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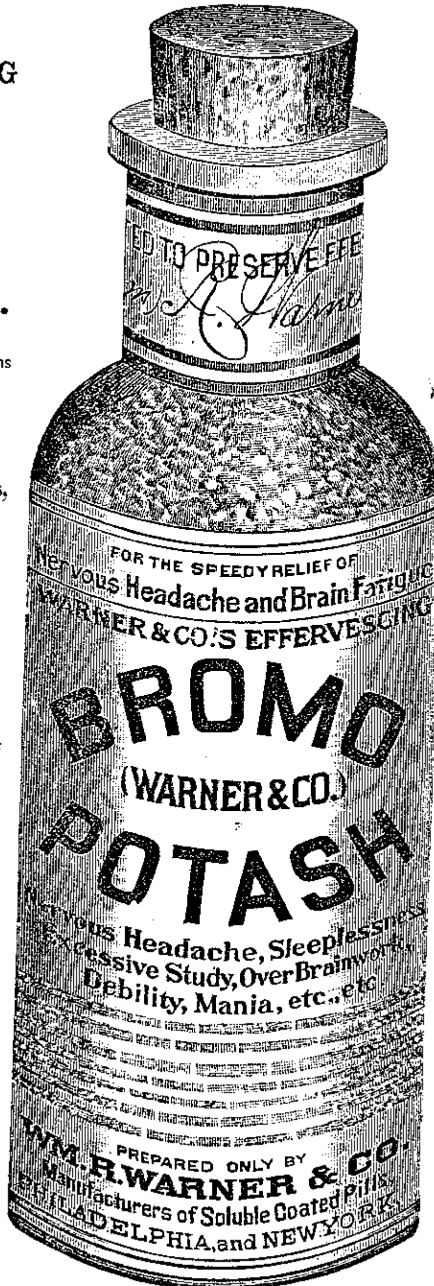

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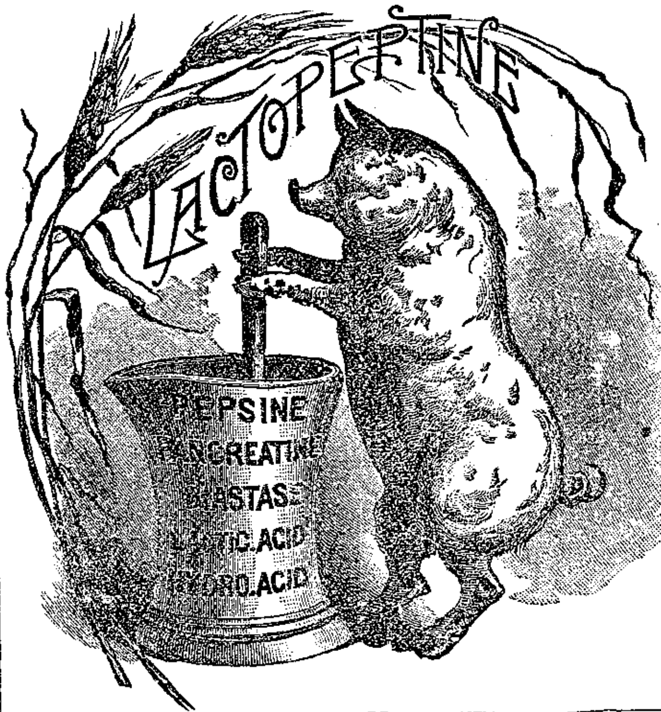

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SOME NEW STUDIES OF THE OPIUM DISEASE.*

By T. D. CROTHERS, M.D., HARTFORD, CONN.,
Superintendent Walnut Lodge Hospital.

As a preface, I wish to express my emphatic dissent against the common use of the word *habit*, in describing the opium disease. The popular meaning conveyed by this term is some state or condition voluntarily acquired and retained, with the certainty of being thrown off at any time at the will of the patient. This view assumes a knowledge of the physiology and psychology of the brain and its functions that is not yet attained. Hence the use of the word is incorrect, wrong, and contradicted by the facts in the clinical history of each case. It also conveys a false impression of the nature and origin of such cases, and is a word to which different meanings will always be given. No other word is more misleading and confusing, when applied to opium, alcohol, and other border-land neuroses.

Beyond all question, the toxic use of opium and its alkaloids is rapidly increasing. Only about fifty per cent. of

*Read before the Philadelphia County Medical Society Jan. 27, 1892.

opium and morphine manufactured is required by the legitimate demands of medicine and pharmacy. The enormous balance is consumed in some unknown way. Comparative estimates make the number of opium cases in this country over a hundred thousand. Whether this is correct or not, it is evident that the number is very great and largely concealed, and many of them are very hopeless and difficult to treat. The natural history of such cases indicates a steady, progressive degeneration on to death. Recovery is rarely spontaneous, and without the aid of applied science. Up to the present time all clinical studies have been confined to the symptoms and treatment, starting from some indefinite point after the opium addiction begins. The old superstition of a moral origin, and of some willful, wicked impulse, is accepted as the first original cause. Writers and even specialists seldom go back into the early etiology, or inquire what conditions or forces led to the first use of opium. The object of this paper is to trace some recent facts which throw new light on this unknown stage of etiology.

From a careful clinical study and grouping of the history of a number of opium cases, it is evident that a large proportion have a distinct *neurotic diathesis;* or, more literally, have inherited from their parents some condition of brain and nerve defect which favors and predisposes to the development of neurotic diseases. A more careful study of these records shows that in some cases an *opium diathesis* is present, or a special inherited tendency to use opium. Here are two conditions which influence and favor this disease. It is a well-known fact that a large proportion of all nerve and brain diseases appears in children of neurotic and defective parents. Such children have received some special teudency and predisposition favoring the growth of nerve diseases, springing into activity from the slightest causes.

The latency or activity of this diathesis will depend on certain conditions of life and surroundings, which in many cases can be traced. In some iustances the diseases of parents reappear in the children, in others in allied diseases,

and not infrequently these defects pass over and reappear in the third generation. Often such defects are dormant, and only break out from the application of some peculiar exciting cause. Thus, a hysteric mother and paranoiac father were followed by three children. One was an alcoholic, the second was a wild, impulsive, temperance reformer, the third was a sad, depressed, melancholic man. In the third generation opium and alcoholic inebriety, insanity, pauperism, also feebleness of mind and body appeared. These varied forms of nerve diseases all had a neurotic diathesis as a basis, and the different phases were the direct result of different exciting causes. These facts are numerous and well-attested, and so uniform in their operation that it is entirely within the realm of possibility to predict, from a knowledge of the diseases of the parent and the environment of the child, that certain forms of degeneration and disease will appear with almost astronomical precision. This term neurotic diathesis covers a vast, unknown field of causes, which extend back many generations. The evolution of brain and nerve defects can often be traced through the realms of environment, nutrition, growth, and development. Medical text-books and teachings which fail to recognize this give very narrow conceptions and strange exaggerations of the influence and force of many insignificant and secondary factors in the production of disease. The opium-taker has often this neurotic element in his history. It may be traced back to his ancestors, or it may be associated with brain or nerve injuries, cell-starvation, faulty nutrition, auto-intoxications, brain strains, or excessive drains of nerve force. A train of predisposing causes may have been gathering for an indefinite time back. Then comes the match which kindles or fires the train of *gathering forces*. This same train of exciting causes may not explode, became the germ soil is absent. Opium in all forms is given daily, and yet only a comparatively small number of cases become addicted to its use. Why should an increasing number of persons take opium continuously for the transient relief it gives? Why should the

effects of this drug become so pleasing as to demand its increased use, irrespective of all consequences? The only explanation is the presence of a neurotic diathesis, either inherited or acquired. The existence of a special opium diathesis has been doubted with supercilious contempt by many writers. Any clinical study will show the error of such doubt. The notes of a few cases which have recently come under observation are illustrations by no means uncommon, and indicate the concealed factors of disease in many instances.

In case 1 the mother was a secret morphine-taker, the father was a hypochondriac and melancholy clergyman. Two children followed, who were highly educated and healthy. One, a boy, became a physician, and at thirty suddenly began to use morphine, and soon became a chronic case. The other, a girl, was well up to her marriage, at twenty-four, when she began to use opium, for no apparent reason.

Case 2, reported by the late Dr. Parrish. Both parents used opium for sleep and neuralgia, and died, leaving three children under five years of age. They were brought up in temperate families, and had no knowledge of the opium addiction of their parents. One, at twenty, continued the use of morphine after it had been given for some intestinal trouble. The second child suffered from dysmenorrhœa and began to take morphine for this trouble, and became a morphine maniac. The third child was a druggist, who at thirty was a confirmed opium-taker.

Case 3. Both parents were neurotic, and probably opium-takers. Both died, leaving an infant child, which was excessively irritable and peevish. By accident, morphine was used as a remedy, and from thenceforth the child would become delirious unless morphine was given daily. All efforts to break up its use failed, and for five years increasing doses were used constantly until the child's death.

In case 4, five children of unknown parentage were all opium-takers; all lived in different conditions and had dif-

ferent occupations. Two began the use of opium from some bowel trouble. Two have been under treatment, and relapsed (?).

The relief which this drug brings on all occasions, and its impulsive use, are unmistakable indications of a distinct opium diathesis. I believe a careful clinical study will reveal many such instances.

There is a large class of opium cases in which a complex diathesis exists — particularly following inebriety and various forms of brain exhaustion. Often alcoholics will use opium irregularly and transmit to their descendants a diathesis which very commonly favors the use of this drug. Thus the alcohol diathesis frequently becomes the opium craze, with but slight exposure. Both of these disorders are rapidly interchangeable. The children of opium-takers may turn to alcohol for relief, and *vice versa.* It is clear that the moderate use of alcohol produces a degree of degeneration that frequently appears in the next generation as predisposing causes to the opium or allied diseases. Clinical study of cases brings ample confirmation of this. The children of both alcohol and opium inebriates display many forms of brain degeneration. The paranoiacs, criminals, prostitutes, paupers, and the army of defects, all build up a diathesis and favoring soil for the opium craze. Descendants from such parents will always be markedly defective. They are noted by brain and nerve instability, hyperæsthesis, and tendency to exhaustion; also extreme pain from every degree of functional disturbance, with low powers of restoration, inability to bear pain, and suffering from mental changeability, impulsiveness, and drug credulity, etc.

These characteristics are prominent, and mark a neurosis that quickly merges into the opium disease. Yet a minority of these cases show a sensitiveness in the effects of opium that prevents them from using it. I have seen a neurotic patient become dangerously narcotized by the use of half a grain of solid opium. Some of the alcoholics and other narcomaniacs have exhibited an incompatibility to opium that

is often startling. The emesis and prostration, and the brain-stimulation which approaches and becomes hyperæmia from one or more doses, are familiar to all. This intolerance precludes the use of the drug, and is recognized with alarm by the patient. On the other hand, when the effects are rapid and marked, relieving pain or restoring the disturbance of the functions with no other than a pleasing sense of rest and cure, a dangerous diathesis should be suspected. While the physician recognizes the constitutional incompatibility in one case, he ought not to overlook the abnormal attractiveness of the drug in the other. The dose of morphine which gives the first complete rest, or calms the delirious excitement, or relieves the neuralgic pain or the digestive disturbance, soon calls for its repetition, and many physicians will unconsciously sanction and advise its use. Thus, far more fatal conditions are cultivated and roused into activity. In all neurotic cases, the use of opium in any form when given should be concealed and watched with care. If a special predilection for this drug appears, equal care and skill should be exercised to divert and change it. Opium should only be used from a knowledge of the nature and character of the case. I have seen the most disastrous results from the reckless use of morphine with the needle. Recently a man to whom morphine was intolerant was cut and stunned by a falling plank in the street. The surgeon gave him a hypodermic of morphine and ordered him to the hospital. He died in a short time from opium neurosis. Police surgeons often make this mistake, giving morphine that from some unknown reason becomes fatal.

There is another class of opium-takers in which abnormal nutrition seems to be the most active factor in the causation. The neurotic or opium diathesis is not apparently present, and opium-taking dates from some nutrient disturbance. Such cases are very commonly sufferers from dyspepsia, derangement of the liver and bowels. They have a deranged appetite, headaches, cramps, thirst, and fever at times, with nausea. They are anæmic and hyperæsthetic, and complain

of varied pains and neuralgias. These cases are evidently ill-nourished, and, in all probability, suffer from imperfect digestion, assimilation, and elimination of food products and waste material. Poisonous compounds and auto-intoxications form sources of serious trouble. The brain suffers from fatigue and pain, the cells are imperfectly nourished, and congestions, complex neuralgias, nerve irritation and instability follow. For this condition opium is almost a specific paralyzant. These cases are found among the over-fed, and those who neglect common hygienic rules of living. Cases of over-fed are usually epicures, gormands, and persons living sedentary lives, and eating at all times and places. Dyspepsia and derangement of the bowels and kidneys make them drug-takers; then follows opium in some form. Defective elimination and auto-intoxications are always present. The under-fed are usually misers or persons very poor and very neglectful of themselves, or paranoiacs who have some food delusion. They are practically suffering from cell and tissue starvation and nutrient debility. The same dyspepsia and bowel derangements follow. Then follows drug-taking or special foods, and soon opium is discovered and adopted as a remedy. The same poisonous waste products appear from deranged assimilation; also, elimination and the nerve centers are deranged by these new and dangerous chemical compounds. The class of persons who, from simple neglect, become diseased, are often the very poor and ignorant, or some division of the great army of border-liners, who live both mentally and physically on the very frontiers of sanity and insanity. Such persons clearly suffer from many and various forms of auto-intoxications, and this is proven inductively by the result of eliminative treatment. In all of these cases of nutrient neglect, many favoring conditions encourage the use of opium. These cases are numerous and comprise a large part of the invalids, hypochondriacs, and chronic drug-takers who are seen in our offices and at the dispensaries. They are all practically suffering from faulty assimilations, and faulty eliminations and the irritation of re-

tained poisonous compounds. Opium is a remedy of positive force in covering up the protests of the defective cells and irritable nerves. Often these cases are concealed and are partly the result of previous disorder, and partially acquired from the effects of opium.

Next to this class of nutrient sufferers who become opium-takers are those who have some entailment of disease or injury. In their history it will appear that some stage of invalidism was present, dating from brain, nerve, or bodily injury. Fevers, heat, or sunstrokes, brain shocks from any source which are followed by unconsciousness, or marked mental perturbations, with exhaustion, and also a profound lowering of all the vital forces. These and other events have left damaged functional and organic activities, manifest in various neuralgias and physical disturbances.

The use of opium conceals and covers up this trouble. Many veterans of the late war have become opium maniacs for the relief of their pains and sufferings, and this is often concealed where it might possibly peril the procuring of a pension. The pension bureau should recognize the use of opium as a natural sequence and entailment following the disease and injury in the service. In Prussia both alcohol and opium inebriety are treated as diseases when occurring in the army or civil service. The suffering and hardships growing out of the war has been the exciting cause of a great many opium cases. Many persons who have no special nerve diathesis in their history, after some severe illness, injury, or mental strain exhibit a degree of nerve instability and feebleness that is significant of serious organic change. Such persons manifest perversions of taste, with delusions of foods and medicines, and are on the border-lines of narcomania, ready to use any food or drugs which will bring even transient relief. The use of opium is always perilous. Why all these and similar cases do not become opium-takers is owing to the absence of some diathesis inherited or acquired.

We can see some of the many complex causes favoring brain and nerve strain, with rapid exhaustion and degener-

ation, and the interchangeability of nerve diseases, in which the use of opium is only another form of the same disease. But we cannot yet trace the early causes and cell-conditions which develop the opium craze. This morbid impulse, like the delirious thirst for water on a desert-plain, completely dominates all reason and so-called will-power, and every consideration of life and surroundings. It is more than an accident, more than a failure to reason and act wisely; it is a disease, an organized march of dissolution. The demand for opium is only a symptom; the removal of opium is not the cure. Some central brain degeneration bas begun and is going on. Narcomania, a morbid thirst for any solids or fluids that will produce neuroses, is the general name, and opium mania is only one member of this family.

In this study the fact is emphasized that the opium disease appears most frequently in persons who have a neurotic and opium diathesis, also in persons who are suffering from nutrient disturbances, and those who are invalids or have the entailment of previous disease and injury; also that certain diseases and symptoms seem to furnish favoring soils for its growth and development. While these are but faint outlines of many unknown facts, they are urged as starting points from which to base other and more accurate studies. The medical treatment from this point of view is very suggestive. Obviously the removal of the opium is not the cure. The various methods of removal detailed with great exactness, as if they would apply to each case, are unfortunate reflections of the failure of the writers, and are based on the assumption that all cases are the same, and the removal of opium is the great essential in the treatment. Basing the treatment on the clinical study of the case, it will be evident that where an opium diathesis exists, the withdrawal of opium should be very gradual. The treatment and surroundings should be arranged with great care and exactness. Such persons should live in an institution for years or be under constant medical care. The danger of relapse and the future of such cases will depend entirely on the conditions of

life and surroundings. Rapid reduction and heroic treatment is seldom permanent, even with the consent of the patient. Specifics, faith cures, or any measures that promise speedy cure, are failures from the beginning. The road back to approximate health is straight, and narrow, and only along lines of applied science. Where the history of a *neurotic diathesis* is present, the withdrawal of the opium should be equally slow.

More attention must be paid to the brain and nerve nutrition. The removal of opium may be followed by the appearance of very serious disorders, such as epilepsy, hysteria, complex neuralgias and paranoiac states, alcoholism, and various other neuroses. The slow withdrawal of opium enables one to discover and anticipate these neurotic troubles which have been masked before. In one case, suicidal melancholy; in another, in hyperæmia of the brain, with delusions; in the third, irritation and delirium; in the fourth, hysterical spasms appeared when the opium was removed. I have seen two cases of general paralysis suddenly spring into great activity, after the opium was taken away. This condition was not suspected before. Alcoholism is a very common sequel after the removal of the opium. *Cocaine, chloral,* and almost every drug that has narcotic properties are also very common entailments. While these are extreme cases, they are likely to appear at any time. Great care should be exercised in using other narcotics to lessen the irritation from the withdrawal of this drug. These cases require the same general treatment as neurasthenia and other states of brain exhaustion. They are drug-takers and will resort to anything for relief. They are secretive, and require more care and more mental remedies, with long, exact hygienic surroundings.

Where the opium addiction has apparently come from bad nutrition and faulty elimination, with auto-intoxications, the treatment is very hopeful. A long preliminary course of baths, mineral waters, and tonics should precede the removal of opium. Then the drug may be removed at once, without

the knowledge of the patient. In proper surroundings with frequent baths, little danger of relapse or suffering will follow. Careful study and treatment of nutrition and digestion will restore the case, and relapse seldom occurs except from failure or neglect of the surroundings.

In the last class, where opium is taken and apparently follows from the entailment of some injury or disease, or the exhaustion of old age, a preliminary treatment seems to be required. Often the opium can be abandoned at once for some milder narcotic, and from this, by gradations, discontinued entirely. Full knowledge of the diseased states present will always suggest the lines of treatment. In some cases the opium should not be removed at once; its diminution and concealment is required. In others its rapid removal is essential. Many varied and difficult questions will appear in these cases. The more accurately the diseased states, predisposing and exciting causes, the diathesis, and varied influences which have caused opium to be used, are studied, the more accurate the treatment. As in many other diseases, the causes may be anticipated, also neutralized and prevented.

Routine treatment, either by slow or rapid reduction of the opium, is not always wise. In a certain number of cases the withdrawal of opium only unmasks more serious diseases. A case of general paresis is now under treatment for the opium addiction. Before this opium addiction began the patient caused great distress by his delusions and extravagantly strange conduct. This treatment is wrong. A rheumatic woman of seventy is going through the same course to be free from opium, which has made life tolerable for ten years past. The treatment of opium mania is something more than the application of means and remedies for withdrawal of the drug with the least suffering. The symptomatology and organic lesions often date back to other causes more complex than opium. The treatment must begin by their removal. The general or special diathesis must be treated; the nutritive disorders, intoxications, and starvations must be recognized and removed. The influence of patho-

logical states from previous disease and injury must be ascertained and treated. The power of environment, climate, occupation, and idiosyncrasies are also powerful factors to be considered.

These are the essential facts and conditions which must enter into the practical treatment. Among the many important problems, that of prevention promises the greatest possibilities. A recognition of the neurotic diathesis and other predisposing causes would enable the physician to successfully guard its approach.

The successful *stamping* out of both this and the alcoholic disease will be a reality in the future.

It is evident that the opium disease is still an undiscovered country, and the few student experts have not yet passed beyond its frontiers. This disease is all about us and may invade our homes and firesides any time, and *hence* demands recognition and most careful study; above all, ethical and moral levels. Its laws of growth, development, treatment, and curability all follow the great highway of evolution and dissolution.

REPRESSION OF DRUNKENNESS.

The Congress of Alienist Physicians, which recently met at Weimar, has passed a resolution approving of the bill for the repression of drunkenness. The clauses making confirmed drunkenness a punishable offense were, however, disapproved of. Such persons, it was recommended, should be treated as diseased, and as such placed in proper asylums.
—*British Medical Journal.*

Alcohol must lead to quick and temporary expansion and excitement, probably from combustion of it there, followed by extreme condensation, stupor, and exhaustion. Many times repeated, the action of alcohol in producing general palsy is a necessity in those who are unable to eliminate the substance with rapidity.— *Dr. Richardson.*

IS THERE A CLIMACTERIC IN THE CLINICAL HISTORY OF THE ALCOHOLIC INEBRIATE.

By L. D. Mason, M.D.,
Consulting Physician, Inebriate Home, Fort Hamilton.

Towards middle life and thereafter, it is a well-known fact that usually the so-called youthful passions decline. The hot blood of youth is supplanted by the cooler judgment and the maturer mind of middle and advanced life. The physical energies are lessened — the mental are more largely in the ascendant — the nutritive and reparative processes act more slowly, and the man is what he is to be. As he "sobers down," street brawling, the saloon, the company of the thoughtless and vicious, and the frequenting of questionable places of resort, are exchanged for the domestic circle and the purer and quieter attractions of home life.

Happy indeed is he who has sown his "wild oats" in early life, and yet has escaped with few if any scars resulting from lustful and intemperate practices, while on his right hand and on his left are the companions of his revelries, who have either reaped the wages of sin, which are death, or go about crippled with disease, the result of dissipation and licentiousness.

What the percentage is of those who sow their "wild oats" and come out of the ordeal unscathed, we shall not attempt to define. A certain class of inebriates do seem to escape by a happy chance, as it were, those severe nervous lesions or other morbid alterations of tissue that would render their cases incurable, and who finally become steady, sober individuals.

We see them in later years as those who have "settled down," and are leading regular and reputable lives. There seems to have come a period in their lives when, to the surprise of their friends and even of themselves, they have not

only ceased to drink alcoholic liquors, but have no desire for them. This seems to have gradually faded away, and their will power to restrain themselves has fully asserted itself.

The late Dr. Joseph Parrisb, an acute observer and student of the subject of alcoholic inebriety, thus explains this fact in his treatise on "Alcoholic Inebriety from a Medical Standpoint," page 79: "There is a natural tendency in our very life to find a settled channel in which its forces may flow. So conscious are we in the earlier periods of our adult life of the existence of strong and opposing passions and tendencies, that we are apt to accept as an axiom the common expression that 'character is not formed until forty.' Physical factors are all the time at work to develop and mature what is in, and of us, and it is not until maturity is reached that a definite and uniform channel is wrought out and established. This age of maturity is not and cannot be determined according to a uniform rule, but just as the sexual instinct has its time of beginning and ending, so other elements have a similar history."

Again, "There comes a time in the course of one's life when the forces that have been engaged in structural repair and waste come as to a stand-still, and consult together as to which shall be dominant in the future. Some of the organs may be said to rest entirely after a certain age; rest by a cessation of function, and become atrophied also; some, that do not rest absolutely, undergo a modification of functional activity. It is at this slack-water period — at the middle of life — when the molecular deposits in the organic structure are different in quality than formerly, that we look for a different product."

"The craving for drink is not a craving of childhood; it does not usually declare itself until the demands on the nervous system begin to be exorbitant, and its *terminal period comes with as much certainty as does its initial stage.* That terminal period is the climacteric period.

"A dozen years ago or more I called attention to this thought, and urged those who had opportunity to observe to note the period of life when the largest number of reforma-

tions or cures of inebriety were accomplished, and stated I believed they would be found between the ages of forty and fifty. Subsequent observation has confirmed this view. *Between these ages especially do recoveries that are spontaneous occur*, and statistics show that by far the greater number of persons first exhibit the alcoholic proclivity between the ages of fifteen and twenty-five, and though I am unable to verify the statement by figures, I am convinced that the allowance of twenty-five years of use will, in most cases, close the drinking career, either by *exhaustion of the desire*, or by the fatal termination of the individual life. I think it will be found also, that when inebriates have lived beyond the middle period of life, so as to attain the three or four score limit, the commencement of the drinking career was considerably later in life than the average period named."

We have thus quoted extensively from the work of Dr. Parrish, because he was a most intelligent, acute, and life-long observer of the different phases of alcoholic inebriety, having peculiar advantages under which to study it, and also because he is the only observer that has alluded to a supposed "climacteric" in the clinical history of the alcoholic inebriate, and also the age at which it is usual to find the desire for alcoholic stimulants to commence. Let me give the American and English statistics on these points, which differ somewhat from the conclusions of Dr. Parrish.*

The American table is from a study of 600 cases made

* The statistics and remarks of late Dr. Parrish, Dr. Kerr, and myself, refer principally to male inebriates. The statistics appertaining to female inebriates I am not able to give, as our institution deals chiefly with male inebriates. We presume the Home at Rickmansworth does also. My impression is, however, that at this "critical period" in the history of the female, dipsomania, like insanity and the various neuroses, could be found not only to have its starting point probably, but an impetus given to these conditions where they already existed. We might look for some improvement in the cases of females after the system had adjusted itself to the "new order of things." What I have written is intended to apply more especially to the male, and the statistics from which my conclusions are gathered are chiefly from male statistics.

by me from the statistics furnished by the records of the Inebriates' Home at Fort Hamilton. The English table is from the records of the Dalrymple Home at Rickmansworth, England, and were prepared by and can be found in the treatise of Dr. Norman Kerr on "Alcoholic Inebriety."

AMERICAN.				ENGLISH.	
Age on Entrance.	Cases.	Age on Entrance.	Cases.	Age on Entrance.	Cases.
15 to 20 years, -	5	45 to 50 years, -	66	20 to 30 years, -	37
20 to 25 " -	47	50 to 55 " -	28	30 to 40 " -	73
25 to 30 " -	78	55 to 60 " -	24	40 to 50 " -	34
30 to 35 " -	116	60 to 65 " -	21	50 to 60 " -	8
35 to 40 " -	115	65 to 70 " -	1		
40 to 45 " -	99				
Total, - - - - - - - -			600	Total, - -	152

We find the greatest liability is from 30 to 40. After 45 or 50 the decline is very rapid. This will be noted on consulting the above table.

Dr. Norman Kerr thus writes on this subject of an "Inebriate Climacteric":

"Dr. Joseph Parrish is of opinion that there is an 'inebriate climacteric' in every life when nervous periodicities become faint, when the vital energy fails in intensity, when the storm of passion abates, when nervous susceptibility wanes. In this calmer atmosphere internal and external excitants to intoxication lose much of their vigor, and the inebriate diathesis is too feeble to respond to excitation. This period Dr. Parrish believes to be between 40 and 50 in most cases. My own observation places this 'climacteric' fifteen years later in life, or generally from 55 to 65; but I am bound to state that though the chances of yielding to inebriate provocation are less at this than an earlier period, the liability to intoxication is not extinguished. The paroxysmal drink impulse may persist though lessened in force — the resisting and controlling powers being often weakened *pari passu*. In many cases

periodic has developed into constant inebriety, the intoxication crave continuing to the last."

Observers apparently do not agree on an "inebriate climacteric," but although a mooted question, it would be well to raise the discussion again on this point, and place it before advanced medical thought for reconsideration. We know that the least fastening of all habits, that of tobacco, is oftentimes deliberately and readily abandoned by those who have been constant and persistent smokers or chewers up to middle life, with apparent little incovenience, if any. Cases might also be found where this fact could also be applied to the constant users of alcoholic liquors, even to excess. The sudden or abrupt cessation of use not being readily explained except on the "climacteric" theory of Dr. Parrish.

In our own experience cases have occurred where, after several years of asylum treatment, apparently unsuccessful, the person, having arrived at the "climacteric" already specified, ceased to use alcoholic liquors and became exemplary and sober.

We must not confound such cases with cases of alcoholic dementia, where the person ceases to use alcohol because he does not know enough to do so. Such cases are often reported as cures, but cannot be properly designated as such. I have two such cases now in mind, one of which, a man passed fifty, after several years of alcoholic excesses, has become partially demented, indeed, has to be fed and clothed. "Alcoholic dementia" is not an infrequent termination of alcoholic inebriety.

It would be certainly very satisfactory if observers in this field of medical research could establish positively an "inebriate climacteric," as pointed out by the late Dr. Parrish. In the first place it would add an additional feature to the prognosis in all cases of confirmed inebriety; in the second place, it would explain satisfactorily the recovery of a certain percentage of cases of inebriety which are now attributed to unscientific, and therefore unsatisfactory, reasons.

It would also add a new and interesting feature to the prognosis and clinical history of alcoholic inebriety.

NOTES ON THE ORIGIN OF THE INEBRIATE DIATHESIS.

By T. L. Wright, M.D., of Bellefontaine, Ohio.

By the *inebriate diathesis* is meant that constitutional proclivity, or *neurosis*, which impels to the inordinate use of narcotics.

This includes the hurtful consumption of opium, chloral, cocaine, etc., as well as of alcohol. The latter, however, will be more particularly the subject of the present inquiry.

The peculiar *bent* of the constitution herein referred to has been classed as a specific mania; and has been called by Dr. Norman Kerr and others *narcomania.*

In the interest of brevity, I will begin what I wish to advance on this subject with a homely illustration. We are assured by anatomists that the bones of the skeleton — it matters not what shapes they assume — are, as to form, modifications of a single fixed type. This type is represented by the separate and distinct bones of the spinal column.

When we attentively consider the group of nervous maladies known as the *neuroses*, we perceive that they bear a close relationship with one another. We learn that either member of this family may assume the characteristics and features of some other member. We become aware of the fact, that, seemingly, one of them may be transformed into the semblance of some kindred neurosis. We see that this transmutation may be effected through the operation of heredity — a neurotic form in ancestry appearing as a different form in posterity. We are also impressed that this interchange may even take place in the same person; as when epilepsy, or dipsomania, gives way to amnesia, or some other neurosis.

While it is reasonable and necessary to study the bones of the skeleton separately and individually, in order to arrive at right conclusions respecting the body as a whole, it is also philosophical, and, indeed, essential to a correct apprehension

of the subject, to study with care the distinct *type* of which these bones may be modifications. It is desirable to examine the spinal bones, so that a proper estimate may be made of the nature of the modifications assumed by various parts of the skeleton — and the reasons of them.

The true and perfect *type*, of which the entire assemblage of neurotic maladies is representative, is, it appears to me, simply *epilepsy*. The varying aspects which this disease assumes, its several grades of intensity, as well as its origin, — so far as that is known — seem to point it out as the great central source of the several neurotic besetments. If this be true, even in a general sense, it follows that in seeking the origin of the inebriate diathesis an examination of the causes and phenomena of epilepsy will be a necessary work.

Epilepsy has been classified as either *centric* or *excentric*. That is to say, it arises sometimes from causes situated within the brain; and at other times, from causes exterior to the brain, but influencing the condition of that organ. These causes, while often attended by pain, may operate without exciting actual pain. In epilepsy there is a constant, unrelenting *irritation*, nagging the great nervous center. This irritation may be simply a morbid impression acting through organic sensibility, or it may be attended by actual pain and distress.

Hence teething, indigestion, and worms excite convulsions in children, which are epileptoid. So, too, tape worms, affections of the liver, or stomach, or kidneys, and the like, may excite true epilepsy in the adult. It is obvious that epilepsy from such causes is more or less amenable to treatment. But the treatment of *centric* epilepsy — frequently hereditary, with its proximate cause within the brain — is more difficult; and usually the most that can be expected is a certain toning up of the general constitution, by which means the effects of the original evil may he better endured. Through such measures some hope may be entertained, perhaps, that the violence of the epileptic seizure may be abated. In short, some slight possibility may appear, that, instead of true and complete epilepsy, there may be substituted amne-

sia, or neuralgia, or some other and milder one of the neurotic forms.

An educated and refined gentleman — now a retired clergyman — once suffered with repeated and severe attacks of epilepsy. The coma continued many hours. The epileptic form disappeared under treatment; but it was followed by seasons of absentmindedness (amnesia), lasting for days. No recollection of the life of this neurotic trance was or is retained. The same individual suffered afterwards for nearly two years with excruciating pains. They were referred at first to the stomach, cancer being feared. Subsequently they were located in the pleura. Finally the trouble was attributed to biliary calculi. The "cure" was complete, sudden, and unexpected. No calculi ever put in an appearance. The physician in attendance upon the case in its neuralgic form had no accurate knowledge of the previous history of his patient.

Central or *centric* epilepsy is often hereditary. But that fact does not militate against the idea that *irritation* is the *primum mobile* of the disease. The misshapen head, the undeveloped brain, may readily be supposed to act as sources of unceasing irritation. Injuries to the head producing epilepsy are too common to call for remark. Knowing, then, that irritation is an efficient cause of epilepsy in all cases where its cause has been satisfactorily determined, we are justified in assuming that, in those cases where the source of the malady does not plainly appear, the high probabilities are that some undiscovered or masked point of irritation is nevertheless operative as the proximate cause of the disease.

I say *proximate cause* — for it is evident from the fact that irritation does not always produce epilepsy, that, after all, there must be some peculiar predisposing constitutional susceptibility in epileptics that is not found in people generally. And here is the key which unlocks at least some of the secrets of heredity. It is the peculiar impressibility of the epileptic constitution which, being hereditary, makes possible the heredity of the disease itself — circumstances favoring its full development being presented. It also makes

possible the heredity of those neurotic forms recognized as kindred with epilepsy. This constitutional susceptibility therefore explains the heredity of inebriety, hysteria, chorea — epilepsy itself. It explains the heredity of dipsomania, and all the features of the inebriate diathesis.

When there is present a peculiar constitutional tendency allied to the epileptic diathesis, then any irritation of nerve — if severe and unremitting — will be likely to develop some form of neurotic disease; and this will correspond, not with the nature of the irritation itself, but with the nature of the constitutional trend. Dr. Cheyne refers to a case of epilepsy "which was caused by a cartilaginous tumor of the size of a large pea, which was situated on a nerve. Upon excision of the tumor the fits ceased." Why may not inebriety — narcomania — be developed by causes as small and apparently as trivial?

We are admonished to look for the pathological condition provocative of inebriety. Why not insist upon some invariable pathological condition in explanation of epilepsy? Very often, indeed, this morbific cause cannot be determined; but when it does appear, it is always found to consist of some point, or points, of unflagging and remorseless *irritation.* It may be repletion, or it may be famine and weakness. It may be too much blood, or too little blood. It may be observed in the center of the circulation — the heart — or it may reveal itself in irregularities and disturbances of the equilibrium among the arteries, veins, and capillaries. But whatever else it is, or wherever located, it is *irritation* worrying and exhausting the nervous powers.

Now certain constitutions bear up through the changes of life fairly well, until some serious injury overtakes the physical organization, such, for example, as a blow upon the head, a wound in battle, or even a long and trying illness. Irritation at once begins to do its work. The ordinary and natural constitution gives way. It is weak, exhausted, weary. It has become unequal to the requirements even of ordinary life. It reaches out for aid, or rather for rest and repose. The inebriate diathesis is established, and the anæsthetic — the lethal influence of narcotics, and especially

of alcohol — is invoked. The call is not feeble and uncertain, but earnest and reckless.

An habitual drunkard "shot a bar-keeper and set fire to a saloon, without the occurrence of any quarrel or dispute. The homicide was hung. A *post-mortem* revealed a splinter of bone that had pressed upon the brain for ten years, the result of a blow upon the head." The drinking habit began shortly after the infliction of the injury. — (*Journal of Inebriety*, Oct., 1891, p. 319.)

A daily paper of Cleveland, Ohio, dated October 13, 1886, contains a pitiless notice of the downfall of the Rev. ———, a clergyman living in the city. "In the gutter again," was part of the heading. The account says the reverend gentleman was sent to the workhouse, and also contains a notice of the dismissal of the delinquent from his position in the church, with a warning to the Christian public to beware of him. On the 6th of October, 1891, after the lapse of about five years, the same daily journal contains a sympathetic account of a *post-mortem* held upon the body of the reverend gentleman. This was had in an insane hospital in which the uuhappy man had been placed. This *post-mortem* disclosed the fact that the man was carrying in his lungs a bullet weighing over one ounce, received while bravely fighting the battles of his country in the war of the rebellion.

It is evident that the treatment proper for inebriety must occupy a very wide field, as its proximate causes are so varied. It is filled with innumerable facts requiring the utmost skill, both in observation and discrimination. In its very simplest view, three considerations must be kept before the mind:

1st. The causes of inebriety.

2d. The nature of the drunken state.

3d. The functional disturbances and physical degenerations that are sure to follow long-continued habits of intemperance.

Finally, these departments for treatment will be associated with questions respecting the soundness or unsoundness of the mental faculties, and the equally difficult and important questions of moral and legal accountability.

THE TREATMENT OF ALCOHOLISM.*

By Frank R. Fry, A.M., M.D., St. Louis.
Professor of Diseases of the Nervous System, St. Louis Medical College.

The majority of patients applying for treatment of alcoholism are found to be suffering from the more immediate effects of alcoholic intemperance. Our first task is to relieve them from this condition. In a small number of cases, no further care from a physician is desired or needed. In the remainder of cases, the great bulk of them, the important and difficult problems of treatment confront us when we have entirely or partially relieved the well-understood acute symptoms. The first task, the relief of the acute symptoms, is not always a simple one, yet its problems are insignificant compared with those of the other task of attempting to repair the damages of chronic alcoholism, and to counteract the physical and moral influences, hereditary and others, which complicate so many of our cases. Most persons outside of the medical profession, and, I fear, some within it, fail clearly to apprehend this distinction, and are therefore easily deceived by the claims of various so-called cures, quackish and otherwise.

If the ordinarily informed physician, knowing the physical effects of alcohol on the various tissues and organs of the body, stop to reflect, that necessarily a considerable proportion of all alcoholic patients are suffering from grave organic disease, and that very many others possess hereditary defects which render them non-amenable, or nearly so, to treatment of any kind, and if he is further reliably reminded that we possess no agent which in any degree is specifically antagonistic to the effects of alcohol in the animal body, the situation is apparent to him at once: the proportion of cures when the best results have been accomplished, cannot be large.

* Read before the St. Louis Medical Society, Jan. 23, 1892.

Not so with the uninformed layman, still clinging to the old faith of specifics. As was recently said on the floor of this society, the profession has for many years striven to impress on the people the fact that alcoholism is a disease. It is a fact, too, that the laity are quite generally accepting this idea. What wonder, then, that when a quack announces that he has discovered a specific for this disease, and supports his claim by what they believe to be satisfactory evidence, that he is hailed by them a benefactor of mankind. In fact, so ardently has our profession insisted on the disease theory, that the laity must have taken it for granted that we were ready with satisfactory means to combat it. Those of them who have thought about the matter must have felt disappointment, for surely, the profession has hitherto afforded them little evidence of its capability in this line. Still less, then, should we be amazed when they so cordially hasten to give us the credit of finally having solved the problem of relieving the race of this curse. To them it is a matter of little moment that the benefactor and his claims have not been duly recognized by us of the codical guild. How few great discoverers have not suffered similar persecution!

I fear my remarks are assuming a melancholy cast, and I confess that this, like other subjects which must receive our attention, may, if contemplated for too long a time in certain lights, acquire a gloomy aspect. Approaching it from another direction, let us briefly enquire what prospects there may be of a more hopeful view.

The important defect in the treatment of alcoholism by the profession generally, is a lack or want of system. In this assertion I am sure I will be sustained by those who have seen the most and best results of methodic work in this direction. Why this absence of system? Simply because the facilities for it are not often within our reach. Without attempting a tiresome outline of what, in my opinion or that of others, should constitute an ideal system of treatment, I may more directly strike the gist of the matter by simply echoing the growing conviction of the profession, that alco-

holic cases are not only to be best treated in establishments especially dedicated to this work, but that it is seldom worth the while to attempt to handle them without such facilities as these establishments should be expected to afford. Where are these establishments, is a pertinent question. I promptly reply they do not exist in kind and numbers adequate for our purpose. I venture the prediction, however, that coming years will witness the creation of them. Permit me briefly to mention the considerations which prompt this prophecy: First, the growing sentiment in the profession of the necessity for such institutions, and with it an equally increasing indisposition to assume the responsibility of attempting to treat these cases outside of institutions. Second, there is a marked tendency to separate these institutions from insane asylums and general sanitariums for the treatment of nervous diseases. This is evidenced by the fact that sanitariums for the treatment of nervous diseases, as soon as they become financially independent enough to get along without the alcohol and morphine cases, often refuse to take them, and further by the increasing disinclination of this class of patients to patronize institutions where the insane are also treated. As a separate establishment the inebriate institution will appeal more forcibly to the profession and the laity as a proper place for the receipt of these patients. Third, the laity are rapidly learning the advantages of the institution plan of treatment, and showing their willingness to patronize such institutions; witness the numbers in which they are flocking to the various quack establishments. It is true, they have gone under what have been largely false representations, but they have gone seeking something for which they feel a need.

The demand for relief will remain unchanged when these humbug establishments have passed out of existence. And, incidentally, the profession does not need to be assured that they will pass out of existence. Their very notoriety is their death-knell, for their sham will finally become so notorious as to kill them. In the meantime, however, they will have

performed a service in impressing upon the people the vastness of this evil and the necessity of their supporting measures to cope with it on a large scale. With the greater prevalence of this sentiment in and out of the profession, it will be possible for increasing numbers of institutions to exist, under the control of reliable persons, receiving the sanction and support of the profession, and through it, that of the laity. It will only be when this state of affairs begins to obtain, no matter what improvements or discoveries may be made in our therapeutic methods, that we can hope for any remarkably increased success in the treatment of alcoholism.

The duty of our profession, meantime, would seem clear. When seeking suitable asylums for patients, we should use care to discover institutions conducted on scientific and practical plans, and give to them our support and all possible encouragement. In these days of the rapid multiplication in all parts of the country of establishments created with a view of sharing the financial success that has come to certain notorious concerns, which they all try to imitate, any new institution should receive our closest scrutiny, lest, although it profess something better, it may not resort to methods at present much in vogue. I can say advisedly, that such institutions may be found, seeking to gain favor with the profession, while quietly appealing to this comparatively new-found credulity of the people upon which their more openly quackish competitors have so successfully preyed.

A REVIEWER writes that nothing new has been presented during the year past concerning inebriety. Students of this subject are continually surprised by the steady procession of new facts that are coming into view daily — facts of the greatest interest, because of their bearing on new and wider ranges that are yet to be discovered. New evidence of the nature and character of the disease of inebriety are accumulating in every direction, and a large volume might be filled with new facts every year without exhausting the subject.

DISCUSSION ON THE RESTORATIVE HOMES BILL, IN THE MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

[Continued from page 27.]

An important feature in the proposed Act, different from the present amended Act, is, that *voluntary* admission is not to be public and deterrent, but private, simple, and easy.

Instead of an appearance before a justice of the peace, magistrate, or sheriff, as at present, with two witnesses, and making then and there a declaration that he, the person, desires to be admitted to a home, as he *has been* and is a habitual drunkard, the transaction is proposed to be merely with the superintendent of a home (licensed, of course), which application, according to the schedule of the Act, is signed by the person, and attested by two respectable witnesses, engaging that he shall remain in the home, subject to the provisions, rules, and regulations of the Act, until discharged in accordance with the same.

One of these provisions is that the person or "patient," according to the Act, shall remain at least twelve months under treatment, unless circumstances render it expedient that he should be discharged earlier.

We know the difficulty of prevailing upon a habitual drunkard to place himself under restraint.

A propensity, so deeply rooted in the constitution, so enslaving and irresistible, blunts the better feelings of human nature and reasoning powers as regards promised benefit, and incapacitates him from appreciating the advice, or to be moved by the entreaties, tears, or threats of friends.

Thus, in my own experience, after much interviewing and correspondence, even at the eleventh hour, when consent had been obtained and a home chosen, perhaps in only one out of a dozen instances could submission be obtained.

Therefore, if persuasion proved ineffectual in producing

consent to enter a home, the compulsory enforcement clause which stands in the proposed Bill will settle the matter.

This alternative hanging over the head of the person is therefore likely to make him prefer a voluntary surrender, which can so easily be made, to the ordeal of magisterial committal.

The experience of such powers in Canada and most of the American States, to draft persons into homes, amply proves that, while voluntary surrenders are very numerous, instances of enforced treatment are very few.

3. That the safeguards afforded by this Bill are amply sufficient for the protection of the liberty of the subject, and all the interests connected with individuals, families, and the public.

First of all, it is no small or unimportant feature in the proposed Bill that the *Board of Commissioners in Lunacy* is to be the *central authority* under the Act. The well known constitution and character of that Board surely gives the very best guarantee for just administration.

They are to have the *licensing* of all the homes, the sanctioning all the internal arrangements, rules, and regulations not only for district homes established by public grants, but for all private homes, as they must all equally come under the Act. Then, as to the safeguards connected with admission to any of the homes, district or private, the superintendent of the home to which the patient has gone must notify to the Board of Lunacy that fact within two days of entrance, accompanied with a full statement of the case ; and should the Board not be satisfied with this admission, an immediate discharge will be ordered. Then, in regard to a compulsory committal, the safeguards are, that before the sheriff will grant a warrant in any case, the applicant for that warrant must be a member of the family or a near relative of the person, or a friend taking an interest in him, or a magistrate in the interest of the public, setting forth in a solemn declaration the facts and circumstances of the case, accompanied with a certificate from a medical man, on soul

and conscience, that he has seen the person within seven days; and if there are no private friends, then the certificates of two medical men.

Then, of course, a patient, whether under voluntary or compulsory control in a home, has the right of appeal at any time to the Lunacy Board or the secretary for Scotland for a discharge, if he considers that there has been undue or improper interference with personal liberty, or if he thinks he has good cause for complaint as to treatment received in the home, or some cause which makes it specially desirable that he should be discharged, or which discharge is urgently requested by his relatives or friends.

Thus, it will be seen that with all these precautions and with regular *inspection* of all the homes, as in the case of carrying out the lunacy laws in regard to asylums, the best interests of individuals, of families, and friends are sufficiently safeguarded.

Of course, say what we may, there will be a hue and cry raised by certain people regarding an Act of this kind jeopardizing the liberty of the subject. However, as I have said elsewhere that 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 records 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.

In a great many ways the liberty of the subject is most properly interfered with for personal benefit, for the protection or good of others, for the amenity of a neighborhood, or the general welfare of the public; and why not in cases and circumstances so clamant as those pointed out?

4. Lastly, the defect that I see in this proposed Act is the absence of provisions reaching down to the laboring, the pauper, and the criminal classes.

It was thought, however, better in the first instance to seek legislation only for such as were able to pay board for treatment in the restorative homes, which would thus to a considerable extent prove self-supporting, otherwise the cry against increased taxation might shipwreck the proposed Act.

I hope, however, that ere long the Act may be extended to such classes, for while the vice of drunkenness in all its most degrading and disgusting forms is more prevalent in the lower strata of our population, disturbing peace and prosperity in private life, and endangering the safety of the public, there are in it also a greater number of the worst types of inebriates, namely, genuine dipsomaniacs, dragging down to beggary and wretchedness numbers of those who are well-to-do, and thus largely increasing disease, destitution, and crime, and consequently constant gravitation to our hospitals, poorhouses, asylums, and prisons, imposing a correspondingly heavy burden and local taxation and the funds of the nation.

Of course, private enterprise or philanthropic associations cannot be expected to establish inebriate homes or sanitaria so as to meet altogether the exigencies of this great social evil; but municipal and parochial authorities, perhaps supplemented to some extent by Government, could accomplish most excellent results. From work done and wages earned by inmates of such institutions, the expense of maintenance might to a large extent be met and something over and above gained for the benefit of their families, or, in the absence of such, for his or her own use when the period of control terminates; thus also habits of industry and providence cultivated would prove excellent counteractives against a return to drinking habits; and other agencies — physical, mental, moral, and especially religious — would be the surest means of generating self-esteem, and strengthening the power of self-control.

Then, as to the large, troublesome, dangerous, and expensive class of inebriates, so well known to our magistrates, police, and prison officials, as criminal drunkards, Government ought unquestionably to make some provision in a Habitual Drunkards' Act, by which suitable treatment could be carried out in reformatories either in connection with or altogether distinct from prisons.

Inebriates of this class are at present almost irretrievably sunk in the lowest depths of the social scale. They are almost constantly resident in police cells or prisons from oft-repeated sentences on account of assaults or crimes committed to obtain drink or under the influence of it; many of them are most dangerous, and all are pests in society, and, as must be admitted, most costly to the country, while it is notorious that not the smallest benefit is produced by imprisonment.

Of course, in such establishments the punitive element could not altogether be separated from the reformatory, and the expense of upholding them would, to a considerable extent, fall on prison boards; but I firmly believe the good accomplished in them by strict, yet kindly and judicious, management, there would in time be ample compensation to the State, and probably a large saving of the, at present, utterly useless expenditure. Here inmates would be obliged to work, in the first instance, for their own maintenance, and possibly by good conduct earn something over to help themselves when the term of restraint had expired.

Direct commitment by the magistrates to such reformatories might, in many instances, be judiciously made after three or four convictions without passing the criminal through a prison, which all experience has shown to be utterly useless as a preventative of future offenses, and a monstrous waste of money as regards this class of offenders.

But if it must be continued so, to some extent, as a mark of justice on account of crime committed, the prisoner might be transferred to the reformatory in some instances before the period of sentence expires, or, at any rate, then, by a

warrant from a magistrate or sheriff for such prolonged detention in it as circumstances justify, when he could be subjected to those various influences already spoken of.

By such means, I firmly believe, a considerable percentage might be saved from an otherwise almost certain lapse into the old evil ways, and a speedy return to prison life, or a curse on society.

Dr. Batty Tuke said: I am not so hopeful as the speakers who have preceded me as to the effect of legislation. No one knows better than I the misery caused by habitual drunkenness, and no one is more desirous than I to find some means of mitigating it. But I am most anxious that the society should look the many adherent difficulties of the question straight in the face, and that it should look ahead and endeavor to see what would be the outcome of the working of a legislative enactment such as this now under consideration.

Dr. Peddie may be congratulated on stating the position regarding drunkenness in a scientific manner, inasmuch as he has pointed out that drinking is one of the manifestations of many kinds of insanity.

But I am not prepared to admit unreservedly that insane drinking or dipsomania is synonymous with habitual drinking, or that habitual drinking is disease. I draw a distinct line between vicious drinking and insane drinking, and it is only in the latter condition (insane drinking) that I think you have any right to ask for legislative measure of control — control meaning seclusion from society.

The first difficulty arises out of the question, Who shall be the active agent in procuring such control? Is it to be the doctor who is to decide between vice and insanity? I think that is too much responsibility to place on the shoulders of any one man.

Where there is such an open question between the physician and casuist, I think it is one that must be determined by more than a single individual.

Is it to be a member of the family of the inebriate?

This would be to adopt a *lettre de cachet* system open to gross abuse. My opinion is that any such matter must be determined by a court. My old friend and master, Dr. Skae, long ago suggested as a proper court to determine between vice and insanity, one consisting of a sheriff of a county, assisted by a medical assessor, a representative of the inebriate, and a representative of the family. I cannot think that the public will ever consent to the liberty of an individual being curtailed by a less responsible tribunal. I think this court should be invested with considerable powers. If it is found that the inebriate is an insane drinker, it should have not only the power of deciding what length of time the patient should be subjected to seclusion, but should also be the only agency by which the length of what is practically a sentence should be curtailed.

One of the greatest faults with all the Habitual Drinkers' Acts has been the great ease with which an inebriate could obtain release. In Mr. Morton's Bill I saw it was proposed that a commissioner in lunacy should have this power. I think that this should not rest with a single individual, and that the court, however constituted, should be the only agent by which its decision could be modified.

I think whatever representation the medical profession makes to the legislature or the public, it should make a very full representation of the medical facts; and one fact especially should be put prominently forward in order to avoid anything like reflections in the future.

This fact is, that insane drinking cannot be cured in a short period of time. Every physician who has had any experience of the condition knows that it is useless to speak of six months or even a year as the period of seclusion. It is a well-established fact that in a large proportion of cases it takes at least two years to give the patient a chance of recovery, which, I presume, was the main object of Mr. Morton's Bill.

What I wish to impress upon the society is, that in any representation it may make as a medical body, this important fact should be kept prominently forward.

I would like to ask the meeting to consider if it thinks the public would ever allow a man to be incarcerated for at least two years for drinking, on such slight authority as was suggested in the Bill under consideration?

In my opinion it is extremely doubtful if such powers will ever be granted to any court, for, in point of fact, a man might be incarcerated for life. You have been told that only thirty per cent. of cases submitted to treatment in homes recover. What, then, is to be done with the large balance?

Are they to be committed and recommitted?

If not, what is the good of the Bill, so far as seventy per cent. of those to whom it would apply was concerned? This will be a great stumbling-block in the face of any legislation, and it is one which I would urge on the society to consider carefully before they pass any resolution based on Mr. Morton's Bill.

I think if any Act is ever passed, insane inebriates should be confined in special departments of public asylums.

They are the proper institutions to undertake their care, and there would be less chance of abuses arising out of such an Act if worked through the instrumentality of public institutions. But, supposing you have obtained all this machinery, to whom will you apply it? I very much fear its action could only be brought to bear on the ultimate stages of alcoholism. Can any one suggest a plan by which it can be made to apply to the earlier stage, the only period in which it can be materially useful in a curative point of view? The Bill is only to apply to a certain section of inebriates — those who by their evil habits are liable to ruin or compromise the comfort of their families. How will this apply? It will apply to the man of independent means, who might squander his capital; but how would it act in the case of a professional man who, by being shut up, would have his business ruined for him? Then, again, if the definition of an inebriate such as is set forth in the Bill is adopted, it would apply to hundreds and thousands of cases, and homes without end would have to be constructed.

Why should ruin to families through drink alone be provided for?

If the main object of the Bill is to provide against family ruin and scandal, why not extend its action to other vices, such as lechery and gambling?

I cannot believe that any Bill could ever pass Parliament warranting the incarceration of habitual drunkards in the lump. I doubt very much if any satisfactory measure warranting the treatment of insane drinkers will ever be passed; but I would be willing to support such a measure, because I know it could be advocated on well-established medical data.

Dr. Littlejohn never knew a single cure effected by residence in jail. The reason was that the sentences were too short. The appetite for drink was only whetted by this temporary seclusion, and prisoners, on regaining liberty, fell easy victims to their former excesses.

He had a strong feeling that Mr. Morton's Bill did not go far enough. The time had gone by for special class legislation.

He saw a great deal of this form of insanity among the poor.

They spoke of the liberty of the subject; the whole tendency of the law at present was to interfere with that liberty if the public safety or even the well-being of the individual was in danger.

They had reformatories where children were confined and brought up as useful members of society. A child who committed theft, or was not under proper control, was taken from his parents for a series of years, and society approved. Then there was the Infant Protection Act which insisted on compulsory registration; and evidently, after the painful occurrences of the last few weeks, it was evident that the stringent provisions of this Act would be considerably extended.

Lastly, with regard to the difficult subject of infectious diseases, parliamentary committees had decided that for the

public safety it was expedient that such cases of illness should be promptly notified to the authorities, and, whenever necessary, isolated in a hospital. He was, therefore, clearly of the opinion that it would be safe to apply to Parliament for an extension of the principle of this Bill to all classes of the community, and the evil being recognized, everything connected with the machinery of the Bill should be open and above board. It would be hazardous to allow a man quietly to place himself in these homes.

Any one might give a false name, and thus obtain temporary retirement to suit his own purposes. He thought it important that all such parties should feel their position, and while undue publicity might be avoided, no person should be admitted to these homes unless he had gone before the sheriff, and had his statement formally made and recorded that he was voluntarily depriving himself of his liberty for a certain period of time. He felt strongly on another point.

He would make work of some kind or other a *sine qua non* in these homes. Without healthy exercise and work it was impossible to effect a cure in these cases, and the superintendents of the homes should be empowered to fix the kind and amount of work for all patients, and see that it was done. The occupants of the homes might get a portion of the produce of these, the rest going to diminish the expenses of the establishment.

THE *English Register-General's Report* of deaths shows that the number of infants who die from suffocation is steadily increasing. These deaths occur most frequently on Saturday and Sunday nights. Monday night has also a high mortality. The reason for this is, that Saturday is pay day, and most of the parents of these children are intoxicated on Saturday, Sunday, and even Monday nights, and in their stupidity smother the child. The deaths from convulsions on Monday eve are accounted for by the poisonous milk of the intoxicated mothers. These cases are put down to natural causes by the coroner's findings. Such facts are startling, and may extend to the cities of this country.

HOSPITAL TREATMENT FOR THE ALCOHOLIC INEBRIATE.*

By J. W. GROSVENOR, M.D., BUFFALO, N. Y.

It is not the purpose of the author of this paper to present original views upon the theme under consideration, but simply to emphasize ideas already promulgated by prominent members of the medical profession, to the end, that upon this subject there may be awakened a new interest, which, in this and other communities, will result in a more rational treatment of alcoholic inebriety, and a lessening of the many evils which flow from it.

Prominent authorities estimate that the annual death rate of alcoholic inebriates in the United States is at least 60,000, and that several times that number of cases of alcoholic inebriety are in constant progress. The *Chicago Champion*, a periodical devoted to the interests of the liquor traffic, concedes that nine murders each week in the United States are the result of this disease. At that rate, the number of yearly murders from this source amounts to 468. An English paper, from statistics taken from the press of the United Kingdom, reports the recorded murders of women by inebriated husbands since Jan. 1, 1889, to Jan. 1, 1891, to be 3,004. At that rate the yearly number is 1,502. It is well known that disasters almost innumerable are the direct or indirect outcome of this disease. It will be readily acknowledged that any disease against which such charges can be consistently made calls for an intense and persistent inquiry into its best mode of treatment.

In turning the pages of literature devoted to the general subject of inebriety, it may easily be observed that some writers regard alcoholic inebriety as a vice, others as a crime,

* Read before the Buffalo, N. Y., Medical and Surgical Association, on February 2, 1892.

others still, as a disease. In the main, the treatment advocated by each writer corresponds to his theoretical views. The moralist believes that moral and religious influences are most effective in restoring the alcoholic inebriate to his normal condition of a healthy life. The executor of law assures us that a penalty of fine or imprisonment is the swiftest and surest remedy for the relief of victims of the intoxicating cup. The medical man stoutly insists upon the treatment of the physical system by medication as the rational method for the cure of this disease.

The moralist, believing the alcoholic inebriate to be the victim of vicious indulgence, that he has a weak will, a low moral tone, and a deficient education, declares that influences must be used to strengthen the will, elevate the moral sense, and enlighten the intellect. He would carry out this programme by offering the total abstinence pledge, preaching sermons, delivering lectures, and supplying social diversions of the purest character. The judicial magistrate believes that the alcoholic inebriate has committed a nuisance, that he is a disturber of the peace, that he is a criminal, and that the one certain method of protecting community from his assaults, and developing him into a peaceable citizen, is to inflict upon him a penalty of fine or imprisonment or both. The physician believes that the alcoholic inebriate is suffering from disease, and for restoration to health should have the benefit of the best remedial agencies which have been suggested by science and experience.

The removal of the cause of alcoholism will give the system an opportunity to eliminate the alcohol, and then nature with proper aids may be able to restore to their normal condition the organs and tissues that have been injured. *Sublatâ causâ tallitur effectus.* Whatever method of cure may be adopted, a complete and permanent abandonment of alcoholic drinking of every description should be regarded as indispensable. The man who is cured of alcoholic inebriety lays himself liable to a return of the disease by returning to the use of alcoholic beverages.

Hospital treatment for the alcoholic inebriate, although advocated in past centuries, only came into prominent notice in this country about thirty years ago. Since 1860 private and public inebriate hospitals have sprung up in various parts of the country till at the present time 30 or more of these institutions are in existence. A few of them have had indifferent success due to a lack of encouragement and positive opposition on the part of the public, but many of them have fully met the expectations of their founders and have accomplished a grand work in the specialty to which they have been devoted. Fully 30,000 inebriates have passed through these institutions. The fact that the number treated in them is yearly increasing, is a strong argument in favor of their recognized utility. This large number would seem to be sufficient from which to draw reliable deductions as to the efficiency of hospital treatment upon this class of cases.

In the September, 1891, issue of the *North American Review*, Dr. T. D. Crothers has given some figures which show the result of this method of treatment. In 1873, inquiries were made concerning 1,500 patients who had been treated five years previously at Binghamton, N. Y. Replies received concerning 1,100 of this number showed that "61 and a fraction per cent. were still temperate and well." A study and inquiry concerning 2,000 cases treated at the Kings County Inebriates Home showed that 38 per cent. of this number remained temperate and sober, after an interval of from 7 to 10 years from the time of treatment. Investigation upon 3,000 cases treated at the Washingtonian Home at Boston, Mass., developed the fact that "35 per cent. of all the living persons who had been under treatment from 8 to 10 years before were temperate and well." Of those treated in smaller asylums, both in this country and Europe, whose treatment had ceased from 4 to 8 years previously, "the number reported as free from all use of spirits, ranged from [illegible] to 41 per cent." In a private letter lately received, Dr. Crothers expresses the opinion, that of patients treated at Walnut Lodge, Hartford, Conn., of which he is medical

superintendent, "one in every three cases are fully restored." He lays emphasis on the fact that "all or nearly all of these cases are in extremely chronic stages, and are those who only come to us as a last resort."

Although these statistics may be liable to criticism, because, when they were made, not sufficient time had elapsed to determine the exact effect of treatment, still they show unequivocally, that a vast amount of benefit has been derived from hospital treatment. It is extremely difficult, if not impossible, to institute a comparison between the results of hospital treatment and of home treatment, for the reason that statistics concerning the latter which have found their way into print are excessively meagre. Doubtless, it would be the testimony of most physicians, that in their private practice, the alcoholic inebriate seldom has been permanently cured.

The confinement of an alcoholic inebriate in an inebriate hospital places him beyond the power of indulging his appetite for intoxicating drink. Outside of a hospital, temptation to drink alcoholics is on every hand, and so easily can the craving appetite be indulged that the enfeebled will has not the ability of successful resistance. The *materies morbi* it is almost impossible to escape. The alcoholic inebriate is fed with the prime factor which causes his disease. The most important element of treatment is the entire removal of every form of alcoholics from his diet. How difficult it is to make use of this element in the inebriate's home, is well understood by those who have tried to accomplish it. His ingenuity exercised to obtain his favorite beverage will often outwit the most skillful efforts of physician, nurse, and family. His appeals for some kind of alcoholic drink can only be resisted by a strong will and determined purpose on the part of the physician. When able to go beyond the confines of his home, the alcoholic inebriate soon breaks through all moral restraints; his craving for alcohol asserts itself; his disease takes on new vigor from indulgence, and the benefit resulting from abstinence is completely undone.

The alcoholic inebriate confined to a hospital will have the constant supervision of his physician, which will give an opportunity for a thorough and exhaustive study of each case and its peculiarities. The patient surrenders himself to the care of his attendants much more completely at a hospital than he does in a place where he feels that by legal right he can act in accord with his own will. In hospitals there is no interference of well-meaning but often injudicious friends ; the medical attendant has full control of his patient, who implicitly obeys directions. In no disease is implicit obedience on the part of the patient more necessary than in alcoholic inebriety. Oftentimes the moral faculties are distorted, the will enfeebled, and the lower passions in the ascendant. Hence the need that the physician should thoroughly know his patient and should be able to surround him with all needful moral forces.

In a hospital devoted to the treatment of alcoholic inebriety, the inebriate is placed in the care of medical attendants who have been trained by special education and experience to wait upon victims of his malady. Specialism in medicine is the order of the day. The alcoholic inebriate is as much entitled to the skill which results from special study and investigation as is the insane. Alcoholic inebriety in some of its phases is exceedingly subtle and obscure, and for a thorough knowledge of its workings upon many tissues of the body, requires the time and talent of a specialist. The alcoholic inebriate will also find in hospitals nurses specially trained to attend upon this disease. The skill of the medical specialist and the care of the trained nurse, the alcoholic inebriate cannot find in his own home unless he converts his home into a temporary hospital.

Hospital treatment for the alcoholic inebriate inures largely to the advantage of society and the body politic. Under the care and restraint of hospital management, he will have no opportunity to transmit to future generations any of the many defects of his inebriated organism. Heredity plays no small part in the causation of alcoholic inebriety.

The child of the alcoholic inebriate may inherit not only a craving for alcoholics, but mental imbecility, insanity, and a disordered nervous system, which will lead to nervous diseases of a serious character. Dr. Howe of Massachusetts, an admitted authority on idiocy, reported to the legislature of that State, "That the habits of the parents of 300 idiots had been learned, and that 145 of them were known to be habitual drunkards." He estimated that three-fourths of the idiots born are the offspring of intemperate parents.

Dr. Yellowlees, in the *British Medical Journal* of Oct. 4, 1873, makes the following statement: "A host of facts might be brought forward to prove that drunkenness in parents, especially that form of drunkenness known as dipsomania which breaks out from time to time in uncontrollable paroxysms, is a cause of idiocy, suicide, or insanity in their offspring."

Dr. Norman Kerr of London has treated 1,500 cases of alcoholic inebriety, and of these he was able to trace a family history of intoxication in 746 cases.

Dr. Walter Lindley, in his late presidential address before the Medical Society of the State of California, used the following language, viz.: "Knowing, as all surgeons do to-day, that castration and spaying are simple operations that can be performed with about as little danger as the ancient rite of circumcision, I do not hesitate to advise that the following cases be required by law, to submit to this procedure: Idiots, those who commit or attempt to commit rape, murderers, and some classes of the insane." If it is wise to adopt such an heroic measure in order to prevent these classes of human beings from procreating their species, surely it is wise by proper confinement to restrain the incurable alcoholic inebriate from transmitting to future generations, not only inebriety itself, but also those diseases which are recognized as the result of inebriety. If the physical organism of the human race is to be improved or even maintained at its present standard, radical measures must be adopted to stop the transmission of those physical conditions which, in a large

degree, are the foundation of alcoholic inebriety, idiocy, insanity, and a host of diseases of the nervous system.

The habitual drunkard is a constant menace to the peace and welfare of the community in which he lives. He is a dangerous element in society, far more dangerous to life and property than small-pox, scarlet fever, and other contagious diseases. We quarantine against the latter, why not against the former? We shut up the dangerous insane, why not the dangerous inebriate? Without proper attendance the habitual drunkard should not be allowed the freedom of the streets of any city or village in the land. Within a properly equipped hospital his power to commit nuisances and crimes would be reduced to a minimum; he would be under medical and reformatory care especially adapted to the cure of his disease; if incurable, medical supervision and legal restraint should be permanent. Seldom does a daily newspaper come into our hands which does not inform us of some offense or crime against society committed by the alcoholic inebriate. The following is a specimen taken from the Buffalo, N. Y., *Courier* of Dec. 15, 1891: "Hannibal, Mo., Dec. 14th. As a result of frequent drunks and quarrels with his wife, Edward Brown (colored) shot his wife in the abdomen. Yesterday, prematurely, she gave birth to a child which was dead, the bullet having passed though its head. At an early hour this morning the wife died. Brown is held for murder without bail."

Doubtless, long before this double murder was committed, it had been well known in the community where the murderer lived that he was an alcoholic inebriate. Had he been placed in an inebriate hospital, he might in due time, if curable, been returned to society as a sober and useful citizen, physically regenerated, or, if incurable, might have been kept under legal restraint permanently.

Yearly, scores of alcoholic inebriates are brought before the police magistrate of our city. A like statement is true of each of the large cities of our country. It has been the general custom in such cases to impose a penalty of fine or

imprisonment for a short term. Having paid his fine, or served his term, the victim soon suffers from another acute outbreak of inebriety, and passes through the same experience as before. This course of procedure is often multiplied with the same person many times during a single year without any great or lasting benefit either to the inebriate or the community. Field, in an article published in the New York *Medical Journal* of June 14, 1890, calls attention to the case of a woman who was sentenced to the workhouse for drunkenness 28 times in 25 months.

The State of New York, as well as most of the other States of the Union, has made very meagre provision for the hospital treatment of alcoholic inebriates. The inebriate asylum established at Binghamton, this State, in the year 1864, went down under the pressure of ignorance and bad management, and, after a continuance of 14 years, ceased to exist in 1878. The only public hospital for the alcoholic inebriate in existence in this State at the present time, is the Inebriate Home at Fort Hamilton. It was established and is maintained by Kings County under the laws of the State. Its support is derived from excise moneys and fines for violation of excise laws in the county of Kings. It receives both voluntary and involuntary patients. The State law concerning this institution provides that any magistrate in the State may commit an habitual drunkard to the Home upon production from the executive committee of said Home of a certificate, that said person is a proper subject for treatment in said Home for a term not exceeding six months, and nine months if committed twice within the next preceding two years. If indigent, the county or city or town must pay five dollars per week as board."

Dr. W. D. Green, late Health Physician of this city, is reported as estimating that 2,000 or 3,000 cases of delirium tremens occur in Buffalo annually, and as saying that "there is not to my knowledge a single place in the whole city, or for that matter, in the State, where they can be kept."

Many of the homes, retreats, and asylums devoted to

the treatment of the alcoholic inebriate are open to the criticism that the inmates of these institutions remain in them too brief a period for permanent recovery and radical benefit. A report of the Washingtonian Home of Boston, Mass., shows, that during the year 1889, the average number of days which each patient remained in the institution was seventeen. These periods of time are altogether too brief under any kind of treatment which has yet been invented for a restoration to soundness of the nervous system degenerated by the use of alcoholics. For a proper care of the alcoholic inebriates in this State, there should be established several public hospitals so situated as to be easily accessible, furnished with industrial departments, and equipped with all appliances known to science which would aid in restoring to health and vigor the physical, mental, and moral nature of the alcoholic inebriate. These institutions should be under State supervision. Laws for their government and for the control of the inebriate should make the entrance of voluntary applicants as easy as possible consistent with their own welfare. Magistrates should have the legal authority under the advice of a properly organized commission, to commit the habitual drunkard to an inebriate's hospital. Indigent inebriates should be cared for at the expense of the State or of the county in which they are actual residents. In fact, the laws governing the care of alcoholic inebriates should be similar to those made for the care of the insane.

In England, the Inebriates' Act, passed by Parliament in 1879 and 1888, permit licenses to be granted for opening and maintaining hospitals or retreats for alcoholic inebriates. Seven such institutions are in existence at the present time.

"The Congress of Doctors of Lunacy sitting at Weimar, Germany, in September last, passed a resolution approving of the German Bill for the repression of drunkenness. The clauses making confirmed drunkenness a punishable offense, were, however, disapproved of. Persons thus afflicted, it was recommended, should be treated as diseased, and, as such, placed in proper asylums."

"In the Swiss Canton of St. Paul, a law, passed in 1890, provides that habitual drunkards may be placed under care in an inebriate asylum, for periods varying from 9 to 18 months, either on the ground of voluntary submission, or by direction of the local authority (District Council). Proceedings may be initiated by a relative or guardian of the drunkard, by any public body, or on the sole responsibility of the Council, but they must be justified by a certificate from the medical officer of health that such seclusion is necessary for the cure of the patient. If his personal property is insufficient to meet tbe expense, the public funds are to be applied to, not only for his own maintenance, but, if necessary, for the support of his family during his enforced absence."

Massachusetts, within the last three years, has made provision for the establishment of a State hospital for inebriates to be situated in Foxborough in that State. North Carolina has lately set aside a portion of the Western North Carolina Hospital for the care and treatment of inebriates, which, doubtless, foreshadows the establishment of a well-equipped institution for that purpose in the not far distant future.

Evidently, the scientific and humanitarian doctrine that the alcoholic inebriate is suffering from disease, is growing into favor in several countries, and measures looking towards the relief of this class of persons are being more widely adopted. It is my firm belief that not many decades hence, general public sentiment in this country will favor the treatment of the alcoholic inebriate in hospitals, both public and private, devoted to that special object, that such institutions will meet the necessities and highest welfare of this class of persons to as large an extent as do our insane hospitals the needs and best interests of our insane. This will be a far more satisfactory status of the inebriate problem than that which exists to-day, both for the inebriate himself and the community of which he forms an integral part.

From an investigation of this subject, the author felt justified in directing special attention to the following points.

1. The medical profession as conservator of the public

health, and of a high standard of physical development in the human race, should take a profound and persistent interest in the treatment of the alcoholic inebriate.

2. It is the duty of the medical profession to make its influence vigorously felt by advocating with voice and pen a more scientific and humanitarian treatment of the alcoholic inebriate than that usually adopted by the magistrates of our courts.

3. The treatment of the habitual drunkard by fine or imprisonment is a disgrace to the civilization of these last years of the 19th century.

4. The laity should be instructed that the alcoholic inebriate is a diseased person, and should be treated in accordance with that view.

5. The prime factor in the treatment of the alcoholic inebriate is the complete and permanent abstention from all alcoholic beverages.

6. The best place for the treatment of alcoholic inebriety is a hospital specially designed for this purpose, and equipped with all the most suitable appliances which science and experience can suggest.

7. The State of New York can do no charitable work more far-reaching in beneficent results than the establishment of hospitals for the care and maintenance of its alcoholic inebriates.

THE Lady Brooks fund for the relief of the *distress from influenza,* was applied to a donation of 2,000 bottles of brandy to poor sufferers in London. In this country such kindness would be startling, and the disease and distress which follows would continue as long as the charity held out.

THE most rational cure for inebriety that has been urged at this empirical stage of the subject is this: Have the patient interested in a prize fight, and place him in training for three months.

TREATMENT OF MORPHINOMANIA.

By E. W. Mitchell, M.D., Avondale, Ohio.

Introductory to a brief consideration of this subject, I wish to report a case which presents some interesting features and illustrates some points in treatment:

Mrs. X——, wife of a merchant, thirty-six years of age, married twelve years, four children, had not menstruated since her last pregnancy, five years before. The use of morphia had been begun fifteen years previous, after a compound fracture of the leg followed by septicæmia and amputation. After marriage two attacks of peritonitis resulting in pelvic adhesions had given excuse for the free use of morphia and its continuance.

The hypodermic syringe having most unfortunately been placed in her own hands by her medical attendant, she may be said to have been a confirmed habitué for about eight or ten years.

During two years preceding the undertaking of the cure I had frequent opportunities of observing this patient. The pupils were always greatly contracted, and the breath smelling strongly of wine or brandy. She was moderately emaciated, presenting little of the sallow or "earthy" complexion described as peculiar to the victims of the drug; appetite poor; bowels regular; flighty and hysterical in actions and speech. She was subject to fainting attacks with sensations of impending death.

Although it was evident that she was increasing the amount consumed, and that both physical and mental health were gradually being undermined, I refused to undertake to break up the habit because the friends would not consent to her removal from home.

August 19, 1889, I saw her for the first time for three months. She had been now in bed several weeks, taking almost no nourishment, in a state of imbecility, having only enough intelligence remaining to give herself a fresh injection as the effect of the preceding passed off. Memory was almost a blank. Neither she nor her friends knew how often the injections were taken, nor how much of the drug was consumed. She had slept very little for many nights.

In addition to morphia, alcoholics had been freely taken. The friends, now thoroughly alarmed, were willing to give me complete control of the patient.

A competent nurse having been placed in charge, by a little strategy I succeeded in getting hold of the two hypodermic syringes and a four-ounce bottle of the solution, from under her pillow. As nearly as could be ascertained she had been taking thirty grains daily. By administering the injections myself, and giving them when suffering became severe, I was able to reduce the amount of four grains on the first day and two grains on the second. The stimulants were ordered to be well diluted and reduced in quantity; glonoin (10 per cent. solution) to be given in one-drop doses every two hours; *diet*, whatever she could be persuaded to take, with an abundance of milk, given in small quantities regularly every three hours.

During the second twenty-four hours she had taken 2 grains of morphia, subcutaneously, eleven doses of glonoin; whisky, $4\frac{1}{2}$ oz.; beef juice, 14 oz.; clam soup, 4 oz.; milk, 14 oz., as well as a little chicken, bread, egg-plant, and coffee — 2 oz. Slept but little.

August 23. — Two injections of morphia — total, 1 grain; quin. sulph., grains 3, every four hours; atropia, grain $\frac{1}{120}$, twice daily. Temperature, 9 A. M., 99.2°; 6 P. M., 97°; pulse, 90 to 96; respiration, morning, 36, evening, 24. Stools, one, normal; urine, 32 oz. (passed with some difficulty). Hysterical and restless, begging for anodyne. Slept two and a half hours. Whisky, 43 drachms; milk, 34 oz.; beef juice, 6 oz.; coffee, and a little solid food.

August 24. — Two hypodermics, $\frac{3}{8}$ grain each; quinia, 3 grains every five hours; atropia, $\frac{1}{120}$ grain in the morning; $\frac{1}{72}$ grain at night; alcohol baths and massage *pro re nata*. Temperature, 7 A. M., 98°, pulse, 88; 6 P. M., 97.8°, pulse, 98, irregular; respiration, 24. Quite nervous and excitable, but slept five hours and sat up five hours.

August 25. — Atropia discontinued; glonoin resumed, one drop every two hours; two injections, $\frac{3}{8}$ grain each; quinia, 12 grains; whisky, 3 oz.; milk, 3 pints; coffee, 6 oz.; small quantities of bread, beefsteak, lamb chops, and custard. Slept six and one-half hours. Mental condition unchanged.

August 26. — Slept seven hours quietly.

August 28. — One injection in evening of $\frac{1}{2}$ grain; glonoin, 15 drops; quinia, 12 grains; whisky, 4 oz.; diet unchanged; bowels regular. Slept nine hours, waking every hour. Begged for anodyne. Much excited from 3 to 8 P. M. Nervousness and restlessness greatly relieved by massage and alcohol baths. Mental condition slightly improved. Temperature, 99.4°, pulse, 98, morning and evening; respiration, 27.

September 1. — Feigned peritonitis and begged for anodyne. Ice-bags applied to abdomen. Morphia stopped. Begins to take interest in nurse's reading to her. Strychnia sulp., $\frac{1}{20}$ grain; t. i. d. glonoin, quinia, and generous diet continued.

September 5. Is sleeping well and is cheerful. Reiterates and tells fantastic and incredible stories. Memory slightly improved. Appetite good. Up from 1 to 6 P. M. Treatment the same, except omission of whisky, Jamaica ginger being substituted in the "egg-nog" which she had been taking.

September 15 — Patient went out of the house for the first time in months. Improved from this time steadily and rapidly in physical and mental health, and went riding every day.

September 30.— Menstruation began, after a cessation of five years. Mental condition still improving. The surveillance of an agreeable attendant was continued for six months longer, and recovery, mental and physical, was complete.

In February following she aborted at two months. In March she had a severe attack of pneumonia, in which it was necessary to use stimulants and some opium. Both produced tbe ordinary effects in ordinary doses. Both were discontinued without difficulty.

July 21, 1891, she gave birth to a well-developed and healthy boy, which she nurses. Her health is excellent, and she manifests no desire for either morphia or alcohol.

One who will take even a cursory glance through the literature cannot but be impressed that "many roads lead to Rome." He is apt also to conclude that in this field, as in all others of medical practice, the practitioner's firmness, tact, familiarity with the whole armamentarium of his craft, and skill in adapting his remedies to his case, are of more importance than his "method." Equally high authority can be quoted for the several plans of suspension. Very different modes of treatment have achieved success. It is not, therefore, our purpose to advocate any special "method," but simply to outline the general principles upon which treatment should be based, and indicate some of the various means which have been found useful:

1. We have to deal with an individual whose will-power is subverted. To him the enslaving drug has become as much a necessity of existence as his food and drink. Any treatment which depends upon his own volition must fail. For his own must be substituted the control of another sound will. As a rule, removal from home is essential to secure this control. As in insanity and hysteria, strangers have far more control than relatives or friends. It has the further advantage of breaking up the accustomed train of associations, which is always a great aid in overcoming a confirmed habit. Special asylums have their advantages (if under

proper management) and their disadvantages. I shall not discuss this point.

The choice of attendant is of great importance, as upon his or her trustworthiness and efficiency the result may often depend. In the case reported the firmness and tact of the nurse, her readiness with massage, bath, medicine, or nourishment, etc., enabled the reduction to be made rapidly, and assisted greatly in mitigating the prostration and suffering of the patient. With inflexible will she combined a patience and sympathy which made the patient feel she was a strong friend to help, not a jailor or detective, and was thus a model of what is needed in the attendant.

2. Control of the patient having been secured, how shall the drug be taken from him? Three methods have their advocates: (*a*) immediate and entire withdrawal; (*b*) gradual reduction; (*c*) rapid reduction.

Under the first the sufferings are so intolerable, the prostration so great and so dangerous that since it does not offer greater security against relapse, I must agree with Mattison that it is "brutal and inhuman."

In the majority of instances the rapid reduction is the wiser means between the two extremes. The rapidity should vary with the case, and should be such as not to involve extreme suffering or great prostration.

3. We have to deal in all cases of long standing with an emaciated body and starving nerve centers. At the same time we have complete anorexia and feeble digestion, perhaps nausea and vomiting. The feeding of the patient becomes, therefore, one of the most important, and perhaps most difficult parts of the treatment. Often it is well to begin with exclusive milk diet (peptonized if necessary). Systematic feeding of small quantities at frequent intervals is usually best. Confinement to bed during early part of treatment will promote the nutrition. At the same time it reduces to the minimum the tax upon the shattered nervous system. For the same reason, as well as for the sake of pre-

venting the clandestine supply of the drug, seclusion is best until convalescence is well established.

During my connection with Dr. Reamy's Private Hospital for Women, I had the opportunity to observe in a number of instances the good results of the "rest treatment," as advocated by S. Weir Mitchell, *i. e.*, seclusion, confinement to bed, forced feeding, massage, and electricity, with gradual (usually *rapid*) reduction of the drug.

4. The use of various mechanical agencies for the relief of pain, quieting the nervous system, inducing sleep and promoting nutrition — massage, electricity (both faradism and galvanism), hot baths, Turkish baths, the cold shower-bath. Dr. Jennings recommends the hammock for the restlessness and desire for constant motion, so often a distressing symptom.

5. Medicinal agents to meet the various indications of each case.

The observations of Drs. Jennings and Ball of Paris upon the sphygmographic tracings of the pulse of habitués we believe have laid the physiological basis for a rational system of medication.

These observations, which have been confirmed by others, show, "that the pulse of a morphine habitué in a state of privation presents a peculiar plateau . . . . caused by want of cardiac impulsion, together with a resistance to the passage of the blood in the vessels. A hypodermic or morphia given at this moment restores the normal state of the circulation. . . . . The study of these tracings suggested the use of cardiac tonics and stimulants as substitutes for the morphia during the progressive reduction." The drugs chosen were: "Sparteine, on account of the facilities it offers for hypodermic injection, and producing thus a rapid and evident effect; and trinitin, because of its congestive effect on the head and its calorific effect upon the body generally."

Dr. Jennings uses these remedies in the gradual suppression of the drug when the reduction has reached such a de-

gree as to bring on the symptoms of deprivation. It is not to be understood that these drugs take the place of morphia, *i. e.*, that it can be at once omitted without the usual suffering; they are but aids in mitigating that suffering by counteracting some of the circulatory disturbances upon which it largely depends.

The evidence of clinical experience is largely in favor of heart tonics and stimulants rather than of sedatives. In the case reported no sedatives were given, yet after the first few nights, sleep was good. The glonoin had certainly a good effect, being given at the time when the symptoms of the craving came on. Quinia was used as a stimulant to the heart and the cerebral circulation. Strychnia was given as a heart tonic after complete withdrawal of morphia.

It is proper here to state that Dr. Mattison, who has had a very large experience, treats his cases by first saturating the system with bromide of sodium, beginning its use several days before the cessation of the opium, gradually diminishing the latter (*Therapeutic Gazette*, September 15, 1890). He claims good results from this method, and I am not in a position to criticise it.

When nervousness is great, or insomnia does not yield to other means, drugs may be necessary. In these instances cannabis indica in large doses (½ to 1 drachm of fl. ext.), sulfonal, chloralamid or bromides will often render good service. Chloral is used by Erlenmeyer, condemned by Aurleck and others. Dr. Jennings seems latterly to have usually substituted digitalis *per os* for spartein hypodermatically. Quinia has seemed to me in many cases of distinct value. Strychnia is one of the best heart tonics in the pharmacopœia.

Obersteiner is almost the only writer of note who now speaks well of cocaine. If used at all, it should never, of course, be placed in the hands of the patient himself. The fluid extract of coca has been highly spoken of by several writers to relieve restlessness and depression. Valerianate of

ammonia has been a common favorite since the time of De Quincy.

It would perhaps be interesting to mention some of the special plans of medication employed by those who have made special study of this subject, but I have already occupied too much of your time, and must leave much unsaid.

6. Surveillance should be continued for a long time after active treatment, and every effort made to make the patient's surroundings such as to protect him from temptation, and to keep him in sound physical health. The active business or professional man must not too soon subject himself to the strain of hard work. The woman of wealth should not be allowed to return to habits of indolence.

It will be time enough to discuss the patent processes of those who deal in secret "sure cures" when we are able to find some of their "*cured*" who have not relapsed.

There is no part of his work which will more tax the physician's patience, his strength, his ingenuity, and his therapeutic resources than the care of these cases. When he has done all, and his best, he must expect frequent disappointments. Those who have had the largest experience cannot boast of more than from 15 to 25 percentage of permanent cures. When your patient has relapsed then "try again." — *Cincinnati Lancet-Clinic.*

SCIENTIFIC AMERICAN. — Every week this most valuable periodical presents whatever is new in the world of science, art, and manufactures. Full of practical information it discloses to the thoughtful not only what has been ascertained, but also suggests the possibilities still to be revealed. For *forty-five years* Munn & Co. have conducted this paper in connection with the procuring of patents for new inventions. The *Scientific American* is authority on all scientific and mechanical subjects, and should be in every household. Copies of the paper may be seen at this office, and subscriptions received.

DIPSOMANIA.

By Lucius W. Baker, M.D.
Superintendent of Riverview Sanitarium for Nervous Invalids, Baldwinville, Mass.

Not long since I had under my care a young gentleman, twenty-six years of age, belonging to a refined, intelligent family. His father was a moderate drinker, and died in middle life of Bright's disease, bequeathing to his child an unstable, nervous organism, which predisposed its unfortunate owner to some form of mental or nervous disaster. The earlier history of the patient is one of alcoholic excess, later occurring periodically, when the desire for stimulants would be irresistible. He would pawn his clothes or do anything to satisfy the craze for intoxication.

During these periods, if denied alcohol, there would be complete loss of appetite and inability to sleep; his eyes would become bloodshot; his gait staggering; his conversation would be voluble, silly, and incoherent, and delusions would often be present. In short, he would at times present all the phenomena of intoxication without having, to my certain knowledge, partaken of a single drop of alcohol.

The symptoms presented by this patient are clearly indicative of a profound disturbance of the nervous system, which manifests itself by a intense periodical craving for intoxication. They are similar in their origin to those morbid impulses to commit theft, set fire to buildings, etc., which are occasionally met with, and like these are due either to a loss of controlling power in the higher cerebral centers, or to an excessive morbid accumulation of nervous energy which exceeds the normal controlling power of the individual.

The distinguishing characteristic of these disorders is a morbid and irresistible desire to perform certain acts without

the presence of any positive delusions ; while varying in their manifestations, they are generally periodical in their occurrence, and are dependent upon an unstable condition of the brain cells, which may be acquired but is generally inherited.

Especially is this the case in that intense periodical craze for intoxication known as dipsomania, which Dr. Spitzka has defined as "A form of periodical insanity manifesting itself in a blind craving for stimulant and narcotic beverages." In nearly every case of dipsomania, careful study will detect some impairment of brain or nerve tissue, some imperfection of cerebral element, which, in the majority of instances, antedates the desire for alcohol.

During the intervals between the drink paroxysm the dipsomaniac has usually no desire for alcohol, indeed, it may be actually repulsive to him. He may then sign the pledge, and make most strenuous effort to reform ; but during the attack all his powers of control, all his manhood and self-respect are overwhelmed by the craving of the nerve centers for intoxication. Nothing but absolute physical restraint will prevent excessive indulgence. For the time being, the man's whole moral tone is changed, and he will often seek the society of the low and degraded with whom he would never dream of associating under any other circumstances.

These changes of character, these overpowering impulses for intoxication, with intervals of total abstinence, are symptomatic of an intense disturbance of brain function, and characteristic of dipsomania.

The dipsomaniac is the victim of a distinct neurosis, which is very closely allied to insanity. He should not be confounded with the confirmed inebriate in whom the desire for alcohol is nearly always present. The latter often indulges to excess, and may become intoxicated, but he does not present the characteristics of dipsomania.

It is true that a genuine case of dipsomania is seldom met with in contrast with the number of confirmed inebriates, but it is none the less important that the characters of

the disease should be promptly recognized and intelligently treated. During a paroxysm of dipsomania the individual is really insane and irresponsible for his acts, as much so as a case of acute mania. To regard him as a moral delinquent, and subject him to moral means alone for his relief is unscientific, and reminds one of the time when insanity was regarded as an indwelling evil spirit, to be driven out by chains and the lash.

We may as well expect the suicidal maniac to observe a promise not to take his own life as to expect a man to voluntarily refrain from the use of alcohol during an attack of dipsomania. Both are diseased, both need restraint and intelligent medical aid.

The first step to be taken in dealing with the dipsomaniac is a recognition of his diseased condition; when this is acknowledged, dipsomania passes from the domain of morality which it has held so long, and becomes a proper subject for the consideration of the physician. The dipsomaniac, unable to resist the terrible drink craving, will then no longer be regarded as a moral delinquent, but as a sick man needing special medical care. This, as a rule, can be best obtained in institutions devoted more especially to this class of cases, and in charge of physicians who have made special study of the various forms of inebriety.

THE PHYSICIAN AS A BUSINESS MAN. By J. J. Taylor, M.D. Philadelphia: *The Medical World.* 1891.

This little work has won a place in every library, simply because it contains facts and advice that is not found elsewhere in the literature. The art of medicine has not kept pace with the science, and success in all cases depends more or less on the application of the art in following principles of business. This book will help every reader who is practising medicine. Send for a copy and act on its suggestions, and you will ever thank the author.

Abstracts and Reviews.

THE ROLE OF INHERITANCE IN INEBRIETY.

The following very suggestive statement is taken from Dr. Paquin's work, "The Supreme Passions of Man":

It is extremely difficult to estimate the degree of influence which heredity exercises in the formation of character and the development of appetites. We conclude, from the observations of all ages, that not only are the structural elements transmitted to descendants, but that these have the particular characteristics of the progenitors in a marked degree. We may know their presence in individuals; realize their outward expressions; see their influence; notice their growth and direction; but the exact momentum which presides over their reappearance, and forces them to the surface, is a matter of speculation. We may, therefore, conceive of the truth of the inheritance of traits, by close observation of humanity, but we cannot say clearly just bow it came about.

The germ of human life exists in the male and the female; and the union, the fusion, in fact, of the two generative forces, is necessary to start the growth of a new being. These sexual germs are microscopic cells, harboring within their narrow limits all the potentialities of life.

They have life itself inherited from the body whence they issued. The individual which develops from these minute particles of life, possesses the natural faculties of the parents. It is capable of willful motion, involuntary motion (such as heartbeat), thought, judgment, etc.

What is this but inheritance of necessary and natural powers? No one could suspect, by simple examination, that a little gelatine-like mass of living matter, as is the first (fertilizer) cell, is the concentration of all these prodigious

energies. And yet such it is. The appetites of the body are as necessary and as natural as motion, and they are transmitted under the same law.

Man developes certain natural and therefore necessary inclinations, which were implanted in his being at the moment of conception. If there is any kind of pleasure or agreeable sensation in their fulfillment, such as the tickling of the palate in eating, for example, it is because such a phenomenon is a necessary stimulus to urge the performance of a duty, which otherwise would be onerous, if not repelling. Thus it is plain than man inherits all of his natural activities and attributes, because they are necessary for, and in his life. The cells composing the bodies of his parents harbored them; they formed a part of the whole of his ancestors.

A man does not inherit teeth resembling those of a horse, because he does not need them, and his parents did not have them ; nor do his muscles, though alike in structure, possess the strength lodged in those of a horse, for his procreators had it not.

Human beings inherit, then, in a more or less pronounced form, through the original sexual seeds, the things which are in the beings which create them. A passion is usually the augmentation of an appetite which is a natural endowment ; therefore, it is easy to conceive how a passion thus derived, such as lust, may be transmitted to the offspring, in a certain degree at least, *i e.*, the tendency, the predisposition, the elements essential for the development of passion, are liable to be transmitted.

But how is it for unnatural, acquired appetites? Can we attribute to mankind the power of transmitting them as the natural ones? Everything points to an affirmative answer.

The fact that an appetite is acquired, does not make it less a part of a being's characteristics, so long as it lasts. Every one can see that alcoholism becomes a part of a man with a vengeance. Alcohol can be seen through every pore of his skin. It marks its presence in the tissues by the

color it gives to the face, the expression of the features, the tone of the voice, the conduct of the individual, the morals, and everything that man calls a part of his whole, both in structure and in traits. It is, indeed, as deeply impressed as any one of the natural appetites, and sometimes more forcibly expressed outwardly. Who will deny that, under such circumstances, the appetite for alcohol is not in a measure transmitted? It seems rational to conclude in the affirmative. Not only does this inheritance seem possible from the confirmed drunkard, whose body is a seething conglomeration of heated, bloated cells (if I may use the expression), but it is rational, under the same law, to expect it also from the moderate drinker, in a minor, but perhaps just as dangerous a degree.

Furthermore, the nerve cells may be defective in their properties, in the individual born of drunkards.

As a result, the control of the rational appetites is insufficient, and it usually declines in power under external influences. A passion is acquired, and it is soon master of the organism. In no case, however, is an abnormal tendency born in a being likely to appear so strong that it could not be regulated by medical direction, and subdued by good training, judicious diet, etc.

A right system of life would result with few, if any, exceptions in the least possible excitement of the cell, and keep their appetite amenable to the will.

It is well proven that children of the most debauched drunkards may be kept in the path of virtue by proper training, favoring the best natural internal and external control. It is flippantly argued, that, whatever scientists may say on the subject, alcoholism is not in any sense hereditary. If those who hold such views, whether possessing such an appetite or not, will scrutinize the inheritance of their own bodies, and that of their children, in any direction, they surely must arrive at a more rational conclusion.

Without any of the arguments herein adduced, common sense would lead one to conclude that when the life of a

drunkard, either father or mother, *is shared to become the vital force of an infant*, there is transmitted with it something which makes the new-born similar in many ways to the progenitors, and an easy prey to their passions and vice.

Rear the children of alcoholics well; base their dietetics, their morals, and education on the rock of science; let religious influences ever keep truth and refinement before their mind, and they *may* be sound mentally, physically, morally, though to live righteously may cost them continued mental struggle with the inherited impulses.

The Phrenological Journal for April is up to its standard in excellence, and contains an interesting sketch of Hobbs the "Lock-picker," a character of peculiar interest in America thirty years ago; is given also a portrait and sketch of Dr. H. A. Buttolph, one of the most distinguished of later-day physicians to the insane. There are other portraits and sketches of interest. Published by Fowler & Wells Co., 777 Broadway, New York.

CONSUMPTION. By N. S. Davis, Jr., A.M., M.D., Professor of Principles and Practice of Medicine, Chicago Medical College, etc. Philadelphia and London: F. A. Davis. 1891. [Price, 75 cents.]

This essay is a most valuable one and contains many useful hints even to the practitioner who is most assured that he knows about the subject already. The division of the subject is clear and extremely suggestive. While Koch's treatment is not mentioned, a great number of most valuable facts are grouped, and presented in such a way that a clear idea of the principles of treatment and prevention is apparent. For the busy practitioner such books are of much value and always are read, when larger and more pretentious works are put aside.

SYPHILIS IN ANCIENT AND PREHISTORIC TIMES. BY DR. BURET. Translated by A. H. O. Dumnesil, M.D. F. A. Davis, Publisher, Philadelphia. 1891.

This work attempts to show that syphilis dates from the creation of man. The argument and authorities are clear, and the evidence seems to establish the fact. A great variety of historic facts new to the general reader are gathered in this volume. A chapter on the treatment adds greatly to its value. To all students this little work is a welcome addition to the literature. The translator has given an excellent readable work, and has rather improved on the text in many places. Such works are always welcome as thoroughly studied grouping of facts, from which future students can draw larger conclusions.

The Popular Science Monthly, D. Appleton & Co., publishers, N. Y. City, is the leading authority of the scientific world. Every month's issue is read with increasing interest. Many of its papers contain the latest teachings of science appearing for the first time. Every month's issue is a volume of new facts and conclusions in science. The subscription price is five dollars a year.

PULMONARY CONSUMPTION A NERVOUS DISEASE. BY THOMAS J. MAYS, M.D., Professor of Disease of the Chest in the Philadelphia Polyclinic, etc., etc. Geo. S. Davis, publisher, Detroit, Mich. 1891.

This work attempts to show that the origin of consumption is in the nervous system. "The argument is based on these facts: first, that the children of consumptives are often hysterical; second, that many cases of pulmonary disease have been associated with diseases of the vagi, with bulbar paralysis, disease of the medulla, tabes dorsalis, and multiple neuritis; third, that there is a relationship between alcoholism and consumption; fourth, that there is a relationship

between syphilis and pulmonary consumption. These last two causes — syphilis and alcohol — he maintains, operate because they both have a special affinity for the nervous system, and produce the lung lesions through the pneumogastric nerves. Fifth, twenty-four post mortems on epileptics have shown pulmonary disease, and disease either of the vagi or of the medulla oblongata. Sixth, that diabetes, also beri-beri, leprosy, lupus, and pellagra have occurred in the same patients." While the reader may not be convinced by the evidence offered, he will realize that the author has strong reasons for this theory, and many very interesting facts which admit of no other interpretation. The author will be remembered by our readers for his excellent paper on inebriety and consumption which appeared in this journal some time ago. This little volume will be a welcome addition to the literature of consumption that should be read by every physician. This work is very concise and graphically written, and shows that the author is both a voluminous reader and clear thinker. It is published in the Physician's Leisure Library, and sold at twenty-five cents a copy.

MORPHINE: A Novel by Duburt Laforest. Waverly Publishing Co., N. Y. City.

The leading idea of this very Frenchy story is that morphinomaniacs have exaggerated sexual impulses, and spend a great part of their time to gratify them, while under the power of the drug. Also they are ready to commit crime from the slightest provocation. The author evidently has no idea of the effects of morphia on the average person, and has painted an unknown character in vivid unreal colors. The work has some value as a literary delusion, and many readers will see some merit or supposed truth in it. Such characters are unknown among morphinomaniacs in America.

The Bacteriological World and Modern Medicine, a large monthly edited by Drs. Paquin and Kellogg of Battle Creek, Michigan, is devoted to the general relations of bacteriology

and medicine. No other journal published contains more fascinating studies and suggestions for the physician who uses the microscope. This is the coming field of medicine, and this journal is a veritable guide book. Subscription is only two dollars a year.

THE MEDITERRANEAN SHORES OF AMERICA, OR THE CLIMATIC, PHYSICAL, AND METEOROLOGICAL CONDITIONS OF SOUTHERN CALIFORNIA. BY P. C. REMANDINO, M.D. Illustrated. F. A. Davis & Co., Publishers, Philadelphia, Pa. 1892. [Price, $1.25.]

A very attractive work, full of facts of interest to the scientists and tourists, and clearly essential to all who are interested in the Pacific coast and who expect to visit or reside there. Such works should be extended to cover all sections of the country.

MANUAL OF DISEASE OF THE NERVOUS SYSTEM. BY WILLIAM R. GOWERS, M.D., F.R.C.P., Professor Clinical Medicine, University College, London, England, etc., etc. In two volumes. Second edition. P. Blakiston, Son & Co., Philadelphia, Pa. 1892. Price, $3.50 per volume.

This very excellent work has been enlarged and rewritten with many new illustrations. The most interesting chapters to our readers are on *neuritis*, and cover over a hundred pages, containing the best description of this affection that has appeared in the English language. The rest of the volume is devoted to general and special diseases of the spinal cord, diseases of the membranes of the cord and degenerations of the cord. The reader is constantly impressed with the acuteness of observation and originality of thought in both the description and treatment of these complex diseases. He is never diffuse or dull, and marks of unusual care and pains to be concise and accurate are apparent on

every page. This is undoubtedly the best text-book published. We urge all our readers to procure a copy as an essential to every good library. This second edition is practically a new book, and brings the subject up to the present time.

RHEUMATISM AND ITS TREATMENT BY THE TURKISH BATH. By C. H. Shepard, M.D., Supt. Brooklyn Heights Sanitarium, Brooklyn, N. Y. 1892.

This is a popular and clearly written statement of the value of the bath and its physiological action in disease, and is a very welcome contribution to the growing literature of this subject, which, notwithstanding the very bitter opposition, is attracting increased attention and acceptance by all leading physicians. Dr. Shepard is the American pioneer in this field, and his writings have a special value and interest. Send to the author for a copy.

ADDRESSES AND ESSAYS. By G. Frank Lydston, M.D., Chicago, Ill.

This is a small work of clear suggestive studies of various medical topics of unusual interest. One on crime, its pathology, is a very strong plea for the medical study of criminals. The author is clearly an advanced student and thinker, and will be a great leader in the profession in the near future.

MANUAL OF AUTOPSIES FOR HOSPITALS AND INSANE ASYLUMS. By I. W. Blackburn, M.D., Pathologist of Government Insane Asylum. P. Blakiston, Son & Co., Publishers, Philadelphia, Pa., 1892.

The author has grouped the most practical facts, essential in the examination of the brain and nervous system, with excellent illustrations. The work is endorsed by the Association of Asylum Physicians, and is very valuable.

The Physician and Surgeon of Ann Arbor is rapidly growing, and promises to become the leading journal of the West. Send for a copy.

The Fifth and Sixth Annual Reports of the Pennsylvania State Board of Health for 1889–90 are two large volumes of over seven hundred pages each. The first volume gives a graphic history of the sanitary problems following the "Johnstown Flood," and several excellent papers on the sanitation of homes and surroundings. The second volume draws some very suggestive conclusions concerning the sanitary work demanded by great public disasters, and the needs and work of the state health boards. Excellent summaries are given of the great sanitary conventions of the country, also many of the best papers are given. Some excellent tables of statistics are presented, and the skilled work of the secretary is apparent on all the pages. These two volumes are very valuable contributions to the sanitary science of the world, and alike creditable to Dr. Lee, the well-known secretary, and the American scientists at work in this new and startling field.

THE SUPREME PASSIONS OF MAN, THEIR ORIGIN, CAUSES, AND TENDENCIES. BY PAUL PAQUIN, M.D., Editor of the *Bacteriological World.* Battle Creek, Michigan. 1891.

In this volume of 150 pages the author has presented in plain language an argument to show that the primary forces of inebriety and lawless passions come from inherited tendencies of the cells, and their derangement of bad foods and stimulants. Rich foods in excess derange the brain and moral powers, and lead up to disease, crime, and drunkenness. If these facts were studied, he urges that science could effectually cure and prevent many of the present evils. The idea is clearly brought out that inebriety begins with impressions on the cells from alcohol formed in the stomach and intestines by microbic fermentation of undigested food. While the work contains many very radical views and start-

ling suggestions, it is full of outline truths that will be farther elaborated in the coming century. Such volumes are always welcome to the scholar and scientists not for their completeness, but for the possibilities and range of facts that appear far away, awaiting further study and development. It is a contribution to the literature of inebriety that deserves a wider study, and we commend it to our readers.

The Nineteenth Annual Meeting of the Franklin Home for Inebriates of Philadelphia, Pa., shows signs of some evolutionary progress. The *vice* theory of inebriety is less prominent. The use of physical means and measures are growing in practical importance. Three hundred and thirteen people have been under treatment during the year. One hundred and forty have reformed or been cured, and sixty much benefited. The management seems to have been prosperous. The medical side of the report occupies only two pages, while the moral side is spread over forty pages. This is a sad commentary on nineteen years' experience. Fortunately the times will demand something more than this in the near future.

ALCOHOL AND TUBERCULOSIS; By Hector W. G. Mackenzie, M.A., M.D., Assistant Physician to the Brompton Hospital for Consumption, etc.

From the histories given by patients, and from the evidence afforded by post-mortem examinations, the conclusion has been forced upon me that tubercle is more common among the alcoholic than is generally believed. I have collected from the post-mortem records of St. Thomas's Hospital for the past thirteen years 75 fatal cases of tuberculosis in which there was a strong history of alcoholism; in only 10 of these was there any history of phthisis in the family; in 46, or in over 60 per cent., the liver was cirrhotic. These cases by no means include all the intemperate who died with tubercle.

In a considerable additional number of other cases of tuberculosis there was a strong suspicion of alcoholism. All doubtful cases, however, have been purposely omitted. In 4 cases tubercle affected the peritoneum alone, in 1 case the pleura alone, and in 3 cases the peritoneum and pleura alone. In the remaining 67 cases the lungs were affected; in 47 of the latter there were vomicæ; in many of these the vomicæ were small and multiple, it being rather the exception to find a case of considerable excavation. In 29 there was broncho-pneumonic consolidation; in 12 there was increase of connective tissue; in 43 there was gray tubercle present; in 19 there was caseous tubercle, the two varieties being both present in 11 cases. There was also tuberculous ulceration of the intestines in 21, of the larynx in 13, tubercle of the pleura in 5, tubercle of the peritoneum in 12, of the meninges in 5, of the kidneys in 8, of the spleen in 4.

It may be concluded from these facts that the commoner type of alcoholic phthisis is a combination of excavation with broncho-pneumonic consolidation, and that there is usually a considerable deposit of gray tubercle present in the lung. The fibroid change is the rarer form, occurring in only 12 out of 67 cases. In a large proportion there was tubercle present in other organs. The peritoneum was affected in a total of 19 cases. 59 of the cases were males, 16 were females, a ratio of about 4 to 1.

As regards the ages of these patients, they were in 12 cases over 20 years of age and under 30, 25 cases over 30 and under 40, 25 cases over 40 and under 50, 7 cases between 50 and 60, and 5 between 60 and 70. In the remaining case the age was 73. The reason for the number of cases being greater in middle life than in early adult life is probably because alcoholism is more frequent at that period than at an earlier one, and also because the longer the habit is indulged in the more susceptible the patient becomes.

The duration of symptoms in the 29 cases uncomplicated with cirrhosis was doubtful in 13, six months or less in

13, sixteen months, eighteen months, and three years respectively in the remainder, giving an average duration much below the average.

My experience among out-patients at the Brompton Hospital is that a considerable proportion of the phthisical — especially of the men — have been alcoholic, and I should say that a history of alcoholism is a very common antecedent in those cases where there is no inherited susceptibility to tubercle. As regards women, it is impossible to say to what extent alcohol is responsible for the disease, it being very uncommon for a woman to own to alcoholic habits.

In alcoholic cases the condition of the patient is generally worse than would be expected from the amount of disease revealed by physical examination. It is therefore specially important in such cases, when there are any chest symptoms, to examine the sputum for bacilli. By this means I have been able to make an early diagnosis of phthisis when the examination of the chest was negative. In alcoholic cases I have found that the progress of the disease, as a rule, is rapid, and the prognosis particularly unfavorable.

The belief that, as regards people of any age, alcoholic drinks in excess act as a preventive of tubercle I consider not only not borne out by experience, but altogether contrary to it. Without post-mortem examinations conclusions as to the absence of tubercle are fallacious and of no practical value.—*British Medical Journal.*

The fear of increasing drunkenness and lessening the responsibility of the inebriate by admitting that he is diseased, has roused renewed anathemas from some sadly belated physicians. Like the heresy-hunters in the theological world, they have no faith in the survival of truth by its own inherent force. Their efforts to cut down error and give truth a chance to live, are comedies of the most picturesque character.

Editorial.

THE HEREDITARY ALCOHOLIST.

The *Fortnightly Review* recently published a very striking paper "On Phases of Crime in Paris," which confirms many of the disputed facts that have been urged in this JOURNAL. All persons arrested in Paris, whose violent crime or mental state creates the suspicion of lunacy, or impaired brain power, are sent to the *Dépôt* of the *Palais de Justice*, where they come under the examination of the eminent Dr. Garnier, the chief medical expert of the police. Here they are divided; some sent to prison, and others to the lunatic asylum for further examination.

Dr. Garnier asserts as the results of sixteen years' experience, that lunacy has increased in Paris in the proportion of 30 per cent. This increase is due to the fact that two morbid types, general paralysis and alcoholic insanity, are spreading to an alarming extent. The progress of alcoholic insanity has been so rapid that the evil is now twice as prevalent as it was fifteen years ago. Almost a third of the lunacy cases observed at the Dépôt Infirmary are due to this disease, and every day it declares itself more violently, and with a more marked homicidal tendency. The accomplice of two-thirds of the crimes committed, upon whom the criminals themselves throw the responsibillty of their evil deeds, and whom the police never succeed in discovering, exists. That accomplice is alcohol! It visits upon the child the sins of the father, and engenders in the following generation homicidal instincts. During the last ten years the criminal type has entered on a new phase. Before that date the assassin was generally a man in the vigor of his strength and manhood; he had tasted life in all its forms. Nowadays, it is the youth of barely twenty who murders. The jurymen

hesitate to condemn him on account of his youth, although they are horrified at his cold-blooded ferocity, and at the absence of moral sense which he displays.

Since I have frequented the haunts of misery and vice in Paris, I have observed gutter children by the hundred who are only waiting their opportunity to become assassins.

The psychology of such incomplete beings has never been described. Physiology is content to point out the morbid cause of such vices, and leaves to other sciences the task of inferring their moral consequences.

We have all been taught at school that the different manifestations of human activity may be classed under three heads: Will, Intellect, and Emotion. It is needless to state that such a definition is not to be taken too literally. We may, therefore, without fear of ridicule, turn to the old classical division and ask ourselves whether the being whom doctors designate as an hereditary alcoholic is in the full enjoyment of his intellectual, emotional, and voluntary faculties, the perfect balance of which engenders responsibility.

The will is a point outside the argument; these depraved street boys are often endowed with a greater share of energy of will than are numbers of honest folk. And, moreover, I should say that to pass from the conception to the execution of a crime, requires a courage superior to ordinary bravery, and which may even be compared to the daring shown on the battle-field. We are often surprised to find murderers brought up for trial at the assizes, who have been particularly noted for bravery by their commanding officers. It is certainly no moral motive that moves such persons to deeds of valor, but the instinct of prompt decision of bold and violent action, the outcome of their temperament. The first effect of that disease of the will, so-called, is to produce a distaste for any action, however easy or habitual. With these mental invalids the unused faculties waste away the same as unused limbs. They become sluggards, cowards, suspicious and equivocal characters, thieves, and vagabonds generally.

As a rule, the hereditary alcoholist is not only very obsti-

nate, but very intelligent. He may show great skill and shrewdness in the planning and execution of his crime, and in the defense of it in court. Moreover, there is a terrible flaw in these young wretches, a flaw which doctors do not observe, but which the psychologist sees clearly and notes with alarm. It is in the emotions, in the natural affections, that the evil is to be discovered. In French a word used to denote defect of will is called anesthisic. Another expression is mental alienation, but no word exists which describes absence of affectionate emotions. It is a fact, however, that if these criminals are neither anesthetiynes nor lunatics, their characteristics are insensibility and pitilessness. The hereditary alcoholist has no natural pity or tenderness, seldom any moral suffering or regret. Crimes and wrong doings are talked about as trifling events of no special consequence. While education may possibly develop an emotion of pity, it is powerless to create it if it does not exist. As an example of this type of criminals born of inebriate parents and deficient in moral sensibility, the following case is related:

A few months ago I was present in Dr. Garnier's consulting-room watching the prisoners from the dépôt filing past. We were informed that a child had been brought by its parents to be examined. These people were shown in; they belonged to the respectable working class, and were quiet and well-mannered. The man was the driver of a dray belonging to one of the railway stations, and had all the appearance of a stalwart working man. The boy was bare six years old; he had an intelligent, rather pretty face, and was neatly dressed.

"See here, Monsieur le Docteur," said the father, "we have brought you our boy; he alarms us. He is no fool: he begins to read; they are satisfied with him at his school, but we cannot help thinking he must be insane, for he wants to murder his little brother, a child of two years old. The other day he nearly succeeded in doing so. I arrived just in time to snatch my razor from his hands."

The boy stood listening with indifference and without hanging his head. The doctor drew the child kindly towards him, and inquired :

"Is it true that you wish to hurt your little brother ?"

With perfect composure the little one replied,

"I will kill him — yes, yes — I will kill him !"

The doctor glanced at the father, and asked in a low voice, "Do you drink ?"

The wife exclaimed indignantly,

"He, sir ! Why, he never enters a public house, and has never come home drunk."

They were quite sincere. Nevertheless, the doctor said,

"Stretch out your arm."

The man obeyed ; his hand trembled. Had these people told lies, then, in stating that the man had never come home the worse for drink ? No ; but all through the day, wherever he had called to leave a package, the people of the house had given him something to drink for his trouble. He had become a drunkard without knowing it ; and the poison that had entered his blood was at this moment filling the head of his little child with the dreams of an assassin.

The question is, how far education can alter so depraved a nature. Experience proves that it is much the same with these moral deformities as with the physical deformities of rickety children. After miracles of treatment, after painful operations, after the torture of orthopœdic treatment, the surgeon shows you with pride comparative photographs representing the little patient at intervals of some years. The curved bones have been straightened, the rigid muscles have been snapped ; but the child remains after all a weakly creature. For instance, what amount of educational discipline could have transformed the youth whose painful story I am about to relate, into a good citizen ? Here, as is the case with all the children of drunken parents, it was not merely adventitious habits ; it was the very marrow, so to speak, of consciousness, the essential constitution of the being, which would have had to be changed.

This wretched boy was named Joseph Le Page. He was not quite seventeen when he committed his crime. At the time Dr. Garnier first made me acquainted with him, his mother had recently died of consumption. Weak in character and worn out by a lingering illness, she had been unable to look after her children. Joseph grew up as best he could between a dying mother and a father who, although hard-working, was addicted to drink. When Joseph left school, where he had shown himself an intelligent but undisciplined pupil, his father taught him his own trade, which was the manufacture of dog whips. The boy was not wanting in ability, and in a short time could earn four francs a day. But regular habits were intolerable to him, and whenever he managed to scrape together a small sum of money, he deserted his father's shop, and frequented the public houses and the neighboring fairs.

The father, having fallen ill, had to go to the hospital at the beginning of the winter. Joseph was left destitute. Some neighbors, a married couple, who belonged to the same trade as his father, took pity on him. The man was an honest sort of fellow, and his wife was kind-hearted and much respected in the neighborhood. They had a child eighteen months old.

One morning Joseph, in the absence of the husband, made an attempt to murder the young woman. He wanted to steal eight francs she had hidden under her pillow. He attacked her as she lay asleep, and when, suddenly aroused by pain, she screamed for help, he made off without having fully accomplished his object. After being arrested, he was confronted with his victim, at which he manifested not the slightest emotion; and, clenching his hands, he vociferated with rage,

"Give me a knife that I may kill that woman, so that I shall not be punished for nothing. I am quite ready to begin again. It is true that I am crying, but only with rage."

Four months later, when Joseph Le Page appeared at the assizes, he was still in the same state of exasperation, and full of murderous intentions.

Dr. Wright has brought out the same fact of palsy of the higher brain centers from alcohol; and the consequent incapacity to act rationally and along lines of ordinary sensibility. The alcoholic is crippled, and his descendants suffer in the same way, only such causes are overlooked.

THE SAME OLD STORY OF EMPIRICISM.

Whenever a new territory is opened for settlers, the imperfect knowledge of its soil and resources creates a mystery which attracts crowds of squatters, fortune hunters, and irregulars. Such persons rouse great expectations, build canvas towns, and make a great show of permanent settlement, and attract crowds of credulous followers, only to prey upon them; they never become settlers, never develop the country, never point out its soil or resources. The same thing occurs along the frontiers of science. The same army of squatters, quacks, and fortune hunters rush over into the new territories indicated by scientists, and with brazen effrontery and startling assumption, seek to build up settlements of facts, and profit by the credulity of their followers.

These men are never scientists, never discover new truths, never develop new lands, and always disappear when the real army of occupation arrives. The recent alleged specific for the cure of inebriety, is a repetition of the same empiricism following along the frontiers of civilization and scientific advance.

Within a recent period, the increasing prominence of inebriety has attracted scientists, who have studied anew the question of disease, confirming it with additional evidence, and thus outlining a new territory of possible cure and prevention. The bitter opposition to this theory, and the practical work of a few pioneers sustaining it, have invested the subject with confusion and mystery, that is a real *El Dorado* for the quack and charlatan.

In meantime, the army of poor victims and their suffering friends are watching and waiting with tremulous expect-

ancy. Thus the soil is prepared, and all the favoring conditions are slowly gathering to welcome the stage of credulity which always follows the opposition and denial that greets every new truth in science.

Empirics and empiric remedies have been gathering for a long time, finally one of these specifics leads all the rest in prominence. As a novelty it starts from the standpoint of science, "that inebriety is a disease," then plunges into the same old mystery, and the same old assumptions of some great discovery, of new facts in disease, and some new properties of a drug that has been studied and tested for many centuries, all of which are concealed by the discoverer. The same claims of the most extraordinary results, explained by the most startling theories, whose very simplicity is bewildering, are urged along the same lines and in the same way as all other empiric remedies.

The narcotism and chemical restraint which follows the use of this unknown drug, is interpreted as a cure because it temporarily checks the drink impulse. This brings out the same old delusion of permanent cure which follows every temperance revival and every effort by pledge and prayer. Thus the same history is repeated in the boastful, confident assertions of cure, and relapses only to be cured again, which has been noted from the time of the Washingtonian movement down to the present. The public, and often physicians, credulously accept the statements of the poor victims as true. Even medical journals have gravely discussed this last specific with no other evidence than the statements of victims; persons who have abstained from all use of spirits many times in the past, each time confident of cure, then relapsing as before, and finally appear as examples of permanent recovery by the last specific or remedy. Thus, both medical and secular press have become free advertising mediums for a nostrum whose sole purpose is to enrich the authors. It is a curious reflection on the intelligence of the times, that the same old boasted discoveries of new remedies, concealed and enveloped in mystery, claiming miracu-

lous results, and demanding, first of all, full pecuniary rewards, should be recognized or attract any prominence. The time has come to ring down the curtain on these *charlatan shows.* The childish credulity and expectation of the public for marvelous remedies ought to pass away and be directed to a higher conception of the operations of nature. The day has come for the recognition of the new realms of physiology and psychology above all mystery, and new light on the operations of the brain and its diseases.

While *Columbus* is still sailing on unknown seas towards new lands away in the horizon, no landsman can ever point out or describe the new continents. The vaunter of specifics may fill the air with boasts of discoveries and theories and claim marvelous results, but the evolutionary march of events will quickly test and bring all things to judgment.

The quacks and squatters will disappear, and then only the true scientists will occupy and develop the new territories before us.

NOTES OF TREATMENT.

Inebriates under treatment in asylums divide naturally into three classes. Probably the largest number are those who have tried every other means for relief and failed, then go to the asylum as a last resort. They are practically incurables, and paranoics of every degree, with the most complex symptoms of brain and nerve degeneration. After a short residence in the asylum, and improvement of general health, they manifest an unusual confidence in their final recovery, and are very emphatic that they will never drink again.

The asylum methods and management are praised with hysterical enthusiasm, and unbounded gratitude is displayed for everything that is done for them. They seek every opportunity to extol the methods and remedies used, and claim superior strength and will-power for the future. Very soon they demand unusual confidence, and liberty to go out at all

times, and are indignant at the slightest suspicion or doubt of their strength.

After a time this class of patients always relapse, and become bitter opponents of the asylum and its management. They exhibit a malicious pleasure in denouncing asylums and every method for the cure of inebriates. Their former enthusiasm turns to bitter, unreasonable hatred. Their favorite charge is that all such asylums are mercenary and dishonest, and concealed drinking places, where every patient has all the spirits they wish, and the pretense of cure is a fraud.

Often this class influence public sentiment, and even professional men have become prejudiced by such statements.

This class are always the most vociferous defenders of every new remedy or plan of treatment that appears and equally unreasonable in condemning them. They are always posing as examples of the power of the pledge, prayer, faith cure, specific cures, and asylum, then sneering at and denouncing these means.

The *second class*, after a short residence, manifest great skepticism and doubt of the power of the asylum to help them in any way. They are confident that a great mistake has been made in placing them under medical control and care. Their reputation is injured, and the asylum (no matter what its influence may be) is injurious. They display an irritative depression and diseased egotism that infects all their surroundings. They are the open or concealed opponents of every rational effort for restoration.

They are intriguers not so much for spirits as to defeat the plans of their friends. Unlike the first class, they never praise any present means or efforts, but are always looking forward to something to come. Such persons have marked defects of the higher brain centers, and at times drink to great excess, then abstain in the most adverse conditions, giving the most extraordinary reasons for such conduct.

They freely condemn asylums and the disease theory, and are not unfrequently devout moralists and church mem-

bers, and usually are concealed drinkers. They are moral paralytics, and often display some intellectual vigor and physical capacity, and frequently form public sentiment on the drink question. Often they are violent partisans of the most radical temperance measures.

A *third class* come to the asylum in great depression, and seldom exhibit buoyancy of spirits, but continue to the end of the treatment in quiet melancholy. They shrink from all publicity and seldom fail to use every means for recovery. This class go away without enthusiasm of perfect cure, and disappear in the ranks of active workers. They rarely relapse; but if they do, always return to the asylum in the most secret way, and after treatment disappear again. Such persons seem to suffer from profound brain exhaustion, and shrink from all publicity of their condition. Many very strong men are of this class, and are only known to the asylum managers.

These three distinct classes are seen in every asylum, together with various sub-classes, illustrating all phases of psychical and physical brain degeneration. Not unfrequently the drink craze dies out in persons of the first and second classes, and a delirious egotism follows, in which they become advocates and defenders of theories and methods of cure, offering themselves as examples. Such men are always practically unsound and unreliable, and yet they lead and mould public opinion on many of these questions. The curable cases in the third class are unknown. Asylum managers are very sure of hearing of the relapses of the first two classes, for the reason they seemed possessed with a morbid idea of making their failures prominent to the discredit of the asylum. The third class conceal their state until they appear at the asylum for treatment. The delusions and superstitions which invest the scientific study of the inebriate to-day, spring from, and are fostered by, these paranoic incurables. It is a curious fact that public opinion of asylums and methods of treatment should be based almost entirely on the statements of incurables.

THE MASSACHUSETTS HOSPITAL FOR DIPSOMANIACS AND INEBRIATES.

This institution is being erected at Foxboro, a little village twenty-two miles south of Boston, on the Old Colony Railroad. Four large buildings are in process of construction, being built of brick with granite basement and trimmings. Three of the buildings are to be cottages or dormitories, and the fourth one will be the dining-room, with the boiler-house and bath-rooms in the rear. Each cottage will contain, beside a dormitory, twenty-three sleeping rooms and day rooms with rooms for assistants.

These cottages will be lighted by electricity from the boiler-room, and heated by hot air.

One hundred acres of land are attached to this asylum, and will be cultivated by the help of the inmates. The superintendent, Dr. Hutchinson, will have a separate residence built near this group of cottages. It is proposed to enclose ten acres about the cottages with a high fence, and make an attractive park of this for the inmates. It is intended to charge all for board and treatment, and when the patient is unable to do so, the town or city where he has a legal residence must pay. All patients will be required to aid in the farm operations when they can. These buildings will accommodate two hundred inebriates, and will cost one hundred and fifty thousand dollars when completed. It will be opened for the reception of patients in the coming fall.

The first patients will be transferred from the insane asylums of the State. The superintendent has a large experience in hospital work among the insane. But he will find the task of managing the inebriates far more difficult, and the best skill and wisdom of the entire management will be taxed to its utmost to put this institution in successful working order.

While this hospital will start with many superior advantages, the public and friends will expect too much, and be disappointed, forgetting that the managers have to learn how

to take care of these victims, and only through long experience and some failures can they have a successful institution. While the methods and forms of management may change, the institution will live and go down into the future a monument to the scientific foresight which projected and organized it.

CANADA INEBRIATE ASYLUM.

The *Homewood Retreat* was opened at Guelph, Ontario, in 1882, under the care of Dr. Lett, and has been managed with great success up to the present. In a recent editorial in the *Canada Practitioner* the following excellent notice is given:

"It has a capacity for forty patients, receiving females as well as males, and since the opening has admitted 316 patients, 191 of whom are classed as alcoholic or narcotic inebriates, and 125 as insane.

"It is the pioneer institution in Ontario, and has demonstrated the fact that many such cases are curable when submitted to proper care and treatment, while it is only in an institution of this nature that suitable treatment can be obtained.

"In the treatment of the opium neurosis, Dr. Lett is an ardent advocate of the method known as "gradual reduction," and censures those who advocate the heroic method of "abrupt withdrawal," which he characterizes as barbarous, inhuman, unscientific, and unnecessary, while the marked success which has attended the former method of treatment presents to the unhappy victims of this terrible disease the cheering prospect of emancipation from their terrible enslavement.

"Regarding alcohol inebriety, the medical superintendent consigns the vice theory to the tender mercies of the clergy, philanthropists, and other well-meaning people, and places chronic alcoholism upon the scientific basis of a disease, or true neurosis. He asserts that it is amenable to treatment

in the same sense as other diseases are, which must be conducted on principles in harmony with the scientific knowledge of the present day. Many who have been so treated have led regular lives since their discharge. They have successfully followed their various vocations, and have again taken their places as useful members of society."

The *Deer Park Sanitarium* is located at Toronto and is intended exclusively for alcohol and opium cases. It has only recently been opened, and has rooms for forty patients. The building and grounds are of unusual taste and completeness; having for many years been the home of a very wealthy man, the location, rooms, and surroundings are very attractive. The superintendent, Dr. Elliot, is to be congratulated on having secured such rare facilities for the Home treatment of these cases.

The board of management comprises some very eminent men. *The Practitioner* says of them: "This board are prompted more by a desire to assist a large unfortunate class of sufferers than any hope of great pecuniary profit. Such establishments have done much good in various parts of the world; and we hope, under modern methods of treatment, will do more in the future. It is needless to add that this admirable institution to which we have referred should have the cordial and hearty support of the profession."

These pioneer asylums are worthy of every assistance and aid, for the facts they will gather will be the key to unlock the mystery of the drink problem.

THE number of arrests for drunkenness in New York city for 1890 were 31,584; in Philadelphia the same year, 24,661; in Boston, 1889, 24,000; in Chicago, 31,164. Over 500,000 persons are annually arrested for drunkenness in this country is the estimate of the census department.

Clinical Notes and Comments.

ALCOHOLISM AS A CAUSE OF INSANITY.

The Second Annual Report of the New York State Commissioners on Lunacy, embracing the reports of the city and county asylums from Oct. 1, 1888, to Sept. 30, 1890, gives the ascertained causes in 1,208 cases, out of the 2,005 cases treated during the above period. Of these 1,208 cases, 300 were assigned to alcoholism as the primary or primary associate cause, equaling, and, in some instances, greatly exceeding in others as a cause, all the so-called moral causes, as fright, business reverses, disappointed affection, religious excitement, etc.

What proportion of the unascertained causes could be attributed to alcoholism, we cannot state, but the evidence favors the fact that twenty-five per centum, or about one-fourth of the ascertained causes are attributed to alcoholism, a proportion that places *alcoholism at the head of the list of the ascertained causes of insanity;* in other words, one person in four becomes insane from the use of alcohol.

If alcohol as a cause of insanity were removed, it would reduce the number of inmates of our asylums one-fourth. These statistics are from the poorer classes that fill our pauper institutions. What would the record be, if our private asylums and retreats for the insane should give similar statistics? The records of the action of alcohol on the higher grades of nervous organizations as the destructive influence of alcohol, is not confined to the pauper. We are satisfied that the above records do not give as large a percentage as could be shown if all asylums and retreats were properly classified and observations made based on careful statistics. I. D. M.

ALCOHOLIC TRANCE.

The extraordinary interest and mystery which surrounds these cases deepen with every new history. So far, it has not been possible to study the histories minutely in many cases, and only a few outlines are established beyond doubt. The following case was printed in the *Record*, contributed by Dr. Hubbard, and is a graphic picture of this condition written by the person who suffered. We have added a second case equally interesting, only wanting in details, also described by the person who suffered, and fully sustained by the statements of others who knew the person and facts.

"In 1862, after the Army of the Potomac returned from the Peninsula, all of it moved to the front to take part in the battle of Antietam except the Third Corps, to which I was attached. That corps was camped near Alexandria, around Fairfax Seminary. In the campaign of the Peninsula my battery was much reduced; and while camped near Fairfax Seminary, I received a large detachment of recruits. I then had four Napoleon guns, and the men received made my battery strong enough to increase the equipment to six guns. Accordingly I made requisition for two Napoleon guns and equipment, and for the horses required. The requisition for ordnance stores required to be approved by several officers. First by Captain Webber, the Chief of Artillery of the Third Corps, and commanding Battery H, First United States Artillery; next by Gen. Sickles, commanding the Third Corps; then by the Chief of United States Artillery, at that time General Howe, in Washington; next by the Post Ordnance Officer at Washington, Captain Harris; then taken to the Ordnance Bureau, in the Winder Building, where the requisition would be copied and an order given on the arsenal for the ordnance stores. This routine I knew perfectly, having gone through it many times.

"Upon the day I went to Washington to have the requisition approved and get the order for the ordnance, I had the requisition approved by the Chief of Artillery of the

Corps and by General Sickles; Lieutenant Dimmick, of Battery H, First United States Artillery, accompanied me to Washington. As usual, we rode over on horseback, and having put up our horses we went to Gautier's restaurant and called for dinner. We ate our dinner and with it drank two quart bottles of champagne, that is, one quart each. At sunset we rode back to camp, getting there at dark. My recollection of all that occurred after the dinner is distinct, and subsequent events fixed it in my mind. Having finished the dinner, I went to General Howe and had the requisition approved; then to Captain Harris, who approved it; then to the Ordnance Office, to General Dyer, who ordered the copy made, and secured the order for the stores; then I went to the arsenal, presented the order, and was told to bring the horses on the following Wednesday, when the stores would be ready. According to custom the order was filled. This was a half-day's work, and occupied all the time between the dinner and the time to return to camp. Of all these things my recollection was, and is, perfect. The facts appear to have been different, and the wine must have been the cause.

"On the following Wednesday, with the necessary men and horses for a section of guns, I went to the Arsenal for the stores, and called for the order. I should have said before that I knew every officer in the routine of approval of the requisition personally and quite well. The officer in charge looked over his list of orders and did not find it. I said it was there, and told him what kind of paper it was made out on, white with a blue tinge, that I recollected the paper perfectly. He ordered the search made again, but with no better success, and asked on what day I left the order. I replied on Friday. He said he was in all that day and did not recollect seeing me. I told him I was there, saw him, and talked with him; but as it was late, I left soon. He said he could not account for it, as he could have given me the equipment as well on Saturday or Monday as on Wednesday. I thought he was in error and had mislaid the order, but I could not get the equipment without the order,

and leaving the men and horses at the Arsenal I returned to the Winder Building, told General Dyer that they had mislaid the order at the Arsenal, and asked that another be made from the requisition. He directed a clerk to get the requisition, but it was not to be found. I insisted that I had taken it there, and had waited for the order to be made, and had taken it to the Arsenal. Another search was made with like results. General Dyer said he did not recollect seeing me Friday. Still there was no doubt in my mind, as my recollection was perfect. I went to Captain Harris's office and asked for the record. He examined his books and found no record of it, nor did he remember of my being there on Friday. Still I told him I was correct, and he again examined his books, but found no entry. I then went to General Howe's office and asked for a memorandum of the requisition. He examined his books and found none. I spoke of being there on Friday, and he did not remember it. To this time I had not once thought of the explanation. I was confident of every step I had taken, and could only think that each officer was in error. Meanwhile, during the entire day, my men and horses had been standing at the Arsenal.

"In riding from General Howe's office to the Arsenal, the truth first came to me that I had been drunk from the wine, and the day's work was altogether one of imagination. Knowing the routine, my mind had assumed the doing of the work, but it had not been done. I then tried to unravel the mystery in my own mind. I felt in my pockets for the requisitions, which if I had not used on Friday I was so confident of having. I had not even attempted to look at these papers during the day — but did not find them, nor did I ever find them or know what became of them. I then examined my pocket book to see if I had lost any money, which I had not noticed. I found I had not. I had had no use for money, and what I took to Washington on Friday I had there on Wednesday, so I was sure I had not been on any carouse or been robbed. I attempted to account for my time between the dinner and the time I met Dimmick by appoint-

ment made after the dinner, and which I kept, to go to camp together. But no light came. I could account for every minute of the time in my own mind, but it was the routine with the requisition. But now I knew that I had not done that work. No other light came to me then, and never has to this day. I found the men and horses at the Arsenal, then near night. I gave them only the brief military information that there was an irregularity in the requisition and took them back to camp.

"I never at any time had been intoxicated, and then had no recollection of feeling any symptoms of it at the time I drank the wine. As soon as occasion offered, I made such inquiries of Lieutenant Dimmick as would give me the information I needed to satisfy my mind about that Friday afternoon. He saw no indications of intoxication, but it may be assumed that he was also more or less intoxicated, but I do not think he was beyond a full appreciation of everything that passed. His recollection agreed with my own as to making the appointment to meet at a certain hour to return to camp together. This appointment was made after dinner, was kept to the minute, and we returned together. I did not remain at Gautier's restaurant, but went out with Dimmick, and together we went to the stable and got out our horses, he riding off one way and I another. At the appointed hour we came together again and rode to camp. After the attempt on Wednesday to get the guns, and failing, I made out another requisition, and, of course, got the approvals without drinking wine in the intervals between the different officers approving it.

"What became of that half-day is a great mystery to me. I have thought of it many times and followed it through in all I could remember. Sleep would be the most natural explanation, but where could I have slept? I got my horse with Dimmick when he got his, therefore I could not have been in the restaurant. I would not have been permitted to sleep in any irregular place, for Washington was patrolled every hour in every part. My clothing showed no indication

of having been lain on, and if I called at any officer's quarters and slept the effects of the wine off, I never heard it alluded to after. I did not go to a hotel, or I should have missed money enough from my pocket-book to have at least paid the bill. There is but one solution that I could ever think of, and that was that I went to sleep or became oblivious on horseback, and having a good horse and being a most excellent rider I went from place to place in so regular a movement that the patrol did not even discover that I was not in perfect control of myself. This may have been so, as I had and have since frequently slept on horseback while marching with my command. The afternoon having worn away, I recovered myself, and finding by my watch that it was time to meet Lieutenant Dimmick, I did so as agreed upon. But even this solution is the merest supposition, as I could never in the most remote sense solve the mystery of that afternoon and what I did while under the influence of the wine.

"Lieutenant Dimmick was killed by my side at Chancellorsville, May 2, 1863."

The above memorandum was written in 1865. A gentleman of prominence and wide experience having read the above statement made this memorandum on it: "It is certainly an interesting experience, and it illustrates, as in many other ways I have seen illustrated, how it is possible for men in courts of law to swear to things that never occurred, with perfect honesty and with the most positive assurance of certainty."

The second case was Peter ———, who came from a neurotic family. Moderate and excessive drinking, consumption, and hysteria had been common in the family. His childhood was healthy, and after a common-school education, he went to work in a packing-house at Cincinnati at sixteen years of age. Four years later he became a traveling man for the firm, selling pork, hams, and lard. About this time he began to drink in moderation and with his customers. He was a methodical, careful man in both personal

and business habits. At twenty-five he became a partner, and at thirty he married, and was noted as a cautious, prudent business man, who drank regularly every day. He was never seen intoxicated, and never made any large business transaction without consulting with other members of the firm. The firm became involved in difficulty with a passionate, unreasonable drinking man, and Peter was sent to settle it. His drinking habits were supposed to be a special qualification for this work. Negotiations were begun Tuesday, and continued for many days before the settlement was effected. The work consisted principally in visiting and riding about, drinking and talking with this man, together with champagne dinners. Both of them drank largely and were intoxicated nearly every day. Peter never became stupid or seemed to forget his situation. After drinking to excess, he would go to the hotel and sleep for a few hours, then appear again as usual. He remembered all the events of each day and kept a note book, recording expenses and notes of where they went. When not in the company of the man, he called on some old customers and persons in the same business and talked on business and the markets. This he remembered, and also his refusing to accept hospitalities and invitations to ride out with them. He remembered buying some clothes (an unusual thing), yet he was pleased with a new fashion which was just brought out, and his taste was praised by the person he was trying to effect a settlement with. He also remembered taking two Turkish baths and feeling very much better after. At the end of seven days he completed the business, telegraphed the firm, and went to his home for a week's rest. On reaching the office at the expiration of this time, he was congratulated on the success of the enormous purchases he had made. He was astonished to find that he had purchased large lots of hams and lard, and contracted for the entire product of two large firms at a certain price, and had made special written contracts. He could not recall any of these events or any circumstances associated with them. His note book contained no reference to it. All

of the purchases were made in the afternoon. He remembered to have gone to bed from excess of spirits after dinner nearly every day. He was not clear as to time of getting up, but recalled his going to the barber to have his head shampooed to relieve a bad feeling. He seemed to have gone to bed in the hotel nearly every afternoon for an hour or more after dinner, then took a drive or walk before the time of the evening meeting with this man. He probably, after sleeping a short time, arose, went out, and made these purchases, then after a time his memory came back, and he supposed that he had just arisen. He read the market reports in the daily papers, and called on some friends who were in the same business, but he could not remember that he was interested in the price of hams, or that the markets of that week differed from others. There were no reasons to suppose any one had suggested the idea of buying largely on the supposition of a rise in prices. One of the persons from whom he made a large purchase said that he called in the afternoon, and inquired the lowest price for their entire stock, and after a few moments' deliberation bought it. He seemed sober and perfectly rational and talked of other topics equally clear. That same afternoon he called on two other firms and purchased large bills, equally rational in manner and appearance. The next day, about the same time, he called on three other houses and made similar purchases. These contracts amounted to nearly half a million dollars, and were very unusual for this firm. When asked why he bought so heavily, said they had a large foreign contract to fill. A rapid rise in the price of hams made this transaction very profitable; but when the purchases were made there was no reasonable prospect of change in the markets. He had exhibited clearness of mind and full consciousness of his acts in making contracts to take all the products of two firms at a certain price. The transaction was very rational and apparently advantageous to the firms, who did not expect any particular advance of prices. The contracts were clear and explicit, and the

reason given was that foreign orders had come to the firm. The firm were not apprized of these orders until after they were all completed; and although they were very unusual, they waited for his return to personally explain. In the meantime a sharp rise began of prices, and their anxiety changed to joy. The most unusual thing was buying without consulting the firm, and giving drafts to mature a few days in advance. He had on several occasions within the past two years purchased little presents for his wife and sent them, and had no memory of these acts or any circumstance connected with it.

When he comprehended the magnitude of these acts and the peril that might have come to the firm, he sold out his interest and went under medical care. He considered it insanity and could not believe that he was not different in manner and appearance at these times. He recovered and for two years has been in active work, and is living a very temperate life.

These two cases are important contributions to the rapidly accumulating literature, and show the uncertainty and doubt of transactions made while under the influence of spirits.

For the obscure and very complex symptoms following La Grippe, the *Bromo Potash* of *Warner & Co.* is unequaled. It can be given freely for a long time with no danger to the system, and should be tried above all other remedies.

If one-half the expense that is now annually incurred in protecting society from the inebriate and his degenerate offspring was appropriated for the building of inebriate asylums, the inebriate would soon cease to be a burden on his friends and society, and the solution of the drink problem would be nearer a practical reality than by any present methods. —*Judge Foster.*

THE INFLUENCE OF ALCOHOLIC DRINKS ON THE URINARY SEDIMENT OF HEALTHY PERSONS.

Dr. Glaser has examined the urine of persons who were in good health after the use of alcoholic drinks, employing the centrifugal apparatus of Steinbeck. Beside the formation of uric acid and calcium oxalate crystals, the most important findings were an increase in the number of leucocytes and the appearance of cylinders and cylindroids. The increase in the leucocytes was so constant that the writer was able to decide as to a preceding excess in drinking. With the continued use of alcohol, the increase was so great that one would think one had a specimen of urine with pus in it. Hand in hand with this went the augmentation of the number of cylinders. He concludes as follows: 1. Alcoholic drinks, even in moderate quantities, act as irritants to the kidneys, causing the emigration of leucocytes and the formation of cylinders; further, they favor the excessive production of crystals of uric acid and calcium oxalate. This is either due to the increased metabolism of the tissue or an alteration by the alcohol of the relations of solubility of the salts of the urine, so that the oxalate of lime and uric acid are precipitated. 2. This action, after a single indulgence, does not extend over thirty-six hours, and with continuous use is cumulative.— *Deutsche Med. Wochenehr.*

Dr. Paquin, editor of the *Bacteriological World*, makes the following suggestive note: A confirmed thirst for the use of alcoholic liquor is, at some period at least, evidently the result of a diseased condition. Though the desire for it may, for some cause or other, be formed at an early date, yet it is a very difficult thing to control without constant dietetic care, earnest efforts of the will, and all other means which our common Father has placed at the command of man. But that the organism may become so diseased by alcohol that the will loses control of some of the faculties, is

evident to all who, without any bias, and unmindful of theories or pet ideas, have observed the lives of drunkards closely, for the sake of arriving at the truth. There can be no question but that diet has a great influence on the character of man, and that by the different stimulating foods and beverages certain appetites are increased, and, in some degree, abnormal passions developed. No enlightened man can deny that man is an aggregation of living cells capable of being influenced individually and collectively by the nourishment of which they partake, or the material with which they are, perforce, brought in contact. Stimulating diets and exaggerated ingestions of food tend, by direct action on the cells and by the resultant effects on the nervous system and its faculties, to increase the appetites and lower the power of resistance.

T. L. Wright, M.D., in the Virginia *Medical Monthly*, says: There are few more common physical derangements in the inebriate than those of the heart. Excessive alcoholic indulgence injures the walls and valves of this organ, and also deranges and dilates the calibre of the larger blood vessels. However, heart disease frequently precedes inebriety, and a congenitally defective heart may do much in driving its possessor to drink. Hereditary heart affections are common, but often exist unrecognized, as sudden deaths frequently prove. The patient at one time, if no complicating troubles exist, and the circulation is good, has an active and acute mind, and his feelings are agreeable. Again, the same heart acts badly, perhaps the liver or kidneys or stomach fail in function. The circulation becomes weak. The nerve centers suffer, and the mind is slow, stupid, and melancholy. Now the alcoholic potion is taken, and instantly a most welcome relief experienced. Heart disease is one of the most common forms of heredity; nor is it essential that in alcoholism ancestry should owe heart disease to the alcoholic habit. It may be from a family strain of rheumatism or causes apart from the inebriate diathesis. Parents who

drink to alleviate the distress from deranged heart function will not unlikely be followed by sons who will do likewise. Here it is the cardiac affection, not the inebriety, that strictly is hereditary.

Insanity and Tea-Drinking.— During the examination at the Waltham Abbey Petty Sessions, of a woman who is charged with the willful murder of her two children, a statement of some importance was made by the divisional surgeon of police, Dr. G. Fulcher, with reference to the habits of the prisoner. From some writing which was found on her, it was evident that the poor woman had meant to perish with her children, having been driven to this extremity by the belief that her children were hopelessly ill, and that she was being slighted by those from whom she had been accustomed to receive kindness. Dr. Fulcher found, on examining her, that, with the exception of a " weak heart," her physical condition was good, but she had been suffering for some time from headaches, palpitation, and sleeplessness. On being interrogated with regard to tea-drinking, she said she had been in the habit of taking a large quantity, that she had given it up, but had recently resumed the habit in consequence of her trouble. Dr. Fulcher was of opinion that the prisoner was the subject of melancholia, and he expressed the belief that the taking of tea in excess tended to undermine the constitution. The powerful effect of alcohol in excess as a nerve poison is a matter of daily experience. That many of the ailments from which women suffer, are at least aggravated, if not excited, by excessive indulgence in tea, not as an infusion, as it ought to be, but as a decoction, is equally well known; and, although we are not prepared to admit that this habit would actually induce a condition of melancholia, there is little doubt that in a woman of a neurotic temperament, especially if her food were deficient in quantity and of poor quality, the use of this beverage in excess would be one of the factors in producing and perpetuating a condition of mental instability. It would be well if

those to whom the frequent cup of tea from the pot, which has a permanent place at so many firesides, and has become almost a necessity, as they think, recognized fully the pernicious effects of this over-indulgence, effects which are only surpassed in importance by those of the occasional "drop of gin," of which so much is heard in the outpatient department of our hospitals.— *Lancet.*

THE ANTIPYRIN ADDICTION.

Dr. Combemale relates in the *Bull. Méd. du Nord,* No. 12, 1891, that a servant girl suffering from polyarticular rheumatism of long duration was treated with antipyrin, which she took in doses of fifteen grains daily, and this amount was increased to thirty or forty-five grains on her day of fatigue. Without this excitant she suffered from general depression, stiffness of the fingers, and swelling of the feet. For this reason she continued to take the drug regularly for four years. At the expiration of this time she showed signs of round ulcer, with pharyngeal cough, general muscular weakness, nocturnal agitation, insomnia, and amenorrhœa. The drug was left off gradually, and all these symptoms progressively disappeared.

Micro-Organisms and Alcohol in Digestion.— Unscientific minds and those looking at the properties of alcohol from one point of view only, or, in other words, studying only one side of it, viz., the striking features of alcoholism, are not prepared to admit that, in so-called moderate quantities, it is harmful. The experiments which have been made in various countries, on the action of alcohol (or the various liquors containing alcohol) on the tissues of the body, all tend to prove that water is abstracted from the tissues with which it comes in contact, and that the substance composing the structure is more or less hardened. Under this influence, the stomach or intestines which receive an habitual quantity of alcohol must be interfered with in their natural secretions necessary for digestion. As a consequence, the

food that enters the alimentary canal fails of complete digestion; the digestible portions fail to be entirely transformed by the digestive fluids before being absorbed into the circulation for assimilation. The micro-organisms of the mouth, the micro-organisms of the food, and the various kinds of ferment-producers that enter the digestive tract, then prey on the undigested portions that are in the organs, cause them to decompose, putrefy, and produce more or less poisonous or irritating products, such as ammonia, scatol, alcohol, etc., and doubtless some exceedingly toxic substances, such as ptomaines, tox-albumins, toxic proteids, etc., etc. The effect, then, of microbes in an alimentary canal weakened by alcoholic beverages, is to produce not only dyspepsia, but auto-intoxication by the products of food decomposition.

From this point of view, it seems to us unwise for doctors to prescribe so-called alcoholic stimulants in certain cases of dyspepsia. This is not the only reason or ground for rejecting this mode of treatment, but, from a bacteriological standpoint, it is a source of complication of a positive character not to be overlooked.—*Dr. Paquin in Bacteriological World for January*, 1892.

PERHAPS one may here say that statistics prove that we can foretell with absolute accuracy the exact number of men out of each thousand who will become victims to this disorder. Does this prove that efforts at betterment are useless? We think not, but rather that we, the medical profession, are therefore called upon to put forth our noblest and best efforts to conquer this appalling demon. By many, alcoholism is classed as a vice, but the medical mind sees therein a disease which emanates from a will incapable of controlling the desires of the individual. If we acknowledge that drunken men are men possessed of a diseased will, then it at once becomes our duty to provide some remedy for so wide-spread a disease.

One of the burning questions of our day and generation, is, Is the medical profession able to successfully cope with

the stupendous task that is before them? We honestly believe that they are, but they must occupy positions of authority ere they can grapple with the problem. The future of this question lies almost wholly with the medical profession, and its solution can only be brought about by conferring upon medical men the power to apply the necessary measures.—*Lancet Clinic, Cincinnati.*

ALCOHOLIC INSANITY IN PARIS. — An English paper gives the following:

"At the police station the quietly disposed are sorted out and separated from the violent criminals. In the morning the latter are brought up for examination by the chief medical officer of the Prefecture of Police, who does his best to ascertain whether he has to do with lunatics or malefactors. The eminent man who has filled this post for many years is Dr. Paul Garnier, and he it was who kindly consented to suspend, in my favor, the rule which excludes from his examining-room all persons who are not members of the staff. This small, low-ceilinged room has witnessed many dramas, for between its narrow walls are conducted nightly the malefactors whom the Paris police have caught in the meshes of their net. They enter, held by each shoulder, between two warders. In their eyes one reads the terror of an animal caught in a trap. They are aware that here are the cross roads where their fate is to be decided; on the right the madhouse, on the left the convict prison. And all, whether mad or only feigning madness, take refuge in incoherent or outrageous language, in stupor or convulsions.

"Closely observant, taking notes, or drawing up reports, Dr. Garnier sits behind his table. Sad indeed is the conclusion arrived at by his medical experience. His figures prove that during the last sixteen years (from 1872 to 1888) lunacy has increased in Paris in the proportion of 30 per cent. This increase is due to the fact that two morbid types, general paralysis and alcoholic insanity, are spreading to an alarming extent. The progress of alcoholic insanity

has been so rapid that the evil is now twice as prevalent as it was fifteen years ago. Almost a third of the lunacy cases observed at the Depot Infirmary are due to this disease, and every day it declares itself more violently, and with a more marked homicidal tendency. The accomplice of two-thirds of the crimes committed, upon whom the criminals themselves throw the responsibility of their evil deeds, and whom the police never succeed in discovering, exists. That accomplice is alcohol! It visits upon the child the sins of the father, and engenders in the following generation homicidal instincts. During the last ten years the criminal type has entered on a new phase. Before that date the assassin was generally a man in the vigor of his strength and manhood; he had tasted life in all its forms. Such were Tropmann, Prado, Eyraud, Pranzini. Nowadays it is the youth of barely twenty who murders. The jurymen hesitate to condemn him on account of his youth, although they are horrified at his cold-blooded ferocity, and at the absence of moral sense which he displays."

How to Administer Iron. — It is generally conceded that the officinal tincture of chloride of iron is the most valuable of the iron preparations therapeutically. The practical difficulties attending its administration for a length of time have been its disagreeably astringent taste, its corrosive action on the teeth, and its constipating action. Dr. G. W. Weld's extensive experience in the practice of dentistry led him to recognize the virtues of the tincture of the chloride of iron as a stimulant resource for patients after the strain of the dentist's work. Repeated experiments to obtain a formula free from the objectionable features resulted in the preparation of a highly palatable syrup with all the therapeutic efficacy preserved. This has been extensively tested and placed in the hands of Parke, Davis & Co. for manufacture, who strongly commend it to the medical profession for trial. Being prepared after Dr. Weld's formula, it is entitled Weld's Syrup of Iron Chloride (P., D. & Co's). It is believed it will effect a revolution in iron administration.

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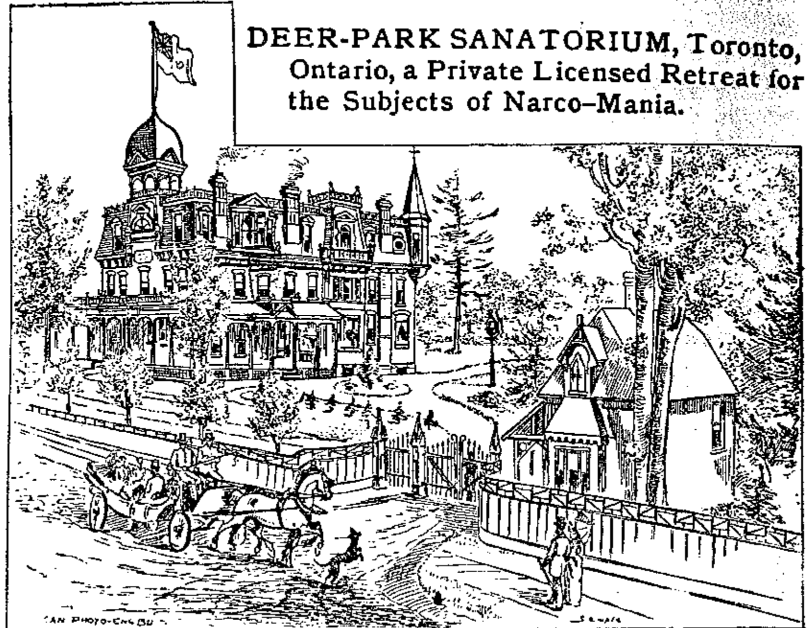

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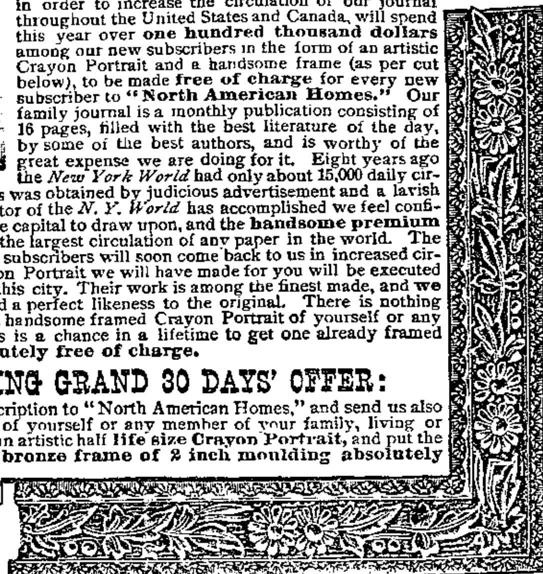

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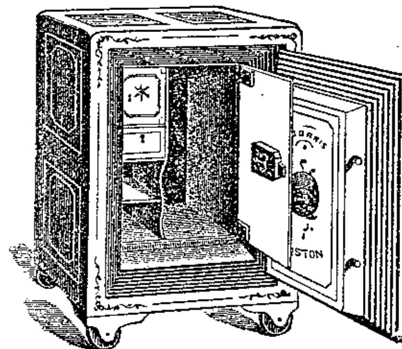

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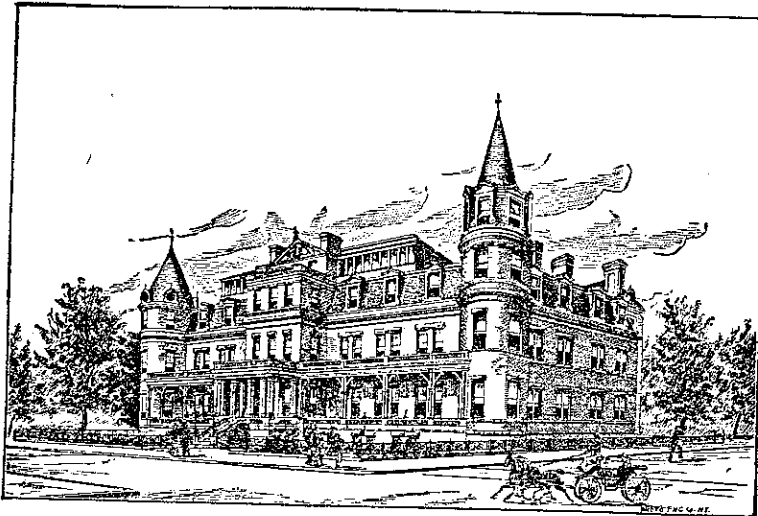

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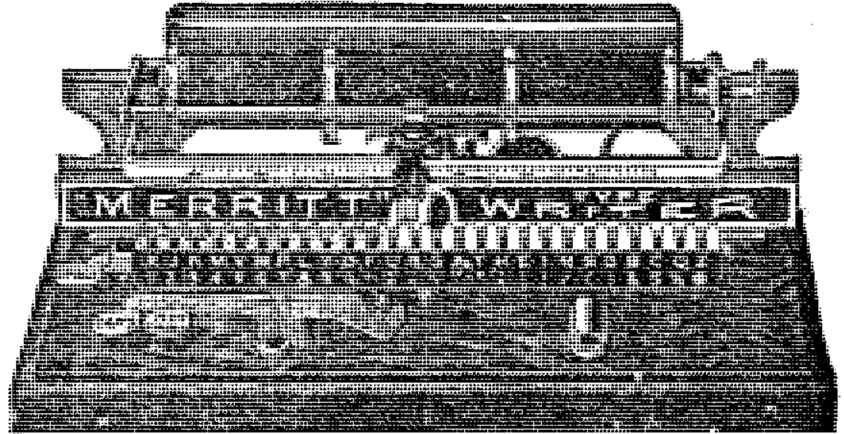

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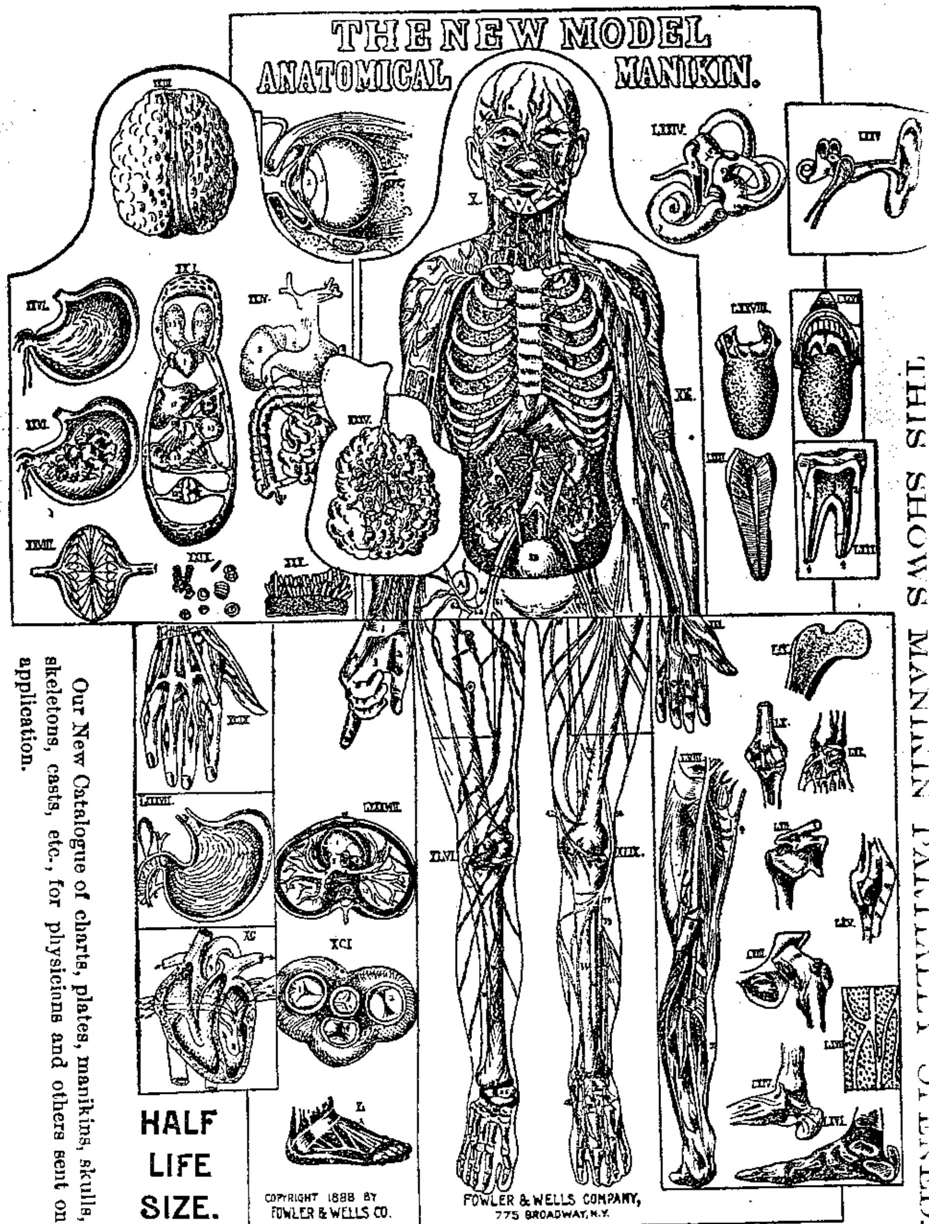

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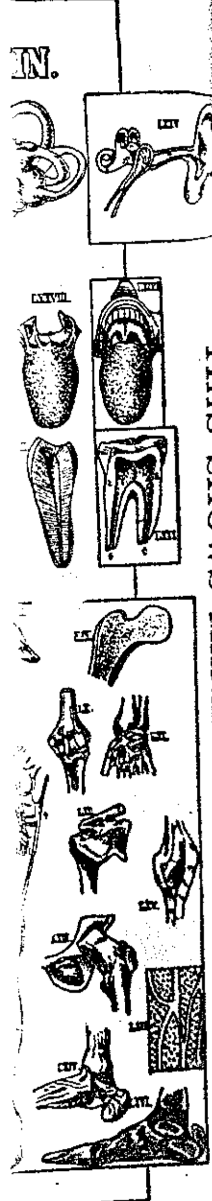

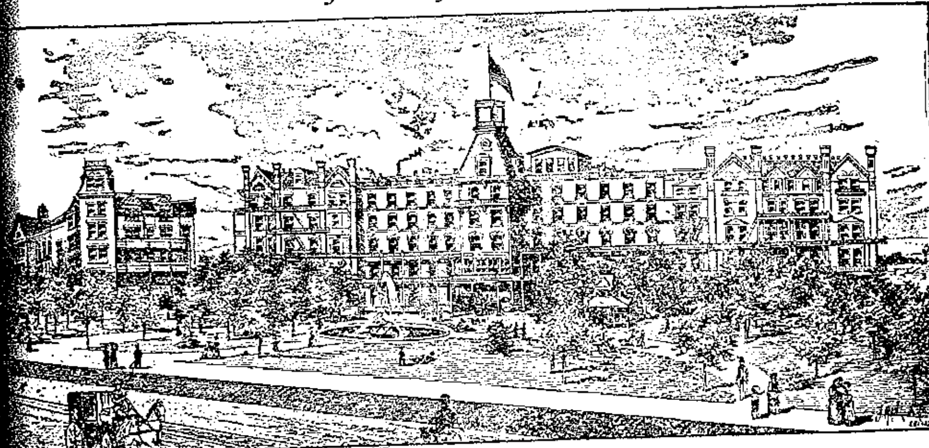

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Every fluid drachm contains 15 grains EACH of pure Chloral Hydrat. and purified Brom. Pot., and one-eighth grain EACH of gen. imp. ext. Cannabis Ind. and Hyoscyam.

DOSE.—

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

INDICATIONS.—

Sleeplessness, Nervousness, Neuralgia, Headache, Convulsions, Colic, Mania, Epilepsy, Irritability, etc. In the restlessness and delirium of Fevers, it is absolutely invaluable.

IT DOES NOT LOCK UP THE SECRETIONS.

PAPINE

The Anodyne.

PAPINE is the Anodyne or pain relieving principle of Opium, the Narcotic and Convulsive elements being eliminated. It has less tendency to cause Nausea, Vomiting, Constipation, etc.

INDICATIONS.—

Same as Opium or Morphia.

DOSE.—

(ONE FLUID DRACHM)—represents the Anodyne principle of one-eighth grain of Morphia.

IODIA

The Alterative and Uterine Tonic.

Formula.—

IODIA is a combination of active Principles obtained from the Green Roots of STILLINGIA, HELONIAS, SAXIFRAGA, Menispermum, and Aromatics. Each fluid drachm also contains five grains IOD.-POTAS. and three grains PHOS-IRON.

Dose.—

One or two fluid drachms (more or less as indicated) three times day, before meals.

Indications.—

Syphilitic, Scrofulous, and Cutaneous Diseases, Dysmenorrhea, Menorrhagia, Leucorrhea, Amenorrhea, Impaired Vitality, Habitual Abortions, and General Uterine Debility.

Specify (BATTLE) when Prescribing Our Preparations.

BATTLE & CO.,

Chemists' Corporation,

ST. LOUIS, MO.

Branches

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SYR. HYPOPHOS. CO., FELLOWS

Contains **The Essential Elements** of the Animal Organization — Potash and Lime;

The Oxydizing Agents — Iron and Manganese;

The Tonics — Quinine and Strychnine;

And the Vitalizing Constituent — Phosphorus; the whole combined in the form of a Syrup, with a *slightly alkaline reaction.*

It Differs in its Effects from all Analogous Preparations, and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and ebilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The Prescribed Dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, *finds that no two of them are identical*, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, *in the property of retaining the strychnine in solution*, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. *Fellows.*"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear can then be examined, and the genuineness — or otherwise — of the contents thereby proved.

Medical Letters may be addressed to —

Mr. FELLOWS, 48 Vesey St., New York.

[illegible] Inebriate's Home, Fort Hamilton, N.Y.

[illegible]

HOSPITAL for the TREATMENT of ALCOHOLISM and the OPIUM HABIT

[illegible]

REVOLUTION IN IRON ADMINISTRATION.

A Highly Palatable Preparation of Iron Chloride.

IRON is easily chief among Hæmatinics. According to T. Lauder Brunton, M.D., D.Sc., F.R.S., it increases the number of blood corpuscles, the percentage of hæmoglobin in them, and increased activity of all the vital organs; [illegible] classes with digitalis and strychnine, and in its alterative qualities with arsenic.

The Tincture of Chloride of Iron has long been recognized as the most efficient of Iron preparations; the objections to its continued administration, its highly astringent taste, its corrosive action on the teeth, and constipating action have, however, been hitherto insurmountable.

We have succeeded in preparing an entirely palatable syrup of official Tincture Iron Chloride, containing all its virtues with none of its drawbacks. It is prepared after the formula of Dr. G. W. Weld, and is entitled:

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(P. D. & CO.'S)

We earnestly recommend its trial by all the profession, believing it to be the most acceptable preparation of Iron ever offered.

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