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THE DANGERS OF MORPHIA IN GYNÆCOLOGICAL PRACTICE.*

BY H. MACNAUGHTON JONES, M.D., M.A.O.

There are reasons, which I hope to make apparent before the close of this paper, why a discussion on the subject I have selected for our consideration is as important as any other that can occupy our time or attention. It has at least this charm attaching to it — that it takes us away from the constant iteration of purely surgical procedure, and attracts us through the dual interest of the therapeutic tolerance manifested, and the ethical responsibility incurred, in the administration of a powerful toxic agent. I say "toxic agent," for, in dealing with the danger of morphia administration in gynæcological practice generally, I have to consider rather those physiological effects which are followed by pathological and psychical manifestations in the person of her to whom morphia may be either imprudently administered, or in whom its usage is carelessly prolonged. Morphia, with such poisons as ether, alcoholic spirits, hashicsh, and opium itself,

* Read before the British Gynæcological Society at the April meeting in London, and published in *Medical Press and Circular*.

is used in excessive or toxic quantities, either with the object of producing pleasure, and ministering to voluptuousness, or for certain therapeutic and medicinal purposes; stimulating and dietetic, as in the instance of the alcohols; stimulating, supporting, sedative, and narcotic in that of opium or its alkaloids.

It is not too much to say that in the reaction that followed the teachings of Todd and Graves, when the pendulum swung from its highest point of antiphlogistic treatment of bleeding, blistering, and mercury, to the opposite one of extreme stimulation (though it must be remembered, in justice to both these great teachers, that neither of them can be held responsible for the abuses founded on their doctrines), many died more of alcohol than of the diseases it was administered to cure. Many in fever were sent, unintentionally but rashly, more drunk than delirious from life. Morphia also has been responsible for many deaths other than those which have followed its use with a suicidal object; nor can we forget the many who have been accidentally poisoned by over-dosage. The desire to relieve pain, or cause sleep, has either overridden or lulled caution, when the narcotic and other effects of opium and morphia were distinctly contra-indicated. I, myself, had to thank an imprudent dose of opium, given to me in the helplessness and delirium of typhus fever, for an over-distended bladder, consequent catheterization, and a recto-vesical abscess, which, fortunately for me, discharged itself through the rectum.

I propose to consider the question of morphia administration in women from the following points of view: The influence of temperament on its action and effects; our knowledge of its physiological and psychical influences; the precautions to be observed in its exhibition.

With regard to temperament, I must ask your attention for a few minutes to that large class of sufferers from affections of the female generative organs, commonly spoken of as "nervous." The neurotic woman, I take it, is to be regarded in the light of a by-product of that unstable nervous

organization which we style the nervous temperament, and it were well to confine our employment of this term "neurotic" to such abnormal and morbid exaggerations of it as are so uncommonly found associated with pathological conditions of the woman's pelvic viscera. Thus we can frequently trace the incipency of the neurosis to the occurrence of some accident or injury, which may have had a dual consequence through the infliction of shock, or the inducement of some displacement or affection of any one of these organs. Previous to such accidental determinations the woman may have been normal in her control of her will, feelings, and emotions. Her energy and impulses have directed her actions, without causing that sense of reaction and fatigue which is so constantly present after slight exertion, when her impulses are diverted by unhealthy excitations, and her energy is dissipated by morbid introspections. Such a nervous temperament is frequently satisfied with little sleep. Under the influence of excitement fatigue is quickly recovered from, and a latent reserve force of nerve energy appears ever ready on demand to carry its possessor over unsurmountable obstacles. All this accumulated governmental control of will and nerve energy are missing in the neurotic, but none the less is that loss felt when the unequal struggle occurs between the sovereignty of an enfeebled indeterminate will and the rebellious and more masterful emissaries, the woman's "lower passions and lower pains." While in health such individuals can pass through great physical and mental exertion without stimulants, but when the natural call on their reserve energy finds no response they apply the artificial spur of alcohol, or some other excitant, such as morphia, to the flagging nerve cells. Such individuals are quite cognizant of the abeyance of the power to exercise free will. The desire to suppress the expression of pain is present, but the usual control is lost. Also, there is general hyperæsthesia of the peripheral nerves, which find in the frequently ill-nourished central cells a susceptibility to slight impulses and morbid sensitiveness, with an exaggerated perception of compara-

tively trifling stimulation. Here we are dealing with an *acquired* neurosis, for which possibly we may find no clue through atavistic transmission. On the other hand, we can often see in early childhood the traits of temperament which clearly foretell the future neurotic woman. Capriciousness, irritability, selfishness, restlessness, and excitability, are the characteristics which stamp the moral prototype in the child of the adult neurasthenic and hysterical woman, though it is after puberty that we frequently find such distinctive features of character develop themselves. When a woman of this type marries, in the demands on her nervous system, if she be not sterile, which the claims of children and domestic duties involve her in, she generally escapes those neurotic and hysterical manifestations that are found in the unmarried and sterile. In the former we are more likely to meet with those erotic thoughts, desires, and practices that still further enervate her nervous system and enfeeble her central control. She is, perhaps most of all, the back drawing-room or boudoir woman who is apt to fall, to use Professor Clifford Allbutt's expression, "into the net of the gynæcologist."

Turn we now for a moment to the lymphatic antithesis of this unfortunate victim to unbridled and morbid nervous and sexual impulses.

There is a type of woman, familiar to us all, indolent, lethargic, fanciful of ailments, with a superficiality bordering on childishness in conversation, dull of comprehension, readily open to flattery, even to her own self a bore, and often one to her husband and children, if she be married; fringed with layers of pectoral and abdominal fat, the easy prey to quack systems of dieting and to the "man of the world" physician. Her defective metabolism and a sexual voluptuousness, makes this proprietary article the registered dual property of the "pure specialist" for gout on the one hand, and the cotton wool gynæcologist on the other. She is one of the principal sources of revenue to the new *Franc Tireurs* of the outposts of medicine — the ubiquitous masseurs or masseuses, as the previously described sufferer is to the fashionable "Weir

Mitchell Home." With her, every twinge is "agonizing," to walk is impossible, and, once let her evolve uterus and ovary "on the brain," whether these organs are diseased or not, they are made responsible for every ill her peccant flesh is heir to, not even excluding "housemaid's knee." She is not of the classical neurotic type previously described, though her visceral neurosis may be legion. She may suffer from congestive dysmenorrhœa and ovaralgia, her uterus may be as flabby as her brain, and her ovary as fertile in aches as her imagination in fanciful allusions. Her voluptuousness is not limited to her appetites of palate, but is not infrequently manifested in sexual abuse. She fancies that she sleeps for many hours less than she actually does, and hence is often seeking for some new, when she has already exhausted every conceivable variety of reputed, hypnotic. While we find in the unmarried more frequently examples of the first type of temperament, married women furnish a larger proportion of the latter. Both, however, are to be found constantly as representatives of the habit of morphinism.

It cannot be denied that numbers have succumbed to the desire for morphia, and have ultimately become morphinomaniacs, in whose instances it could not be attributed to any temperamental tendency. Here pain, the result of disease, more especially in the nervous system, has invited the first use of the drug, and the recurrence or continuance of the pain has suggested its reapplication. Unfortunately, many have used it rather in anticipation, than for the present relief, of suffering. This has led to its employment when its therapeutical action has been expended on the nervous system, when the relief afforded by its narcotic action could not be experienced, yet the patient has been subjected to the exhilarating and pleasurable sensations which are produced by repeated doses of morphia.

Let us consider very briefly the facts which are now fully established regarding the etiology and course of morphinism, leading up to morphinomania. It is a curious fact that not until 1864, when Nusbaum drew attention to the conse-

quences following the abuse of injections of morphia, was there any serious notice taken of its ill effects, and the first English physician who seems to have written on the subject was Dr. Clifford Allbutt, who wrote in the *Practitioner* of 1870, of the dangers following incessant injections of morphia, and pointing out that while relieving the severe pains in various neuralgias, the need for the use of morphia increased, and that it created an artificial craving, the yielding to which only resulted in a depression and irritability due to intoxication by the drug. The writer then clearly recognized the craving and intoxication of morphinism.

During the seventies Laher (1872), Fielding and Hirschfeld (1874), Michel (1876), Lewinstein (1875-77), Burkart (1879), wrote monographs on morphinism, Lewinstein writing a complete description of the affection to which he gave the name of "Morphiumsucht" (1879).

Clarke wrote on the sudden discontinuance of morphia after its protracted use, in the *Lancet*, in 1879, and Griffith on the abuse of the morphia habit, in the Guy's Hospital Reports, 1878.

Erlenmeyer insisted, about the same time, on the relapses after treatment. Braithwaite also in England (1878), Mattison in America, Dealbanne, Zambaco, Landowski, and Pichon in France contributed material to the literature of the subject.

During the next decade Burkart, Erlenmeyer, Leppmann, Obersteiner, Samtet, in Germany; Zambaco, Bourneville, Grasset, Benjamin Ball, Jennings, in France; Loose, Mann, Kane, in America, were the principal writers.

In 1890, Regnier published his brochure on chronic intoxication by morphia, a valuable and comprehensive monograph. This latter, with the work of Dr. Albrecht Erlenmeyer, "Die Morphiumsucht," gives the fullest information with regard to the entire subject, on which so little has been written in this country.

It is sufficient for me to emphasize certain points which have been fully established by these and other observers. We may follow Regnier in separating morphia-takers into

two broad classes, morphinises and morphinomanes, according as the habit can be resisted, and is more or less under control, or, as in the latter class, it passes beyond this stage, and the craving is, or tends to become, irresistible. Zambaco divides morphia patients into three classes — those suffering from painful chronic diseases, who have daily recourse to morphia; secondly, those who, having been cured of such affections, still continue its use; and lastly, those who abandon themselves to morphia abuse for the mere pleasure it affords, as in the case of alcohol or absinthe. Eloy briefly summarizes all morphiomaniacs under two headings — those who have become such from a necessity, or from passion. Lewinstein, again, classifies the morphia intoxicants into two categories; first, those who, in spite of themselves, have been driven by a painful and often incurable affection to the use of morphia (the morphinises of Regnier) and secondly, morphinomaniacs. The clear distinction to be drawn between the two is that in the one case the morphia is taken solely for the relief of suffering, and not for its exhilarating, exciting, and agreeable effects.

Let us here notice some indisputable facts as regards the effects of morphia. Pain accounts for a certain immunity from the toxic action of the drug, even when continued over a considerable period of time (14 years in one case, Hirschberg). This is especially true of cancer, and in certain maniacal cases Voisin has given, in gradually increasing doses, over a drachm of morphia in the 24 hours, and continued this treatment for some time without, either during administration or at its relinquishment, producing any symptoms of morphia intoxication. It may be concluded that age, sex, condition of health, and the intervals between administration, influence the effects of the dose.

Morphia administered by the mouth is somewhat less active in causing intoxication. The abscesses which at times accompany the subcutaneous punctures have been variously explained by Despres, Jacquet, Verneuil, and Charcot, and may be attributed to one or more of the following causes:—

Misuse of the injecting syringe, suppurative tendency in the subcutaneous tissues of the patient, and microbial infection. Both the staphylococcus having been found in the pus of these abscesses, points to the necessity for efficient sterilization of the morphia injector.

It is important to note that so far statistics appear to prove that men are more subject than women to the morphia craving. Lewinstein and Burkart have assigned the relative proportion at about 25 per cent., but Landowski considers that the habit is more successfully concealed in the case of women, who more completely abandon themselves to it, and make no confession of the practice. Also the prevalence of morphinomania amongst doctors, nurses, and pharmacists has to be remembered, doctors representing by far the largest number of all classes in which the craving has been recorded. Out of 150 morphinomaniacs noted by Lewinstein and Burkart, 86 were either doctors or persons connected with the medical profession. Rochard considers that doctors furnish more than half the number of male sufferers. This unfortunate prevalence of the propensity in the ranks of medicine may be accounted for, says Regnier, first, by the facility with which the drug is procured, and, secondly, by the arduous nature of a calling which oftentimes makes irresistible demands on a frame already over-fatigued and suffering.

So far as the influence of age is concerned, it would appear that the majority of morphinomaniacs will be found between the ages of twenty-one and fifty, though in France cases have been recorded in females from thirteen to eighteen years of age. Apart from the narcotic effect of morphia in assuaging pain in a healthy individual, it is well to summarize its effects in the person of a truly hysterical or neurotic woman. Following the injection there is a period of repose during which the patient has a pleasurable sensation. She loses her feeling of depression and sense of fatigue, becoming more alive to all that goes on about her, takes a greater interest in conversation, and is rendered more capable of her ordinary occupations. At the same time her pulse is stronger and her breathing freer.

Lewinstein applies to this condition the term "euphoric" (euphorische). Its duration is variable. It may last for twenty-four hours, or even longer, but its length is diminished as the number of injections is increased, and gradually this pleasurable period is reduced, after some months of indulgence, to a few hours, and, ultimately, minutes. Little by little, as the number of injections and quantity of morphia is increased, the periods of depression are intensified; a sense of malaise and a feeling of restlessness succeed, complete reaction to the previous exhilaration follows, the cardiac rhythm may become irregular, the skin is pale, a sensation of feebleness and loss of nerve control ensues, and the prostrate and languid sufferer craves again for the artificial stimulus of the morphia. Should she also be subject to neuralgia, whether in her pelvic organs or elsewhere, her pains return with redoubled force, and find, in her paralyzed will and disordered imagination, a house ready swept and garnished for every devil of hysteria and hypochondria to enter in and play havoc with her moral nature. To such we may apply these lines of Milton:—

Which way she flies is hell — herself is hell,
And in the lowest deep, a lower deep,
Still threatening to devour her, opens wide.
To which the hell she suffers seems a heaven.

I have not time to touch upon those incidental troubles which are known to be associated with morphinism. I allude more particularly to disorders of digestion and dyspepsia, constipation, and occasional vesical irritation, with abnormal changes in the urine, both in its quantity and quality, and urethral pain; visual disturbances, amblyopia, diplopia, and disorders of accommodation; lessened reflexes; rotatory oscillations of the arms, defects of memory and moral perversion, psychical apathy (due probably to a direct effect of the morphia on the discharging energy of the brain cells), and interference with the metabolic function of the liver through its influence on its glycogenic function. With regard to the last action, we are reminded that there is a certain cumulative tendency in morphia, and that this is specially shown in the

case of the liver. The experiments of Rogers and others tend to show that there is an interaction between the hepatic glycogen and the morphia, the glycogen having the property of arresting the alkaloid, an interaction which Regnier and others suppose has to say to the occurrence of glycosuria in more advanced morphinomaniacs. Outside the afore-mentioned complications there are the occasional cardiac changes to be remembered, which have been noted by Lewinstein, Schweininger, Hirschfeld, Ball, and others, in the form of hypertrophy, sclerotic changes, and fatty degeneration. Such effects on the heart have to be considered if morphia is frequently administered during pregnancy, when there is a natural tendency to such complications.

What touches us more especially is the influence exerted on the catamenial function through the morphia habit, namely, frequent arrest of the same, constant irregularity or complete suppression. Sterility is at times the consequence of this arrest of uterine function. There is also the undoubted effect of morphia on the embryo, and the fact that the infants of morphia-takers suffer immediately after birth from the consequences of the habit has to be recollected. But the fact before all others that I am anxious to emphasize, and which has been clearly proved by a number of observers, is, that what we understand by hysteria occupies the foremost place in the causation of morphinomania. Hysteria, neurasthesia, neuralgia, cephalalgia, ovarian crises, dysmenorrhœa, spinal neuropathics, neuro-mimesis, are the correlated conditions, often associated with sexual disturbances, which stand in the forefront in the etiology of morphia abuse in women. And they are, unfortunately, the very conditions for which it is most frequently prescribed.

Recall, now, the temperament that I have endeavored to depict as types of those most susceptible to the deleterious effects of morphia. They are distinctly those which all experience has proved are most likely to be conquered by the physiological action of the drug. Such persons are always importunate for its employment, once they have experienced

its effects, and the weak-kneed physician is compelled to yield to their importunity. A prescription is given, possibly a nurse is entrusted with the administration, and very frequently, when the nurse leaves, the patient, retaining the prescription, not alone administers, but practically prescribes, the medicament for herself. I have known a supply of morphia solution of the British Pharmacopœia to be obtained daily at different chemists, and thus as much as 18 to 20 grains of morphia has been taken subcutaneously within the 24 hours. The original prescription was copied at different establishments, and no demur was made to compounding it even after the lapse of two years from the date of the original prescription, nor was the physician who prescribed it made cognizant of the fact that it was so repeated. I cannot but look upon such a practice as a grave and dangerous abuse of that mutual trust which should exist between the physician and the pharmacist. When morphia can thus be readily obtained in large quantities, the tendency often arises for one woman to recommend its use to another, and even to go so far as to herself subcutaneously inject it into friends. Thus the habit becomes contagious, and there is even a morbid delight felt in the act of puncturing, not alone herself, but others.

We must also bear in mind what the condition of the nervous system is during and after pregnancy, when morphia is thus occasionally administered to relieve vomiting, or to give sleep. Here we have an abnormal circulating current and a temporarily altered condition of the entire vascular and nervous systems. Mental irritability, capricious or depraved appetites, emotional and hysterical states, periodical neuralgic waves of pain in different parts are not uncommon. Thus we have associated with pregnancy those very physical and psychical states in which we might expect to find morphia excite a craving for its effects and repeated use. Its action on the foetus through its tendency to cause abortion, and lower the vitality of the embryo, I have already referred to.

I have said sufficient to indicate the caution it is necessary to observe in determining to resort to morphia for certain

affections of women, which specially fall to the lot of the gynæcologist to treat. Many of these are of a reflex nature, arising out of disorders of the uterus and its appendages, and are to be cured only by the restoration to health of the deranged pelvic organ. In the majority of such cases the morphia syringe is the most mischievous remedy to resort to. It may bridge over a period of time, but often this gain is achieved at the expense of the entire moral control of the woman, and her latent power to endure even trifling pain. I do not quote particulars of cases, but I can say that numerous observations of women whom I have known to be addicted to the morphia habit, owed their misfortune to what I could not but regard as the indiscriminate and too careless administration of the drug. In one case a lady of considerable refinement and culture had found her way into a private asylum, an eminent gynæcologist having permitted her to take morphia by the mouth at her own discretion, until at last she arrived at such quantities as would almost seem incredible. On leaving the asylum, where she had been cured, she still continued to fall back occasionally on the use of the morphia, and some years afterwards, when I saw her for a hæmorrhoidal affection, she handed me up a small phial containing acetate of morphia in powder, confessing that she occasionally took it in varying quantities and without measurement. For some years she has been completely cured of the habit.

One other point I will only make a passing allusion to, and that is, the double-edged nature of this weapon, when used by the surgeon after abdominal operations, in masking symptoms of peritonitis, and possible interference with the natural process of cure through arrest of the secretions. As Greig Smith well says, "The routine employment of morphia is to be condemned. Complications are better met with a system unimpregnated with morphia."

The moral of this paper is that there is a responsibility attached to the employment of morphia for the relief of pain in the affections of women, not sufficiently recognized in

practice. This responsibility imposes on the physician the duty of differentiating those cases in which morphia may almost certainly be given with immunity from its toxic effects, from those in which the risk of intoxication by its repeated use is great. It is not too much to say that under no circumstances whatever should a patient be permitted to inject herself, and it is questionable, for many reasons, whether relatives or friends, save under very exceptional circumstances, should accept the responsibility of doing so. Only small quantities of a solution should be ordered at one time, and such an amendment should be made in the Sale of Poisons Act as to prevent the dispensing of prescriptions for morphia injections or powders which do not bear the signature of a physician of a date recent to that on which they are presented to the chemist. The effects of morphia, especially when the doses are repeated or increased, should be carefully watched, and its employment suspended if these appear to contra-indicate its use. The need for sterilizing the morphia syringe, which has been referred to, should be remembered. These are some conclusions I would place before the Society, and though I have absorbed a portion of its valuable time, I do not feel that the subject is one which does not justify the expenditure of it.

In the discussion which followed Dr. Leith Napier spoke as follows. Dealing with the author's reference to the influence of temperament on the action and effects of morphia, he thought that too much stress had been laid on this point in the paper. The quotations of woman's "lower passions and lower pains," was neither accurate nor, it seemed to him, applicable. He would suggest, as a better comparison, "Passion drives the man, passions the woman; him a stream, her the winds." He concurred with Dr. Macnaughton Jones in adopting Zambaco's classification of morphia patients — those suffering from painful chronic disease, who have daily recourse to morphia; those who have been cured of such affections, but continue its use; and those who indulge in morphia for the mere pleasure it affords. He

thought insufficient stress had been laid on some of the symptoms of morphia that were sometimes met with. Thus, he had known hypodermic injections cause so much sickness that the relief of pain hardly seemed sufficient to justify continuance of the drug. Various cutaneous rashes as well as general pruritus were also sometimes seen. After briefly reviewing the physiological and pharmacological action of the drug, Dr. Napier dwelt on the influences that modified its effect. Women were more susceptible to morphia than men, reacting readily to its exciting as well as to its sedative effects. The effect of habit was most marked, and very large doses could in time be taken. He held strongly that while morphia should be given for relief of pain, less potent drugs should be used in cases of insomnia and in neurotic conditions. Yet it was not necessary for medical men to blame themselves unduly if, as the result of the legitimate use of morphia, patients came to take it themselves, and in excess; so also patients were not to be unduly blamed for taking morphia if their medical attendants did not warn them of the possible dangers; and lastly, it was not right to assume that every woman who had given way to the habit had done so with insufficient cause. The temptations resisted had to be taken into account, as well as those yielded to. He came then to the question, What drugs could be substituted for morphia in dealing with insomnia, and with various psychoses? Some of the bromides and belladonna answered very well, if used judiciously. He had had good results from lactophenin, in doses of 7 to 15 grains, in cases of nervous insomnia; from chloralamid, bromidia, and tincture of piscidia erythrina (in doses of 1 to 1½ dr. daily). Sulphonal and paraldehyde, though not so much spoken of lately, were well known remedies. He deprecated the routine use of morphia after abdominal sections, while recognizing that in some cases it was necessary. After many vaginal operations also a morphia suppository was advisable. At the same time he believed that morphia frequently increased the tendency to post-anæsthetic sickness. In conclusion, he suggested the

following questions for discussion : 1. For what conditions of pelvic disease ought morphia to be administered? 2. Was it preferable in giving morphia hypodermically to employ it alone, or with sulphate of atrophine? 3. What were the best substitutes for morphia in psychoses of women? 4. What was the best curative treatment for morphinism in women?

Dr. C. A. Mercier expressed his indebtedness to Dr. Macnaughton Jones and to the society for giving him the opportunity of taking part in the discussion. It was worth noting that not everyone who took morphia, even habitually and in large quantities, was a morphinomaniac. There was the classical case of De Quincey, who indulged at frequent intervals in an opium debauch, from 1804 to 1812. At no time during these eight years was he a slave to the drug. In 1813 a severe and painful illness led him to the daily use of laudanum, and it was only then that it obtained a complete mastery over him. He describes himself in 1816 as sitting down every night with a quart decanter of laudanum at his elbow, and he drank it without measure and without stint. The absolute dependence on morphia, and not the mere indulgence in it, however frequent and prolonged, constitutes morphinomania. It was a very noteworthy fact that De Quincey was able to and did abandon the habit at the cost of intense suffering, without, as far as they knew, any external assistance or advice. But then De Quincey never used the hypodermic syringe. He took opium by the mouth, and it was a matter for serious consideration whether the tyranny of morphia administered by the syringe was not far more dominating and exacting than when it was taken by the mouth. Dr. Macnaughton Jones had pointed out that attention was first called to the prevalence of the morphia habit in 1864, and he believed that it was about that time that the syringe became prevalent. It was perhaps a question whether the invention of this instrument had been a boon or a bane to humanity. Undoubtedly it had given them a power of actually saving life in cases of great agony, such as renal and biliary colic, in which it was threatened by the extremity of

the pain ; but he would submit whether its use ought not to be restricted to such cases. It was a remarkable fact that a successful means of breaking morphia-takers of their habit was based upon the much greater facility with which it could be abandoned when taken by the mouth than when administered by the syringe. A large proportion of the daily ration of morphia could be cut off without the production of severe distress ; it was when a minimum ration of one or two grains was reached that the difficulty arose. It could be solved by abandoning at this stage the syringe and giving double or treble the amount by the mouth, and this ration could then be rapidly diminished, and at last altogether abolished without occasioning any very severe distress to the patient. The conclusion that he ventured to put before the society was that the syringe should be reserved for cases of great agony requiring immediate relief ; that a long course of opium, when necessary, should be given in other ways ; and, finally, that it was almost criminal to entrust a patient with a syringe for the self-administration of morphia.

Dr. J. F. Woods (Hoxton House Asylum) said that his experience of the use of morphia had been chiefly through cases that had come under his care through its abuse. He had met with six cases. In one the patient, a medical man, was admitted under certificates. He was suffering from delusions, and had been taking a daily dose of about twenty grains hypodermically. After an attempt at suicide he was allowed his syringe with an attenuated solution, so that instead of two grains for a dose (as he thought) he had only one-twentieth of a grain. He improved rapidly, and left after two months. After a time he had a relapse and was again cured, but later he committed suicide by taking an overdose of chloroform. Another case was that of a lady, *æt.* 49, who had begun morphia fourteen years before, having had it given her by a doctor for some uterine trouble. On admission she gave up four syringes and two bottles of morphia. He stopped the drug, and she had the usual restless symptoms. Finding her amenable to hypnotic suggestions, he employed

this method with marked success. Suggestions in the daytime under slight hypnotism for a few minutes enabled her to sleep at night, and he gave her suggestions against morphia during sleep with the effect that she always awoke much better, and the restlessness disappeared. She made rapid progress, and gained about two stone in weight. He heard from her last week, and she was keeping well. He considered morphia one of the most satisfactory drugs that they possessed, but it should be given with extreme caution, and stopped immediately the effect required was produced. It should be administered by the medical man only.

Dr. Fitzgerald (Folkestone) said he would confine his remarks to the use of morphia in cases of painful and hopeless malignant disease. In these cases he thought that he would be a bold and unwise man who should deny its use. Medical men were too cautious and even timid in the use of opium in hopeless cases, where there was absolutely no hope of prolonging life. Surely it was the function of the pitiful physician to alleviate pain and suffering where cure was impossible, even if it shortened life, which in the case of opium he denied. Euthanasia, the ensuring of a painless death, was the absolute duty of the conscientious physician, but was from timidity too often neglected.

Mr. W. D. Spanton (Hanley) was in accord with most of what had been said by the writer of the paper, but hoped that gynæcologists would not be held responsible for all the evils of morphia, as he believed it to be more common among men than was supposed. Under no circumstances, however, ought a patient to be permitted to use a hypodermic syringe herself.

Dr. Morton, while admitting the great value of morphia, wished to put in a plea for caution in its use. In dysmenorrhœa and allied conditions it was very rarely needed; there was a large field here for the recent antipyretic and analgesic drugs. In cancer it was invaluable, but should not be used too early, or the doses increased too rapidly. Much could be done with $\frac{1}{4}$ or $\frac{1}{2}$ a grain. He strongly protested against the

syringe being placed in the hands of a nurse. In peritonitis the sheet-anchor to be relied on was not opium, but purgation.

Dr. T. Outterson Wood thought the profession had the matter to a large extent in their own hands, but in private practice there were at times great difficulties. As long as the patient possessed judgment and will-power he was master of the situation, and could refuse advice. In asylum practice the chances of cure were greatest, but it was not there that the majority of cases were met with. It was rather among borderland neurotics, and when their mental condition became reduced to one of certifiable disease recovery was rare.

Dr. Macnaughton Jones, in reply, said that a sad interest was connected with the reading of this paper. The last words the late Dr. Hack Tuke spoke to him, a few days before his fatal illness, were much in the same language as that used by Dr. Mercier, *viz.*, "If all the benefit which had resulted from the use of morphia were balanced against the mischief that had followed its abuse, he doubted if the latter would not largely outweigh the former." He was indebted to Dr. Tuke for much of the literature which he had referred to in the paper. He would remind the fellows that the object of the communication was to draw the attention of the society to the dangers arising from the *indiscriminate* use of morphia *subcutaneously*. The first point he emphasized was the influence of *temperament* on the susceptibility to morphia intoxication. Inasmuch as, in the case of women, morphia was frequently given for those subjective pains associated with pelvic disorders, and in which the nervous temperament played so large a part, it followed that the greatest caution and discrimination should be exercised in its use. All experience proved that the hysterical temperament was the one which was the most susceptible to the insidious toxic action of the drug. This type of case was most frequently exhibited in reflex pains, which had their source in some functional disorder of the uterus and ovaries, as in certain forms of dysmenorrhœa, ovaralgia, etc. He had distinctly pointed out

in the paper that pain arising out of a true pathological condition afforded a certain degree of immunity from the intoxicating effects of morphia. This was specially true of cancer. Its use in this affection was not alone legitimate, but, at the proper time, imperatively indicated. His remarks did not contemplate the use of morphia in any other class of affections than those peculiar to the generative organs of women. He did not refer to men. In an allusion to the comparative frequency of morphinomania in the two sexes, he had not either alluded to *opium*, but to the one particular alkaloid of opium. Some speakers, in the words of Shakespeare, "had drawn out the threads of their discourses rather than the staples of their arguments." To speak of opium and the use of morphia in cancer and other affections was simply drawing a red herring across the trail of the discussion. In reply to the president, he affirmed that he had had several cases within the last few years in which morphinomania and morphia intoxication had resulted from want of cautious administration of the drug. He (Dr. Macnaughton Jones) believed that the *clandestine* use of morphia was rather on the increase, through the facts which he referred to in his paper, *viz.*, the giving of prescriptions for quantities of morphia solutions to patients, and by the abuse of these prescriptions by the patients themselves or their friends, the habit became, as he had said, contagious. He had emphasized the fact that it was the *subcutaneous* injection of the alkaloid which was so specially dangerous. Of course, Dr. Spanton was not serious when he spoke of a subcutaneous injection as a surgical operation. As to sterility, it was pointed out by Lewinstein, Erlenmeyer, Regnier, and others as a consequence of morphinomania. He (Dr. Macnaughton Jones) had seen this in the case of a married patient who became pregnant after some years of absence of conception, when she was cured of the morphia habit into which she had fallen. He would categorically summarize the different methods of healing the morphinomaniacs or *morphinuisers*: (a) Lewinstein's method of "abrupt suppression," or sudden stoppage

of the morphia — this had been found to be dangerous and not to answer. (b) The plan (Erlenmeyer) of gradual suppression or gradually reducing the dosage of the morphia and extending this over some time. (c) The medium course of moderate suppression, or stopping the morphia gradually in the course of some 8 to 10 days. This plan may be continued with the use of hypnotics. He had given various hypnotics. In one case urethane answered well. (d) Alcohol had been tried as a substitute for the morphia. This had failed. (e) Chloral also had been tried and abandoned. (f) Opium itself had been tried and other of its alkaloids, but it had not answered. (g) Nitroglycerine and other drugs had been given, but the treatment by suppression combined with other judicious treatment in control, diet, and the use of hypnotics, was the best plan to adopt. He pointed out the danger attending the deception of the patient by the substitution of *water* for the morphia. Once it was discovered it was apt to lead to a sense of indignation on the part of the patient, and a refusal to be again guided by her physician. The last state became worse than the first. Suicide might follow, as in the instance of a medical man whom he knew. He would place these conclusions before the society:— 1. The risk attending on the use of morphia in the treatment of affections of the pelvic organs in women is often not sufficiently recognized. 2. The influence of temperament had to be carefully considered in its administration, the hysterical and so-called neurotic temperaments being especially susceptible to the intoxicating effects of the drug. 3. In such cases morphia should be used only as a *dernier resort*, and rarely, if ever, for the relief of what may be said to be subjective pain. This is true of many cases of ovarian neuralgia and reflex ovarian pains. Also in those reflex spinal pains arising out of real or functional disorders of the generative organs of women, or in the insomnia arising from the same cause. 4. Its use is particularly dangerous at the climacteric. 5. The risk of morphia intoxication should be safeguarded against as far as possible — (a) By the medical man himself, save under very

exceptional circumstances, administering the injection. (b) Only the quantity of solution requisite for a limited number of injections should be prescribed at the time. The prescription, for safety's sake, might be marked "not to be compounded unless re-initialed and dated." (c) By not giving into patient's hands prescriptions for hypodermic injections of morphia. (d) All patients and their friends should be warned of the dangers attending the repeated administration of morphia. Morphia should never be administered from the mere importunity of a patient, unless there is a clear indication for its employment. Pain arising out of cancerous conditions and pain arising out of acute inflammatory states of the adnexa and peritoneum afford an immunity from the intoxicating action of morphia, and are indications for its judicious use. As a rule, after abdominal operations, patients do better without morphia. Lastly, friends and relations who are in the habit of injecting morphia should be made to clearly understand that circumstances may arise which might bring most disagreeable suspicions of either misadventure or design on those administering it.

THE TREATMENT OF INEBRIATES IN THE DISTRICT OF COLUMBIA.—Mr. Meredith of Virginia has introduced a bill for the treatment of inebriates in the District of Columbia. It authorizes the commissioners to establish a public hospital for the care and cure of inebriates. Such persons shall be admitted as are committed to the hospital by the police court or criminal court of the district, and the judges of these courts shall have power to commit, for not more than ninety days, (1) any person convicted of the habitual excessive use of alcoholic liquors who might be amenable to commitment to the workhouse; (2) such persons as may be recommended for treatment by the commissioners; (3) such as may voluntarily apply for admission, and pay for treatment not less than ten dollars a week. All moneys so received are to be handed over for deposit in the United States treasury.

INEBRIETY AND ALCOHOLISM AMONG CHILDREN.*

BY DR. MOREAU DE TOURS, OF PARIS, FRANCE.

With a number of writers of the greatest authority we have often raised our voice with energy against the abuse the press sometimes makes of its liberty by giving currency to facts, the publication of which is a real danger to public morals, because of the unsuspected excitement they cause in minds which are, no doubt, not well-balanced, but which, without the examples so presented, might perhaps have escaped the evil contagion. It is nevertheless right to acknowledge that amid the multitude of these diverse facts there are to be found those which, when brought together and grouped, attract attention and are studied; but which, without this publicity of the press, would probably have remained in the condition of simple observations, scattered here and there in the collections of specialists. From the accumulation of these facts one is led to draw precious teaching, and to send forth a cry of alarm against the evil that is without cessation invading us, and at length to take the necessary preventive measures for struggling against the scourge.

It cannot be too much insisted upon that alcoholism is one of the human miseries which can neither be despised nor denied. This terrible passion ought to excite the attention of our times, arouse our vigilance, stimulate our thoughts. The plague is threatening, it increases unceasingly.

We have no intention of recommencing a study which has already been so often and so deeply inquired into by the most competent men. moralists, physicians, hygienists, etc. Our object is narrower, but not on that account less impor-

* Read at February meeting of French Temperance Society, and translated for *Temperance Record* of London.

tant ; and it is not without a deep feeling of sadness that we open a special chapter on alcoholism among children.

It is not seldom we read among the facts chronicled by the press stories of children picked up in the streets dead drunk. And these facts are not confined to our country ; they are equally true of foreign countries. As an example, we have a note from Vienna, which tells us that a school-master in the quarter of Leopoldstratt had to give up to his parents one of his scholars, who had arrived at his class in a complete state of drunkenness. The child confessed that in coming along the road he had drunk in a cabaret a quart of brandy. The journals on that occasion made the remark that this was unhappily not an isolated case, and that from time to time scholars were met in the street who were manifestly in a condition of drunkenness.

If we compare these facts with the observations occasionally published in medical journals, we are really amazed to see the important rôle, hardly recognized up to a certain point, which alcohol plays amongst the young. The causes which determine alcoholism among children are many and their origin very different. But, like the other affections, they may be ranged under two principal heads : Fixed causes and occasional causes.

In the number of causes under the first head the most important of all is heredity. This is not a new observation, for in all times there has been noted the evil influence upon children of alcoholism in their parents, and it is remarkable that when alcoholism is hereditary it manifests itself at the most tender age. Numerous cases we are able to give go to prove the importance that ought to be attached to the influence of heredity for the transmission of alcoholism.

But there is another form of hereditary alcoholism, if one may employ the word in this connection, which is less known. It is due to that which we shall call the observance of the traditions of the country or of the family. It is thus that we see a custom widely prevalent in the northern countries, and especially in Scotland, of making children,

in order to appease their cries, suck a plug soaked in very strong liquor, very alcoholic, of whisky, for instance, and to strengthen them, after weaning, by doses of the same liquors, more or less strong. At Leybach, according to Lippik, especially amongst the poor, it has passed into a proverb that it is necessary to give wine to infants in order to facilitate teething. At Vienna, in Austria, a recent inquiry established the fact that parents often made their children drink brandy, and, in consequence, they arrived at the school besotted with drink.

And in our days, in spite of all that we have been able to do in striving against such a tendency in our country, there are departments where alcohol reigns supreme. Tourdot, in his work on "Alcoholism in the Lower Seine," tells us that the domestic hearth is there, amongst others, a school of drunkenness for the children. However young they may be, they receive their ration of brandy on the great *fête* days. And thus is developed among the little Normans a gross taste for alcohol.

There are other authors who do not hesitate to put to the account of the treatment (medically) by alcohol, of which such a great abuse is made in our days, the predisposition to alcoholism observable in many children. We are certainly disposed to reprove the abuse which in our days is made of a treatment, of which, nevertheless, the efficacy is incontestable. Alcohol may be administered, but it is necessary to know how to use it without abusing it. In the administration of alcohol it is the strict duty of the physician to thoroughly examine his patient, to search into his antecedents, and if he discovers there the least trace of alcoholism he ought to abstain from treatment by alcohol. To give alcohol under such circumstances is to risk the awakening of a latent predisposition, a result that at any cost ought to be avoided. The remedy in such a case would be worse to fight than the disease. But it is necessary to regard it as a dangerous medicine, difficult to manage, and to administer it with precaution in order to obtain from it the good effects.

Under this condition, and this condition only, we repeat that it ought not to be dangerous, but useful.

The occasional causes, we have said, are numerous. But it is necessary not to lose sight of the fact that in the majority of cases, if not in all, the children who allow themselves to be borne along by wine are the hereditary, the predisposed. In the simplest and most frequent cases the child is thirsty; he is given wine or liquor, or he takes it himself. After a first draught he finds and avows "this is good," and he continues without mistrust. The facts detailed on this subject are not rare, and all are in similar terms. Here is an example: On the 19th of last May the police constables met in the evening on the quay of St. Bernard, two children of twelve and thirteen years of age, completely drunk. On being interrogated, these children confessed that they had broken into a keg of wine that was lying on the quay in front of the market-place, and that they had drunk, at first because they were thirsty, and afterwards because they found the wine good, and they continued to drink until they were completely drunk. Far from putting a curb on the marked taste which a child shows for strong liquors, there are certain parents, without conscience, without prudence, worthless, who on the contrary think it fun to urge the child to drink and to get tipsy, and by his drunkenness the unhappy child becomes the laughing-stock and the plaything of the wretches who are not ashamed to impose on his feebleness and inexperience.

It is sufficient to pass through certain quarters on a Sunday or a *fête* day, and then one is astonished to see at tables with their parents, at the doors of one of those low wine-shops which swarm in the workmen's districts, children of four, five, seven, and ten years of age, with a glass of wine before them. Does the child refuse to drink, there are reprimands — sometimes even cuffs are given because of his repugnance, and under the rule of terror he takes the poison. Is he ill after? Without being put about, the father answers, as one said to me: "This little

— is not able to take a glass of wine ; it will nevertheless be necessary that he habituate himself to it." And another unconscionable one, whom I incidentally reproached for giving drink to his son of scarcely seven years of age, answered me: "But, doctor, if you knew how gay and cheerful the little one is when he has drink! And then, truly, he is so droll, so amusing, that he makes everyone laugh."

In spite of all that I have been able to say, in spite of all the eloquence I have put forth in order to convince the father of the irretrievable danger to which he exposes his child, in spite of the blackest picture I have been able to paint of the miseries which he voluntarily reserves for his son, I have never been able to make him listen to the voice of reason. Such parents have treated me as a trouble, a bird of evil omen, and they do not understand, or rather they do not wish to understand, that a little wine from time to time may have a grievous influence on the future of the child. The father, working a farm, drinks daily, but is never tipsy. "*He* bears up with the drink," he says, "and it is impossible the drink should work evil in the child." What a sad destiny is reserved for this child! Son of an alcoholic, he will soon become one himself, and that more quickly through the double influence of heredity and education. Note that this is not an isolated case. There are legions of parents who are so wanting in intelligence as not to understand all the danger there is in teaching their children to drink. Without regard to her dignity, and forgetful of her *role*, it is sometimes the mother herself who forces her child to drink. And there are unscrupulous shipmasters who, in order to get a maximum of work out of their apprentices and their cabin-boys, induce them, and themselves urge them, to drink. We are preoccupied at this moment with the traffic in spirituous liquors in the North Sea. The traffic takes place on board what are veritable floating taverns, and is becoming greater and more extended every day.

The dipsomaniac, who must not and ought not to be confounded with the alcoholic, may be and almost always is one predisposed by heredity; but in any case he is not a vicious person. He is partially delirious, the attacks intermittent; he is the prey of a veritable impulsive madness. This delirium manifests itself by paroxysms, and that is an essential characteristic. Dipsomania is not an appendage of men only; it is very frequently met with in women, and amongst young girls as they arrive at womanhood.

The form which intoxication assumes among children varies much. We may there encounter almost all the varieties that we see among adults. Nevertheless, there is one form more frequent — constant, we might say — and that is the form we may call *massive*. The child who has drunk to excess generally falls dead drunk, struck down. With him the first two phases of intoxication, that is to say, exaltation of the affections and of the intellect, pass most frequently unperceived, and without opposition he arrives at the state of comatose apoplexy, from which nothing will draw him. The form *furiosus* is equally observable; it is a veritable fit of acute mania. As to the form *gay*, it is but the first degree of intoxication which we have already pointed out.

The pathological manifestations may be ranged into two groups. In the first we place the diseases of the understanding, the affections, the morals (aberrations of the feelings, *delirium tremens*, etc.). In the second we place the physical diseases (cirrhose). We have examples of them, but it would be too long to enumerate them here.

A priori, the prognostic ought to be very reserved, for if at times through care and precaution, by means of hygiene, and above all by the aid of the parents, we can succeed in moderating the habit of intoxication in the child, if we are able thus to rein up his defects, it does not the less remain a terrible inheritance. The evil, we may be certain, will not lose its rights. It may be calmed for a time, but at the moment when we expect it the least it will be seen to reappear, not under the primitive form, which shall have been

cured, but under a new manifestation, affecting principally the nervous system (nervous madness), or the respiratory system (tuberculosis). It is in this way we discover those cases of false cures we have studied in a previous paper.

How often, after a cure which has been believed to be complete, an insignificant occasion has reawakened the evil which was asleep, but not destroyed! It is necessary never to pledge ourselves that a cure has been effected when the question is alcohol. "Who has drunk will drink," says the proverb, and never has proverb been more fully justified. Now, when the observation of every day shows us that persons who can understand the voice of reason fall again inevitably and fatally into their vice, we can understand how dangerous it is to maintain that the child who has once given himself over to drink will not recommence, one day or another, in spite of all that we may be able to do to correct him.

The cure of alcoholism in childhood ought to be looked at from three points of view, according as we have to struggle against the grievous tendency of heredity, the personal disposition of the child to give himself up to drinking, and the effects, acute or chronic, due to the absorption of alcohol. The fact cannot be disguised that the preventive treatment is the best of all, and the true preventive treatment in respect of childhood is the treatment of progenitors. In suppressing alcoholism in the parents, you suppress the terrible effects alcohol produces in the children. But this is an Utopia. Since the world was the world, man has always had recourse to spirituous liquors, and unhappily, alas! has not limited himself to the use of them. Very soon he has passed to the abuse of them. We cannot hope to be able completely to cure this deplorable mania. Let us seek to lessen it, to diminish it, and this will assuredly be a great step.

But how is this desired result to be arrived at? Who can prevent drunkards having children? It is often amidst the fumes of vice that the alcoholics are the most strongly

drawn to the pleasures of sense. Do you say that reason and good counsels will be effective? A moving picture of the fate he prepares for his children? The alcoholic will yield to your reasons; he will agree with you; he will promise you all that you wish, and there is no reason to doubt that he will do all this in good faith. But temptation is stronger than his promises; a glass is very quickly drunk, and the best promises fly away with the first drops of the treacherous drink. "The struggle against drink cannot be efficacious except upon the condition that society and the public authorities comprehend the extent of the danger, and recognize the pressing necessity of taking in common efficient measures against the all-powerful enemy."

Certainly the preventive treatment is the most efficacious for alcoholism in the young. But the evil having been acquired, what remains for us to do? What are the measures we have at our disposal, and what ought we to attempt in order to lessen the evil?

Here hygiene plays the most important part. Attention to hygiene by private individuals and attention to hygiene by the public authorities are powerful factors in the struggle against the scourge. Since it is common that men drink wine, is it not a chief point not to give him injurious substances which, even under the name of wine, brandy, liquors, etc., are only disguised poisons, and on that account all the more to be dreaded, since they conceal under an agreeable taste their dangerous and terrible effects? We agree completely with the proposition of M. Brouardel, who demands that only pure drink should be sold, without the addition of any injurious substances.

Is it not also, and above all, to the social elevation of the working classes that it is necessary to address ourselves? Certain it is that after a day of labor the workman, who returns fatigued and does not find his home a place where he may rest himself, goes to the tavern and there learns to drink. Is he blamable for this? Once on this declivity he does not stop, he cannot stop. He spends his wages on

drink, black misery enters his dwelling, but little he cares for that. He has taken his course. He drinks and drinks always, expends in killing himself that which he has painfully earned, and is indifferent to the sight of his children who cry for bread. To succeed in ameliorating this condition of things would not, it is true, destroy drunkenness, but it would be a great step in advance.

It must not be forgotten that the evil reigns as master among the upper classes, where are to be found all the conditions of comfortable living. We see men of the world giving themselves over to their disastrous passion without discredit, without shame. These are diseased, and we find such equally in the working class. But how many alcoholics have become such by frequenting taverns, who, in other surroundings and in other family conditions, would never have dreamed of following the example of their companions? There is here a great social question, which it is difficult to solve, it is true, but which is, nevertheless, not insoluble. When public hygiene shall have become what it ought to be, it is certain that alcoholism will be diminished.

When alcoholism is disclosed, and it is found to be an acute case, it is necessary to have recourse to curative treatment. Among children we have most frequently to do with cases of acute drunkenness. Monin has very well indicated what it is necessary to do in these circumstances. In the rarer cases of *delirium tremens*, the treatment is that which is followed with adults, but modified, according to age, after the admitted rules of therapeutics. In a word, the curative treatment is that of the symptoms.

The law of 1873, for the repression of public drunkenness and for struggling against the progress of alcoholism, enacts many penalties against those who are found in a state of intoxication. But they are applicable to adults and not to children. And thus, as in the cases we have cited, the child is not punished; he is discharged with a rebuke. The punishment, however light it might be, would be felt by the child, upon whom the apparatus of justice always pro-

duces a great effect. Who knows whether some punishment would not be an effective means of repressing his tendencies?

But should this action by punishment be taken against the predisposed, the hereditary? Evidently not; the fatal blemish cannot be made to disappear; it is almost certain that, sooner or later, the unhappy ones will succumb. These are only in part amenable to the judicial tribunals; it is for them and them only that we can plead extenuating circumstances. They should be placed under the physician rather than the justice. They are the diseased to whom it is necessary to apply the rules of a rigorous therapeutic. But be this as it may, we should not neglect the chances of safety, small as they may be; and although a punishment justly inflicted does not eradicate the evil, except in some cases, have we a right to neglect the chance of safety which is offered to us? Ought we not to struggle energetically by all possible means? It is for the legislator to frame the enactment we wish to see inscribed on the statute book for the suppression of drunkenness; and it is for him to furnish an arm the more for the fight against the scourge which every day invades us more and more.

To sum up:

Drunkenness exists among children, and is more frequent than people imagine.

It is observed amongst them in nearly all the forms in which it is found among adults.

In the majority of cases it manifests itself among the predisposed, the hereditary, the degenerate.

The prospect is most serious on account of heredity and the uncertainty of treatment.

The treatment ought to be principally, and above all, preventive, not neglecting, however, the treatment of symptoms and complications.

ALCOHOL AND PNEUMONIA.

BY JULIUS POHLMAN, M.D.,

Professor of Physiology in the University of Buffalo, N. Y.

The action of alcohol on the different organs of the human body has been investigated so carefully and systematically that it almost seems impossible to add anything new on the subject. Looking over the literature we find abundant evidence of careful study of the question in its bearing upon heart, brain, liver, kidneys, and the digestive tract; but, strange to say, the lungs have apparently escaped attention, although a few straggling notices hinting at the true relation between alcohol and the respiratory organs have been published at different times and in different countries. As early as 1855 Dr. B. Cohen (*Zeitschr. für klin. Medizin*, Breslau, 1855, p. 401) maintained that the abuse of alcoholic drink is a strong predisposing cause of death when the drinker is attacked by pneumonia. Out of fifty-seven such cases treated at the Breslau Hospital, twenty-four died. Another notice confirming this statement is given by Dr. William Osler in a report on pneumonia in the Pennsylvania Hospital. According to this authority, pneumonia is, as a rule, fatal if a drinker is attacked when under the influence of alcohol; if cases of chronic alcoholism are excluded, the death-rate for that disease in the Pennsylvania Hospital, 29 per cent., would be only 8 or 10 per cent. A few reports are on record of autopsies made on children who died after drinking large quantities of strong drink, stating that the lungs were dark and congested, but no experimental evidence has been given as to the action of alcohol in the production of pathologic conditions of the lung-tissue.

In order to determine this question I made a series of experiments during the winters of 1890, 1891, 1892, and 1893, and the results are embodied in this report.

The animals used were dogs, male and female, mongrels of very mixed origin, picked up from the streets by the city dog-catchers. They ranged in weight from fifteen to twenty-five pounds, and were all apparently in good health, if voracious appetites and strong fighting propensities can be accepted as indications of physical well-being. Twelve animals were used during 1890-91, ten the following winter, and nine during the winter of 1892-93.

The experiments were simple. The animal, carefully etherized, received an injection of a quantity of commercial alcohol, varying from one dram to one ounce, into the trachea just below the larynx, by means of a large hypodermic syringe. After the narcosis had passed away the symptoms were noted, from hour to hour first, from day to day later, and post-mortem examinations made after a certain time, varying from half an hour to four weeks, gave evidence of the internal conditions of the respiratory organs.

The general symptoms were invariably the same, differing in severity only according to the quantity of alcohol given and the age, weight, and strength of the animal experimented upon. The terms age and strength are used guardedly, for the temptation is strong to say "idiosyncrasy;" otherwise it is difficult to account for the different effects produced by equal quantities of alcohol upon dogs of the same weight. For instance, two dogs, each weighing twenty-five pounds, were treated with a dose of two drams each, and one died after one hour, and the other after six hours; while two other dogs of twenty-four pounds weight, and two more weighing respectively fifteen and eighteen pounds, received the same quantity, two drams each, and all four survived and were as well as ever after four weeks. One dog, weighing eighteen pounds, died in five minutes after receiving two drams of alcohol, while another, of fifteen pounds weight, took one ounce, and recovered.

So, where there is a similar idiosyncrasy in dogs as there is in men, or whether the differing results were due to age and strength of the animal, is an interesting question open to discussion.

The symptoms in all dogs experimented upon were alike and as follows: difficulty in breathing, increasing with the advance of the inflammation set up in the respiratory passages by the action of the alcohol, until it finally resembled a wheezing noise and called into activity all the accessory respiratory muscles; stethoscopic examination gave evidence not only of the difficulty which the air encountered in trying to force an entrance into the bronchial tubes and air-vesicles, but also of the tumultuous beating of the heart while attempting to drive the blood through the capillaries of the lung. Copious expectoration of a bloody, frothy mucus indicated the progress of the disease.

As the animal weakened it usually pressed itself against the wall of the room with the thorax as much as possible resting on the floor, and displayed a constant desire for cold water, probably due to the feverish condition induced by the inflammation. No temperatures were taken, for after three thermometers had been broken by the struggles of the animals the attempt to gain correct information on that point was abandoned.

Post-mortem examinations always showed the lungs dark and congested, solid in some places, so solid indeed that these parts sank when thrown into water.

Cutting into the lung, the air-passages were found to be always filled with bloody, frothy mucus; even the animal that died five minutes after the injection presented the same symptoms. The lungs were dark and congested and full of bloody mucus, showing the rapidity of the inflammatory processes and clearly demonstrating how *acutely sensitive the respiratory passages are to the action of alcohol.*

There is probably no danger of meeting contradiction when we define pneumonia as an inflammation of the lung-tissue, whether of bacterial or traumatic origin, of lobar or lobular form, need not concern us here, as long as we are satisfied that these inflammatory processes produce the phenomena observed in the respiratory passages during an attack of the disease.

Alcohol introduced into the lungs of dogs sets up a pneumonia more or less severe. Whether we call it a traumatic pneumonia, or a broncho-pneumonia, or coin a new name for it, will not change the fact.

On microscopic examination of such lung-tissue the air-tubes and vesicles are found to be partially or completely filled with immense numbers of red and white blood-corpuscles and large quantities of mucus, and present the same picture as that obtained from a slide made from the lungs of a child that died from broncho-pneumonia, and although one is from a human being, the other from a dog, the former representing a well-known type of disease, the latter an artificial form, the similarity between the two is certainly striking enough to prove that the pathologic condition of the lung-tissue is the same in both, and that the alcohol has induced inflammatory processes very closely resembling, if not absolutely like, those found in attacks of broncho-pneumonia in human beings.

Admitting then that alcohol *can* produce all the grades of inflammation of the lung-tissue from the mildest to the fatal form, according to the quantity used, we can perhaps understand to some extent why drunkards if attacked by pneumonia will succumb more speedily than the patient of temperate habits.

By virtue of the alcohol coursing with the blood through the lung-capillaries on the one side, and the alcohol exhaled with the breath, be it ever so little, filling the air-vesicles and air-tubes on the other side, the lung-tissue itself, so sensitive to alcohol, stands between two fires, so to speak, and must be in a chronic state of semi-engorgement, of mild inflammation, like the highly-colored nose of the drunkard or the engorged mucous membrane of his stomach.

Certainly such a state of affairs will change the normal condition of the cells of the lung-tissue and reduce their vitality, and in proportion their power of resistance to external influences; and if now a severe, acute form of inflammation, such as pneumonia, is added to the pathologic condi-

tions already existing, the lungs find themselves powerless against the attack of the disease, and the drunkard's death-rate from pneumonia illustrates the time-honored law which says that an organ or organism weakened by previous ills cannot compete with normal organs in fighting the battles against acute diseases in the struggle for existence, and the man of temperate habits, with lungs free from alcoholic inflammation, has from five to seven chances for recovery from pneumonia when the drunkard has only one.

TWENTY-EIGHT per cent. of the inmates of the mad-houses in Austria are drinkers. In the month of August, 1894, twelve drinkers suddenly became insane in Vienna. He further stated that drunkenness affects the increase of population. Out of 57 children from 10 drunken families, only 9 were strong enough to live; whereas out of 61 children from 10 families, where the parents were sober people, 50 remained healthy. Drunkenness increases crime. Fifty per cent. of all criminals committed their crimes through excess of drinking. In the years 1871 till 1875 the Viennese police alone were obliged to arrest 25,000 people for drunkenness. Dr. Roser says that what the country gains from the tax in the manufacture of spirits, it loses in its lunatic asylums, prisons, and its criminal courts.

Inebriety seems to be increasing as shown by the figures of the *Interstate Revenue Commissioner* for 1893. This report says that the sixty-five odd millions, comprising the population of this country, consumed 88,777,187 gallons of alcoholic spirits and 1,054,785,376 gallons of beer during the year. These gallons would make more than 6,000,000,000 drinks of whisky and nearly 13,000,000,000 glasses of beer, for which there was paid to the barkeeper \$1,226,258,000. The naked figures are sufficiently eloquent of the resultant amounts of misery, disease, and premature death.—*Food.*

THE OPIUM CURSE AND ITS PREVENTION.

T. J. HAPPEL, A.M., M.D., TRENTON, TENN.

In a paper written a few years ago, entitled, "Morphinism in its Relation to the Sexual Functions and Appetite; and its Effects on the Offspring of the Users of the Drug," I gave a detailed account of eight families in which the mothers were addicted to the use of morphine. Since that paper was completed and read, I have had occasion to note the effect of the drug in a few other families, and the results have served to confirm the views set forth in that paper, *viz.*: That the children of mothers who are habitual users of the drug, in the majority of cases die within a week of birth, cyanosed from an incomplete development of the heart. Second: That if they survive the first year, they are puny, delicate, nervous children, lacking in everything going to make up a well-equipped boy or girl, mentally and physically. Third: Should any of the offspring of such mothers attain to adult life, they become either morphine habitués, or drunkards. That the effect upon the mother is such as to transmit to her offspring the disease as a heredity, just as tuberculosis—not that the disease itself is transmitted, but that "a condition, a soil, a nidus, or whatever you may please to call it, is handed down to the child, and some fortuitous circumstance develops the disease."

If this be a true picture, and I am constrained to believe that it is, a great responsibility rests upon some one to proclaim the evil everywhere and to enforce every possible means of preventing it. The most important branch of medicine to-day is that of prophylaxis. Disease is easier to prevent than to cure. To cure this curse, the using of the drug must be prevented. Once in its toils, to abandon the use of it is one of the greatest undertakings. It has been truly and aptly said, that to abandon its use is to suffer the tortures of

the damned. Further, without the full and free consent of the patient, and his or her hearty co-operation, to break the morphine habit is well nigh impossible. I would say nothing to discourage any one, but my own observation teaches me that it is far easier to abandon alcohol than opium. The using of opium is increasing daily. Public sentiment cries out more loudly to-day than ever before against the use of alcoholic drinks. Public opinion is against it. The dram-drinker is not countenanced in polite society. All business enterprises and corporations discriminate against those who use alcohol. The great railroad systems put as a first question to an applicant for a position in their employ: "Do you use alcoholic drinks of any kind? If so, how much, and what?" Not content with the answers of the applicant, his character upon that point is closely investigated at home where he is known. Should it appear that he uses intoxicants, he is at once refused a position. Further, an employe is at once dismissed if found at all under the influence of liquor. One drink is recognized as, to that extent, unfitting a man for a trustworthy position in the employ of the company.

One of the most important questions in all life insurance applications is: "Does the applicant use any stimulant in the form of any alcoholic drink?" Should it be shown that he is a regular drinker, he is at once rejected. The fraternal orders are all blacklisting saloon-keepers and bartenders.

These things are cited to show the current of public opinion. The retail sale of liquor is regarded by communities as disreputable, but are we not "straining at a gnat and swallowing a camel?"

Forty years ago the United States imported 72,000 pounds of opium; in 1880, 372,000 pounds; and in 1893, nearly 1,000,000 pounds. This increase is largely out of proportion to the increase of population and the legitimate demands of medicine. The medical and surgical world were never more united upon any one measure than on the effort to discourage the use of opiates in many diseases where it was formerly thought and taught to be *sine qua non*.

Within the twenty years of my practice, I can see that not more than one-fourth as much morphine is used now as was used when I began work. The teaching of to-day is, when in doubt as to the propriety of an opiate, do not give it.

The medical profession, then, is not to be censured for the increase in the consumption of morphine. Its use is continually discouraged by all reputable practitioners of medicine.

Of course in the last stages of incurable diseases, such as cancer and the like, a sufferer is excusable if he uses the drug, but not otherwise. The physician is frequently unjustly blamed because Mrs. A., or B., or Mr. C., or D., uses an opiate. In not one case in a thousand of this kind should any blame attach to the physician, because had he or she never taken a dose of an opiate except when it was prescribed by the physician there would have been no trouble; but once having found relief, the patient concludes that he can free himself from pain and at the same time save the cost of calling the physician, by bringing out the morphine bottle or the opium pill that had been put by for an emergency. Relief once obtained in this way invites another trial; soon the habit becomes fixed and the party becomes a morphine habitué, or an opium-eater or smoker.

Is the physician to blame in such a case? Nay, verily! He did right. The patient must shoulder the blame. The severity of the pain when the physician was called demanded relief, and a relaxation of the spasm of the muscles was necessary before the cause of suffering could be removed. For this purpose the opiate was given. The physician had nothing to do with the subsequent doses. Had they not been sold to the patient, he would not have been tempted and would not have fallen. A dose of an opiate, excepting pargoric or laudanum, should never be administered, save as ordered by a physician.

On September 13, 1894, this fact was most forcibly impressed upon my mind. I was called to see a two-year-old child suffering enteritis. The patient had been well

treated by the attending physician, but with no improvement. On consulting in regard to the case, a course of treatment was readily agreed upon, and it was remarked by the attending physician that he had not been able to quiet the child with what he considered full doses of an opiate, repeated every two or three hours. The mother, when called and questioned in regard to the dose of paregoric given, stated that she was administering a full half-teaspoonful every two hours, but that it had no effect upon the child. To an inquiry as to whether she had ever given the child any form of an opiate, she answered that she occasionally gave it a small dose of morphine; that she began using it for the relief of crying spells, when younger. Asked to show how much morphine she gave at a dose, she measured out a full third of a grain, for a child about two years old—fully seven times the usual dose. This at once revealed why no effect had been obtained from the medicines already administered. This dose of morphine was measured from a bottle produced from the family medicine shelf. No physician had ever advised morphine for the child.

Too often is it the case, the first investment made in a family when a child is born, is a bottle of "soothing syrup;" "Bateman's Drops;" somebody's "quick cure for colic," or some such-like remedy. All of them are sold warranted to contain no morphine or opium. The various consumption cures and cough remedies, with high sounding titles—too many, with the certificate of some business man, lawyer, or preacher appended, attesting their virtues—put upon the market at the present time and sold over the druggists' counter, are to blame for many a ruined member of society, cursed with the opium habit. This is not overstating the matter—rather understating it. Ninety-nine out of every hundred of these various preparations sold contain opium in some form although they state upon their faces that they contain no "morphine." They may not contain simply morphine, but the foundation is some preparation of opium, and they sell because they stop the cough and make the "patient

feel good." A dose of paregoric, laudanum, opium, or morphine would do the same. Once having obtained relief, that patient advises some one else of the wonderful relief and benefit he, or she, obtained and the new victim tries it, and soon another fully-fledged opium habitué results.

Should a dose of such stuff be given to the offspring of a morphine-using mother, the smouldering fire at once begins to burn. The thing necessary to develop the habit has been given—the match has been applied to the rubbish pile, and it at once blazes up and burns with a flame that can not be subdued. Doctor Crothers, of Hartford, Conn., cites many cases in proof of this statement. One will answer my purpose. "To parents, both neurotic and probably opium-users, a child was born. They died, leaving the child nervous and irritable. Morphine was accidentally given to quiet it, and from that time forward it became delirious without a daily dose of morphine. At five years of age, it died a confirmed morphine-user." The literature of the day abounds in such cases. Was the physician to blame there? Nay, verily!

I have, in my own experience, met with a similar case where two sons, born to an opium-eating, morphine-using father, shortly after budding into a promising young manhood, began the use of whisky and morphine, and soon became wrecks mentally, morally, and physically; one dying not long since; the other being, in every sense of the term, a wreck. Though living, he is worse than dead.

Dr. Jules Rochard, in *Le Union Medicale*, draws a gloomy picture of the increase of the morphine habit in France and elsewhere. The habit, he finds, becomes incurable at the end of six months of indulgence. The fair sex and the doctors are, in his opinion, most deeply addicted to the use of morphine. Women seek less to hide the vice than do men. As a rule, men, and especially medical men, take the greatest pains to hide their vice—hence the number of those who use the drug cannot be correctly estimated.

In many cases parties have used the drug for years without being suspected of such a habit. The current literature

abounds in many such cases. A few years ago I was treating a medical friend in a case of pneumonia. I was much worried by the irregular effect obtained from the medicines administered, and, at the time, suspected that an opiate was being used, but could get no positive proof of the matter. A few days since, I learned beyond question that my quondam patient was a confirmed morphine-user. These are not exceptional instances. Numbers of just such cases, not only among medical men but also among the laity, are cited in Hare's *Practical Therapeutics*. This ability to conceal the habit is one of the distinctive points in the use of alcohol and opium.

A native Chinese preacher, in comparing the two vices, stated that he found this one striking difference between the effects of the opium vice among his countrymen, and those produced by alcoholic intemperance among Americans: "When the Chinese opium-smoker comes home at night, he does not abuse his children and kick his wife ; his wife kicks him."

The use of opium in some of its forms is, in my opinion, on the increase, and while the medical profession cannot be blamed therefor, it should, however, be held to some extent responsible for the state of affairs, because, standing as we do or should upon the watch-towers, we do not proclaim boldly to the families under our charge the dangers lurking in the use of all such remedies. We do not make proper inquiries about the progress of our little ones, and keep the parent posted upon the various household remedies administered. Many deaths have been reported of children a few months old, from unknown causes, where a careful inquiry would show beyond cavil that they were cases of opium poisoning.

I need not pursue this branch of my subject any further. Any one by a little investigation can establish the truth of it. The druggist sells the medicine, which he buys, for the money that is in it. He does not trouble himself about the composition of it. He reads the label, notes what it claims

to cure, and when a human being calls for a remedy to meet a certain ailment, he recalls the fact that he has on his shelves a bottle warranted to cure just such a case. He takes it down, assures his victim of the efficacy of the mixture, and sells it to him, pocketing at the same time a handsome profit. The remedy may do more harm than good, yet the druggist is not responsible. He has the stuff for sale, and the man wanted it and got it.

This could be prevented: First, by allowing no patent or proprietary medicine to be sold over the counter, which does not show on its label its true and exact composition. Any falsification in such matter should be punishable by a heavy fine. Second, no one should be allowed to sell drugs who is not a qualified pharmacist. In other words the present pharmacy law should be improved and made to apply to the whole State.

Were these ideas carried out and enforced as laws, all "soothing syrups," "consumption cures," "microbe killers," and such like would show upon their face their exact composition; and the mother would know with what deadly stuff she was drenching her child; would realize how rapidly she was laying the foundation upon which, in time, would develop a fully-fledged opium-eater.

In the next place, the law regulating the sale of poisons should be rigidly enforced. It reads as follows:

Milliken and Vertrees' Code. Art. E., Sec. 5635. "Any person who sells or delivers any poisonous liquid or substance, in addition to having the word poison printed or written on the label as now required by law, shall note, in a book kept by such person for that purpose, the name of the person to whom such poison was delivered, the date of delivery and the kind and amount of such poison so delivered, and shall keep such book open for public inspection."

Sec. 5636. "Any person violating the provisions of this article shall on conviction be fined not less than \$20, nor more than \$100. This article shall not apply to the prescriptions of regular practicing physicians."

Sec. 5637. "Any person, except a practicing physician in prescribing for a patient, who sells and delivers any tartar emetic, laudanum, morphine, or other drugs or medicines, without having the common name thereof written or printed on a label attached to vial, box, or parcel containing the same, shall on conviction be punished as provided in the preceding section."

Sec. 5638. "Any person who sells to any child under ten (10) years of age, any poisonous liquid or drug, without an order in writing from the parent, guardian, or other person having the legal care of such child, designating such drug either by its name or effect, shall on conviction be punished as provided in Section 5636, and may also be imprisoned in the county jail not more than three months."

The provisions of the law are plain. Morphine, opium, and laudanum are poisonous, and will kill with as much certainty as will strychnine, arsenic, and such like poisons.

Not one druggist in one hundred complies with the law. No register is kept in which to note the sale of poisons. Any thing called for is sold, and no questions are asked, except, "Where is the money?" When that is produced, the sale is completed and the drug is delivered. Often and over, a child of less than ten years of age steps into a drug store with a fifty-cent piece and a small scrap of paper, inscribed with one word "morphine." No name is signed. No questions are asked. The bottle of morphine is wrapped up and passed to the child over the counter. A death may follow on the sale, but the morphine cannot be traced. No register is kept in which the sale is noted, and hence no proof exists that A. or B. sold the poison, and no prosecution follows. Druggists say that the amount of opiates sold is beyond the comprehension of the average doctor, even; that they sell it day by day without knowing or even inquiring for whom it is bought. Such should not be the case, but so long as any irresponsible party, or child of tender years can buy without let or hindrance, the awful traffic will grow.

If the laws were enforced to the letter, and the name of

the purchaser of every grain of morphine entered in a public ledger open to the inspection of friend or foe. where the buyer did not present the prescription of a reputable physician for the drug, a halt would promptly be called. Even a chronic opium-user would draw back and hesitate to allow the public to know the quantity of the drug he or she consumes, for it is an incontrovertible fact, that open and notorious morphine habitués will always minimize the amount of the drug used. Time and again, in answer to the question as to how much the individual used, have I been given a quantity of about one-third or one-fourth of the amount that I knew was consumed. The opium-eater does not want the public to know how much he consumes. 'The habit is carried on in secret for years, till it bursts upon the public in some unexpected way.

The user of the drug will sacrifice money, place, position, honor; nay verily, in some cases even virtue itself, to obtain the vile stuff, and until some sacrifice of this kind is made upon the altar of appetite the habit remains concealed. It is a habit more seductive than alcohol, because, so to say, for a long time it can be kept as a private vice, while the habit of using alcoholic drinks cannot be kept long concealed. The odor upon the breath, the bloom upon the nose, the flushed face, the protruding abdomen, and many other signs soon proclaim the dram-drinker, while opium can long be indulged in without being generally known. The sleepy state as the drug wears off can be accounted for by a rest broken by watching a sick friend, or an undue nervousness from some cause.

The female sex does not often, in the country and small towns, become addicted to the use of alcohol, while opium claims more of them as its devotees than of the male sex. The latter attracts men and women; the former, as a rule, men only.

If the vicious habit, the use of opium in any of its forms, imposed a penalty only upon the person using, then the damage done would not be so great, but the unborn child

suffers—the evil is entailed. The sins of the mother are visited upon the children of even the third and fourth generations. The child, through no fault of its own, must suffer from the evil habits of one or both of its parents. This state of affairs should not be. The strong arm of the law, which looks closely after the moneyed interests of the child left an orphan, should be invoked to prevent a far worse condition than that of a moneyless orphanage. The child with no constitution at all, or with one leaning to vice and immorality, is a proper charge upon the state. If the state does not engage in prophylaxis, later on she will find that curative measures are both costly and, in many cases, without favorable results. Let, then, the physician do his part, and the laity do its part. Let both see that the existing laws are carried out to the letter: let them work together to get better laws enacted, and a great step will be taken in the fight against opium. Prevention is better, and more available in this instance than any other course.

As both a preventive and a curative measure, all chronic inebriates and opium-eaters should be committed to the insane asylums for treatment, and kept there until completely cured. No half-way measures should be taken in such cases. Laws should be passed broad enough in their scope to reach all such cases, and so drawn as to meet all objections that could possibly be urged upon the grounds of personal liberty. Opium-users should, to all intents and purposes, be treated as persons dangerous to the public, and not permitted to be at large.

The insane dodge is set up by them, when they violate the laws of our State, and this method of treatment simply would recognize the possibility of the existence of such a condition.

This paper has been written to air no pet theory of my own, but to invite the attention of the society to a great and growing evil.

1. Make our druggists obey the laws. Protect ourselves against them.

2. Let the patients know that if they will use the drug the unborn generation shall be protected, so far as it can be done, by putting the users where the drug cannot be gotten and the habit is broken.

TOBACCO AND BLINDNESS.

The Australian papers have recently published accounts of an epidemic of blindness in horses pastured in a district on the banks of the Darling. The horses grew very gradually blind. It was suspected that their infirmity was due to eating the leaves of the Australian tobacco, *Nicotiana suaveolens*. This plant began to grow in the affected district shortly after a flood, and the epizootic blindness followed. Baron Ferdinand von Müller, who has written on *N. suaveolens*, also discovered that a similar plague of blindness among horses in Western Australia arose from the animals feeding on a plant known as the grass lily. The whole question is discussed by Dr. Husemann, of Göttingen, in the *Deutsche med. Wochenschrift* of October 25. An infusion of the native tobacco leaf quickly killed a purblind stallion from the affected district. The chief point of interest in relation to "tobacco amblyopia" in man is the long time which this process of poisoning took to blind the horses. The blindness often took two years to become complete. It appeared to be incurable. The beast showed no signs of disease elsewhere, a blind mare and a half-blind horse being able to go 600 miles at easy stages to a veterinary station. Thus, as in man, tobacco amblyopia is not incompatible with bodily health.—*British Med. Journal*.

PARESIS coming on from syphilis and associated with excessive use of spirits is not uncommon, and is often masked and not recognized. Cases of inebriety are often paretic with a syphilitic origin, and require very active medication, and even then are incurable. Traumatism is often associated and requires careful diagnosis to eliminate.

SOME PERSONAL OBSERVATIONS WITH NITRATE OF STRYCHNIA IN THE TREATMENT OF INEBRIETY.

BY DR. E. T. BUCK, BROOKLYN, NEW YORK.

Inebriety may be divided into three classes, *viz.* : I, Habitual ; II, Periodical ; III, Dipsomaniacal.

Patients of the first class respond kindly to treatment, and the best results are obtained. Under this heading we find those who, under a press of business or business reverses, resort to the use of alcohol.

The man who is crowded with business cares or worry becomes tired out. He takes a drink to keep up his strength. It is not long before one drink is insufficient, and he naturally turns to alcohol, and where one glass sufficed, he now takes more. The stimulating effect of this soon becomes *nil*, and he finds that it is impossible to go long without spirits. It is at this time that the nitrate of strychnia given in small doses (hypodermically) is of great value if the treatment is continued long enough. Alcohol has been the cause of the downfall of many men and women, and if science has taught us that by the use of any drug or combination of drugs this craving for alcohol can be allayed, if only temporarily, it is a blessing to mankind. Nitrate of strychnia has proven great in the cases in which I have tried it. I take one grain to the ounce of distilled water, adding enough peroxide of hydrogen or pyrozone to keep the solution. Of this I inject ten to fifteen minims three times a day for the first week, night and morning the second week, and daily (preferably the morning) the third week.

There are two kinds of patients of the first class, *i. e.*, those who take the treatment because they themselves want to stop drinking, and those who place themselves in your

care to please somebody else, and not as an act of their own volition. The latter class is much more difficult to treat, as they will not try to help themselves. During the first few days visitors should not be allowed, and the patient should have as little excitement as possible. Dr. Crothers, Dr. Arnold, and others of experience give fluid extracts in place of tinctures, and in some cases an aqueous solution, where any amount is used or the remedy is used for any length of time. Patients suffering with this disease are extremely sensitive to alcohol, and the greatest care should be observed in giving anything which contains it, even to the slightest extent.

To illustrate the subdivision of the first class, *i. e.*, habitual inebriates, I give the histories of two cases that I have had under my care :

Mr. X. Æt. 30. U. S. Married. Clerk.

Father always healthy, never drank any liquor, and would not allow it in his house. *Mother's* history good. Patient came to me with the history of having drunk in moderation since twenty-first birthday. Had been obliged to do considerable extra work, which caused him to be at his office nights, and had taken a drink to brace himself up. Felt so much better that he continued the practice. Soon found that he wanted more than one drink, and not very long after he began drinking he was unable to eat his breakfast until he had something in the way of alcohol to give him an appetite. Had up to the present time been a man of regular habits and spent most of his evenings with his family. Now if he goes home early the children bother him. He reads his paper and then goes to sleep. About the time everybody else is going to bed, he wakes up and must have a drink. He meets acquaintances, and instead of one glass he has several, and goes home in a very poor condition. His wife has reasoned with him, but to no avail, and his friends have talked to him about his drinking, but he derives no benefit from them. Has tried several times to stop, but could not. When he consulted me he had been drinking for three months.

Treatment given hypodermically, *ter in die*, for first week, and at the end of fourth day did not care for alcohol. Nervousness and sleeplessness controlled with full doses of bromides, fluid extract cannabis indica, and trional. In this case trional was almost a specific. During second week gave treatment morning and night, and patient took long walks in the country, which did a great deal of good. Slept well and appetite improved.

Third week. One treatment per day, and was able to attend to his business. At this time I stopped the use of the hypodermic and gave tonic containing the nitrate of strychnia and arsenic, this tonic to be continued for a considerable length of time, varying the combination of drugs from time to time according to circumstances, but using the strychnia and arsenic as a basis. It has been over a year since the patient first came under my care, and he has not touched a drop of liquor since.

The second case, one that came under my care the same day, is in some respects quite different.

Mr. G. Æt. 35. Married. Painter.

Family history poor. Father had always been a heavy drinker, and for the past few years has had dipsomania and has had to be confined. Mother used to have periodical spells of heavy drinking, which would last for ten days or two weeks at a time. Would average six of these spells a year. Could get no history of any other trouble in either parent. Patient came to me at his wife's request, and, although he promised to do what he could to stop his drinking, still retained the idea that very little, if anything, could be done for him, as he had been to several physicians in years gone by, and received no benefit from them, with the exception of building up his appetite. Did not act as a person who would be glad to rid himself of the habit, but rather as one desirous of pleasing somebody else. Began treatment at once, and he did fairly well for about twelve hours. He then began to get restless, and on his wife's leaving the room for a few minutes, he arose, dressed,

and went out before anyone knew of it. Some friend found him and brought him home. When I saw him, shortly afterwards, I gave him twenty minims fluid extract cannabis indica. He had made the most of his short period of liberty and was well under the influence of alcohol. I now took the precaution to confiscate his clothing, and after a while succeeded in getting him to the state where liquor had no charms for him, and he remained in that condition for over a year, and had every prospect of continuing, but on losing his position he began drinking again, and I am told that he is as bad as ever.

One thing of importance in treating inebriates at their homes (virtually without restraint) is to gain their confidence from the first. In connection with the medical treatment, the diet and hygienic surroundings must be considered. Plenty of good wholesome food, and as much milk as may be desired. Long walks through the country are of considerable benefit. Patients should be required to retire at a regular hour, say ten o'clock, and rise at seven.

The second class, *i. e.*, periodicals, are much more difficult to treat. The physician cannot be too guarded in his prognosis as regards a permanent cure. Very few of the "cures" that are reported can be authenticated. The most the physician can hope to do with this class of patients is to stop their drinking for the time being and get them into such a condition that they will be able to attend to their business, and, as a rule, that is all they want you to do. The period of abstinence will, of course, vary with each case. I have known patients who have been used to going on "sprees" every three months, to go a year and more after being treated without "breaking out" again. As in the first class, the craving for alcohol ceases after the first few days, after which time a little more liberty may be allowed. As this class of patients are so liable to relapses, I advise that somebody be with them when out of doors, for a week or ten days. After that, if the attendant's report is favorable, they may be trusted to go alone. Early rising and retiring to be

strictly followed out, and a brisk walk of half an hour before breakfast will be found advantageous. The following history will illustrate:

Mr. T. Æt. 30. U. S. Married. Merchant.

Father was a man that used to have his "sprees" about every three months. His health was fairly good. Further than that patient refuses to give family history. I learned from outside sources that the last few years of his father's life were spent in a retreat.

Patient began drinking when eighteen years of age, and says that ever since his twentieth birthday he has had two "sprees" a year. Says he can no more help drinking at those periods than he can stop breathing. During the rest of the year he is a "teetotaler." A spree with this patient usually lasts two weeks, and during that time he can do no work, does not eat, and more than half the time does not know where he is or what he is doing. His wife came to me to help him to "sober up." My first treatment was given when he was sleeping off the effects of a five days' "steady drunk." On awakening he wanted to go out; said he'd go, and if he did not get his clothes would go without them, but after being reasoned with, decided it would be better not to venture. Suffered considerably with tremors, but these were controlled with bromides, and sleep induced by trional. After third day did not care for liquor. Appetite returned and slept well. This patient took long walks during second and third weeks, and was in good condition at the end of that time and able to attend to business. He reported once a week for a while, and then once a fortnight for a period of four months, and had no desire for liquor, but when six months had passed and he was about to make me his last visit, I noticed unmistakable signs of his getting ready for another spree. I put him under treatment for a week and aborted that attack. He has been very steady up to the present time, but I should not be surprised to hear of his backsliding at any time.

Those patients coming under the third division, *i. e.*,

dipsomaniacs, or true inebriates, are essentially institution cases, and unless they are able and willing to have trained assistants with them all the time, it would be very imprudent, if not impossible, to care for them in their homes, and to my mind should not be attempted, as they are liable to do themselves, and possibly others, harm.

Even if they are in a position to have trained assistants, it is an open question whether they would not do better if they were placed in some institution where they would be under the proper kind of restraint, which they could not possibly have when cared for in their own homes.

SOME FORMS OF INTOLERANCE OF ALCOHOL AND THEIR PROGNOSIS.—Dr. Smith calls attention to certain forms of alcoholic intolerance, and finds that those addicted to narcotics bear alcohol badly. Neuropathic subjects are also intolerant, but the outlook is favorable if the physician understands the circumstances, on account of its easy suggestibility, otherwise it is unfavorable. Psychopathic intolerance, with moral insanity in a more or less pronounced form, offers a gloomy prognosis, for relapses will be frequent. In epileptic intolerance one should determine if the epilepsy set in before or after its use. He is inclined from his observations to believe in an alcoholic epilepsy where small quantities of alcohol provoke pathological conditions of drunkenness, half-conscious states with an inclination to wander about, and finally pronounced epileptic seizures. Contrasted with the seeming gravity of this affection the prognosis is extremely favorable, as the patients are easily convinced of the cause. Relapses are frequent from such slight causes as the communion cup, wine sauces, etc., as but a few drops suffice to demonstrate the intolerance. With previously existing epilepsy alcohol may have been taken as a sedative with transitory beneficial effect, and to ward off the anxiety of a seizure larger doses are taken, and thus the disease is aggravated. After withdrawal the attacks frequently rapidly decrease or disappear.—*Medicinishe Neuigkeiten*, No. 48, 1894.

INEBRIETY IN WOMEN.

BY DR. ANDREW WILSON OF LONDON.

Of late days much interest has been taken in the topic which heads this article as its title. The *Daily Telegraph* started a discussion on the subject a short time ago, and, as is usual in such cases, a mass of opinions, suggestions, and propositions in the way of cause and remedy was elicited in the course of the abundant correspondence which ensued. Perhaps the discussion is only one phase of the inebriety question which is everywhere being "boomed" at the present time. There appears to have been an awakening on the subject of intemperance all round, and an earnest desire has been aroused once again in social history to get at the root of this great social evil, and as far and as quickly as possible to modify it or "reform it altogether."

The special phase of intemperance — that among women — has, of course, many very pathetic and heart-breaking phases of its own. First and foremost, there is the loss of self-respect, which is more to a woman than it is to a man. I say this advisedly, because I think it is probable that a lapse in any direction on the woman's part is attended with much more serious consequences than a similar slip on the part of the man. A woman's self-respect is her all. She is or can be damaged nowhere more severely than in her own eyes. The lowering of the standard of moral worth is to her an irreparable loss. She rarely recovers from the blow or event which she knows or thinks places her at a lower level than her sister-women.

Physicians are commonly of opinion, expressed as the result of experience, that the reclamation and cure of a drunken woman is a task of extreme difficulty. They will tell you that for one man who pulls himself together and

gets straight again, there are hundreds of women who are irreclaimable and incurable. I say the reason why the cure of inebriety in women is so rare depends on the fact that the loss of self-respect means so much more in the way of despair to the woman than it does to the man. And there is another reason still. Society, which looks leniently upon the faults of men, judges with Spartan severity the slips of women. For this, women have to thank women. It is they who are hardest on the erring sister; theirs is the voice lifted loudest in her condemnation; theirs is the hand which points to the streets; and theirs the sentence which ostracises their sister forever as a social pariah. The case of the man is very different. He is always treated, however many his faults, under a social First Offenders Act. When people talk, as talk they will and do, about the necessity for preserving intact the purity of society, they conveniently forget that there are two parties to be dealt with, and that the attainment of the social millenium is only to be accomplished by the condemnation of the man equally with the ostracism of his victim. But, as Rudyard Kipling says, "that is another story" altogether.

The recent discussion on drunkenness in women has elicited an opinion—I can hardly call it a fact—that inebriety is on the increase among females. Lady Frederick Cavendish, and other social reformers, boldly assert this opinion as true. The tipping of the East End ginshop is said to be reflected in the boudoir of the West End. The craving for stimulants, it is held, follows upon the life of unnatural excitement many women lead, and this may possibly be perfectly true.

The question of remedy is perhaps as difficult of discussion as that of the whole drink-traffic or of prostitution itself. Personally, I scarcely see that abolition of the drink-traffic will better an evil which reaches far below the surface of things on which the public-house stands. Limit licences, and you only increase a monopoly which, as things are, exists in full force. I do not believe legal measures alone will ever

touch the root of drunkenness either in women or in men. They may palliate the evil ; they can never cure it.

Regarding the question from the biological standpoint, one seems to get a little hope from the consideration that to remedy evils of our constitution we must work constantly, expecting to influence the living host by degrees and by small variations rather than by fits and leaps and starts. In every living species we find those who go to the wall ; sad fact though it be, these represent the wasted lives — the suppression of the unfit, in a word, which clears the ground of those who cumber it. Are we, then, working unconsciously to a better state of things through all this terrible sacrifice of health and hope and life ? I would fain hope so, although the prospect, I admit, is depressing enough as it stands.

Agencies are happily at work around us which must influence the question of inebriety in time. Education is doing much, and example is perhaps doing more. The spirit of the time is in favor of moderation, abstinence, and a higher standard of life all round. I say so, despite the fact that Cassandras are warning us that society is rotten to the core, and that the worst days of Rome are fast being repeated in our midst. Perhaps all this is inevitable from the rate at which we live. Each day of Europe is really "a cycle of Cathay" ; and we must pay for the pace at which we go.

It seems absurd for us to expect that, in a complex system of civilization like ours, we should have perfection of life and living attained so quickly as philosophers of an ultra-hopeful turn of mind would expect. "Slow and sure" is the way of life all round ; and surely we may look with some hopefulness to the decrease of inebriety among men and women alike, when education and like agencies have had time to make their mark. Meanwhile, if there is no panacea for the evil, there is no need to despair. While we wait for better things no man need find in waiting an excuse for not putting his hand to the plough, or for delaying to work as best he can for the bettering of our life as it exists to-day. — *London Post.*

Abstracts and Reviews.

REPORT OF THE ELLIKON HOME ASYLUM FOR INEBRIATES IN THE CANTON OF ZURICH, SWITZERLAND.

The following extracts from the annual report of this asylum will be of interest :

The rules of admission require a written agreement to remain in the home for not less than four months. In the case of wards and persons in receipt of charity, the agreement may be with the legal representative of the inebriate. The cost of maintenance must be guaranteed. "When there is want of room, cases holding out the best prospect of cure and Swiss subjects have the preference. Discharge follows on the expiration of course of treatment. If the cure is not yet sufficiently established, a new agreement shall be tendered."

With regard to the treatment in this home, we read :

"The main principle for the treatment of inebriety is complete abstinence—that is, entire abstinence from all alcoholic drinks. For the drunkard every form of alcohol is a poison which destroys him mentally and bodily. He must make the resolve to give it up for the whole of his life if he would be free from the debasing slavery of drink. Accordingly the principal, his family, and the entire staff must abstain from all spirituous liquors, so that in the whole house no mischievous example may be set to the inmates. The institute will, therefore, form a temperance community, whose members shall set before themselves the ideal and moral duty of zealously fostering and spreading this moral reform amongst inebriates. In the practical work of the moral elevation of the inmates of the institute each must, without exception, take his part according to the measure and char-

acter of his capacities. In work, of whatever kind it may be, lies the best means of strengthening his bodily and spiritual powers, above all his weakened will and character. The work accomplished by the inmates falls to the profit of the institution.

"With regard to religion, while all compulsion of special creeds shall be avoided, moral and religious restraint and consolation, indispensable for the higher working of the institute, shall be enforced and fostered with love and zeal. The principal shall, every day after breakfast and after supper, hold a religious service, which all inmates and staff, except the sick, shall be required to attend. Moreover, the creeds and religious wishes of the inmates shall be respected. Sundays, as far as circumstances allow, shall be taken up with Divine service, reading, general walks, conversation, and spiritual co-operation in combatting drink by the study of suitable works."

The principal must devote his whole time to the institute and have no subsidiary calling. He administers the institute, has control over the inmates and staff, orders the occupations of the inmates, and presides over the same. His wife has to supervise the kitchen, and the sewing and washing, with the help of the necessary assistance.

"The introduction of any alcoholic liquor into the house is most strictly forbidden. Every inmate and former inhabitant of the institute is strictly forbidden to partake of any drink containing alcohol, supper excepted. When medical precautions render it absolutely necessary to order wine for an inmate of the institute, then and then only may this be allowed in the form of a medical prescription under the strict control of the principal, with full notice of the amount, and a written intimation of the fact to the president of the committee of administration.

"As a rule no inmate may leave the institute during the first three months, not even with relations or guardians. Later on permission to go out is granted by the principal according to the circumstances and condition of the inmate.

The keys belonging to the boxes and other receptacles of the inmates remain in the possession of the principal. It is strictly forbidden to send food, liquors, medicines, money, or postal orders to inmates. It is strictly forbidden to inmates or attendants on their walks out, or on any other occasion, to visit inns or touch alcoholic drinks. Such acts will be visited by instant dismissal by the committee of administration, or in special need, by the principal. Inmates are required upon their honor to hinder such offenses, or to report them at once to the principal. . . . No inmate may have money on him. Money brought must be left by the patient at the time of entering the institute with the principal, a receipt being given."

The fourth yearly report of this institute, that for 1892, shows that there was one patient under twenty and three between twenty and twenty-five, out of a total of sixty-two. The following table shows the result of the home treatment as regards cure or reformation, and it is gratifying to note that the percentage of those who have been benefited has increased each year, while the percentage of those who have relapsed has decreased :

	1889.	1890.	1891.
	Per cent.	Per cent.	Per cent.
Have remained abstainers.....	27.3	33.3	37.5
Have remained temperate.....	27.3	40.0	32.5
Relapsed.....	45.4	26.7	30.0

"The principal cause of cases of relapse, of which we have still to complain, is the short time the patients stay in the institution. It generally needs some months before an alcoholic subject has so far recovered that he has a true insight into his circumstances, and shows nothing morbid in his train of thoughts. A much longer time is needed before the patient's character and will is sufficiently strengthened that one can confidently trust him to the trials and tempta-

tions of social life. The average term of five and one-half months in the case of patients who have been discharged this year is therefore too short; in most cases the duration of cure should last twelve months. . . . The state should not only, under certain circumstances, bear the entire cost of maintenance, but, when necessary, support the family during the absence of the bread winner, and in such a way that the support should not assume the character of charity."

In the canton of *St. Gall* there is established an asylum for inebriates. In 1891 laws regulating this were passed as follows:

"Persons who habitually abandon themselves to drunkenness can be placed in an institution for inebriates. Art. 2. The duration of their stay in the said institution shall be, as a rule, from nine to eighteen months. In cases of relapse the term shall be correspondingly prolonged. Confinement in such an institution shall ensue—(a) by voluntary application; (b) by a declaration of the council of the commune.

"The costs of treatment in an institute for inebriates shall be defrayed out of the patient's own means. If he is without resources, or the costs of treatment are too heavy for his family to incur, they shall be levied on the poor rates in accordance with the existing legal prescriptions. Where it appears necessary, the state shall contribute to the cost of maintenance in the institute, and in exceptional cases a proportionate sum for the maintenance of his family during the time of the patient's treatment.

"One month before expiry of the course of treatment the managers of the institute shall furnish a report to those authorities who committed the patient to their care, and if the cure is not yet complete it can be prolonged within the limits of the time established in Article 2.

"During the time of treatment a temporary guardian can be appointed to represent the patient concerned. The same can be done even before transfer into the institute, as soon as a serious weakness of will consequent on an excessive use of alcohol is proved to exist by medical certificate."

HYPNOTIC SUGGESTION FOR ALCOHOLISM. — Bushnell (*Med. News*) reports twenty-three cases in which hypnosis and hypnotic suggestion was the line of treatment resorted to for alcoholism. In no case did he fail to hypnotize the patient. Eighteen were hypnotized on the first attempt, one on the second, one on the third, and one on the fifth.

The method was usually that of requiring the patient to fix his gaze on an object while the operator stood behind him and stroked the forehead evenly with both hands. Generally the patient's eyes close spontaneously in from two to ten minutes. In some cases they remain open and require to be closed with the hand. A more effectual but less agreeable method, is to sit facing the patient, who is to fix his eyes on those of the physician.

Hypnosis being induced, suggestions are given to the effect that the patient will have no craving for liquor; that it will be disagreeable to the taste and unpleasant in its effects; that sleep, appetite, and digestion will be good; that nervousness will disappear, etc. It is well to suggest that there will be no nervousness, no pain in the eyes, and no headache upon awaking, also, especially in the case of those who are hypnotized with difficulty, that there will be no drowsiness.

Hypnotism becomes easier with each repetition; and intoxication renders it easier. The treatments are repeated, if possible, daily for a week, then once a week for a month.

The results of treatment were: remained abstinent, eight; relapsed, but abstinent after further treatment, three; relapsed, and passing out of reach declining treatment, or continued to drink in spite of it, eight.

Bushnell has noticed that it is easy to render whisky repugnant to the senses of the patient, but it appears to be impossible to accomplish this in the case of beer. The loss of tolerance and cessation of craving for alcohol are reached, however, in the one class of drinkers as certainly as in the other.

ALCOHOL AND HAPPINESS.

The body uses its powers in resisting the outside forces which act upon it. Normally, there is a balance between body and environment. If environment prevails we are discouraged; if we are able to prevail, our spirits rise and our happiness grows. And it is not for the moment only, but we compare the accumulated impressions of the powers outside of us with the powers which our brains develop, and are happy or unhappy according as we feel our superiority or otherwise. Just how much does alcohol interfere in this balance of powers? It clearly can not lessen the power of outside influences which harm us; it can as clearly not increase our own powers in so far as they enter into this conflict with the outside world—it rather makes us less skillful and able. What can it do, then? It can deceive us. It dulls our appreciation of powers outside of us until they seem so much smaller that we are sure we can conquer them, and so we gain a feeling of satisfaction. Nine-tenths of those who take strong drink seek this feeling in alcohol. This is their “refreshing” at eventide, their “rest from the day’s cares,” their forgetfulness of sorrows; but it rests upon a deceit, and at the least trial falls into ruin. He who to-day forgets is not any stronger to-morrow, and so is constantly tempted to a new appeal to his false friend until his senses are so dulled that every duty is forgotten. His holiest interests are but shadows and mist before his eyes, and he knows nothing more but thirst for the deceitful drink. Even the defenders of alcohol at last call a halt; but they have forgotten that the first steps are much more easily undone than the later ones, when the brain has in a measure lost its power to control. They do not forget through malice, but because they have not rightly understood the physiological effect of alcohol.—*Dr. Fustus Gaule, in The Popular Science Monthly for November.*

TRIONAL AS A HYPNOTIC IN ASYLUM PRACTICE.

In the treatment of the protean forms of mental disease encountered in asylums for the insane, trional has proved a safe, reliable, and effective hypnotic and sedative, pleasant to take and free from irritating effects on the gastro-intestinal tract. The latest contribution to the therapeutics of the remedy is an article by Dr. Karl Grunfeld, a physician to the Insane Asylum at Budapest (*Pester Med. Chirurg. Presse*, No. 47, 1894) who has carefully compared the action of trional with that of other hypnotics in forty cases. The following is a résumé of these experiments.

In simple agrypnia, melancholic depression, conditions of moderate oppression as well as mania not attended with violent hallucinations, a refreshing sleep of six to eight hours' duration is produced often by doses of 1.0 grams, and always by 1.5 grams. The dose need but rarely be increased to 2.0 grams, and if so especially in paralytics.

The agrypnia, which in secondary dementia is usually dependent upon conditions of irritation, or is caused by the varied hallucinations of the insane, can frequently be combated by 1.5 grams trional, and 2.0 grams will fail to exert an effect only in special and exceptional cases.

In the more active conditions of excitement of chronic mania, and in paralysis attended with moderate motor restlessness, 2.0 grams trional usually had a reliable action, the effect being absent or very slight on the first, but satisfactory during the following days.

In paralytics suffering extreme motor and psychical maniacal excitement a satisfactory effect can only exceptionally be expected from 2.0 grams trional, while in many cases even 3.0 grams proved inactive.

As a sedative trional was tested in but one case and gave very satisfactory results. Grunfeld thinks that smaller doses will be required for this, since 1.0 gram sufficed to produce sleep in a case of chronic mania. A good effect was also obtained from the remedy in fractional doses in a

case of obstinate restlessness produced by marked hallucinations. In conclusion the author remarks that while the introduction of trional in psychiatric practice must be regarded as a gain, this concerns even more the general practitioner, since in the forms of insomnia met with by the latter the remedy proved of positive value.

NATIONAL INQUIRY INTO THE DRINK TRAFFIC.

After seven ineffectual efforts extending over as many years to have the government make an investigation into the traffic in alcoholic liquors, Congress has at last passed a bill to have the subject investigated by the *National Bureau of Labor*. Hon. Carroll D. Wright, the commissioner, has decided to conduct the inquiry along the following lines:—

“ 1. The relations of the liquor problem to the securing of employment: how far do, or may, employers exercise an influence by refusing work to persons who are known to be addicted to the use of intoxicants? The practise of government officials, large corporations, especially railroads, etc., should be learned. 2. Its relations to different occupations: how far is the use of liquors increased by night work, overwork, exposure to severe weather, etc.? 3. Its relations to irregularity of employment, such as may be caused by employment in trades which work by the season; the interruption of occupation by strikes, commercial crises, etc. 4. Its relations to machinery; how far does the liquor habit prevent the use of fine and highly specialized machinery; and, on the other hand, how far does the nervous strain involved in work with machinery induce the liquor habit? 5. Its relation to the mode and time of paying wages; is the consumption of intoxicants affected by the frequency of payments, by the time of the week at which they are paid, and by persons to whom they are paid? 6. Its relation to workingmen's budgets in different occupations and in different countries, or the ratio between the cost of liquor and the cost of living. 7. Its relations to com-

forts, luxuries, and pleasures; how far is the liquor habit counteracted by home comforts, good cooking, coffee houses, music halls, theatres, outdoor sports, etc.? 8. Its relations to sanitary conditions; how far is it affected by the plentifulness of food, by the ventilation of dwellings and workshops, by good drainage, etc.?"

THE PROBLEM OF HEREDITY IN REFERENCE TO INEBRIETY.

The problem of heredity, by which is meant the transmission of a parental and ancestral character to each new generation of organic beings, is one of transcendent interest in biology at the present time, not only because it seems to hold the key to a large part of evolution, but on account of its relations to many social, moral, and even political and religious questions.

Just now opinion seems divided among those who have studied the matter. One class, led by Weismann, holds to the theory of the "Continuity of the Germ Plasma," which teaches that "the germ cells are not derived at all, as far as their essential and characteristic substance is concerned, from the body of the parent, but directly from the parent germ cell, from which the individual has also arisen; so that heredity is brought about by the transference from one generation to another of a substance with a definite chemical, and, above all, molecular constitution," and "from this identical starting point an identical product necessarily arises."

Herbert Spencer attaches the greatest importance to the environment. Along this line of thought are those — perhaps in the majority — who believe that the predisposition to inebriety is inherited, due to the various neuroses present in the children of the intemperate parent.

The weak point in Weismann's theory is brought out by the observation that "the effect of use and disuse of limbs

and those of habit are transmitted to posterity in only a slight degree."

It has been pretty well established that the children of intemperate parents are afflicted with degeneracy and various neuroses. Associate this, then, with suitable environment and the drunkard or inebriate is an inevitable result.

Take a long line of inebriate ancestry of both parents, and it is more than likely that the direct inheritance of inebriety may be established. But, again, mix it with pure blood from either parent—especially the mother—and we believe the chain would be broken and merely the predisposition to inebriety be present in the offspring.

Another point in this question, which is likely to be overlooked and which, as far as results are concerned, might appear to favor Weismann's theory, is the inebriety of the mother during pregnancy. The impregnated germ, which has entered upon its career of development, is drawing to itself large and hourly increasing supplies of nourishment for many months out of the maternal blood, which contains alcohol in pathological percentage. In this case we deny, as some claim, that the inebriate offspring has directly inherited the disease, but has acquired the habit in the same way as if the feeding of the alcohol to the child had been delayed nine or ten months later and when the fetus had become an infant. Certain it is that the establishment of the direct inheritance of inebriety in the human race is going to be very hard to prove.—Editorial in *Medical Progress*.

From the Report of the Registrar-General for Scotland, the mortality of physicians from inebriety was 35 per 1,000, of saloon-keepers it was 169 per 1,000, butchers were 36 per 1,000. Deaths from diseases of the liver was below the mean among physicians, but away above the mean among lawyers. The risk of life was shorter than coal miners and his chances of inebriety was greater than cabmen, grooms, and hotel servants.—*Medical Press*.

THE ALCOHOL QUESTION IN GERMANY.

In a letter to the *Echo*, Dr. C. R. Drysdale says: "It is interesting to find that the excellent attempts which have been made in this country and the United States of America to wean the public from the use of alcoholic drinks are being appreciated by some of the ablest physiologists and pathologists in Switzerland and Germany. The *Berliner Klinische Wochenschrift* of September 10th, 1894, contains an admirable address by Dr. A. Smith, physician to a lunatic asylum on the Lake of Constance, on the attitude which medical men ought to maintain upon the alcohol question. Dr. Smith tells his hearers that as many deaths take place annually from diseases brought on by drinking as are caused by that terrible scourge of our race, pulmonary consumption, and he remarks that, of course, all deaths from alcohol are easily preventable, so that these common forms of misery would disappear if total abstinence were to come into fashion. But he has found, by examining the letters of 1,500 medical men who wrote him concerning patients to be sent to his asylum, that there is as yet a great ignorance prevailing as to the part played by alcohol in causing disease. Dr. Smith advises his medical brethren in Germany to abandon the ideas received by them when attending hospitals long ago, and to attend to the evidence of facts regarding alcohol recently brought to light. If they do this, they will soon see that all the favorite phrases — that alcohol is a valuable nutriment, a necessary roborant, and a very valuable exciter of warmth — are only the fancies put forward by those interested in the sale of alcohol, and that the truth is quite in contradiction of such fancies. They will then, he says, begin to recognize alcohol, whether in beer, wine, or spirits, as a poison of the brain and nerves of the worst sort, and find out that the so-called stimulating and care-destroying properties of alcohol are non-existent: but that these are caused by a paralysis of the intelligence and of the judgment, as any sober person can see if he enters a room where men have been drinking. Besides this, the observer will have to notice

that a whole list of dangerous diseases of the system and organs, which he used to treat by their symptoms alone, have their cause in chronic alcohol poisoning, which need not be very excessive, and that, unless he withdraw the patient entirely from the use of alcohol, he will fail to cure him. And, above all, he will learn how greatly the brain is affected by the use of alcohol, and how impossible it is often to restore insane patients to health unless all alcohol is withheld from them.

“Dr. Smith alleges that, in his country, the prescription of the medical adviser has, in an immense number of cases, been the origin of drinking in the patient; and this prescription is constantly quoted when advice to the contrary is given by those who see the damage done by alcohol. Dr. Smith observes that, in Germany, at present an alcohol ration is to be found in the diet lists of many of the hospitals. He narrates the case of a young man who had been a total abstainer, and who was given to alcohol in a military hospital to such an extent that he afterwards had an attack of *delirium tremens*. Delirium, he maintains, is extremely rare where diseases are not treated with alcohol. Because of the grave effect produced by alcoholic drinks upon the brain, physicians who direct lunatic asylums are most of all acquainted with the dangers arising from drinking. Dr. Smith believes that great drinkers are apt to engender children with tendency to nervous diseases, and points out that such diseases are increasing with the increase of beer palaces in Germany, especially since woman began to frequent them. Dr. Smith alludes with praise to Dr. Forel of Zurich, who conducts the lunatic asylum of that town entirely without alcoholics, and also refers with admiration to the practice of Colney Hatch and Hanwell in this direction. He goes on to say that medical practitioners ought to be total abstainers from alcohol. One reason he gives for this is that German practitioners often suffer greatly from alcoholic diseases, for country medical practitioners, he says, in Germany often drink to excess. Of 1,500 letters to himself concerning patients, no less than

436 were about doctors of medicine, 162 being both morphinists and alcoholics, and the rest simply intemperate in alcohol. He much regrets that so many physicians are against total abstinence, and, at most, favor simply moderation. No drunkard was ever cured by moderation, but only can be cured by total abstinence. And it is just moderate drinking which at present is the cause of drunkenness. Moderate drinkers, every now and then, take more than they can with impunity at Christmas and other festivals.

"Some medical men in Germany contend that they only use very little alcohol, says Dr. Smith, but that for the sake of social custom they must take a little. He, however, refers to the examples of five very distinguished physiologists, *viz.*, Drs. Bunge, Gaule, Hoffman, Forel, and Fick, all of whom are total abstainers. The very refusal of a physician to take wine will be certain to give rise to a debate on the subject of the use of alcohol in the society, and this, says Dr. Smith, will give a good opportunity for imparting information about it. Medical men ought, in short, to be the evangelists of total abstinence, since they alone well know the details of the diseases produced by this dangerous article of daily consumption to the masses.

"This lecture shows that in Germany the same arguments which have led to the existence of some 5,000,000 of total abstainers in this country are being heard among learned men and physicians. The consequence of this will be that, ere long, the modest virtue of teetotalism will become common on the Continent."

THE COURT'S OPINION OF INSANE DELUSIONS.

Until human nature radically changes, there will probably always be those who will seek some scapegoat for their crimes. At one time it may be one thing, and on another occasion something quite different. This explains much of the talk about irresistible impulse, hypnotism, insane delu-

sions, and the like. In this connection, one of the most interesting of recent legal decisions is that of the Supreme Court of Tennessee in the case of *Wilcox vs. State*, rendered Nov. 12, 1894. This was an appeal from a conviction of murder in the second degree. The defense relied on was the insanity of the defendant at the time of the homicide, it being insisted that the act was the result of an insane delusion upon his part, rather than a general derangement of his entire mental faculties upon matters generally. It was contended that when he did the killing he was suffering from the insane delusion that the deceased had been on too intimate terms with his wife. He had been addicted to the excessive use of morphine and cocaine, taking the drugs in doses sufficient to kill twenty men not addicted to their use, at a single dose; and he had carried on this habit for years, and had grown rapidly more and more addicted to their use, and come more and more under their influence. Many witnesses were examined, both experts and non-experts, in regard to his mental condition. It appeared that he was at one time a man of good mental capacity, described by many of the witnesses as an exceptionally bright man; that he was an active business man, had studied and practiced medicine with success, and was regarded universally as a man competent to attend to his business affairs. He was also shown to have been an arbitrary dictatorial man, of strong will power, and from his boyhood of quick, active, irritable temper. It was strongly pressed upon the court that many of his arbitrary and dictatorial acts were evidences, and the result, of his mental unsoundness and the strong hold which the drugs had obtained over his actions, and that the evidence presented a case of insane delusion, on account of which the verdict should not be upheld. But the court holds otherwise. Its answer is that in criminal cases the correct issue is not that of sanity, but of responsibility. The delusions of a sane man do not make him irresponsible. The question is in such cases, Is the delusion set up as a defense the delusion of an insane person? Many men of strong

minds, continues the court, have delusions. Remarkable instances are given in the works on medical jurisprudence of delusions in men of prominence in all the walks of life. Lord Kenyon had an unreasoning fear of poverty, and so did Lord Stowell, although he was a man of immense fortune, his home being absolutely destitute of the necessities and comforts of life. Lord Erskine would never sit at a table or remain in a company as one of thirteen persons. Lord Eldon, after he had made up his mind and expressed his opinion lucidly and conclusively, was at all times a prey to grave doubts of his correctness. Lord Brougham, upon more than one occasion, was placed in seclusion, his mind being clearly off balance. Judge Breckenridge of Pennsylvania is reported to have on a hot day, while holding court at Sunbury, gradually taken off his clothes, until he sat naked on the bench. Judge Baldwin of the United States Supreme Court was a hypochondriac. A distinguished New England judge imagined that a dropsical affection under which he labored was a sort of pregnancy. And yet none of these men were insane, because they had reason and sanity enough to conquer and overcome these delusions. A familiar illustration is that of the Mormon elders, who claimed that they had a direct revelation from heaven permitting them to practice and teach polygamy. The world generally regards this as a rank heresy, and the claim to be the evidence of an unreasonable delusion. It has, however, been held that they cannot defend on the ground of such delusion, inasmuch as otherwise they are sane, shrewd, active, successful, and unusually practical men in their business and social relations, and they have been held responsible for such delusions. Nor can it be that the jealous suspicions which so many men entertain without any foundation can be magnified into insane delusions, which will exempt them from punishment for crimes originating in such jealousy. In a sense, all unfounded suspicions are delusions, but they do not for that reason excuse crime.

The rule is tersely stated in Archbold's "Criminal Prac-

tice and Pleading" as follows: "The insanity must have been of such a kind as entirely to deprive the prisoner of the use of reason, as applied to the act in question, and the knowledge that he was doing wrong in committing it. If, though somewhat deranged, he is able to distinguish right from wrong in his own case, and to know that he was doing wrong in the act which he committed, he is liable to the full punishment of his criminal acts."

Moreover, the court makes the point that the insanity set up as a defense in this case was not hereditary or natural, but voluntary, in the sense of having originated from the use of drugs. While this is an unfortunate and unhappy condition, the law, it says, does not and can not regard it with the same leniency that it does cases of adventitious insanity, not caused by the act of the party himself. Parties who persist in subjecting themselves to the persistent use and habit of taking alcoholic drink or other poisonous compounds and drugs, cannot expect the same forbearance and immunity from punishment as those bereft of reason by the act of God. Still it is admissible and proper to show the immoderate use of drugs or whisky, not to excuse crime, but to illustrate the mental condition, with a view to fixing the degree of the crime as it depends upon deliberation and cool malicious purpose.—*Medical Review*.

COCAINE INEBRIETY.

It is but recently that this form of narcomania has found place in our nosology—so recently, in fact, that the profession at large at very much at sea regarding it, since reliable reports are few and far between, and the habit is very likely to be complicated with some other, such as the taking of morphine, excessive indulgence in alcohol, etc.

Doctor Norman Kerr, who easily stands foremost among authorities on inebriety and narcomania, in his latest work, mentions for the first time the cocaine habit, remarking *en passant* that in his experience it is comparatively rare and

for the most part confined to members of the medical profession. *Per contra*, a recent writer in the *Bulletin of Pharmacy*, writing from the standpoint of a pharmacist, seems to imagine the habit is much more widespread than has heretofore been considered, that it is continually increasing, and that its growing prevalence is largely due to the greatly reduced price of the drug. He also remarks that it is a pernicious habit among a certain class of pharmacists to offer "cocaine when asked for something that will relieve toothache, neuralgia, and countless other aches and pains; that in some way the erroneous notion has come to prevail that in treating the morphine habit cocaine is of great value in counteracting the effects of the former drug. Proceeding on this principle, numerous quacks have claimed ability to cure the morphine habit, . . . but in its stead the patients become cursed with a vice far more ruinous than all their former ills. . . . To use cocaine to cure the morphine habit is like jumping from the frying-pan into the fire."

Certain it is, the cocaine habit is the most seductive and terrible form of inebriety—the pleasant elation which the drug induces, and the apparent absence of unpleasant sequelæ that accrue to other forms of narcomania, lead to rapid destruction of the mental powers. Numerous cases of fatal poisoning by cocaine have been reported in current medical literature, but the number of known cocaine *habitues* is very few—perhaps because unrecognized or, as before mentioned, complicated with some other form of chronic intoxication.

If it is true that both the medical and pharmaceutical professions are responsible for the spread of the cocaine habit, owing to the freedom with which this most potent and treacherous narcotic has been prescribed for the relief of pain, it is certainly imperative that there be thrown about the sale of this drug restrictions which alone can be formulated and carried out by these professions, without any reference whatever to measures employed by the state.

That many of the victims are themselves medical men, is

undoubtedly true ; the remainder are for the most part made up of women and *litterateurs*. Doubtless pain has recurred after the soothing effect of the first use of the drug has passed away, and the same handy and charmed remedy is again had recourse to without any knowledge of the results that are certain and swift to appear. Thus the craving, beside which the fascination of morphine and opium is infinitesimal, has been acquired, and the victim awakes to the fact that he or she has become bound fast to a habit entirely unsuspected. In a few cases there is evidence that herculean effort and iron will have succeeded in effecting a deliverance, but unfortunately such instances are most rare.

It would appear also that in some instances the cocaine habit has been acquired through the ignorant employment of a prescription by the physician as a succedaneum to opium or morphine, or for the relief of some teasing malady like vaso-motor coryza (hay fever). Nothing can be more disastrous than the substitution of cocaine for some other drug, since it is considerably more speedy than any other narcotic in displaying its characteristic effects, and quicker in securing an abiding mastery over the taker ; the stage of exhilaration being more pleasant than that of morphine or opium, the drug is on this account also correspondingly more dangerous. Inebriates may indulge to most pernicious extremes in strong spirits for years without apparent mischief : some are even able to carry morphine narcomania to almost incredible lengths ere the drug manifests its deleterious qualities upon the physical and mental organism ; but, *per contra*, the mental decay and moral perversion of cocaine excess quickly appear and as speedily increase in intensity. In some instances where the drug has been employed subcutaneously several times daily, an insane condition has developed leading to crime and to suicide ; indeed, the cocaine *habitué* is always insane, and not infrequently a "raving maniac." There is also, under the influence of this drug, less sense of time than from any other narcotic, though all substances

possessed of anæsthetic properties seem to have a disturbing effect on the mental capacity.

While cocaine raises the temperature, its effects are much more swift and short-lived than those of morphine, while its tendency, in excess, is always toward delirium and raving madness. In fatal cases stupor and coma follow, with convulsions and paralysis of respiration—or, as Mosso and Kerr put it, “tetanus of the respiratory muscles.”

That cocaine acts chiefly upon the central nervous system, first stimulating and then paralyzing, is manifest; it contracts the peripheral blood-vessels. Under its use there is at first, usually, increased mental and bodily vigor, which speedily gives way to intense mental depression along with anorexia, insanity, hallucinations, and complete breaking-down of the mind, with volitional palsy and inhibitory prostration, all taking place in a much shorter time than the mental degeneration and physical decadence of alcoholism—in fact, demanding in many cases only as many weeks as alcohol inebriety requires years.

The peculiar overwhelming danger of cocaine addiction undoubtedly lies in the fact of the comparative absence of immediate after-effects. For some time at least—always, we might say, where the drug is partaken of in only limited quantities—“there is no *arrière gout*; no unpleasant taste in the mouth next day; no dry tongue; no nausea or morning headache; the pleasurable flow of happiness which seems to have left ‘no sting behind’ has indeed been a ‘rose without a thorn.’ Thus, deadly to all that is noblest and manly, to all that is ‘lovely and of good report’ in human kind, this speediest of brain disturbers threatens to excel all other mind poisons in its fell sway over the intellect and conscience of man.” (Kerr.)

The drug is usually taken subcutaneously, and the doses frequently follow one another in rapid succession. Taken, as it doubtless frequently is, along with or after some other narcotic, it greatly complicates any attempt at alleviation of the latter. Doctor Mattison of Brooklyn has reported a

number of interesting cases, as have likewise Erlenmeyer, Kerr, Connolly, Norman, and others, and all unite in the opinion that if taken in time the incipient form of cocaine inebriety is quite easily relieved, but the habit once confirmed is most intractable. Kerr declares one of his cases consumed thirty grains of cocaine daily; the writer personally knows of an instance where three times this amount of the drug was daily consumed; and yet one-seventh of a grain has been known to prove fatal to a stout, healthy man.

As regards treatment, there can be no dispute. It must be both mental and physical, and, like the treatment of all habits, is seldom of any utility except when carried on under complete and definite restraint.—*Editorial in Medical Age.*

DEGENERATION. BY DR. MAX NORDAU. D. Appleton & Co., Publishers, N. Y. City, 1895.

This work is translated from the second edition of the German in which it was originally published. No book for many years past has created more comment among scientific and semi-scientific readers. It points out in sweeping terms the evidence of degeneration in literature, religion, art, and music. With a free hand it levels the popular idols of the day, and with true iconoclastic spirit shows the folly and frailty of trusting degenerate leaders and theories.

The author is a physician and specialist, who is fully conversant with his subject and the authors he attacks, and while fair in his general treatment of the topic, has a strong personality that gives the reader an impression of intense feeling and desire to make out a case. On this, critics differ as to the value of his deductions. Beyond this there is a rich mine of truth and fact, that is new to most readers of psychology. His treatment of these topics is thoroughly scientific, giving the facts and drawing conclusions from them, showing the physical conditions that prompts this or that theory or line of reasoning.

The physical basis for the strange theories and isms of

the day is made prominent, more so than in any other work. The mysticism and strange confusion of ideas and conceptions of life noted in the writings of many modern authors are traced to brain failures and degenerations. Many of the aberrations and inconsistencies of inebriates are signs of decadence. Practical acquaintance with the physical and psychical defectives who are actively engaged brings out many problems which this work makes clear for the first time. In this respect it is the most suggestive and helpful study of strange men and women who pose as leaders. As a psychological study we think it is among the great works of the present day. Every specialist and medical man should read it, and be able to form some opinion of one of the most widely-read and critically-discussed books of the present time.

THERAPEUTIC SUGGESTION IN PSYCHOPATHIA SEXUALIS. By Dr. A. VON SCHRENCK-NOTZING. Translated by Charles Gilbert Chaddock, M.D., Professor of Diseases of the Nervous System, Marion-Sims College of Medicine. Phila.: The F. A. Davis Company. 1895. [Price, \$2.50.]

The great sensation made by the forerunner of this work, "Psychopathia Sexualis," by Krafft-Ebling, will certainly attract much attention to the sequel in which treatment by hypnotic suggestion is chiefly dealt with. A great many cases are cited in which the treatment has met with more or less success, on the whole the results being good, particularly considering the hopeless character of the malady under ordinary methods of treatment. No one can read these works without being impressed by the wretchedness of the unfortunate subjects of the maladies described, and the conviction is inevitable that many a one has been punished as vicious who was really diseased and deserving of pity.

This work gives another most impressive view of the new land of degeneration and dissolution which has not been occupied by scientific settlers before, a land that is being opened for study and promises to give a wider range for therapeutics than has been supposed possible.

COD LIVER OIL AND CHEMISTRY. By F. PECKEL MÖLLER, Ph.D., London, 33 Snow Hill, E. C.; Christiana, Norway: Peter Möller, New York: W. H. Schieffelin & Co., Copenhagen: A. T. Moller & Co., 508 pages. 1895.

This well-known firm of manufacturers have produced a book of great merit, not alone on account of the novel and interesting information in connection with the fishes and oil, but on account of the advanced chemistry it contains. One of the peculiar features of the chemic part of this work is the abandonment of the usual method of representing atomic parts in chemic formulæ and the introduction of a diagrammatic illustration. The book is an exceedingly interesting one, and notwithstanding its commercial origin is a distinct addition to medical literature.

HERNIA, ITS RADICAL AND TENTATIVE TREATMENT IN INFANTS, CHILDREN, AND ADULTS.

By THOMAS H. MANLEY, A.M., M.D., Visiting Surgeon to Harlem Hospital, etc., etc., etc.

This work is illustrated by sixty-five engravings and drawings with a full history of the ancient and modern operations for the hernial infirmity of every type, in both sexes, along with a full description of the varied anatomical types and the condition and the multiplicity of technique of modern time; it also embraces an entire chapter on cocaine analgæses as a substitute for pulmonary anæsthesia, with a full and complete set of rules for its indications and technique.

This is an excellent work, clear and practical, and is published by the Medical Publishing Co., Philadelphia, Pa.

The *American Journal of Insanity* has given marked evidence of new environments, new energies, and a broader editorial spirit in its change to Chicago, and to the care of a committee of which Dr. Dewey is editor-in-charge. It is without question the best journal published in both the quality of papers presented and typographical make-up. It is replete with signs of the new century, and broader, wider studies of psychiatry that are to come.

The Voice continues the "On to Richmond movement" for prohibition with earnest vigor and faith that promises success and fruition somewhere in the future.

The *Homiletic Review* for July contains a varied and exceedingly interesting collection of articles from some of the ablest writers on theological, ecclesiastical, and social subjects in the land. Published monthly by the Funk & Wagnalls Co., 30 Lafayette Place, New York city. \$3.00 a year.

Medical Declaration Concerning Chastity is an eight-page leaflet, just published, No. 29 of The Philanthropist Series. It is signed by many leading and influential physicians, and is a timely, important medical testimony for the promotion of purity. It is especially valuable for distribution by White Cross and Purity societies among young men, and should be given the widest possible circulation. Price, by mail, 20 cents a dozen; \$1.00 a hundred. Address "The Philanthropist," United Charities Building, Fourth Avenue and Twenty-second street, New York.

The *Phrenological Journal* has taken a high rank in its critical studies of eminent men. It has become national in its broad, generous criticisms, and should be read by every student of science. Send to Fowler, Wells & Co., New York city, for a copy.

The *Journal of Hygiene*, published and edited by Dr. M. L. Holbrook of New York city, has been before the public for forty-five years, and has attained an eminence and authority as the leading popular health journal of the world. It is both a teacher and preacher of hygiene in its highest and best sense.

The publication of Herbert Spencer's recent studies on sociology in the *Popular Science Monthly* gives additional value to this journal. "Professional Institutions." "The

Physician and Surgeon," "The Dancer and Musician," are among Mr. Spencer's most suggestive papers. Dr. White's articles on "Science" and "Criticism" are very attractive and widely copied. It is safe to say that no other monthly published brings a richer and more instructive table of contents.

MAP OF THE WORLD.—We are in receipt of a neat wall map, showing both the old and new worlds, according to the latest authorities. This makes a valuable addition to any doctor's office, and a copy may be obtained by addressing the Rio Chemical Co., St. Louis.

The Open Court Publishing Company of Chicago, Ill., issue many excellent works of psychology and mental medicine. *The Manist*, a quarterly, gives the reader a very clear view of the studies of evolution. This firm has recently issued a second edition of their authorized translation of Th. Ribot's *Diseases of Personality*, the first having been exhausted in three years. The popularity of Professor Ribot's works is certainly deserved, as they form delightful introductions to the study of psychology and are remarkable specimens of economy and lucidity of exposition. No other author displays such originality in placing under lucid points of view the disordered mass of data gathered by the psychological specialists. The present translation has been revised throughout and embodies all the corrections and additions of the new fourth French edition. The bibliographical references have been verified and an analytical index made, which will much enhance the usefulness of the book. (Pp. 163, cloth, 75 cents, paper, 25 cents.)

Bromidia has attained a great popularity and immense sale. It is an excellent combination and should be tried in every practice. J. W. Snowden, M.D., A.E., San José, Cal., on April 12, 1895, writes: "Your *Bromidia* acts like a charm. I believe it a safe, effectual, and reliable hypnotic."

Editorial.

ARRESTED DEVELOPMENT AND INEBRIETY.

A certain class of inebriates have arrested cerebral development and malformations. Certain organs and brain centers have stopped growing before maturity and left this part of the brain in a childhood and imbecile stage. If this arrest of growth is limited to the higher cerebral centers, abnormalities of conduct and character follow. Faults of judgment, of instincts, of consciousness, of the relations of right and wrong exist. Surroundings and conditions of life may conceal the real condition, but when they fail the imbecility appears. Often these forces are noted in quiet hygienic living, removed from mental excitement and strain; or from the influence of a wife, or parent, or friend who directs the higher mental activities. When these are withdrawn they are without power of control and suffer from irritative excitement, which finds relief in alcohol. The use of spirits is continuous and the inebriety is of a low imbecile type. The increased action of the heart from spirits is fitful, and followed by depression and sudden violent impulses, particularly where the lower animal instincts are disturbed. The attempt to rouse a person in this state for any purpose is repelled with violence, because it breaks up the calm of the present. Obstacles to the gratification of his present wants are overcome, in a wild unreasoning way; ignoring all other considerations except the immediate object of his impulses, he is at once most uncertain and dangerous in his acts. The brain in such cases is not only undeveloped, but is incapable of receiving impressions of duty or obligation, and particularly from acting from outside impressions, unless directed by others. In a recent case the following facts appeared. A. born of neurotic parents, suffered from

a severe attack of scarlatina at seven years of age, was a strange, impulsive boy, both stupid and unreliable. At nineteen he married, and for the next ten years was a quiet, steady workingman of low intellect, but inoffensive, temperate, and living normally. His wife died, and very soon he became an inebriate, drinking at all times and places to great excess. He was violent when disturbed or opposed, and resisted arrest, and attempted to run away when in the court-room. He was sent to jail for drinking and assault many times; finally he killed a man who resisted his attempt to steal a dinner-pail. He was hung as a sane man, who deliberately and willfully gave himself over to evil impulses. The defense of inebriety from arrested development and inherited neurosis, which broke out at the death of his wife, was treated with contempt. Physical signs of degeneration externally, and the insane conduct and unusual acts, coming on suddenly, were ignored by the jury. These cases are not uncommon, but it is remarkable that they should not be recognized in the court-room.

NEUROTIC INEBRIATES.

Inebriety which arises from a defective nervous organization is very common in every circle of life. Many of these persons possess an unstable invalid brain, with feeble and imperfect power of control, making it impossible to live along lines of consistent uniform thought and act. This often comes from inheritance, and early disease and faults of nutrition and training. They become mental cripples, and need care and the control of others as positively as invalids from surgical disease. They are unfitted to properly care for themselves in society, or to rationally adapt themselves to surroundings, and early become wrecks, because they are without power for rational adjustment. They may be endowed with a highly organized brain, but so unstable and so easily disturbed that alcohol, opium, or other narcotics are most grateful drugs to cover up the real condition. The

distress which follows strains and drains, and conditions of surroundings, ill adapted to favor the normal conditions of living, finds relief in spirits. Quickly this brain infirmity becomes organized into progressive degeneration. This may continue for a long time without marked symptoms of active disease, but the deviations from health and nerve and cell degenerations continually increase. Friends, society, and even physicians fail to recognize this condition, until extreme stages appear, and even then, theories of free will, willfulness, and capability of control prevail. These cases should have been recognized and protected from the first. Their lives and surroundings should have been ordered and regulated along fixed uniform lines. They needed protection from many conditions that were harmless to well persons. They needed direction and guidance where others could have walked alone. Many things in society and surroundings were injurious to them and they should have been guarded against the danger which was inevitable. Such persons are without the mental stability to apply absolute rules on themselves, they cannot resist the contagion and infection of surroundings, they are helpless before the impulses of their organism, they need constant direction and support.

Many of these persons appear well, and only when they become marked inebriates is their real condition recognized. From this class are recruited the wild enthusiasts and neurotics, and the dangerous criminals and contagious degenerates, who appear in mobs and advocate the most dangerous theories.

These cases of brain defects and disabilities must be recognized and proper remedies provided to protect individuals and society from the inevitable consequences of their unrestrained conduct.

The conductors of the Northwestern railway are not allowed to enter a saloon, much less to use intoxicating drinks, whether on or off duty

THE GOLD CURES.

No pretended discovery of modern times exhibits so clearly the motives and character of its authors as the gold cures for inebriety. The means used are enshrouded in mystery and concealment, and the theories are proclaimed and defended with extravagant dogmatism, and hysterical assertions of positive cures by the victims.

As empiricism, it lacks the usual psychological skill and commercial cunning, and displays a coarse transparency of purpose and methods, with egotistical assumptions of the credulity of science and intelligence, and the purchasable quality of truth. Scientifically it exhibits rapacity, shallow pretension, mysticism, misconception, and a very little knowledge of inebriety.

Psychologically it is simply an inebriate's theory for the cure of inebriates; a scheme of degenerates for the restoration of degenerates; an insane man's treatment for the cure of the insane, and all revolving round a center of cupidity that is kept very prominent in all cases.

Rev. Dr. Buckley, the famous editor of the *New York Christian Advocate*, a leading religious paper in the Methodist church, has made a serious attempt to ascertain the reality of the claims of ninety-five per cent. of all cases as permanently cured by the Keeley Gold Cure. From a circular mailed to his subscribers inquiring how many persons were known personally who were cured after taking the gold cure, he received ninety-three answers. The *Medical Record* writes of this as follows:

“Through these 93 persons he obtained reports of 534 cases of inebriety treated by the ‘gold cure,’ of which number 275 remained cured and 251 relapsed. This gives a proportion of cures of $51\frac{1}{2}$ per cent. It might be said at once that if 50 per cent. are cured, something is accomplished; but the answer is that this same result can be secured by ordinary measures not involving the resort to secret preparations. Of 100 drunkards who deliberately and honestly desire to break up their habits, surely over half

will be rescued by measures known to the profession. As two-thirds of Dr. Buckley's correspondents were clergymen, and many of these were believers in the treatment, the percentage of cures obtained by the inquiry is probably too high. Even admitting it to be as high as 50, the validity of the claim that the 'gold cure' is specific is surely disposed of."

Dr. Stearns, superintendent of the Retreat for the Insane at Hartford, Conn., in his annual report makes the following remarks on this subject :

"Keeley Gold curers claim that 90 or 95 per cent. of all cases of inebriety can be cured in a space of four weeks by a mode of routine treatment, and on the basis of this claim are besieging the legislatures of different States to pass acts endorsing their method of treatment and providing means for its use at the expense of the public. The audacity of such a movement would be less provided the nature and properties of the medicines which they use were known. They now hold the same position in relation to the public that any other quack remedy does ; and it would be equally proper for the legislature to order the administration of 'Warner's Safe Cure' or any other of the numerous remedies, the marvelous virtues of which are spread on the pages of our daily papers, to patients in public institutions.

"But it is said that abundance of proof that patients are permanently cured is found in the numerous patients who testify to this fact in different parts of the country. The same, however, can be said concerning the claims of almost every other much-advertised remedy. Still, it is not disputed that many persons who have taken the Keeley-Cure treatment remain permanently well ; but it is claimed that the real cure takes place after leaving the Keeley Institute, if at all, and through such measures as have been indicated above. It is also claimed that many such cures are effected in cases which never reach Keeley Institutes or any others. They are not, however, heralded about in a public manner. Such patients come from the more promising classes of inebriates,

that is, those who have a good heredity, mature age, and in whom the morbid changes of nervous tissue have not become far advanced. They are also such patients as are able to fully appreciate their condition, and have a strong desire and determination to get well, backed by a strong will. There is nothing new or wonderful in such cures. That so many have occurred among those who have been in Keeley Institutes arises from the fact that more cases have been treated there than in other institutions, and that a much larger proportion of them are voluntary patients, who greatly desire to overcome the habit, and have come from the more curable classes of inebriates.

"It should, however, be stated that there are not, and from the nature of the case cannot be, any really reliable statistics regarding the percentage of cures claimed to be effected in Keeley Institutes, for this reason (among others) that patients are received, treated, and discharged, and little or nothing can be known regarding the subsequent history of many of them. . . .

"The course pursued by Dr. Keeley in keeping the nature of the supposed cure a secret proves very conclusively that he has little confidence in it himself. He does not dare to make it public, but rather prefers to trade upon the desires and hopes of credulous families and legislatures and the unfortunate weaknesses of inebriate brains. If he or any other person should discover a remedy for chronic inebriety which would effect a cure in ninety per cent. of all cases in four weeks, and make its nature public for use by all physicians, he would be hailed by men everywhere as one of the great benefactors of the race, and both wealth and honors would be showered upon him."

It is evident that this empirical epidemic of Gold Cures is rapidly disappearing and will soon be numbered with the South Sea bubbles, Perkinsism, and other delusions of the past. It is a serious question whether it is not wise to permit the obsequies to go on without comment rather than to galvanize the corpse into activity by calling attention to its frailties.

A CERTAIN class of persons have a blunted sensibility and seem oblivious to any ordinary impressions that are not directed to their appetites, or the animal instincts. In such cases, alcohol, by increasing the activity of the heart's action, produces strong impressions on the cerebral centers, which, for the time, seem pleasurable. These are the only agents which rouse up the inert and obtuse centers, and for a short time seem to satisfy the desire for a new sensation. This desire for strong feelings in the degenerate stupid laborer and persons who live on low planes of intellectual activity creates a longing for alcohol for a time, but when the transient excitement from the drug is followed by pain and increased discomfort, alcohol is abandoned. They use spirits for the excitement it produces and detest the stupor which follows, hence drink the strongest alcohols that can be procured. This is apparently a confused effort to reach some level of healthy brain functioning, some physical ideal of health. Some of these cases will drink very large quantities of raw spirits and have a short period of marked delirium, then become intensely stupid. For a long time after they will have a marked disgust for spirits, and show an increasing debility of nerve and brain centers.

THERE are excellent physicians who have done good work for medicine, and made a reputation and following who have clearly outlived their usefulness. Such men have passed the summit of growth, and their minds are becoming more and more impervious to new facts and evidence, and literally in many cases they are dangerous as guides and exponents of science. Such a man has recently in an address on crime and inebriety, repeated the theories and arguments of a half a century ago in a most offensive, dogmatic way. It is not practical to attempt any reply, or even to call attention to statements that have long ago disappeared as worthy of note or to even hint at the assertions of incapacity and dishonesty of persons who sustain the modern views of crime and in-

briety. It is only sufficient to note with sorrow and regret that these unfortunates are dying at the top. Dissolution is making them more and more oblivious to progress in science and new truths. They are still in the world but not of it.

A PATIENT under my care said, "I do not wish to give up all use of alcohol, for the reason I am so miserable when free from spirits. I am depressed, and have pain, and everything is a burden to me. It is an effort to think, or do anything; the presence of others is wearisome. I cannot sleep. I cannot think, and I seem to be cut off from all pleasing associations with the world. Alcohol restores me. I am myself again when drinking spirits. The world again is clear and bright. When I drink to intoxication I regret it and try to avoid this state. I have drank twenty years; four times I have stopped all use of spirits, and each time suffered intensely during this interval. I cannot take any form of opium. Spirits is the only drug that helps me." Six weeks of total abstinence confirmed clearly this man's statements. Notwithstanding all the appliances of medical skill and efforts, he continued to be what he so graphically described, a most miserable sufferer, then went back to his family and relapsed as usual. Some weeks later I met him on an excursion, a quiet, genial, happy man. He was using spirits twice a day and had started in business again.

Physicians in Arkansas who become inebriates are debarred from practice by having their license revoked by the State board of health.

Michigan has passed a law fixing a heavy penalty upon railroad companies for the employment of persons addicted to the use of intoxicants.

TREATMENT OF ALCOHOLIC COMA.

The report of a committee of Kings County, New York, Medical Society, on the treatment of alcoholic cases found unconscious on the street, is widely circulated and meets with general approval from all sides. Resolutions to the same effect were offered by the Neurological section of the American Medical Society. It is a pleasure to note that Dr. Mason's efforts are bearing fruit so quickly. Nothing can be more practical and more needed than a change of the present system of treating these cases. The following is a note of the changes already made:

Health Commissioner Emery of Brooklyn, New York, has sent to each hospital in the city a new set of rules governing the work of ambulance surgeons and specifying conditions under which hospitals receiving money from the city must receive patients through the ambulance surgeons. Too much latitude, it is claimed, has been given heretofore to ambulance surgeons, often young men of little practical experience and an exalted opinion of their own importance. Dr. Emery has given some time of late to an investigation of alleged ambulance abuses, and in one or two instances he has discovered patients have died for lack of medical attendance in cases where the surgeon, when called, refused to interfere. All patients suffering from coma must be taken to the nearest hospital according to an order recently issued by the health commissioner. The rules sent out are for the government of the hospital and ambulance service under ordinary conditions. Dr. Emery's address to the superintendents is as follows:

To Superintendents of Hospitals:

Although the accusation of inhumanity, occasionally made against the hospital authorities and ambulance surgeons of this city, is generally undeserved, it must, nevertheless, be admitted that, unfortunately, such is not always the case, as there have come to my knowledge certain well-authenticated instances of patients in a dying condition hav-

ing been refused transportation by ambulance surgeons, and of others who have been denied admission to hospitals which are under contract with the city to care for the sick and poor. In order to diminish the possibility of the future occurrence of these deplorable mistakes, your attention is called to the following rules, which take effect immediately:

1. All ambulance surgeons must be appointed by the commissioner of health, but the candidates nominated by the hospital superintendents will be accepted if they present satisfactory evidence of the possession of the proper qualifications for the position.

2. The hospital that is under contract with the city to treat the sick poor must maintain an emergency ward, containing not less than two beds, for the temporary reception of ambulance cases. This ward is to be used for no other purpose.

3. When an ambulance case is brought to a hospital from the latter's own district, the patient must be promptly admitted. Whether he shall be retained or not may be determined later.

4. Cases of grave injury or sickness must be admitted even when brought from another district.

5. Cases of delirium and insanity, when brought in an ambulance, must be admitted and cared for until they can be transferred to the department of charities.

6. Unless the free beds are all occupied, no applicant for hospital treatment is to be refused without a medical examination.

MEDICO-LEGAL CONGRESS.

The Medico-Legal Society of New York will hold a Congress on the 4th, 5th, and 6th of September next, near New York city. The topics will be arranged and grouped in sections, and discussed together. One section, "On Inebriety and its relation to Crime and Responsibility," is under the charge of Dr. Crothers. The following papers are announced:

"Inebriety and the Opium Habit, and their Relation to Testamentary Capacity," by Dr. E. C. Mann.

"What Shall We Do with the Alcoholic Inebriate Apparently insane?" by Dr. Norman Kerr.

"Alcoholic Anæsthesia a Factor in Crime," by Dr. I. N. Quimby.

"Questions of Responsibility in Alcoholic Coma Found on the Street," by Dr. L. D. Mason.

"How Far Should We Hold the Inebriate Responsible?" by Dr. T. D. Crothers.

In other sections, various questions of criminality, hypnotism, medico-legal surgery, microscopy, bacteriology, chemistry, and sociology are to be discussed from the side of jurisprudence. A large number of eminent men are to present papers and to take part in the discussions, and this meeting promises to be one of the great events of the year, in scientific circles.

THE editor of the *Review of Reviews*, in his record of "The Progress of the World" for the July number, comments on many matters of national and international moment—the recent cabinet changes following Secretary Gresham's death, the peculiar prominence of Mr. Carlisle in the leadership of his party, the present status of the silver question in politics, the duty of the United States toward Spain and Cuba, the progress of American universities, Russia's relations with China and Japan, the prospects of Pacific cable construction, the opening of the Kiel Canal, the progress of amateur sports in England and elsewhere, the recent Italian elections, the fall of Count Kalnoky, anti-Semitism in Vienna, British politics, the future of Chitral, the Armenian question, and various other timely topics. This department of the *Review* is illustrated by a score or more of portraits of the men and women of the day, together with maps and views.

Clinical Notes and Comments.

PATHOLOGY OF DELIRIUM.

The condition of the brain cells which underlies confusional insanity may be produced by other than toxic causes; it seems to me indisputable that it may also be produced by toxic disturbances of nutrition. This is well seen in delirium tremens, a disorder which is getting more and more to be recognized as a variety of confusional insanity. The mental disturbance of delirium tremens cannot be due to a direct action of alcohol in the blood or in the nerve-tissues at the time of the breaking out of the disease. The "horrors" of the drunkard is the beginning of delirium tremens, and if the cerebral manifestations of the horrors or of the delirium tremens were due to a direct action of the alcohol, then they should be intensified, not relieved by further doses of the poison. Evidently, the symptoms are the result of nutritive changes in the ganglionic protoplasm which have been produced by the poison. In other words, the symptoms are only indirectly caused by alcohol. As acts alcohol, so in all probability may septic poisons act; as there is an alcoholic delirium, and also a confusional mania which we call alcoholic, because it is indirectly caused by alcohol, so also are there in all probability a septic delirium and a confusional mania which is the secondary result of septic disturbance of nutrition.—*Prof. Wood, in American Journal of Medical Science for April, 1895.*

THERE are twenty specific gold cures for inebriety and opium-taking in San Francisco. Each one claims to be the best and to have had the greatest success. The soil is evidently very fertile for this kind of quackery, and, next to saloons, these specifics are actually destroying and making incurable a large number of cases.

CASES OF COAL-TAR INEBRIETY.

Jeff. Suttle Davis, M.D., health officer of Shelley county, Montevallo, Ala., writes (*American Medico-Surgical Bulletin*):

During the last decade coal-tar derivatives have been largely employed as antipyretics, analgesics, and anodynes. As they all have a powerful effect on the nervous system, it is but natural that they should be habitually indulged in; and as they are easily obtained, the wonder is that so few cases have been reported.

These drugs are unfortunately becoming household remedies, and if their sale be not restricted much mischief will inevitably result from their indiscriminate use.

It is my opinion that many cases of addiction to these various products are unrecognized by the physician. My attention was first called to the danger of their long-continued use by a brother physician, who, several years since, favored me with the report of a case of sulfonal habit. The patient was a gentleman 32 years of age, for whom sulfonal had been prescribed for insomnia of a year's duration. Being of a supra-nervous temperament, it was not long until he desired to be constantly under its influence, and instead of the twenty-grain dose at bedtime he took six such doses daily. His condition was pitiable in the extreme, anorexia being so marked and constant that he was gradually dying of inanition. His nervous system was a complete wreck, his condition being one of listless apathy, alternating with coma-vigil; sound sleep entirely absent, constipation marked and urinary secretion scant. Every effort to cure him had failed. I do not know how the case ultimately terminated.

In speaking to my druggist in regard to the stubbornness of a case, he remarked incidentally that the patient bought large quantities of acetanilid, and it at once occurred to me that I was dealing with a case of acetanilid habit. He denied the charge at first, but finally confessed. . . . In summing up these cases, it will be observed that a weak

heart, anæmia, indigestion, insomnia, constipation, and neurasthenia were conditions more or less marked in each case. Albuminuria was present in two cases, while in the third case the specific gravity was quite low. In two cases there was an almost constant perspiration, with occasional prostrating night sweats. A marked recurring cyanosis was also observed in two cases. These were the most prominent symptoms and can very reasonably be accepted as those to be expected in similar cases.

It is also seen that the symptoms following the withdrawal of these drugs in cases of addiction resemble very closely those following the withdrawal of the narcotics in similar cases, *i. e.*, depression, insomnia, vomiting, and diarrhœa.

Strychnine hypodermically, with morphine when necessary to relieve "nervousness" and chloral *per rectum* at night, gave the best results in the treatment.

AUTO-INTOXICATION AS A FACTOR IN MENTAL DISORDERS.

Drs. Regis and C. Lavaure submitted a report on this subject at the last meeting of the French Congress of Mental Medicine. They arrived at the following conclusions: (1) The toxicity of the urine is notably diminished in maniacal and augmented in melancholic conditions. The urine of maniacs and that of melancholiacs have different actions on the animals in which they are injected. The former causing chiefly excitation and convulsibility, and the latter depression, inquietude, and stupor. This would rather prove that auto-intoxication is the cause and not the effect of the mental state. (2) These results, though incomplete, show that the phenomena of auto-intoxication play an important part in mental diseases, and this is further indicated by recent nosological investigations on the insanities of the acute infectious diseases, and those of the visceral and diathetic disorders. As far as the psychoses of the infectious disorders are concerned, they are the result either of the direct action of the

microbes or of their mediate and indirect action through the toxins they secrete. From a clinical point of view they may present themselves at two different periods. During the febrile stage the disorder ordinarily takes the form of an acute delirium. During the post-febrile stage, or during convalescence, we find the so-called asthenic psychosis present; this is a more or less variable mental condition, consisting usually of a mental confusion, stupidity, clouding of the faculties, a pseudo-dementia. An intermediate form between these two may possibly be admitted to exist. The visceral psychoses are in reality genuine insanities from auto-intoxication. It may be said that where the intoxication is acute it shows itself as an acute toxic delirium, resembling alcoholic delirium, as in uremic insanity; when the intoxication is chronic it generally induces a melancholic condition. Some cases resemble more or less parietic dementia. General or local anti-infectious antiseptic treatment is found to give excellent results. Although it is not possible to formulate a definite therapeutics, there are enough facts to show that in the infectious or auto-toxic insanities one must resort to the treatment of the infection or the auto-intoxication to relieve the mental disorder.—*Progrès Médical*.

MECHANISM OF DEATH IN COCAINE INTOXICATION.—Maurel (*Gas. Méd. de Paris*, 1894, No. 6) gives a number of experiments on the toxic character of cocaine, and concludes that cocaine has a distinct action upon the leucocytes of the blood and upon the small vessels, the leucocytes assuming a spherical form and tending to place themselves next to the vessel-wall. The contraction of the small vessels is often followed by embolism. Small doses of cocaine were sufficient to cause alteration in the leucocytes, while intravenous injections were found to be very dangerous, even in the smallest doses, owing to embolism which formed in the lungs. The writer is of the opinion that the chief danger in cocaine intoxication arises from the contraction of the smaller blood vessels.

BRITISH OPIUM COMMISSION.

The *Medical Standard*, commenting on the provisional report of the British Opium Commission, remarked over a year ago that: "The same 'respectable business men' who forced Great Britain into the brutally unjust opium war have bulldozed the British Opium Commission into a report which establishes: the harmlessness of opium as ordinarily used in India; the value of opium in malarious provinces as a preservation against fever; that opium is not a predisposing cause to disease, insanity, or crime in India; that it is an infinitely safer form of stimulant for the Indian races than the alternative stimulant of alcohol. A report of this kind would be deservedly regarded as the product of 'boodle' in America. The recently published complete report merely emphasizes the conclusions just cited. These conclusions are based, not on carefully analyzed facts, but on isolated instances of longevity such as are common in all neurotics. The conclusions, moreover, are directly contradicted by the testimony of American medical witnesses like Dr. Coltman, who remarks that those who use opium in the ordinary amount soon become helplessly besotted and unfit for active duty. He has frequently noticed that opium-eaters do not bear surgical operations well. The testimony of physicians in regard to opium will vary in value according as the physician be an opium-user or not. The alcoholic has a tendency to hold himself up as a horrid example, while the opium-user underrates the dangers of opium as compared with alcohol and prescribes it largely. More than one work fiercely denouncing alcoholic inebriety has been written by an opium-user. Exact data as to the effects of opium-using are not easily obtainable where public official opinion favors, as in the British colonies, opium-using may be directly inherited. The children of opium-eating mothers require opium to preserve them during early infancy. Whether long-continued opium-using for generations might not produce immunity from opium toxic effects is an open question. This undeniably has occurred in pigeons on whom opium is

without toxic effects. That similar results might obtain in man there can be no doubt; still such immunity no more proves the harmlessness of opium-using than does the immunity of the vaccinated prove the harmlessness of small-pox."

Dr. C. P. Landon of Columbus, Ohio, in discussing the "State's Care of Dipsomaniacs," before the State Medical Society, said:

"Dipsomania is a disease — a lesion over which the victim has no volition beyond the power of his self-control; of indefinite recurrence; a periodic insanity — and because of the environments, not amenable to successful therapeutics in private practice. The physician is left helpless because of the want of co-operative helps and imperative restraint.

"The State has been generous, munificent, in caring for her wards, and the profession of medicine ever has been watchful of the needs of the same. The first public provision for the care and cure of the insane of Ohio was the inception and effort of the fathers of this society, and each advanced movement has been the result of the want made known by the medical profession.

"By the benevolent and humanitarian acts of the government many changes and great advancements have been wrought reflecting the sunlight and life of a quickened and new-born humanity, evincing a clearer understanding of man and his relation to society, and of the great law declaring that each man is the keeper of his brother. Yet, I repeat, in the twilight of the nineteenth century the State has built hospitals and asylums for all other forms of maniacs, for all other classes of the insane; for the dipsomaniacs she has provided penitentiaries, poorhouses, and the scaffold. But yesterday the State provided a hospital for the epileptics — for the care and cure of epilepsy, a recognized incurable disease. For this I rejoice, you rejoice. It separates and gives relief to the overfull institutions of the State: it will give needed care and help and good to that class of sufferers.

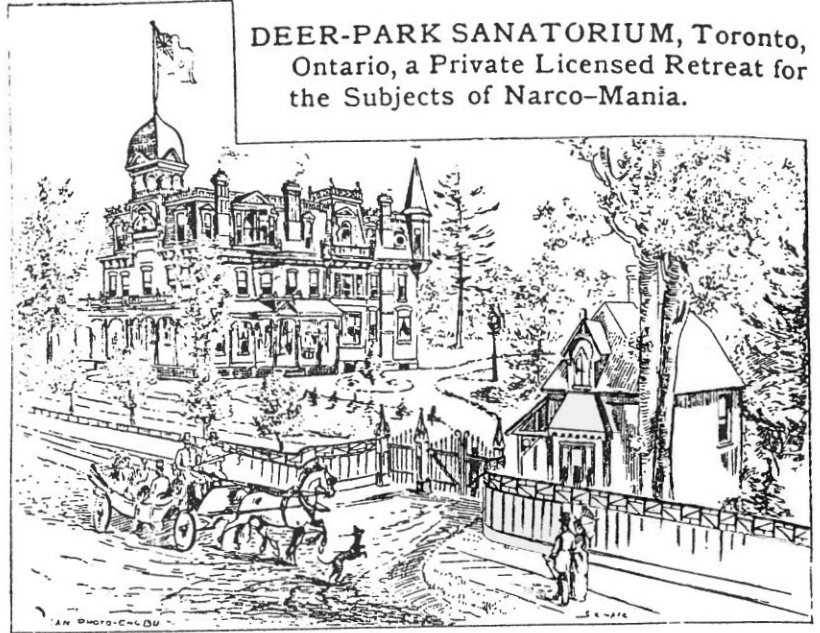
But how much greater the demand and rationality of providing for a much larger class of curable maniacs.

"The State's care of dipsomaniacs would result in the reflection of the sunlight of a new life in thousands of homes; the redemption and preservation of thousands of noble natures, which otherwise would be lost, destroyed; making manifest a truer Christianity, and a more humane and merciful administration of law; making clearer the pathology and psychological condition of the dipsomaniac; making the cause, care, and the cure of the mania a solved problem."

TOBACCO SMOKING IN DISEASE.—Dr. Jankau (*Zeitschrift fuer Krankenpflege*) in many cases regards moderate smoking as indicated, and especially where there is an express desire. In the majority of surgical affections it is permissible, with the exception of convalescence from operations upon the bladder and abdomen. Patients with diseases of the eyes, nose, throat, or pharynx should never smoke. The internal diseases which would not permit smoking are peritonitis, typhoid fever, and similar affections. In stomach affections, smoking may be allowed if the smoke be filtered. Patients with organic heart diseases should smoke as little as possible. In lung diseases, under certain circumstances, he would hold smoking to be indicated; also in syphilitics. In those with nervous diseases there is no general rule; sudden withdrawal often does harm, while in cardiac neuroses only a very weak tobacco with filtration of the smoke is allowable. To smoke in the sick-room where there are several patients present is hardly to be commended. The best time to smoke he would believe to be several hours after meals.

W. H. Schieffelin & Co. of New York are the American agents of *Trional*, *Sulfonal*, *Phenacetine*, and other excellent preparations which have come into very general use. See article on trional in this issue.

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the Subjects of Narco-Mania.



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All the surroundings are made so pleasant and attractive that patients will not be subjected to that feeling of social degradation which is commonly experienced in public institutions.

The Board of Management recognize the fact that the sufferer from the insatiable craving for alcohol and other narcotics is the victim of disease, and every means known to medical science will be employed for its eradication.

Patients are admitted upon their voluntary application, or may be committed by the County Judge, under the provisions of the R. S. O., Chap. 246, secs. 100 to 111.

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amylaceous dyspepsia. This new remedy should be tried in all cases of indigestion.

After the removal of alcohol *Celerina* is found to be one of those rare drugs that diminishes the neuralgias and lessens the nervous irritation. Send to the Rio Chemical Company of St. Louis for a trial bottle.

The *Inebriates Home* of Fort Hamilton, N. Y., Dr. Spark's *Home for Inebriate Women* in Brooklyn, N. Y., are very prominent places. The former is the largest and oldest asylum in America.

The *Acid Phosphates* of Horsford supplies the phosphates and phosphoric acid needed in exhaustion, and in many cases is practically a specific.

McClure's life of *Napoleon*, edited by Miss Tarbells, is one of the best short histories published. It contains the largest number of authenticated portraits and excellent pictures, and gives a clear, graphic account of this most remarkable man. This work has had immense sale and is one of the class of histories that are read by the masses. It is published in one volume in paper at 50 cents. Send to S. S. McClure, 30 Lafayette Place, New York city.

Dr. Mann's new preparation of the Glyceride of the Hypophosphites comp.—a mixture of lime, soda, potass. iron, quinine, and strychnine, is coming into prominence as a chemical food. Send to the author for a sample, to 305 West 86th Street, New York city.

The Taylor Brothers Clinical thermometers, of Rochester, New York, are among the most valuable on the market. Send to them for a circular.

The *Scientific American* is unrivaled as a practical scientific paper to all class of readers. Every issue contains a rich table of contents.

Antikamnia and Quinine are put up in tablet form, each tablet containing two and one-half grains of antikamnia and two and one-half grains of quinine, and is the most satisfactory mode of exhibition. This combination is especially valuable in headache (hemicrania), and the neuralgias occurring in anæmic patients who have malarial cachexia, and in a large number of affections more or less dependent upon this cachectic condition.

It is a pleasure to call attention to two new drugs, *Proto-nuclein*, which is of special value in destroying toxic germs in the body, and *Peptensyme*. This latter is a remedy for intestinal troubles and various forms of cholera. They are prepared by *Reed & Carnrick* of New York, scientific pharmacists of wide reputation.

Wheeler's Tissue Phosphates combine calisaya, sodium, and iron with wild cherry, and is a most excellent preparation. It approaches a true tissue construction in many ways, and should be tried in all exhaustive cases.

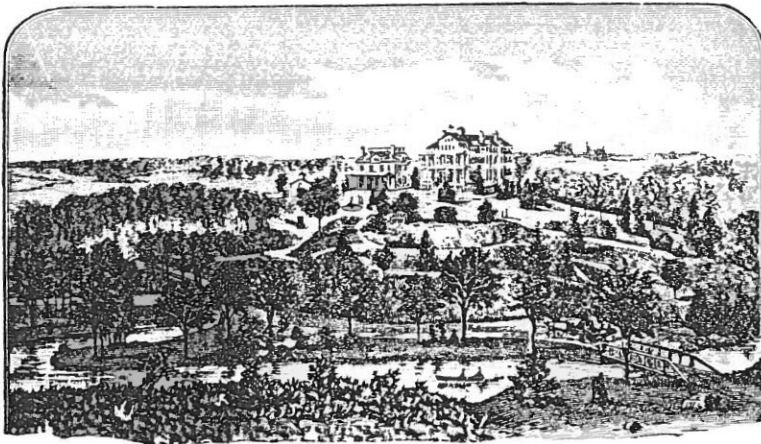
The *Arctusa Spring Water* of Seymour, Conn., has become a rival of the famous apollinaris as a healthy table water, and medicinal agent.

Maltine with *Coca Wine* is particularly valuable when spirits or narcotics are withdrawn at the beginning of the treatment of these cases. Later, maltine with phosphates can be substituted with excellent results.

Fellows' *Syrup of Hypophosphates* has come into very general use, notwithstanding all criticism it is increasing in popularity and value as a practical remedy, and is more largely used than ever before.

Parke, Davis & Co., have at last procured an isolated ferment called *Taka-Diastase* in the powdered form for

Milwaukee Sanitarium for Nervous Diseases.



The Sanitarium is beautifully located in the country, three miles from the city of Milwaukee. It is within a few minutes' walk of the Chicago Milwaukee & St. Paul depot, but is in a quiet and retired spot, where patients have the freedom of a large park, without observation or intrusion.

The institution is designed for the treatment of nervous disorders and mild cases of insanity.

The buildings are new and were constructed for the special purpose of a Sanitarium. They are heated by steam and lighted by electricity, and the entire sanitary arrangements of the institution are the best.

Each patient is provided with a separate room, and skilled nurses are always in attendance.

It has been the constant endeavor to make the Sanitarium assimilate, as nearly as possible, to a home, with few of the characteristics of an institution and with every diversion that can contribute to the entertainment and improvement of the patients. For information address the Medical Superintendent

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The Review of Insanity and Nervous Disease.

This is a quarterly journal issued in September, December, March, and June. Each issue contains one original article, the remainder of the journal being devoted to abstracts from the literature of the specialty from

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The selections embrace every department of
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IT has been shown that the phosphates are found in excess in the urine in cases where the nerve centres (the brain and spinal cord) have been overworked, or subjected to undue labor, and the opinion is confirmed that there is a reciprocal relation between an excess of phosphates in the urine, and intellectual exercise.

This preparation supplies the phosphates and phosphoric acid, is readily assimilated, pleasant to the taste, and aids digestion.

DR. J. GAMWELL, Pittsfield, Mass., says: "I have used it in a number of cases of nervous and cerebral diseases, with good results."

Send for descriptive circular. Physicians who wish to test it will be furnished a bottle on application, without expense, except express charges.

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SOMATOSE consists of the Albumoses, or nourishing elements of meat, and the nutrient salts. It is tasteless, odorless, soluble, and is

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in the organism. Somatose is useful in fevers, gastric affections, phthisis, anæmia, and as an infant food. Supplied in two ounce, quarter, half and one ounce tins; also combined with cocoa and chocolate, and in form of crackers.

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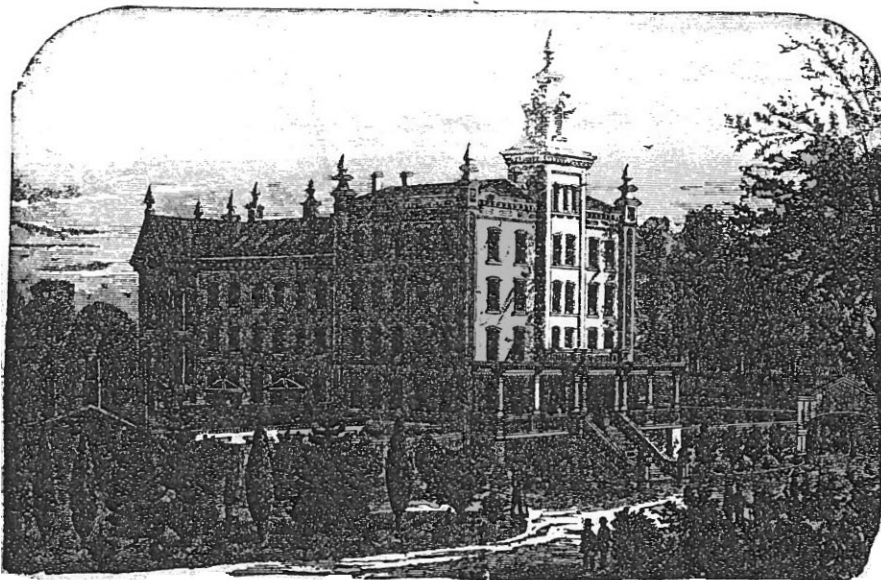
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