the introducer of brandy is punished by a penalty equal to twice a day's wages. A drunken workman is punished with four times a day's wages. The high commissioner of manufactories seconds our propositions.
- (d) The society has distributed a large number of pamphlets in the German and Bohemian languages.
- (e) We promote the selling of warm tea (one penny a cup), by means of circulating cars, in the suburbs of Vienna. From January 1, 1880, till April 30, 1882, 246,842 cups of tea, 8,816 a month in average, was sold.
- (f) We try to prevent the selling of spirits of a bad quality. We held investigations on the qualities of liquor, and found that liquors were sold which contained above 17 grammes of corrupt constituent parts in one gallon. Our

law not forbidding the keeping open of brandy shops on Sunday, we forwarded petitions to the representatives of the empire to shut all brandy-shops from six o'clock Saturday night to seven o'clock Monday morning. We endeavor to have the taxes increased for spirits in the towns, the small trade in brandy being a very lucrative one. It is a fact that shopkeepers of that kind earn 21 shillings clear gain by one gallon of spirits. The brandy-shops ought to be shut at ten o'clock at night till seven o'clock in the morning. Payment to workpeople to be given on Mondays to prohibit drinking. Debts for consumption of spirits are not to be prosecuted in law-suit. Retailing liquors to individuals under the age of sixteen, to drunkards and other persons not in their full mind, to be punished. The regulations regarding retailing liquors to be placarded in every shop and brandy-house. Retailing of spirits to be strictly separated from retail shops and those dealing in other wares. Habitual inebriates to be declared minors, and transported to medical establishments (in the German style). Brandy to be prohibited in canteens, works, men-barracks, and so forth. The taxes of distillers to be raised. The tax for distilled wares is but the twentysecond part (in Germany) of the corresponding English tax.

There is one brandy-shop to 59.21 inhabitants (children and women included) in Bohemia. The courts of justice in the dukedom of Bukowina (Austria) have punished (in the years 1878–1883) 20,713 individuals a year for inebriety. The kingdom of Galicia (Austria) had (from 1878-1883), 132,403 individuals punished on account of inebriety. The leading men of Carinthia (Austria) held a meeting, the Governor of the Dukedom, Baron Schmidt, presiding, in the month of September, to consider Chevalier Edlmann's motion on checking inebriety. The Austrian Parliament followed a motion on the fatal consequences of inebriety, seconded by Chev. de Proskowetz, on March 13, 1885. The industrial town of Trautenau (Bohemia) has a consumption of 3.6 gallons a head of brandy. The law of March

8, 1885, prohibits very strictly the giving on credit brandy to workpeople, on account of their due payment.

(This short paper presented before our sister society in England is of great interest, as showing the activity of medical and scientific men to understand the origin and nature of inebriety. It is a pleasure to note the organization of another society on the same basis as our own.)

#### THEINE AS A NARCOTIC.

In the *Medical News* of Philadelphia, Prof. Mays concludes a series of studies as follows:

"Theine is the active principle of the leaves of Chinese tea, and is generally reputed to be identical with caffeine, both in chemical composition and in physiological action. My experiments show that it differs very markedly in physiological action from that of caffeine. Caffeine principally affects the motor nerves, while theine chiefly influences the sensory nerves, and clinically proves itself a most valuable analgesic, surpassing morphia in promptness and permanency in relieving pain in some affections, without producing any, or at least very little, disturbance of the general nervous system. It paralyzes sensation before motion; it impaires sensibility from the centre to the periphery and not, like brucine and cocaine, from the periphery, to the centre; it produces convulsions which are spinal and not cerebral; it has a more powerful action on the sensory nerves, and less on the motor nerves than caffeine.

"From the results of theine in these cases it will be seen that it is a powerful anodyne without producing any intoxication of the higher nerve centres, which is so common with morphia and all other agents belonging to this class. Its influence is both quick and persistent, and it manifests an almost exclusive affinity for the sensory nerves. It relieves pain by acting from the centre toward the periphery, and showing its effects but very seldom above the seat of injection. In  $\frac{1}{10}$ ,  $\frac{1}{10}$ , and even  $\frac{1}{3}$  grain doses it is entirely free from dangerous consequences—the only inconvenience which it causes is a slight, but transient burning at the point of introduction. I use a one per cent. watery solution of Merck's preparation—ten minims of which equal one-fifth of a grain of theine. Larger doses are required in some individuals in order to bring out its characteristic action."

#### INEBRIETY, AND HOW IT CAN BE CURED.

BY DR. NORMAN KERR, LONDON, ENGLAND.

The following is a part of a recent lecture before the Total Abstinence Union of London:

Dr. Kerr said that there were in the United Kingdom half a million inebriates; that at least forty thousand died every year prematurely from personal intemperance, and probably double that number of innocent persons indirectly, from disease, accident, violence, or starvation consequent on the excess of others. To inebriety we owed three-fourths of our pauperism, more than one-third of our insanity, and at least one-half of our crime. The present deep distress would be speedily relieved, the prevailing commercial depression would be rapidly superseded by the revival of financial prosperity, a renewed vigor of trade and commerce providing ample work, at good wages, for all the industriously disposed unemployed, if only the people of England would abstain from intoxicants for twelve months. If, as Dr. Kerr believed, each average man's value to the community might be put at £1,000, their half million of inebriates involved a national loss of £500,000. In addition, inebriety increasing among females was a growing cause of prospective danger, as inebriate mothers would render our successors still more susceptible to the physical sorcery of the narcotic power of alcohol, while endowed with less ability to resist this increased alcoholic tendency.

Inebriates might be classed as constant and periodic, the periodical outbreaks of the latter varying from once every three days to once in every six months. In inebriety there was an entire crushing of the man. This was still more true of the woman. The habitual inebriate was a wreck, unreliable, shifty, unstable, a real slave, with little if any self-control left, bereft of power to abstain from the poisoned chalice

which he loathed, with no inclination to do honest work for the general good. The confirmed drunkard was the victim of a fell disease, the possessor of a degenerated *physique*, a paralyzed brain, a broken down will power, a wasted life, and the soul in peril.

The general causes of inebriety were the temptations presented by drinking customs, at births, marriages, and deaths, and other festive occasions, from which many inebriates dated their fall. Hospitality was a prolific cause, doctors especially (who formed nearly ten per cent, of the whole number of the patients at the Dalrymple Home), and mostly those practicing in the country, who in their long rounds of visits were repeatedly pressed to partake of intoxicants. "Nips" before business hours, and the bottle kept handy in the office, were a frequent occasion of the declension of merchants, clerks, and others. Commercial travelers were strongly tempted. The custom of drinking intoxicating liquors at charitable, religious, and other public dinners, was also a feeder of inebriety. Licensed temptations were powerful factors. The power of public houses, beer houses, hotels, billiard-rooms, all but omnipotent as it was, must have seemed to some statesmen insufficient, for they had actually added the additional temptations afforded by grocers' licenses, by which hypocrisy and secret drinking were fostered. He knew ladies who would not have dreamt of entering a public house, begin by getting bottles home from their grocers under name of other articles, unknown to their husbands, and end by losing all sense of shame and womanhood, drinking in public houses with the lowest of the low. He also knew of ladies who regularly frequented confectioners' and other establishments, and drank large quantities of strong liquors there. 4

Habitual inebriety was a disease, like gout and epilepsy. Men and women lapsed into habits of intemperance, not because they intended to do so, but in spite of their deternation to the contrary, mainly from the fact that from some inspirited, or other physical condition, they were more

susceptible to the narcotizing influence of alcohol. Heredity, nerve shock from bereavement, business anxiety, or other exciting cause, were leading factors. Sunstroke and other diseased conditions, injuries to the head, and other accidents, were often the starting point. Excessive brain work and worry, as exemplified in the person of clergymen and literary men, also operated. Though doctors were often unjustly blamed, there could be no doubt that the loose medicinal prescription of intoxicants had much to answer for.

Strong drink of all kinds should be excluded from our festivities, and from our tables—public and private. There should be no "nips" before, during, our after bsiness hours by business men. In short, our drinking customs ought to be non-alcoholic, unintoxicating beverages being substituted (when the observance of the custom is desired) for the ordinary inebriating drinks. Medical men, nurses, and friends should be very chary of recommending strong drink (beer, fermenting wines, and spirits) to the sick.

Total abstinence, complete and unconditional, was the basis of cure. Occupation should be found; and Dr. Kerr was happy to say that this difficulty had been effectually grappled with at the Dalrymple Home. Religious influences should be brought into play, and the reformed should be encouraged to enter upon temperance and Christian work. The original diseased conditions leading to inebriety ought; to be sought out, and, if possible, remedied. The selection of a proper home for an inebriate was very delicate and difficult, many of the so-called homes for inebriates being really inebriate homes - training schools in inebriety. Punishment was worse than useless. Public ridicule, wearing the tub, tarring and feathering, thrashing and imprisonment, had all been tried in vain. Inebriety ought to be recognized as a disease, the inebriate as a diseased individual. Their legislation should be improved. The Habitual Drunkards Act should be made permanent, the compulsory appearance by the inebriate before two justices should be dispensed with, a simple contract with the license of a retreat, as in America,

being sufficient. Patients escaping should not, as at present, have to appear before a magistrate, but might be conveyed back to the home at once for cure and care. These measures were for voluntary applicants for admission into a home. But there were inebriates who were ruining themselves and families, and who would not of their own accord seek protection for themselves. There ought to be power given to the authorities to commit such to a home, and provision ought to be made for the poor at the public expense. We were far behind America in this. The rescue of the drunken is a noble and God-like enterprise. Rescuers are urgently needed. The cries of the lost and the sinking through strong drink are rising loud to Heaven. To be efficient, the rescuers must be abstainers. In abstinence lies the safety of the inebriate. Bearing in mind our own weakness amid other temptations, the diseased condition of our fellows who have, through inherited and other physical states, been conquered by the awful might of a potent and imperious tyrant, let us not treat the drunkard with scorn and abuse, but, following the example of our blessed Lord, let us take the erring one by the hand, let us bid him (and alas, her!) be of good courage, let us invite him to stand by our side on the safe platform of abstinence, that his lost manhood may be redeemed, and that the Divine which is in every human being made in the image of God, may be freed from its environment of sorrow, shame, and sin.

Whenever an inebriate is incapable of reflection his liberty is dangerous to himself and others. He is most thoroughly irresponsible for his conduct, when poisoned by alcohol, and should be treated as a child and as a sick, insane man.

Medical Inspector Spear of the navy, mentions a rare case of a sailor who used cocoaine by hypodermae for the cravings for the spirits, and fell into a state of coma which resembled opium poisoning, from which he recovered with difficulty.

#### THE HABITUAL DRUNKARDS ACT, 1879.

BY A. PEDDIE, M.D., F.R.C P.E., EDINBURGH.

On the 6th of January, 1858, I led the way to a discussion on the Personal and Social aspects of Insane Drinkers, at a meeting of the Medico-Chirurgical Society of Edinburgh, by communicating a paper entitled "The necessity of some Legalized arrangements for the treatment of Dipsomania or the Drinking Insanity." The discussion on it was opened by the late Sir Robert Christison, who, after stating his conviction as to the need of such arrangements, said, "Dr. Peddie had a somewhat Herculean task before him in attempting to obtain legislation on this subject, but he must not be discouraged by the want of success that had attended the feeble effort of the Lunacy Commission, etc."

The prophetic utterance of Dr. Christison as to the difficulty of settling this question, has, notwithstanding much ventilation and discussion, been fully verified; for after the lapse of twenty-eight years, no satisfactory legislation has yet been obtained.

For two years following the publication of that brochure, much criticism and correspondence appeared in newspapers and periodicals, almost unanimously favorable to the plea advanced; and since then from time to time I contributed various other papers on the subject to societies and the journals, while up to the present day much has been published by others in different journals and separately; and lectures have been delivered, and meetings held, maintaining that in many cases inebriety is a disease—a form of insanity, or having a close affinity to it, seriously affecting the power of the will through an impulsive desire for intoxicants; and requiring for individual and social interests, physical, mental, and moral treatment, under more or less personal control, which can only be accomplished by legisla-

tive enactment. An additional interest was given to the subject in 1870 by the formation in the United States, of "The American Association for the Cure of Inebriety," of which Dr. Parrish has been one of the most active and influential members; while in Australia the subject was warmly and effectively agitated by Dr. McCarthy of Melbourne.

At the time when the present feeble act was passed, it was considered by some a great step gained, in having something of a principle recognized in the definition given in it, namely, that "a habitual drunkard means a person, who, not being amenable to any jurisdiction in lunacy, is, notwithstanding, by reason of habitual intemperate drinking of intoxicating liquor, at times dangerous to himself or herself or to others; or incapable of managing himself or herself, and his or her affairs."

No doubt the principle so affirmed by law—so far as it went—was a good thing abstractly considered; but of what value was such to be reflected on for the ten years granted by the act, without its being available in actual practice? Consequently, the act being only permissive affords no greater facility for the care and cure of dipsomaniacs than formerly existed.

There is a very general consensus of opinion that in whatever way the wretched condition has originated, been
acquired, or produced, the insane impulse for intoxicants is,
or in time becomes, the physical manifestation of the abnormal change in the functions of the brain and nervous system.
It is easy to perceive that an agent so powerful as alcohol, which
by continued overindulgence produces in certain constitutions serious mischief in other organs, such as the liver and
kidneys, through contamination of the blood, will act
seriously as a toxic poison on the more delicate structures
of the brain and nervous system, and especially on individuals of a nervous temperament. Ample proof exists that
the malady is in a large proportion of cases distinctly constitutional and hereditary in origin, or apt to result from some
anjury to the brain or nervous system.

Those various ways in which it has its origin, action and reactions, are not inconsistent with experience and pathol. ogy, which, did my limits permit, might be amply illustrated by the analogies and transition states of other affections such as gout, various forms of insanity, sunstrokes, blows on the head, and the remarkable production of other forms of mental disease—as well as the drink craving proclivity in the offspring of inebriates. As I have elsewhere said, "whether the disease exists in its ordinary phases and intensity from the voluntary habit of intemperance, in course of time affecting the brain and nervous system, and begetting an advanced degree of moral obliquity, or whether it assumes its worst type from constitutional heredity, the psychological and pathological results are the same. These are impared volitions, blunted moral feelings, notorious untruthfulness, and loss of self-respect and self-control. The sole desire of existence is to obtain stimulating drink; the highest degree of intelligence is evinced in the means to obtain the end; and to gratify for one moment the insane impulse, the victim of it could stake even his eternal welfare."

The dipsomaniac is in the condition characteristic of, or analogous to, a large proportion of other insane individuals: "He has lost," as has been aptly said, "the distinguishing attribute of sanity, the mastery of himself." He cannot overcome by strength of will the desire for spirituous liquors which burns within him, which excites him to mischievous, sometimes theftuous actions, or sudden fits of violent conduct, or to suicide, or murder. The motives presented by religion and morality, or the ties of nearest or dearest kin have no sway over him; medical advice is still less availing without the power to enforce restraint; the law has no terrors to him; in a word, reason is dethroned, and he is alike regardless of his obligations to God and man.

As I have said in answer to those objecting to legislation in such cases by asking, is not this a free country and has a man not a right to do with his own as he chooses,

taking the consequences of his conduct? No, I reply; the State regards a suicide either as a criminal, or as insane, and the dipsomaniac therefore being more of the latter, having lost the power of reason in governing his will, must be regarded as laboring under a mental malady or as morally insane, and as much requiring treatment under restraint, as any other form of mental alienation. But besides. it is not only himself that the confirmed drunkard injures, but he is the cause of suffering and injury to others; and surely it is not the rightful privilege of any man to waste the means of those naturally dependent on him, perhaps to disgrace as well as ruin his own family and friends, or place them in personal danger, or be the cause of disquietude and annoyance to all around. The liberty of the subject is indeed a precious trust; and that it should be jealously watched over and protected is the ruling glory of the British Constitution; but the welfare of society is still more sacred. The defects of law sufficiently to meet the case of the insane drinker is in reality allowing a license for evil, when precautions are not taken to prevent grievous infringement of the liberties, rights, and privileges of others. It is certainly an overstrained delicacy in legislation which checks interference with a class of cases necessarily occasioning much private misery and public expenditure, as the secords of the courts of law, the church, of our prisons, poorhouses, and lunatic asylums amply prove. Justice, humanity, political economy, and expediency all around therefore call for legal interposition, and for facility to control, and if possible to cure, the habitual drunkard, since medical and other advice, or moral suasion are of no avail in influencing his actions; and surely when such is the case it is the manifest duty of a wise government to exercise over all its subjects a paternal relationship.

I must conclude by expressing the hope that ere the decade of the present act terminates, there may be few who hold so strongly to the miserable mistaken and politically unwise view of liberty, as to oppose the desire for increased

facility to protect the habitual drunkard from the injury he or she inflicts on themselves by conduct which they have not the power to control; or if not with that beneficent view, at least for the protection of the sacred interests of others, and of society.

This paper was read before the English Society for the study and cure of inebriety at the January meeting, and is of interest to our readers as coming from a medical man who long ago took a very advanced position on this subject.

Never contradict or attempt to reason with an intoxicated man, tell him clearly and kindly what you wish him to do; then have power to compel obedience. This is an asylum axiom.

Sneers and denunciations of the disease of inebriety, and persecution of the facts are dangerous, for like dynamite, they will explode from pressure, and send their advocates into oblivion.

The defective memory of inebriates, always leaves an impaired power to reason correctly as to the nature and character of acts, or to draw proper conclusions from the experience of the past.

The damage to the central brain regions in inebriety is clearly seen in the perverted sensations, so often manifested in hyperæsthetic and anæsthetic condition of the skin, disorders of taste, and the special senses.

The French journal of *Hygiene* estimates the probabilities of life for moderate drinkers and total abstainers as follows: A moderate drinker at twenty years of age may expect to live about fifteen years; at thirty, twelve years; at forty, ten years; at fifty, eight years. The hope of a total abstainer is at twenty years, forty years of life; at thirty, about thirty-six years; at forty, about twenty-eight years; at fifty, twenty-one years; at sixty, fifteen years.

### Abstracts and Reviews.

#### USE OF ALCOHOL.

The well-known author and physician of the asylum at Fort Hamilton, Dr. L. D. Mason, writes as follows on this subject:

As a prophylactic or abortive treatment for delirium tremens, I know no remedy so safe and so potent as alcohol properly administered. I believe that insomania is more readily overcome, and the end desired more promptly attained, than if we attempted to secure the same result by large doses of the bromides, chloral hydrate, or other hypnotics, and the risk that attends the use of these drugs avoided. If we have occasion to use these drugs also, less will be necessary, so that the quantities used may be administered in safer doses. I do not hesitate to assert that, by the too free use of these drugs in cases of delirium tremens, in the effort to overcome the persistent insomania, the convalescence of the patient has been greatly retarded, and life has been put in jeopardy and even sacrificed.

The method, then, of administering alcohol should be regulated by the condition of the patient. On the first appearance of sleeplessness, mental aberration, muscular tremor (and these should be watched for in all cases submitted to our care), a bottle of Bass's ale may be given every two, three, or four hours, lengthening or shortening the interval as the case demands, and then, after sleep is obtained and the patient reacts from his mental irrationality and physical depression, the use of the stimulant be suspended. In chronic alcoholic dementia—a low type of mental alienation occurring in alcoholics—the patient is anæmic, listless, and full of delusions; hears voices, and holds conversation with imaginary persons; appears to have sane moments, but readily relapses into his old delusions; his

appetite is capricious, his sleep irregular, and his physical strength poor; he moves about in a waking nightmare, he walks in a land of dreams and shadows. The judicious use of stimulants in these cases, a glass of ale at each meal and at bed-time, conjoined with tonic treatment, proper diet, and regular exercise, will do much good. The use of bromides and chloral to overcome the insomania will only add to the already profound mental disturbance and still further lower the physical tone. I have already referred to the fact that the too free use of the bromides and chloral and other depressing drugs in the acute forms of alcoholic delirium may plunge the patient into the more protracted forms of mental alienation to which the inebriate is particularly prone I maintain that if, by the judicious use of alcohol in such quantities and at such times as we may direct, we can arrest the onset of an attack of alcoholic delirium, or abbreviate the duration of the more chronic forms, the result of the treatment certainly warrants its adoption.

#### MORPHIOMANIA.

Dr. Marandon de Montyel, in a late number of the L'Encepal, summarizes the results of his investigations of the production of morphiomania as follows:

- 1. Morphiomania has its origin either in a demand for intellectual excitation and physical pleasure or in the acquired habit.
- 2. Injections of morphia have as a result a double action: a benign and a special action upon the nervous system by which its natural function becomes impossible after a certain term without the assistance of the poison. These two effects are separated and distinct from each other; the second is manifested when the first is no longer exhibited. There, are, then, two kinds of morphiomania; the one resulting in temporary good effect, the other a vital necessity; and after a variable period the cases of the first pass over into the second.

- 3. This double action of morphia upon the nervous system renders it an extremely dangerous medicament, and it therefore should not be prescribed hypodermically except in cases of absolute necessity.
- 4. It also extremely dangerous to combat morphiomania by the substitution of alcoholics, inasmuch, as chronic alcoholic insanity may result therefrom.
- 5. Morphiomania may always be treated by abrupt withdrawal of the drug, except in conditions when such methods are contra-indicated by the vital forces of the patient or concomitant pathological phenomena. The method should also be abandoned if reactionary collapse result.
- 6. In the treatment of morphiomania by gradual suppression of the drug, it appears advantageous to combine with the progressive diminution of the dose the recoil of momentum by fusing two injections into one.
- 7. The medico-legal questions pertaining to morphiomania are certainly based more upon extra-judicial than upon judicial clinical observation.
- 8. Observation shows that a morphiomaniac may have great energy of will while the poison has not yet determined any disorder of intellect. There is here a serious proof of what has already been said, that responsibility only ceases with the period of psycho-physical marasmus.
- 9. Relative to the responsibility of morphiomaniacs who commit crimes or offenses to satisfy their passions, it is, perhaps, necessary to distinguish whether they have yielded to the simple appetite for a pleasant effect or to a physical necessity dependent upon the instinct of self-preservation. A conclusion of irresponsibility in the latter case seems justified.
- 10. In the exact appreciation of the intellectual troubles caused by the abuse of the hypodermatic injection of morphia, it is important correctly to appreciate the existence of predisposition to insanity, and the delirium produced concurrently by the absorption of other substances, such as alcohol and belladonna. *Technics*.

#### NOTES ON ALCOHOLIC PARALYSIS.

Dr. Buzzard, in his Harveian lectures on forms of paralysis dependent upon peripheal neuritis, makes the following reference to alcohol as a causation in these cases. After referring to the literature of the subject, he mentioned a case which came under his observation, of a lady who had used large quantities of spirits and was suffering from loss of power in both extremities. The hands were dropped at the wrist, and the feet were in the same condition, and there was no power of dorsal flexion. There was much mental disturbance, and such a loss of memory that the patient could not give an intelligent account of her past. She could move her arms and raise her knees, but with difficulty. The functions of the bladder and rectum were not interfered with. The feet were projected out of the bed and so sensitive that she could bear nothing on them. She complained of constantly agonizing pains in the legs, and appealed for relief. Under the care of good nurses, a small amount of stimulant, and careful feeding, she recovered.

There was much muscular atrophy of the hands and forearms and of the anterior tibial muscles, with complete reaction of degeneration. She went out a year later restored and drank to great excess, dying soon after.

Dr. Broadbent mentioned a form of alcoholic spinal paralysis, where in several cases he had noticed the following symptoms: Insidious onset, progressive weakness of the extensors on the forearms, with double wrist drop, inability to stand, loss of knee jerk, retention of plantar-reflex. The sensations were unimpaired, except tenderness on pressure, and also occasional lancinating pains. Oedema was present in the lower extremities. The symptoms increased; death followed by asphyxia in consequence of paralysis of the diaphragm and intercostal muscles. Dr. Oettinger, who has lately written a book on this subject published in Paris, thinks the prognosis always grave, and is surprised that English physicians should report cures in cases where pro-

longed abstinence from alcohol had followed. This, Dr. Buzzard thinks, comes from the fact that many such cases pass unobserved and are ascribed to other causes. observer, whose experience was derived from a certain number of fatal cases, might easily overlook the true origin of comparatively slight cases. On the other hand, one who had associated alcoholic paralysis with cases which uniformly recovered, might frequently fail to find the true cause of rapidly fatal cases. The art which a secret drinker, especially if a female, will conceal her vice is well known. There is an absolute concealment of all traces of alcohol, and a dexterous suggestion on the part of the patient of all the possible causes of the illness, it is not surprising that the medical attendant is sometimes deceived. This must evidently be especially liable to occur in hospital practice, on account of the difficulty of obtaining accurate information as regards the habits of. the patient. There is now enough evidence from histological examination to show that in alcoholic paralysis of the kind which I have described the essential lesion consists in parenchymatous neuritis of the peripheral nerves. evident, as a result of chronic alcoholism, more or less extensive lesions may be expected to be found in various parts of the body, especially in the liver and intercranial membranes. But there can be little doubt that the degenerative changes in the peripheral nerves are the immediate causes of the paralytic symptoms. In these cases, as has been shown by Lancereaux and others, the spinal cord and the roots of the spinal nerves are found normal. It is in the periphery of the nerve fibres that the changes are discovered; there are cases, indeed, which come in the category of multiple neuritis The clinical features of this alcoholic form of multiple neuritis may be grouped in this way. In the nature of things, the patients usually exhibit more or less intellectual disturbance. The memory is especially weakened; there is a tendency to incoherent talk; and it may be found on inquiry that the patient suffers from nervous symptoms suggestive of incipient delirium tremens. I have found that

pains and hyperalgia have been, as a rule, extraordinarily pronounced. So, also, the degree of muscular atrophy seems to me to be frequently greater in this than in other forms of multiple neuritis. It is remarkable to see the extent to which in many cases the muscles of the legs and forearms are wasted. The muscular tissue seems to have almost entirely disappeared. This is especially to be seen in the extensor group so that the feet as the patient lies drop helplessly forward. As has been already pointed out when dealing generally with the symptoms of multiple neuritis, the varying degree of muscular atrophy in a limb may easily give rise to contracture of rigid character. You may thus at one stage of the disease find a patient lying in bed with powerless, wasted, and flaccid limbs - the feet and hands, as mentioned, helplessly dropped, and in another stage find the same patient with the tendo-achillis rigid, the foot unable to be brought into dorsal flexion by strong passive movements, the hamstring muscles contracted, whilst the hands, perhaps, share the claw-like character described by Duchenne. Pains and extreme sensitiveness to touch are, as I have said, of extremely frequent occurrence in alcoholic paralysis. It is interesting to note that when recovery takes place, and the second attack occurs later on, the symptoms in this respect may vary in the same individual. A lady, given to great alcoholic excess, lost power in her legs, the feet being "dropped," and reaction to induced currents absent in the anterior tibial muscles. She complained of dull aching pains. Two years previous she had recovered from an attack of paralysis of similar kind, except that on that occasion the pains had been of excruciating character. The pains and inordinate sensibility of the skin may, I believe, be altogether absent in alcoholic paralysis, as happens likewise in some cases of multiple neuritis of non-alcoholic origin.

The absence of knee phenomenon is so common in these cases that we may almost confidently expect to find this symptom. It will now and then happen, however, that we may find the knee-reflex not only present, but somewhat

exaggerated. I do not see how to explain this as the result of neuritis, and as, I believe, it is only in alcoholic examples that the anomaly is observed, it may be due to interference with the inhibitory influence of the cortex cerebri, caused by the action of alcohol.

A man, age 88, had drank heavily of beer and whisky since 12 years of age. He walked hurriedly, unably to steady himself while standing still, the legs stiff and widely separated, only touching the ground with the ball of the foot. The calf muscles were contracted, the reflexes in some excess. Induced currents gave no reaction in the muscles below the knees. There was tenderness on pressing the nerve trunks in the hams. The group was weakened under abstinence and use of the constant current, the muscles regained their excitability to Faradism, and the patient recovered. The absence of the knee phenomenon which is so generally observed in all forms of multiple neuritis, coupled with the lightning pains so often experienced by the patient, may be strongly suggestive of tabes dorsalis. This resemblance is sometimes increased by occurrence of a notable amount of In the case of my patient, - T. O. - there were sharp pains, sudden, and of momentary duration, like a knife stab in the thigh and knee. His gait was ataxic, and he said the ground did not feel natural to him. His legs seemed to spring under him. His knee phenomenon was absent. At a certain stage of his illness the superficial resemblance to a case of tabes was very striking. A noticeable point of distinction was to be found in the behavior of the muscles to electrical currents.

It is well known that in tabes dorsalis there is essentially no change from the normal condition in this respect. In certain cases, no doubt, the anterior grey matter of the cord may become invaded, and cause muscular wasting with loss of Faradic excitability in limited parts, but this is quite, as it were, an accidental complication, and is not an essential part of the disease.

Now, in my case of multiple neuritis, there was very slight

reaction to strong, induced currents in all the muscles of the lower extremities, and almost total abstinence in the interosscie and the thenar muscles of the right hand. This of itself, to say nothing of other differences, was sufficient to distinguish the case from one of tabes. More than one case of this kind has been published as an example of tabes recovering under treatment. Dèjerinne, in France, has drawn attention to cases in which pains, inco-ordination, absence of knee phenomenon, and anæsthesia have produced a striking resemblance to tabes, in which after death no lesion of the cord was found. He has suggested for these the title of "nero-tabes peripherique." This very important observation requires to be borne in mind ere we conclude of a case marked by the characteristic symptoms described, that is, one of the sclerosis of the posterior columns. Dèjeinne's cases, I can not help thinking, that alcohol was an important etiological factor. Considering that the toxic influence of alcohol must be brought about through the medium of the circulation, it is not surprising that the upper, as well as the lower extremities, should be affected in cases of alcoholic paralysis. Indeed, it might be anticipated that the effect would display themselves equally upon all the voluntary muscles of the body. But this is not the case; it is upon the lower extremities that the brunt of the mischief falls. They usually suffer the most, and may possibly, perhaps, be occasionally alone affected. But I am disposed to think that their immunity is not nearly so great as has been supposed, and that careful observation would show that in cases where the patient only complains of loss of power in his legs, the arms are also, though to a less extent, likewise affected. The patient's attention is apt to be so engrossed by the preponderating disorder in his lower extremities that he takes little or no notice of the weakness in his hands. An observation which I made many years ago, in a case of leadpoisoning, very much struck me. Although the patient only complained of one arm and one leg (which were manifestedly paralyzed), and 'asserted that there was nothing

wrong with the other extremities, I found in the muscles of the latter a very well-marked decrease of Faradic excitability. I have also many times noticed a similar condition in cases of infantile paralysis. In general terms, it may be said that just as in a case of lead paralysis we expect to find dropped wrists, so in case of alcoholic paralysis we look for dropped feet. I would go farther even, and say if we met with a case of dropped feet - a paraplegic condition affecting with marked preponderance the anterior tibial group of muscles - we should be on the alert to inquire respecting the possibility of alcohol being the cause. Let me not be misunderstood. The existence of this condition is not alone the proof of habits of excess, but it is so extremely constant in cases of alcoholic paralysis that we should be wanting in our duty if we failed to bear this in mind, and direct investigation accordingly. This is, of course, a delicate matter, and on more than one occasion I have observed a look of somewhat indignant surprise on the face of the medical attendant of whom the inquiry has been made. But we have no more right to omit the inquiry than we should have to avoid examining into the possibility of lead-poisoning when a case of dropped wrist came under our observation. It is especially when we find not only the extensors of the feet and those of the hands paralyzed, and also when there are some sensory disturbances as well as motor, that we should do well to bear in mind the possibility of alcohol being at least a factor, where careful observation shows that the lower extremities are alone involved, the upper extremities being quite normal as regard strength, sensibility, and electrical reaction, it will usually, I think, be found that the influence of alcohol may be put out of the question. It is evident that there is but little likelihood of the effects of alcohol being limited to certain extremities. But, as I have said, it is very common for the legs to show the disorder before the arms. And supposing that the abstinence takes place at this point, it is, perhaps, conceivable that the latter might escape. This, I should think, must be extremely uncommon. I am not able to explain the greater tendencies of the lower extremities to suffer in this affection. It is an interesting circumstance that a similar proclivity for the lower extremities to be most affected. Sometimes (indeed, exclusively so), is shown as I have remarked, in the case of the endemic disorder beribert. But is not only in connection with alcohol and beribert that this preponderance is observed. Several cases have fallen under my observation, marked by characteristic symptoms of peripheral neuritis, which have been entirely confined to the lower extremities, and I should have wished, had time permitted, to bring these under your notice.

In some of them I have not been able to satisfy myself as to the probable originative cause of the affection of perupheral nerves; syphilis, alcohol, lead, and diphtheria being out of the question. They have been characterized by loss of power in the anterior tibial muscles, so that one or both feet are "dropped" with cutaneous hyperæsthesia or anæsthesia, limited usually to more or less of the leg below the knee, and sometimes by ædema.

Such cases constitute a peculiar form of paraplegia, which needs extended investigation.

#### THE NECESSITY OF HOSPITALS FOR TREAT-MENT OF INEBRIATES OF THE NAVY.

The following extract from Dr. Horner's paper, lately read before the Naval Medical Society at Washington, D. C., calls attention to a grave abuse in both army and navy, that of punishing men who become diseased in the service, as morally responsible. Dr. Day, in a letter to the author, says; "It is fortunate for this subject of institutional treatment for these victims of inebriety in the army and navy to be agitated. During the thirty years past I have treated a large number of these cases, and they are the best men in the service. A government asylum for the treatment of this class would lessen the insubordination and disgraceful conduct in this service, and would save a large number of these cases

that are now lost. My long experience has convinced me that this is a work of as much need as the care of the insane, and is becoming more and more imperatively demanded every day."

Dr. Horner writes: "It required three-quarters of a century before naval authorities established a hospital for the insane of the public service. The suggestion first made by that great philanthropist, Miss Dix, was successfully carried into effect in 1858 by Dr. Charles H. Nichols. There can be no question from the facts presented that for nearly thirty years the experiment of hospitals for inebriates in nearly every State in the Union has been successfully demonstrated in this country as well as in Europe. The naval surgeon should, in the practice of preventive medicine, be convinced that the disease of inebriety, occurring in the line of duty to officers or seamen, should have the benefit of special treatment in a hospital instituted for this special disease.

"The annual report of the Surgeon-General of the Navy notices a certain number of cases of acute and chronic alcoholism, and of delirium tremens, says one-fifth, rightly included under the head of 'poisons,' as occurring in the various squadrons at home and abroad, at the navy yards and in naval hospitals. Among this number there must be cases discharged uncured. In the North Atlantic squadron, under the head of 'poisons,' which includes acute alcoholism, the ratio per 1,000 of this class in this report is set down as 10. In the European squadron, under the head of "poisons," 17 per 1,000 is the number given; 13 admitted, 12 discharged, and I invalided. The report concerning the sanitary condifion of the various hospitals also furnishes examples of acute and chronic alcoholism, and ebrianitas, 31 cases admitted, 30 discharged, and I invalided. Such facts are sugggestive that, whatever precautions may be adopted by the medical staff of the navy to eliminate inebriety from the public service, the experiment has failed. The attempt at treatment on board ship, as in civil practice, has also failed, but not so has institutional treatment. Already the navy surgeon has won

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an advanced position in the departments of sanitary science and of preventive medicine. Indeed, he is fully qualified to discharge all professional duties as a surgeon and physician according to all the light which medical and surgical science has reflected upon the human mind. Hence the query, will he not be derelict to fail to apply the most enlightened medical and institutional treatment to an inebriate on board ship, as well as in a special hospital, rather than to furnish testimony before a court of inquiry or a court marshal as a witness. thereby insuring the summary disgrace or expulsion from the public service of an efficient officer or valuable seaman? The latter cruel, and, in many instances, unjust method, was practiced in 1859, though it cannot be sanctioned at present In one case, of which the writer was cognizant, the greatest wrong was inflicted upon a talented and efficient naval officer. whose valuable services saved a sloop of war with her crew from shipwreck. His exposure to a tropical sun, in an open boat, to discover a safe channel for the escape of the vessel, was, of course, the occasion of great mental strain. On returning to the United States subsequently, can there be any surprise that this officer in an evil hour was tempted to acts of intemperance? And yet the decision of the courtmarshal convicted him of drunkenness, and sent him into the world a disgraced and ruined man. Finally, the suggestion may be ventured that, at least one of the various naval hospitals now appropriated for the treatment of the sick and wounded might be judiciously set apart for the special care, relief, and cure of the unfortunate victims of inebriety of the American naval service."

#### ALCOHOLIC HEREDITY.

The Journal of Heredity gives the following selection from Dr. Mathews report, as superintendent of the department of heredity for Rhode Island:

"The passion for alcoholic stimulants, if not reproduced in the immediate descendants, may show itself in the successive generations, and in all cases is the most prominent factor in insanity, epilepsy, idiocy, hypochondria, hysteria, neuralgia, nervous degeneration, and its kindred ailments - often manifesting these maladies in a vicious circle — with the effect of exhibiting insanity in one, epilepsy in another, intemperance in a third, idiocy in a fourth, hypochondria in a fifth, hysteria in a sixth, and so on until the circle is completed, each generation increasing in numbers, and contributing in a direct ratio to the filling of our jails, penitentiaries, inebriate asylums, insane retreats, and poor-houses. That this is not a conjectural statement the following facts will abundantly prove: In a Swedish asylum it was found that 50 per cent. of the patients had been addicted to the use of alcoholic beverages. After the removal of the heavy tax on alcoholic drinks in Norway, the percentage of increase during eleven years was: In mania, 41 per cent; melancholia, 69 per cent.; dementia, 25 per cent.; and idiocy, 150 per cent. Of the last, 60 per cent. were the children of drunken fathers and mothers. In the insane hospital at Vienna, Austria, probably one of the largest in the world, the superintendent informed me, personally, that from 50 to 60 per cent. of the insanity was due to spirituous liquors. This percentage in a country where it is claimed alcoholic drinks do no harm, is well worth noticing. In our own State insane asylum, of the now present inmates, numbering 364, 75 per cent. can be ascribed to habits of intoxication, either on their part or that of their ancestors. I am also authorized in making the statement that fully twothirds of those persons requiring aid from city and State are descendants of inebriate parents. In one of our prominent lunatic asylums 637 cases were traced to intemperance as the assignable cause of their insanity. The statistical accounts of the State of New York give the following facts: In the poor-house of Ontario county there were 113 inmates. These, together with their ancestors for three generations, living and dead, represented 90 families, and in these families there were 168 dependents, 26 insane, 12 idiots, 103 inebriates. In Columbia county, 118 inmates, representing 114 families,

had 143 dependents, 12 insane, 32 idiots, 127 inebriates. In Yates county, 32 inmates represented 26 families, of whom 59 had been dependent, 4 insane, 2 idiots, and 31 inebriates. In Kings county, 1.876 inmates represented 1.668 families, 2.039 dependent, 755 insane, 23 idiots, and 973 inebriates. Herkimer county had 77 inmates, representing 67 families, 128 dependents, 21 insane, 12 idiots, and 64 inebriates. The total in the alms-houses of the State was 12,614 inmates, who represented 10,161 families, whose members for three generations, living and dead, had among them 14,901 dependents, 4,968 insane, 844 idiots, and 8,863 inebriates. In round numbers, here are 10,000 families who have produced 15,000 paupers, or 3 paupers for every 2 families—of insane, about 1 for every 2 families; of insane, inebriates, and idiots combined, about 15,000, or 3 to every 2 families."

The Second Annual Report of the Dalrymple Home at Rickmansworth, near London, gives very pleasing evidence of solid scientific growth.

The superintendent, Dr. Branthwaith, writes as follows: With the exception of the months of June and July the home has been quite full through the twelve months, and it has been a painful necessity to refuse many applicants for admission, the applications having averaged from fifteen to twenty in the month. On January 30, 1885, there were seventeen patients in the home under treatment. Since that time twenty-nine have been admitted, a decrease of three on the previous year, explained by the fact that many of those previously admitted have remained until the present time. Of those, twelve entered under the Habitual Drunkards Act, and seventeen privately. Of patients under the act, four entered for twelve, five for six, and three for three months. Of private patients, six entered for twelve, one for nine, six for six, and four for three months. This year, as before, some have remained much longer than they originally intended, and I am glad to note an increasing tendency to extend the time even longer than twelve months.

Some patients on admission have not been suffering from any acute form of alcoholism, but others have entered in the midst of heavy drinking. In all cases I have cut off intoxicants at once. Two cases entered complicated with functional paralysis (in one general and in a slight degree, and in the other confined to the hand and arm with complete loss of power), two cases of impaired vision, three cases of gout, and three of chronic rheumatism. All other patients entered in fairly good general health. A general review of the year shows complete immunity from any serious acute affection, and no case of delirium tremens.

Four patients admitted during the year were medical practitioners, one barrister, one retired military officer, one retired civil servant, one tutor, seven clerks, one civil engineer, one marine engineer, five merchants, one farmer, and six gentlemen of no occupation. All were heavy spirit drinkers; two were in addition morphia takers, and three others had habitually taken opium or chlorodyne at times. All were smokers.

Twenty-eight patients have been discharged, twenty-four from efflux of time, one for illness, and three as unsuitable for treatment. With these exceptions all derived benefit from their stay, and left much improved in general, mental, and functional condition, and consequently better able to withstand the temptations to which they would be subjected.

Heredity as a predisposing cause is much more clearly marked than in our previous published statistics. Of the twenty-nine cases, twelve have a family history of inebriety, besides others obscure and not to be relied upon. In eight cases the father or mother was inebriate (in four cases combined with inebriety in brothers or uncles) grand-parents in one case, brothers in two cases, and uncles alone in one case. In the remaining sixteen no history of inebriety was obtainable, in two cases there was a history of insanity, and in others of hysteria, neuralgia, and other neurotic affections. Three cases are traceable to severe physical injury. The remaining predisposing and exciting causes I have

classed under the former headings of *nerve-shock* from overwork, and business or domestic disappointment or loss; *influence of occupation* or the inducement to excess afforded by various employments; and sociability or good fellowship.

Adding the figures published last year there has been a total of seventy-eight admissions, and sixty discharges since the opening of the home.

In the after history of those discharged, twenty-one are doing well, and thirteen more are decidedly improved, while ten have been discharged without benefit, and three cases were re-admitted. Occupation and employment for the patients were as follows; general carpentry and cabinet making, photography, electrical engineering. A full set of meteorological instruments have been loaned them and observations are taken daily. Winter and lawn tennis, boating, bathing, fishing, billiards, and music, etc., etc.

The income from patients was 2,321 pounds, and the expenses were somewhat less, and altogether this report shows that the Dalrymple Home is one of the best hospitals for the inebriate on the continent.

#### CLINICAL THERAPEUTICS.

Lectures on Clinical Medicine and Treatment of Nervous and Other Diseases. By Professor Beaumetz. Translated by Dr. Hurd. G. S. Davis, Publisher, Detroit, Michigan, 1885.

This work of twenty-two lectures, covering 490 pages, has already been translated into five different languages, and has won a place among the authorities of the practice of medicine. One distinctive feature of these lectures is their suggestiveness; and the possibilities which they open up; new lines of thought, new views, and new methods which are very stimulating to the reader. His clinical descriptions of disease are always brilliant, although often dogmatic, and incomplete. The French ring of these lectures are unmistakable, and really charming compared with the dry, solemn

statements of English and American authors. This work will have a peculiar value to all American readers for the comprehensive presentation of the treatment of nerve and brain diseases, also of typhoid and intermittent fevers. He will find here a rare store-house of hints and suggestions which he can continually draw upon. We commend this work as giving the best idea of the therapeutics and practice in France, and enabling the reader to avail himself of all that commends itself to his learning and experience. Both the specialist and general practitioner will find this work of great value.

The translator and publisher have presented a very attractive volume, and the low price of four dollars will give it a very wide circulation.

The Physiological and Pathological Effects of the Use of Tobacco. By H. A. Hare, M.D. The Fisk fund essay. P. Bakerton, Son & Co., publishers, Philadelphia, Pa., 1886.

This little work of one hundred pages is written by a scientific man, from a scientific point of view, and may be considered the last and most accurate statement on this subject. The following conclusions indicate the scope and value of the book, and we commend it most heartily:

"Tobacco smoking does not decrease the urine eliminated, but rather increases it. Tobacco does not retard tissue waste. Tobacco and its alkaloid cause convulsions in the primary stage of the poisoning, by depressing the reflex inhibitory centres in the cord. It causes the palsy of the second stage, by paralyzing the motor nerve trunks, or the motor tract of the spinal cord. That the sensory nerves are not affected by the drug. That nicotine contracts the pupil, by stimulating the occulo-motor and paralyzing the sympathetic, this action being peripheal. That nicotine primarily lowers the blood pressure and pulse rate; secondarily, increases pressure and rate; thirdly, decreases pressure. That the primarily lowering of pressure and rate is due to

pneumogastric stimulation, associated with vaso-motor dilatation. That the secondary stage is due to vaso-motor constriction and pneumogastric palsy. That the third stage is due to vaso-motor dilatation returning. That death in poisoning from this drug is due to failure of respiration, the action of the drug being centric. That the blood corpuscles are broken up and enervated by the action of the poison. That in death from nicotine poisoning the blood shows changes in spectra. That death can be brought about by the cutaneous absorption of nicotine. That tobacco increases intestinal peristaltis in moderate amounts, and produces tetanoid intestinal spasms in poisonous doses. That the liver seems to destroy the poison, although this destruction is participated in by any set of capillaries in other parts of the body. That tobacco smoking increases pulse rate and decreases arterial pressure."

Field and Limitation of Operative Surgery of the Human Brain. By Fohn B. Roberts, M.D. P. Blackiston, Son & Co., Philadelphia, Pa., 1885.

The author gathers the very latest conclusions and facts, on the "principles of cerebral surgery," "cerebral localization," and "operative treatment of cerebral lesions," with his own observations, in a thoroughly scientific spirit of fairness and candor. Some of these topics are of exceeding interest to specialists of inebriety. The diagnosis of traumatic subceranial hemorrhage, and of arachnoid hemorrhage, are likely to be confounded with the stupor of intoxication, from alcohol or opium, or to be provoked by a blow on the head while in a state of intoxication.

Inebriates very commonly suffer from cerebral symptoms which have to be differentiated from abscess, congestion, hemorrhage, and other lesions. Traumatisms from injuries followed by epilepsy and dipsomania are amenable to surgical treatment. Dr. Roberts points out some of the possibilities in this direction. This book may be called literally the most original contribution to surgery that has appeared for a long time.

Evolution and Religion. Eight sermons discussing the bearings of the evolutionary philosophy on the doctrines of religion. By Henry Ward Beecher. Fords, Howard & Hulbert, publishers, New York city, 1886.

The student of science will find great satisfaction and pleasure in this little work. The candor of statement and broad philosophy has the tone of true science, and if Mr. Beecher leaves nothing more for the world, this work will carry his name far down into the future as one of the great pioneer thinkers and preachers of the nineteenth century. For scholars and thinkers this book will be warmly welcomed, and we most heartily commend it.

Brain Rest. By J. L. Corning, M.D. G. P. Putnam's Sons, Publishers, New York, 1885.

This is a very pleasantly written little work of one hundred and twenty-five pages, discussing the following topics: Sleep, Blood, and Brain-force, the Hygienics of Sleep, Definition of Insomnia, Exhaustion of Brain Energy, Rest, Muscular Rest, Spinal Rest, the Therapeutical Significance of an Excessive or Inadequate Supply of Blood to the Brain, the Mechanical Regulation of the Cerebral Circulation, Internal Remedies, Baths, and Electricity.

Many very practical hints will be found in this book that can be applied to the treatment of inebriates.

Historical Sketch of the Distribution of Land in England. By Prof. Wm. Lloyd Birkbeck, Cambridge University. Price 15 cents, post-free. J. Fitzgerald, publisher, 393 Pearl street, New York.

The question of land distribution is attracting attention all over the world, and in England its discussion threatens to produce, at no distant day, a profound and far-reaching social and political revolution. Hence a treatise on the principles of land distribution is most timely, and must be welcomed by every studious observer of the events of current history.

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The Medico-Legal Fournal, under the care of Hon. Clark Bell, has attained great prominence in the world of science, and is the best journal published.

The Fournal of Nervous and Mental Disease has become a monthly, under the charge of Dr. Sachs of New York city. Its value and usefulness will be greatly enhanced under this new management.

The Homiletic Review, published by Funk & Wagnalls, of 10 and 12 Dey street, New York city, increases in excellence from month to month, and ranks among the best reviews of theological thought in this country.

The Phrenological Journal, by Fowler, Wells & Co., New York, edited by Dr. Drayton, should have a place in every library of thinking men and women. They publish a very unique calendar, which will be sent to any one for ten cents.

The Demorest's Monthly Magazine of New York city, is a very attractive illustrated monthly, with a very distinct temperance ring in the editorial pages. The literary character is good and wholesome, and we most cordially commend it. Send for a copy.

Dr. Shepard's Turkish Bath Sanitarian on Brooklyn Heights, Brooklyn, New York, is one of the few places we take pleasure in commending at all times to our readers. The value and excellence of the bath, and the possible results, both physically and mentally, to all who avail themselves of it, fully sustain all commendation that can be given.

The Popular Science Monthly for March and April contains the famous Gladstone-Huxley controversy over the scientific nature of the Book of Genesis. Also Mr. Spencer's last paper on Darwin and Evolution. These and other very important papers are of great interest to all thinking men who are watching the front line of progress. No other periodical gives a better view of the march of science and thought in this country.

The Fournal of Heredity for January, under the care of Dr. Burnet, is a vigorous and spirited number. To gather the facts of heredity and present them in a popular, scientific form, is a great pioneer work which this journal essays to do. The promises of success increases with each number, and we urge our readers to send for a copy to the office at Chicago, Ill.

Lend a Hand, published in Boston, Mass., is a monthly magazine of practical philanthropy. It is a record of all efforts to suppress crime, pauperism, and disease, and is intended to be the medium for the study of the best remedies of these evils. Its contents and management so far gives promise of a very attractive addition to the literature of preventive medicine.

The Descent of Man. By Charles Darwin. Part Second. Price 15 cents. J. Fitzgerald, 393 Pearl street, New York.

This famous work is now for the first time brought within the reach of all readers. It is to be completed in four parts, 15 cents each, or 60 cents for the entire work. It is well printed from large, clear type, on excellent paper. The lowest price of this work hitherto has been \$3.00.

The following most excellent works are published by the Humboldt Library of Science, at 15 cents each, in paper covers. Address, J. Fitzgerald, 393 Pearl street, New York city. We commend them and only give a few names of the large number now published. Each work is complete. "Ribot;" "Diseases of Memory;" "Diseases of Will;" "Illusions," by Sully; "Mind and Body," by Bain; "Longevity," by Guardner; Huxley's works; Tyndal's works; Rawlinson's works; Clifford's works. These are printed in good type, and are unabridged. No library is complete without these great standard works of science.

Nitroglycerine is said to be a perfect substitute for alcohol in one drop of one per cent. solution, as a cardiac and cerebral stimulant.

### Editorial.

#### THE CLASSIFICATION OF INEBRIETY.

Dr. Wilson has attempted in the Polyclinic to group some of the different forms of inebriety under the head of alcoholism. This effort suggests the confusion of opinion regarding the nature of inebriety. The doctor falls into the common error of regarding all forms of disorders in which alcohol is taken to excess, as alcoholism. Practically the man who has led a previously healthy life up to a certain point, then suddenly uses spirits to great excess, is not an alcoholic. Or one who, from a long course of neglect and irregular living, suddenly finds in alcohol a source of relief from all his aches and pains, and uses it freely; or the man who, after years of moderate or occasional use of spirits, begins to take it in great excess. In all these cases, and many others of like character, the use of alcohol is only a symptom, and not a cause. It is always an indication of some state of brain and nerve exhaustion, existing long before alcohol was used. Hence, clinically, the term alcoholism is not correct, but inebriety more nearly describes this diseased state, whose chief symptom is a craving for narcotic drugs. The various forms of inebriety may be designated by the drugs used. Thus we may have alcohol, opium, chloral, chloroform, and ether inebriates. These may all be distinct or run into each other so closely as to appear alike, and various forms of insanity may be associated or follow from each one. The symptomology of these cases are all marked by delusions, hallucinations, deliriums, and various states of exaltations and depressions. A classification from the symptoms would be difficult, because of their variability and dependence on local causes. Often the use of alcohol or opium springs from irritation or disease of some organ, with a chain of symptoms which may vary greatly.

Its first use at the beginning may develop some latent neurosis or state of degeneration with equally complex symptoms.

All classification must be made from the basis of causation. Heredity is one of the most prominent factors in the causation. Heredity not alone from inebriate ancestors, but following from other and allied diseases. Thus, the descendants of insane, consumptive, idiotic, criminal, epileptic, and a vast number of defectives, are born with all the favoring conditions to develop inebriety from the slightest cause, and often without any rational causes that are apparent. Dr. Parrish thinks some form of brain and nerve degeneration is transmitted, and the debility and exhaustion which follows, is relieved most quickly by alcohol or opium, hence these drugs are constantly sought for.

After heredity comes what may be termed physical causes, the most prominent of which are traumatisms from injuries and diseases. The inebrieties from these causes are distinct in many respects. Then comes a range of physical causes which are due to varied emotional strains and drains, mental conditions, bad training, and bad mental surroundings, etc. In these cases some state of nerve and brain exhaustion finds in these narcotics a relief. Dipsomania is a real insanity, in which the morbid impulse to drink spirits, or take narcotics, is a delirium which so thoroughly permeates the system, and dominates every other impulse, as to be powerless to resist. The periodical inebriates are members of this family, and their stated recurrence at certain intervals are only lesser grades of dipsomania. The injury from the toxic use of alcohol is always positive, although it may be obscure, and the degeneration from this point is continuous and far-reaching. How far this disorder has grown out of the use of alcohol, or comes from previous disorder or degeneration, cannot be determined. Clinically, inebriety will divide into three groups. The first, where heredity, direct and indirect, are the most prominent causes. Second, traumatism from injury or disease are the chief causes.

Third, where the causes are physical, as mental contagions, emotional strains and shocks, and nerve and brain changes. Dipsomania and the periodical inebriates are to be included in a separate division.

It is clearly impossible at present to make any exact classification from the symptoms. Only some general division of cases based on the causes can be given, and even these must vary with the progress of exact study of the natural history and progress of these cases.

#### CRIME AND PAUPER WAVES.

Col. DuCane, the English inspector of prisons, has lately given some very interesting statistics on the tide-like movement of crime and pauperism. He found that from 1851 to June 1885, a history of increase of crime and pauperism up to a certain point, then a regular decline. Thus, in 1851 and up to 1853, a steady fall was noticed. Then a rapid increase took place. In 1856 the pauper population had reached its maximum, and the next year the criminal population attained the same point and went back. Both fell steadily until 1860, then turned to rise again. In 1863 both fell back to 1866, when they started up again. In 1869 the criminal tide turned and the pauper wave went back in 1870. Then a remarkable divergence was seen. The pauper tide went down to 1876, when the criminal wave went up to 1877. Then the pauper tide went up and the criminals went back. The paupers went up steadily until 1883 and the criminal population fell. Then both tides seem to come together again. In February 1885, the criminal population reached the lowest level known for many years.

The regular rise and fall every three years has changed, and the fall has continued going lower than before.

These facts point to a range of causes that are unknown, and indicate that criminals and paupers, like inebriates, are not chance products of civilization, but are thrown up in tide-like waves, by forces that are both mysterious and potent.

#### THE FUTURE FIELD OF MEDICINE.

If it was known that a single disease caused a weekly mortality of over one thousand persons in this country, the greatest scientific interest would prevail, to determine its cause and remedy. The complaint of the overcrowded ranks of the medical profession would die away, and each new physician would find ample room for all the labor and skill he could give to the world. To-day more than one thousand are dying from inebriety; dying of a disease that is positive and unmistakable, as it is curable, and yet no interest is excited except among moralists and reformers, who consider it a sin. The possessed of the devil, in the past ages, were passed by the physicians as only fit subjects for clergymen and priests. Now an army of specialists and every general practitioner finds in these neurotics the most fascinating field for medical practice.

Instead of punishment, persecution, and death, these poor victims are cured and restored to health and society. The inebriate is passing through the same stages of history. In the near future he will be recognized as diseased, and the crowded medical profession will find a new field at their doors, now unsuspected. The despairing physician who feels himself crowded by others in the profession, has only to turn his efforts to this ever increasing army of inebriates, who are suffering and dying all about him, unknown and uncared for, and the horizon of practical labor will expand into immense dimensions. To determine the cause of inebriety and the means of cure and prevention, is to enter upon the new and most important field of the practice of medicine for the future.

#### INEBRIETY IN FRANCE.

It is evident from a great variety of evidence, that inebriety is rapidly increasing in France. Wine was formerly the only drink used. Now large quantities of brandy from beet roots and potatoes are made and consumed. German

beers have come into the market, and vermouth and absinthe are used in large quantities. The cheap pure wines are disappearing, and these stronger and more irritant drinks, with the manufactured wines and other compounds, take their place. This is thought to be owing to the destruction of the grape vine, and the changing habits and customs of the people. In Paris and other cities more intoxication is apparent every year. This is traceable to these new and stronger drinks. The late Dr. Lunier thought that as long. as the pure cheap wines were used very little danger would follow, but the advent of the complex alcohols, as found in brandy and absinthe, excited his gravest apprehensions for the future. The French temperance society made this point very prominent, and total abstinence was confined to these complex alcohols, and did not include pure wines. Insanity and complex nervous diseases are increasing from this cause. This subject is beginning to attract attention. The bureau of statistics have called for the number of persons who are known to be intoxicated in each province and the kind of spirits they use. From this report some facts will appear that will show how far this change of the drink customs of the nations has gone on. If the temperance agitators of this country would make a census of the inebriates in every section, it would be an argument that would enlist interest and sympathy at once.

#### HOMES FOR INEBRIATES ASSOCIATION.

This association is an English organization for the purpose of stimulating public sentiment in the building and support of asylums for the care and cure of inebriates. They have been very active in building the Dalrymple Home, and are now urging the benevolent to help them in securing a hospital for indigent inebriate women, and also one for men who are homeless and unable to pay. In the report of the year's work before us occurs the following reference to the statistics of the Dalrymple Home:

Of the sixty who have been discharged since the opening

of the Home, leaving out of reckoning one who has become insane, three who have died, and twelve who have not been heard from, nearly one-half have done well. Over thirty per cent. additional have been improved; so that between seventy-five and eighty per cent. have received decided benefit. Of the twenty-nine admitted during the year, the committee are glad to record that ten entered for the term of twelve months, the shortest period of residence which can be unreservedly recommended.

#### INEBRIATES PASSING COUNTERFEIT MONEY.

The general rulings of judges, that inebriety is no excuse for crime, results in great wrong and hardship, and the object of punishment to reform the offender and deter others from committing crime practically fails. In the wide ranges of cases of inebriates, who having violated the laws, constantly coming before the courts, the application of this legal theory must vary widely, as the intelligence and mental capacity of judges differ. The rulings of the lower courts exhibit more intelligence and freedom in the recognition of the special conditions of each case, while all the higher courts of last resort, adhere tenaciously to the old theory of responsibility in most cases, and sustain their rulings by citation of long lists of cases, where similar views were held.

The injustice and confusion seen in the reports of cases where inebriety comes in question indicates clearly a transition stage, which happily is passing away. The insanity of inebriety and its total and limited irresponsibility is forcing a recognition, in courts, as justice to the victim, and as opening a door of escape now closed against him.

The following cases are interesting, and suggestive of a change. Pigman was convicted of passing counterfeit bills, in Ohio. The case was carried to the Supreme Court on the plea that the prisoner was an inebriate and intoxicated at the time of the act, and did not know or realize his crime. The judge ruled on this as follows: "Drunkenness is no excuse

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for crime; yet in that class of crimes and offenses which depend upon guilty knowledge, or the coolness and deliberation with which they shall have been perpetuated to constitute their commission, or fix the degree of guilt, it should be submitted to the consideration of the jury. If this act is of that nature that the law requires it should be done with guilty knowledge, or the degree of guilt depends upon the calm and deliberate state of the mind at the time of the commission of the act, it is proper to show any state or condition of the person that is adverse to the proper exercise of the mind and the undisturbed possession of the faculties. The older writers regarded drunkenness as an aggravation of the offense and excluded it for any purpose. It is a high crime against one's self and offensive to society and good morals; yet every man knows that acts may be committed in a fit of intoxication that would be abhorred in sober moments. And it seems strange that any one should ever have imagined that a person who committed an act from the effect of drink, which he would not have done if sober, is worse than the man who commits it from sober and deliberate intent.

The law regards an act done in sudden heat, in a moment of frenzy, when passion has dethroned his reason, as less criminal than the same act, when performed in the cool and undisturbed possession of all the faculties. There is nothing the law so much abhors as the cool, deliberate, and settled purpose to do mischief. That is the quality of a demon, while that which is done on great excitement, as when the mind is broken up by poison or intoxication, although, to be punished, may, to some extent, be softened and set down to the infirmities of human nature. Hence, - not regarding it as an aggravation - drunkenness, as anything else showing the state of mind or degree of knowledge should go to the jury. Upon this principle in modern cases, it has been permitted to be shown, that the accused was drunk when he perpetrated the crime of killing, to rebut the idea that it was done in a cool and deliberate state of the mind, necessary to constitute murder in the first degree. The principle is undoubtedly right, so on a charge of passing counterfeit money; if the person was so drunk that he actually did not know that he passed a bill that was counterfeit, he is not guilty. It often times requires much skill to detect a counterfeit. The crime of passing counterfeit money consists of knowingly passing it. To rebut that knowledge or to enable the jury to judge rightly of the matter, it is competent for the person charged to show that he was drunk at the time he passed the bill. It is a circumstance, among others, entitled to its just weight."

The judgment of the lower courts was reversed and new trial granted. This was in January, 1846. In 1885, in the United States court at Boston, Morrison was tried for passing a counterfeit fifty-cent coin on a saloon keeper for spirits while intoxicated. On the defense it appeared that the prisoner was of good character, at intervals he had used spirits to excess, but he had never possessed or attempted to pass spurious coin before. The act was a mere freak while intoxicated with others, and the coin was given him for this purpose as a joke. Yet in view of these facts, he was convicted and the judge thought he was showing great justice, by imposing a short sentence. Crimes committed by inebriates can never be adjusted on any basis of equity, unless the nature and character of the crime, and all the circumstances entering into it, are studied, from a scientific point, and not from some legal dictum of the past.

#### DELIRIUM IN PNEUMONIA FROM INEBRIETY.

Several observers have noted the greater frequency of delirium in pneumonia occurring in cases of inebriates. This is very likely the result of meningitis, due to various causes. The pneumonia of inebriates is very largely due to the profound exhaustion, and fatty degeneration of the system, which furnishes favorable soil for acute inflammation from the slightest exciting causes. Such inflammation is rapidly suppurative; and this puriform, broken-down mate-

rial, passing into the arterial current, would be carried to the pia, and set up purulent inflammation. Or it may be caused by emboli, which are so common in chronic inebriety. I think it will be found that delirium will appear more frequently in the acute inflammations of any organ in persons who are inebriates. The form of delirium will be characteristic, depending on the exhaustion and feebleness of the patient. In two cases under my observation, a low delirium of fear and alarm of personal injury was present. Hallucinations of sight and hearing were also present in another case. Are these deliriums peculiar in such cases, and do they indicate the alcoholic origin? Are deliriums associated with pneumonia following inebriety more often than in pneumonia, seen in other cases? These and many other questions must be answered from future study.

#### . INEBRIETY AND TUBERCULOSIS.

The very intimate relation between these diseases receives additional evidence in a paper by Dr. Crook, lately published in the Medical Record, entitled "A Contribution to the Natural History of Consumption," based on an analysis of fifty-nine cases. Of fifty-five of these cases whose habits were studied, thirty-nine were found to have used alcohol more or less to excess, nine of this number had evidently drunk to great excess, and twenty-six claimed to be only moderate and occasional users of spirits, and four were evidently periodical drinkers. In reality, they were all inebriates, only in different stages of the disease, while the consumption was merely another form of the same degenerative disease, which followed the inebriety. The name consumption is used in its broadest sense to express the various lung diseases whose prominent symptoms are wasting, degeneration, exhaustion, and death. The frequency with which these diseases appear among inebriates have sustained the conclusion that they were of the same family group, and interchangeable one with another. Clinically, this is appar-

ent in cases like the following: Moderate or excessive drinkers will suddenly abstain from all use of spirits, and soon after develop tuberculosis, which may run a course of years before death. In some cases the inebriate impulse will gradually die out, and the lung disease come on in a marked obscure form, and only be recognized by some severe hemorrhage. When organic disease begins in the lungs, the drink impulse subsides. In some cases where chronic inebriates have signed the pledge, or for some insignificant cause ceased to drink, and suddenly changed the manner and habits of life, incipient tuberculosis have been diagnosed. In all these cases of sudden conversion and cure of inebriety, a very careful examination of the lungs will often reveal the real cause. Pneumonia seems to be a common favoring cause; thus in cases of inebriety where pneumonia comes on, and the person recovers, still using spirits as before, tuberculosis frequently follows, and in the four cases I have noted, terminated rapidly in death. The pneumonic lesions are the starting points for the graver diseases of the lungs.

Some cases have been noted where the inebriety has suddenly terminated, and dullness at the apex of the lungs, with other characteristic signs, appeared, which remained in abeyance without change for some time; then burst out, ending fatally in a few weeks. Some of the cases of acute tuberculosis (or galloping consumption, so called) are noted in reformed inebriates who have had premonitory symptoms for a long time unobserved. Other cases are observed where previously temperate persons have had pneumonia, pleurisy, or severe bronchitis, and been treated with larger quantities of alcohol, developing inebriety that is generally of short duration, ending either in organic disease of the lungs, or fatal, acute inflammation of some organ. The facts as yet are only in outline; the exact relationship between these diseases must be determined from clinical records at present wanting. So far, all observers have noted the facts we have presented, and also the frequency with

which lung diseases are seen in children of inebriates. It has been also observed in consumptive families, that inebriety seemed to take the place of consumptive diathesis. Thus some members would develop consumption, and others would become inebriates. In one instance, two daughters of consumptive ancestry reared large families, then died of this disease, while their children were both inebriates and consumptives. Often these consumptive families will be marked by inebriates in the male members, and consumption in the females. The use of alcohol as a prophylactic, simply develops the disease into other channels, both increasing and intensifying the ultimate degeneration. The case with a consumptive heredity who uses spirits to prevent its develop ment may not die of this disease, but he will certainly develop organic disease of other parts of the body that are incurable.

In most cases the use of alcohol stops suddenly, and acute tuberculosis follows. The use of spirits after tuberculosis has developed in some instances seems to retard the acute symptoms of the disease, but it will be found in most cases to have only masked the organic degenerations, which may have turned in some other direction with equal intensity and fatality.

An assault and even crime committed by an inebriate should always be considered a symptom of diseased brain, and one that is incapable of judging of the nature and character of his acts. Such symptoms are as significant as larceny is a symptom of general paralysis.

In 1885 there were 3,430 arrests for crime of all grades in the city of Hartford, Conn. Of this number 2,121 were arrested for drunkenness. If these cases were recognized as diseased and treated by means suggested by science, from 40 to 50 per cent. would be cured; but treated by the present legal means, no one recovers, and all are made worse: precipitated into incurable conditions from which recovery is almost impossible.

## Clinical Notes and Comments.

#### NEW HYPNOTICS.

Prof. Beaumetz of Paris, in a clinical lecture on the above subject, says: Means for alleviating pains may be divided into four groups. Hypnotics which produce sleep. Analgesics addressed principally to the element of pain. Anæsthetics which extinguish sensibility in whole or in part. Sedatives, or antispasmodics, medicaments which diminish the excitation of the nervous system.

Medicines which slow up the cerebral circulation are more clearly hypnotics. Opium and morphine are not true hypnotics, but are stimulants and analgesics. They tend to congest the encephalon, and stimulate the circulation. The continuous use provokes cerebral hyperæmia, and this is followed by a state of soper resembling natural sleep. Chloral and paraldehyde are prominent hypnotics. Chloral acts by causing anæmia of the cerebro spinal axis. It acts directly, and not as supposed, by being decomposed into chloroform and formic acid. In alcoholic delirium and rebellious insomnia chloral is the hypnotic to use.

Paraldehyde is a dehydrogenated alcohol. It acts like chloral by causing anæmia of the cerebro-spinal axis, bringing on sleep, which in some cases is preceded by a short period of agitation and excitation. In experiments it was shown that a special antagonism existed between strychnine and paraldehyde; also that between alcohol and strychnine the same antagonism was present. Chlorof orm, either chloral and alcohol, act directly unchanged on the nerve cell. In all my experiments I have shown the presence of undecomposed alcohol in the cerebral substance.

I have also found that when a nervous element is impregnated by a medicament it refuses within a certain limit to receive the impression of another medicament, and this

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explains the antagonism which exists between different substances. Going further to explain the tolerance and intolerance of certain medicinal substances, it is found that medicines which have an elective action on the nervous system, ought to act on the nervous elements in a healthy state. Whenever there shall be a cellular impregnation by another medicament, or a molecular modification, there you may expect great tolerance of certain drugs. Thus in delirium tremens, large doses of opium and strychnine may be given without bad results.

The author urges paraldehyde in all cases of inebriety from alcohol or opium, and in insomnia and convulsive neuroses as a hypnotic of rare excellence.

#### ASYLUMS AND SANITARIANS.

Some of the places which are advertised in our pages deserve a passing comment. The Inebriates Home at Fort Hamilton, New York, and the Washingtonian Home of Boston, Mass., have long ago passed the period of youth into a vigorous manhood, and are the great pioneer asylums of the world. Walnut Lodge of Hartford, Conn., has become known as a scientific and literary center for the study of inebriety. Dr. Mattison of Brooklyn, New York, has been before the public as a specialist in the treatment of opium cases, and his success in the care of these cases at his home has given him a wide reputation and large patronage. Dr. Brown of Barre, Mass., has one of the oldest and best institutions for feeble-minded children in the country. The Battle Creek Sanitarian, under the care of Dr. Kellogg, is one of those palace homes for inebriates of all descriptions, where every appliance of science is used with care and skill. The Homewood Retreat at Guelph, Canada, is the largest and best asylum for inebriates and feeble-minded persons in the provinces. The Green Spring Sanitarian, at Green Spring, Ohio, combines a valuable mineral spring with all the aids of science in the treatment of inebriates and others. The Milwaukee Sanitarian is finely situated, and receives a large number of cases of these "border liners."

Dr. Bradner's Kirkbride Villa at Burlington, N. J., is an attractive place for the exact treatment of mental diseases and inebriety, and is largely patronized. Lastly, Dr. Parrish, so well known to all our readers, has opened his elegant house for a few cases at Burlington, New Jersey. These are only a few of the ever-increasing number of homes and asylums for the cure of inebriates and others.

#### COCAINE IN INEBRIETY.

Dr. Brower, in the journal of the American Medical Association, writes of the effects of cocaine on the central nervous system:

"Cocaine in small and moderate doses is a cerebral stimulant, but produces derangement of the digestive and assimilative functions, and diminishes the elimination of waste.

"The use of cocaine in the alcoholic and opium inebriates is not satisfactory; while it is a more or less perfect substitute, yet its use is attended with greater danger than alcohol and opium.

"The use of cocaine in mental depression will often give better results than any drug hitherto used. It is also valuable in neurasthenia. If it is administered in large doses persistently, very marked deterioration of the central nervous system follows, producing profound cerebral neurasthenia, and malnutrition, often ending in insanity.

"Cocaine occasionally, in doses heretofore regarded as small, produces alarming depression of the central nervous system."

Dr. Beaumetz, in a recent lecture on the new hypnotic called hypnone, concludes as follows:

1. Hypnone is a mixed acetone of the aromatic series, obtained by submitting to distillation a mixture of bensoate and acetate of calcium.

2. This acetone is toxic and its greater or less degree of purity seems to have a notable influence on its toxicity.

3. Hypnone in toxic doses produces in animals sleep, analgesia, and anæsthesia. It diminishes the neurility of the nervous elements, lowers blood pressure, modifies the respiration, and alters the composition of the blood.

4. In a dose from twenty to forty centigrammes hypnone has never produced in man any other appreciable physiological symptom than sleep. It is a hypnotic, especially applicable to nervous insomnia, or that produced by alcoholic excesses, or too prolonged intellectual labor.

Fellows' Hypophosphites may be called a reconstructive remedy whose value can not be overestimated in many cases.

Wheeler's Tissue Phosphates is another of those remedies that are followed by the best results.

Hosford's Acid Phosphate has taken rank with quinine as a tonic for nerve disorders.

Lactopeptine should be used in all cases of stomach trouble; its value increases as it comes into general use.

The *Maltine Preparations* made by the Maltine Company of Yonkers, N. Y. are very valuable remedies in the treatment of opium and inebriate cases.

Beef Peptonoids are exceedingly valuable remedies for certain cases.

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Bromidia is a hypnotic containing to one drachm, fifteen grains each of chloral and bromide pot. and one-eighth of a grain of cannabis ind. and hyoscyam. This combination is found from long experience to produce the best results without any injurious effect. It is prepared by a reliable firm, Battle & Co. of St. Louis, Mo.

Colden's Liquid Beef Tonic is invaluable in all cases of exhaustion from alcohol or other causes. Samples of Colden's Soaps will be sent to all physicians who may apply by addressing C. N. Crittenton, 115 Fulton Street, New York. Please mention JOURNAL OF INEBRIETY.

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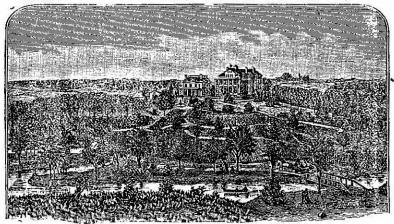
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THE READING AND RECITATION TERM will commence September 23, 1885, and close at the beginning of the Regular Term:

THE REGULAR TERM will open January 5, 1886, and continue five months.

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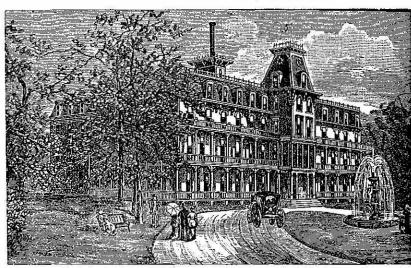
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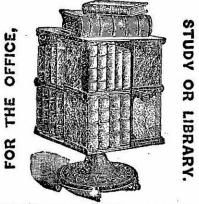
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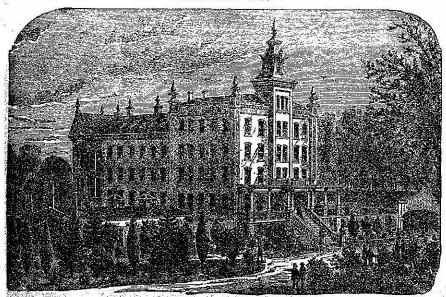
48 VESEY STREET, NEW YORK.

CIRCULARS AND SAMPLES SENT TO PHYSICIANS ON APPLICATION.

US SPECIAL TO PHYSICIANS—ONE large bottle containing 15 oz. (which usually sells for \$1.50) will be sent upon receipt of Fifty Cents with the application. This will be applied to the prepayment of Expressage, and will afford an opportunity for a thorough test in Chronic cases of Debility and Nervousness. Express charges prepaid upon all samples.

FOR SALE BY ALL DRUGGISTS.

# The Inebriate's Home, Fort Hamilton, N.Y.



#### A HOSPITAL for the TREATMENT of ALCOHOLISM and the OPIUM HABIT.

President, Hon. GEORGE G. HERMAN. Treasurer, Hon. WILLIAM M. THOMAS. Medical Supt., J. A. BLANCHARD, M.D.

Vice-President, SAMUEL A. AVILA.
Secretary and Auditor, J. W. RICHARDSON.
Consulting Physician, L. D. MASON, M.D.

IME BUILDINGS are constructed for this special purpose, and they are more complete and better the for the treatment of Dipsomania and the Opium Habit than those of any similar institution in federal. They are situated on one of the most attractive points on the Bay of New York, and stand on the Diuff within one thousand feet of the Narrows, commanding a full view of the whole Eastern Shore batter Island, also the broad expanse of the Upper and Lower Bay, dotted with the representative salls in attorns, and enclosed on the horizon by the blue outlines of the Jersey Coast to the North and the utility Ocean to the South. There are separate dining rooms, lodging rooms and parlors, billiard and errooms. There is also a lecture room for religious services, readings, concerts, etc. All the New York and other newspapers and periodicals are regularly taken. and other newspapers and periodicals are regularly taken.

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

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

By this equitable arrangement we are enabled to offer board, washing and medical attendance at rates varying from \$10 to \$40 per week. Those paying \$16 and upwards, according to size and situation of quarters selected, are provided with a single apartment and a seat at table in private dining-room—the accommodations in the select rooms and the table being in every respect equal to those of a first-class hotel. Rooms in suit may be had on terms to be agreed upon.

THE RESTRAINTS.—Our system of restraint is compatible with the fullest liberty for each boarder patient to avail himself of all the recreation, amusement and enjoyment which the billiard-room, park and ball grounds, readings, lectures, concerts, musical exercises, etc., afford.

THE DISCIPLINE.—The established code of discipline is comprehended in the observance of THE LAW OF PROPERTY, as universally understood by gentlemen and ladies in the guidance of well-regulated family and social relationships.

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

Two daily mails and telegraphic communication to all parts of the country.

How to Reach the Institution from New York.—Cross the East River to Brooklyn on Fulton Renty boat and proceed either by Court street or Third ave. horse cars to transfer office; or, cross from South Ferry on Hamilton Avenue boat and proceed by Fort Hamilton cars to transfer office, thence by steam cars to the Home. Request conductor to leave you at the Lodge Gate.

## COCA CORDIAL!

### A Palatable Preparation of Coca Erythroxylon

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

The sedative, tonic, and stimulant effects of coca erythroxylon and its preparations, and their wide application in medical practice are now too well known to the medical profession to need extended comment.

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

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

The Coca Cordial presents the drug in a palatable form, commending it especially to the large class of persons of delicate nervous organization, for whom it is most often indicated.

In its preparation the astringent and bitter constituents of Coca which are not essential to its medicinal action have been eliminated, while care has been taken to retain unchanged the active principle cocaine. One fluid ounce of the cordial represents sixty grains of coca leaves of good quality, the vehicle employed being an agreeable cordial of a rich vinous flavor.

We shall be pleased to send on application a circular more fully descriptive of Coca Cordial and its application, and we trust physicians will communicate to us the results of their experience in the use of this preparation, so far as it is likely to be of general interest to the profession.

### PARKE, DAVIS & CO.,

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