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HORSFORD'S ACID PHOSPHATE IN CHOLERA.

By the researches of Dr. Koch, it is now known that acids are most useful to kill the cholest

By the researches of Dr. Koch, it is now known that acids are must meet to be microbe, and have been successfully employed by the profession in Entures.

Dr. Chas. Garchell. of Chicage, in his "Treatment of Cholera" series in the first he cholera microbe does not flourish in acid solutions, it would be well to slightly drinking water. This may be done by adding to each glass of water half a temporalid standard Phosphate. This will not only render the water of an arist received by the same water more agreeable to the taste. It may be sweetened it desired. The disci Phosp are recommended, will also tend to invigorate the system and covered debuilty, the group power of resistance to disease. It is the acid of the system, a profiler of the paster. It is the acid of the system, a profiler of the paster. It is the acid of the system, a profiler of the paster.

power or resistance to disease. It is the acts of the system, a pointer or car present another, and hence, will not create any disturbance liable to follow the use of mineral acids."

A recent report from Bangkok, Siam, states the facts in the case of a native who was attacked with cholera. The usual treatment falled to afford any relief, and the case appeared hopeless. It occurred to the attending physician to try Horsford's Acid Phosphate. After the second dose the patient commenced to revive, and in six hours after, he was pronounced out of danger.

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QUARTERLY JOURNAL OF INEBRIETY.

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No. 1.

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

ALCOHOL ON RESPIRATION.

By DAVID BRODIE, M.D.,

Honorary Member of the American Association for the Cure of Inebriates, Canterbury, England.

[Continued from page 203.]

Dr. Hammond published his physiologico-chemical researches in the "American Journal of Medical Sciences" for 1836. His experiments embraced a wide range both as to the materials submitted to experiment and the effects produced on all the various excretory functions of the body. But we limit our references to the influence of alcohol on the elimination of carbonic acid. Dr. Hammond experimented also on himself. First, with the supply of food, so adjusted as to maintain the weight of the body. Second, with deficient food supply, so adjusted as to secure loss of weight, and third, with excessive food so as to secure an increase of weight. Under each of these conditions he took an average, carefully determining the quantities of all the excretions of five days, first without alcohol, and then with the addition of half an ounce of alcohol to each of his three meals, viz.: at seven, one, and five, the observations on the respiration being made at nine, two, and ten. In the first case with food sufficient to maintain the weight of the body,

under alcohol, the average diminution of carbonic acid was from 11.674 grains to 10.344 grains, equal to 1.330 grains per day.

In the second case, with deficient food, the diminution with alcohol was from 10.774 grains to 9.945 grains, equal to 729 grains.

In the third case, with excessive food, the diminution was from 12.159 grains to 11.577 grains, equal to 581 grains.

Dr. Hammond reports that the effect of the alcohol on the diminution of the carbonic acid was constant and unvarying. Dr. Hammond was preoccupied with the theory of which he was an enthusiastic advocate, that diminution of excreta was evidence of diminished waste and a "saving of tissue," and we are losers by the times unfortunately chosen to make the observations, viz.: two, one, and five hours after the administration of the alcohol. All the truth, therefore, regarding the influence of this strange agent has not been disclosed by this experimenter, but we shall take what he gives us.

Dr. Hammond's account of his experience under these three conditions are worth noting.

Under the first (with alcohol), he reports: My general health somewhat disturbed, pulse increased from 81 to 90; headache and increased heat of skin. Mental faculties were certainly not so clear as on abstinence days, general lassitude, and indisposition to exertion of any kind.

Under the second, the report with alcohol is, general condition never better, pulse down (to 83 from 88 without alcohol); no headache, intellect clear, and normal energy, all functions regular and satisfactory.

Under the third, Dr. Hammond reports (first, without alcohol), health much disturbed, headache almost constant, pulse 92-full, sleeplessness, unpleasant dreams. Second, with alcohol, healthy action very much disturbed, headache constant, sleep disturbed, skin hot, pulse 98-full and bounding, palpitation, severe illness, threatening diarrhœa of considerable violence occurred, lasting forty-eight hours.

-Dr. Edward Smith is the next investigator who undertook. (in 1859), to prosecute this important research. His observations are ost elaborate; they were sustained for two years, and extend to 2,000 experiments performed on himself and a friend. The results have been most widely circulated through many channels, and much attention and a too general credence has been accorded to the inconsistent and most inconclusive conclusions presented. Dr. Smith's deductions as to the action of alcohol on the respiration are not consistent with those of the scientific observers of the highest reputation, who preceded him in this inquiry, nor with those of others who followed after, which we shall by-and-bye adduce. But we think it will be possible to show, notwithstanding Dr. Smith's very confident assurance to the contrary, that in several respects his conclusions are altogether untrustworthy. We think, also, it will appear that he greatly overestimated the accuracy and value of his conclusions. The effects of alcohol which Dr. Smith regards as a class of agents, having among themselves fundamentally different, even antagonistic, actions, are thus summarized.

First. The direct action of pure alcohol does much more to increase than to lessen the respiratory changes, and when the quantity is sufficient to act upon the sensorium the influence is chiefly a disturbing one.

Second. Brandy and gin, particularly the latter, always lessened and sometimes caused great depression of the respiratory changes.

Third. Whisky commonly lessened them, but sometimes it increased them.

Fourth. Rum increased them almost always and to a greater extent than alcohol alone.

Fifth. The vapor of all spirits, pure alcohol, gin and rum, and wines, when inhaled lessened in the course of ten or fifteen minutes the quantity of carbonic acid exhaled and usually lessened the quantity of air inspired, but increased the quantity of watery vapor exhaled from the lungs. The vapor of fine old port had the same influence, but in a greater

degree. This result was without one exception. We have seen that the experiments of Prout and Fyfe, Vierordt and Böcker, were performed under the various conditions which enable their effects to be fairly and usefully compared with those which attend the use of alcoholic liquors in any of the ordinary, though sufficiently varied circumstances in which they are employed. But Dr. Smith believed that he greatly enhanced the value of his results by performing his experiments under conditions which are as exceptional and peculiar and as far removed from the normal circumstances under which alcohol is used, as can well be imagined. Thus, for instance, he choose the early morning hours from seven to nine o'clock for taking the tremendous dose of alcohol (one and half to two ounces) diluted with water, and this on an empty stomach; next he maintained throughout the experment body and mind in a state of perfect quietude and rest; and lastly he limited the observation of the effects to two hours. Dr. Smith fixed on the early hour on the assumption that the body was then in the most sensitive and vigorous condition and best fitted for testing the physiological action of alcohol.

Popular experience gives a very different estimate of the effects of the morning dram, even when limited to half the quantity taken by Dr. Smith and his friend. From the narrative of their sensation, we may well be allowed to question their capability to give a true record of observations requiring so much care and acumen. This Dr. Smith reports lessened consciousness occurred in from three to seven minutes, and as it increased the power of fixing the attention was lessened, the perception of light, and we believe of sound also, was lessened. My friend, whose countenance I could watch, had a flushed face and streaming eyes, and was very hilarious in about ten minutes, and for about fifty minutes seemed as happy as a king, but gradually we both felt less happy and became less talkative, our excitement subsiding by degrees until we became quite taciturn and felt extremely miserable. A condition of intense depression, with muscular relaxation, was realized; he was nearly unconscious. There was a sense of impeded respiration—it was panting and gasping, coldness of the feet, and general chilliness, even to shivering, and diminished frequency in respiration and pulsation. Then we felt the horrors and the sorrows as we had experienced the so-called pleasures of the drunkard's lot, the duration of the effects varied with the different alcohol from 46 to 120 minutes," the description concludes.

It must be remarked that the last power to be regained was that of consciousness. We ask earnestly, is it the conclusion of a sober mind, in view of these effects of alcohol, that the experimenter is using an agent which can augment or increase any of the vital functions, or can be anything else than a depressor of vital action, and we further ask are we not fully justified in absolutely ignoring the conclusions of Dr. Smith in reference to the variation in the action of alcohol? He stands alone among the distinguished scientists who have with the greatest ability and care prosecuted this inquiry in maintaining an essential difference in the various alcoholic liquors, and in maintaining that any form of alcohol augments the exhalation of carbonic acid from the lungs. We make no remark on the strange hypothesis which underlies Dr. Smith's entire research, viz.: the classification of alimentary materials into excito-respiratory foods and nonexcito-respiratory foods. It seems to belong to the same department of science as the famous theorizing of Liebig, and strangely enough it seems to have proved nearly as captivating to a large section of the profession.

Dr. Smith would have done well if he had simply accepted Dr. Prout's judicious conclusions from his observations that the effects observed from food have not been remarkable, a sound physiology, even in Dr. Smith's day, might have told him that the carbonic acid eliminated within two hours of taking food had no connections whatever with the food value of the materials so recently taken, and might thus have saved him all the labor, including "the horrors and sortows" involved in this most heroic research. Dr. Smith,

however, has left on record in the Philosophical Transactions, his claim to two positive results of his great and laborious inquiry, to which we by no means dispute his right, viz.: that alcohol is the great disturber of the system, and that men differ in every subject which has been investigated. M. Perrin of Paris, professor at Val de Grace, published, in 1864, a valuable contribution to this inquiry, which had been presented to the Academy of Sciences. The entire essay would well repay translation, but we must be content to present some only of the facts and conclusions. White and red wines of various alcoholic power, which was in all cases accurately determined, pale ale, and Strasbourg beer, and grogs, or simple diluted alcohol, were submitted to experiment, the drinks were limited to strictly hygienic doses, so as not to disturb the stomach or brain, an important precaution, and were taken to dejeuner at 10.30 A. M. The observations were begun at 12.30, and continued till 5.30, six records made during that time. A rich, white wine (Chablis) of 11 per cent. alcohol, determined a diminution of carbonic acid of 22.44 per cent. A very light wine of 6 per cent, alcohol, a diminution of 11.43 A light, red wine of 9 per cent. alcohol, a diminution of 20.00. Strasbourg beer a diminution of 17.71. In general the diminution of carbonic acid has been in direct relation to the alcoholic richness of the liquid employed, but as a contre preuve; M. Perrin tried simple diluted alcohol "grogs," with the following results: 90 grammes of diluted alcohol of 45° according to the alcoolimetre of Gay Lussac, determined a diminution of carbonic acid of 11 per cent. These observations are quoted by Dr. Parks in his "Practical Hygiene," as proving a very great diminution in the exhalation of carbonic acid when alcohol is present in the system, and we gratefully accept the facts which have been so carefully established by M. Perrin. Unfortunately, for purely hypothetical reasons, and evidently to support a preconceived theory, like Dr. Hammond, M. Perrin did not commence his observations till two hours had. elapsed from the imbibition of the alcohol. The value of

the observations would have been much enhanced had M. Perrin followed Dr. Prout in instituting his observations immediately after partaking of the liquid. We should then have had the opportunity of learning M. Perrin's explanation of the almost instantaneous action so emphatically remarked

upon by Prout and Vierordt.

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had 5 of It would have been interesting, also, had he followed Dr. Fyfe in making observations on the day following that on which a somewhat large dose of alcohol had been taken. From M. Perrin's conclusions we present the following: 1st. Taken in moderate doses and under the usual conditions, which may be regarded as hygienic, these drinks have for their constant effects the diminution of the quantity of carbonic acid exhaled by the lungs. This diminution which progresses during the three first hours which follow the ingestion, varies from 5 to 22 per cent., according to their respective alcoholic strengths. 2d. When the production of tarbonic acid diminishes, as it does steadily during the first three hours after a repast in which alcohol has been taken, the volume of air expired diminishes also, but in a less marked degree, and not with the same regularity.

Dr. Richardson, in his Cantor Lectures on Alcohol, 1875, adduces his own observation on the diminution of carbonic acid exhaled by the breath under the action of alcohol. He says, in the extreme stage of alcoholic insensibility, short of the actually dangerous, the amount of carbonic acid exhaled by the animal and given off into the chamber I constructed for the purposes of observation, which was reduced to one-third below the natural standard. On the human subject in this stage of insensibility, the quantity of carbonic acid chaled has not been measured. But in the earlier stage of alcoholic derangement of function, the exhaled gas was measured with much care by a very earnest worker, Dr. Edward Smith. In these early stages, Dr. Smith found that the amount of carbonic acid was reduced in man as I have found it in the lower animals, so that the fact of the general

reduction may be considered as established beyond disputa-

Lehmann, in his valuable work, has recognized the great practical importance of the investigation bearing on the various conditions which influence the elimination of carbonic acid. Of the effects of different diseases in their influence on the respiratory products, and the various results deducible from the numerous experimental researches in connection with the phenomena of respiration, no better or more enlightened account can be found than is given in the third volume of his "Physiological Chemistry" (pp. 376-382). Lehmann mentions some original observations of his own, and he had himself proved by experiment the diminution, both absolutely and relatively, of the exhaled carbonic acid after the moderate use of spirituous liquids, which he observes confirmed the observation of Prout and Vierordt on the subject, in his remarks on this influence of alcohol on the respiration, he says: We cannot believe that alcohol belongs to that class of substances which is capable of contributing towards the maintenance of the vital functions. Lehmann takes a wide grasp and sound philosophical view of the subject, and presents some most valuable reflections in the direction of applying this knowledge to important practical purposes in the treatment of disease. We offer no apology for presenting them here. He says the value of investigation on normal respiration in reference to the science of medicine can never be over-rated, for when once the fact is universally admitted that the thing to be considered, in many diseases, is to furnish a copious supply of oxygen to the blood, which has been loaded with imperfectly decomposed substances, and to remove as speedily as possible the carbonic acid which has accumulated in it, these observations will have afforded as true remedial agents which exceed almost any other in the certainty of their action. We may thus aid a tuberculous patient quite as much by recommending him to respire a moist, warm air, as if we prescribed Lichen Carragheen or Ol. Fecoris Aselli, instead of torment-

ing our emphysematous patient suffering from congestion and hæmorrhoidal tendencies with aperients and saline mineral waters, we might relieve him far more effectively by recommending him to practice artificial expansion of the chest in respiration (filling the lungs several times in course of an hour), or take such exercise as is fitted to produce this result, while we should forbid in this and many other cases the use of spirituous drinks, and not prescribe tinctures which hinder the necessary excretion of carbonic acid. We abstain, however, from offering any further illustration of these doctrines, since the reflecting physician will not blindly follow any guide, while the mere empiricist can never learn thoroughly to heal any disease, whatever may be his knowledge of physiology and pathological chemistry. We have now presented a sufficiently extensive and conclusive body of evidence for the establishment of a great fact, that under all circumstances and under all conditions the introduction of alcohol into the system diminishes the product of respiration. To convey to the unprofessional reader an adequate conception to the terrible significance of this interference with this most essential of all the vital functions, would equire such detailed discussion of the elementary principles of physiological science, as would be impossible within our limits. To these we would, therefore, very earnestly suggest the careful study of the respiratory function, which may be complished with the aid of those excellent text-books on avsiology which are now within the reach of all, and where Me value of oxygen as a life sustainer, and the power and loger of carbonic acid as a life depressor are fully set forth. 1)3 study will be the more profitable and the more sective, the more extensively it is prosecuted, and the we truth which concerns the science of life, and of living sy and well, will abundantly reward the student in the suit of such knowledge. For the present we must be extent in few words to indicate to our medical brethren one of the many weighty truths which are brought to the Mace in this research. There we find truth overflowing

and abundant, truth profitable for doctrine, for reproof, for correction, for instruction. It is a veritable scripture written. we say it with reverence, by the finger of God, in the hidden recesses and secret places of vital phenomena, and revealed and read to us by these painstaking interpreters of His works and ways of working, and to be read by all those (if they will know His will in this matter) who take pleasure therein. True doctrine and sound instruction on the nature and action of alcohol are required, that we may protect ourselves individually, socially, nationally, from the dangers of which it is the prolific cause; reproof and correction are needed, scathing as the truth of God can make them, for the exposure of the many plausible pretences which are current and fostered under the cloak of interest and prejudice as to the innocency and benignancy of this deceitful spirit, this enemy of the human race.

One important consideration we must not omit to state, viz.: that all this accumulation of evidence as to the deportment of alcohol, comes at the cost of much personal labor from men of science, with no prejudice against vinous or other alcoholic liquors, many of them with strong and decided prejudices in their favor, and what have they discovered for us?

Ist. What alcohol is in its action on the body. A. That it is always a depressor of the vital functions. B. That its effects are immediately and directly depressant, without any previous stage of excitement. C. That it deports itself as poisons are known to operate. D. That the phenomena of alcoholic intoxication are largely influenced and determined by the detained carbonic acid caused by alcohol.

2d. What alcohol is not. A. That it is not a stimulant of any of the vital functions. B. That it is not a food, accessory or otherwise; it acts by depressing the respiration almost instantaneously, and before any modification of or influence on the tissue changes is possible. No more important, practical lesson can be drawn from these researches,

than a sound principle of guidance as to the true and proper place which alcohol ought to hold as a therapeutic agent, and if any deduction can be more direct and conclusive than another, or more inevitable, it is this, that when exalted sensibility or vital activity require to be repressed, when a vital stimulus is contra-indicated, when the detention of the products of vital changes in the system is to be desired, and by all means secured, then the physician, guided by science, will find his most powerful resources in alcohol.

To complete the picture of the doings of alcohol in this hidden sphere of its operations, the examination of other facts in its history will be necessary. In tracing its action in the system, the characteristic physical properties of alcohol claim attention, its low specific gravity, and low boiling point, its extreme volatility, its perfect and singular diffusibility in the animal fluids, its solvent power over and capacity for adhering to the living tissues; then must be traced the influence of this peculiar agent on the chemical constitution and vital properties of the blood, its influences on the temperature of the body and on the processes of the nutrition and metamorphosis of the tissues, determining, as it is known to do, an infinity of morbid degenerative changes in these.

On all these subjects a large amount of most valuable material has been accumulated, and only waits to be effectively utilized to supply light and leading on this most perplexing and momentous question. We regard the depressant action of alcohol on the respiration as the starting point, the pame fact in a great series of most important consequences which attend upon its introduction into the living system, the full significance of which will not be realized, till they are viewed as a whole, and in their true relations one with mother.

ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.

The sixteenth annual meeting of this association was held in Brooklyn, N. Y., November 10, 1886, in the parlors of Dr. Shepard's Turkish Bath Hotel. The president, Dr. Joseph Parrish of Burlington, N. J., occupied the chair, and delivered the regular address, "On Climacteric Periods in Inebriety." The usual resolution of thanks followed, and also a very commendatory discussion in which all the views of the president were most heartily sustained. (This address will appear in our pages in full in the future.)

Dr. T. D. Crothers of Hartford, Conn., read a paper on

Cocaine Inebriety (published in this number.)

In the discussion which followed, Dr. J. B. Mattison of Brooklyn, N. Y., said he had seen seven cases, and been consulted in three others. Of these, five were physicians, two druggists, and one a journalist. All took it hypodermically, and nearly all had begun it in the hope of freeing themselves from opium, to which they were more or less addicted. One physician asserted that he used it as a stimulant after fatiguing professional work. None succeeded in the effort at selfcure, and all but one forged another link in their chains. Of the ten, one became demented in less than a fortnight, six had hallucinations or delusions, or both, while two were greatly emaciated - one more so than he had ever noted. He believed addiction to cocaine alone quite uncommon, though such cases had been reported abroad, and probably would be here. He regarded its continued use, hypodermically, in any disorder as one calling for caution, and thought this method of employing it more dangerous, especially for self-using, than when taken by the mouth. of its habitual use, with or without opium, he considered more disastrous, less hopeful, and requiring longer treatment than where opium was used, and that any estimate of its

effect which did not include its power for ill, as well as good, was mistaken and incomplete.

Dr. J. A. Blanchard, superintendent of the Inebriates' Home, had noted two cases under his care. Mental impairment, delusions, and hallucinations, were observed. One patient, as Dr. Crothers had mentioned, used the drug frequently, sometimes every fifteen minutes. He thought its use by those addicted to alcohol or opium intensified the injurious effect, and that when the drug was withdrawn, the bodily recovery was more prompt and decided than that of the brain hallucinations and delusions, the latter persisting after marked physical improvement, and necessitating a more prolonged period for complete convalescence. He believed it impossible for any one to use this drug in doses of eight or ten grains a day, without becoming insane. The hallucinations which followed from large or long-continued doses, very closely resembled those of general paralysis, only they were more transient. In all cases, great disturbances of nutrition are noticed; nausea, vomiting, and inability to retain solid food in the stomach. This seems more of a nerve failare than from local irritation or inflammation of the stomach. In one case a bronzed skin, and hyperanæsthesia of the surface of the body was prominent. He also thought great danger came from the extravagant accounts of such cases published in the daily press. It attracted attention, and roused inquiry among the drug neurotics, to test the drug, and should its first effects be pleasant they continued its use ever after. Mania and dementia was sure to follow its use, and he advised strongly against its use except for specific purposes under the direct care of a physician.

Dr. E. C. Mann of Brooklyn, N. Y., had seen only a few ases, and they were all mixed ones, associated with other decroses. He had no doubt of the existence of simple uncomplicated cases where cocaine was found to produce pleasing effects, and its use was continued. In small doses in usuresthenia it was valuable; an increase of the dose seemed to be followed by different effects. The acute delirious mania and dementia, which is noticed in these cases, are

undoubtedly distinct forms of drug mania. Great fear and dread of danger in the future was one symptom, the painful hallucinations of the senses was another. This associated with states of anæmia and hyperaemia were very marked. Its action in large doses was very profound and rapid, and it could not be used indiscriminately without great danger. He agreed with the remarks of others that these cases of coca inebriates were difficult to treat, and the use of this drug should be restricted, and should never be used as a substitute for narcotics.

Dr. Lewis D. Mason of Brooklyn, N, Y., fully agreed with the experience of others in these cases. He had found cocapreparations vary greatly, and had c ncluded this was due in many cases to the alcohol, the drug itself being inert. The use of tinctures of coca in the opium or alcohol inebriates were dangerous, and also cocaine, which instead of benefiting the case, brought on other and worse disorders. As a local anæsthetic, cocaine was valuable, but its effects on the system taken hypodermically or by the mouth, were entirely different. He did not think it would come into general use as a narcotic, and be used as alcohol or opium, but it was the duty of physicians to warn others of its dangerous effects.

Dr. Albert Day of the Washingtonian Home, of Boston, Mass., remarked that he had, treated eight cases, and had seen a half a dozen more in the course of the year. Most of these were drug neurotics who had used alcohol and opium before. Three of them seemed not to have used any narcotic before, and began its use from a physician's prescription, for some nerve trouble or defect. In all of these cases, pronounced and delirious mania followed its use. After this subsided, dementia and stupor followed. I have seen several cases of insanity that was traced to this cause. in two cases resembled that seen in delirium tremens, and the man was thought to be suffering from this disease. He had cocaine secreted about his person, and was using it every hour hypodermically. He soon became demented and lost. control of his extremities, and was quite manageable. He suffered from a period of suicidal depression. These are the

worst cases of inebriety I have ever treated, and their recovery seemed unusually prolonged and complicated. For weeks the nutrition of the body suffered. I should never use cocaine for its narcotic properties; it is too dangerous and uncertain. I feel assured it will never come into general use as a narcotic drug. I have never obtained much benefit from the coca preparations, unless given in enormous quantities, and even then its action was transient.

Dr. Foseph Parrish, the president, remarked that his experience was limited with the use of cocaine. He had seen cases of cocaine inebriety, and considered them very dangerous and difficult to treat. In these cases, it was taken to relieve a feeling of weariness and pain, and its effects were most charming. But the action of the drug on the nutrition was marked, and while bringing relief, was associated with intense lassitude and debility. He thought the fact that coca users in Central America die of phthisis so commonly, was good evidence of its peculiar action on the nutrition, and that its poisonous effects might be traced to the disturbance of this function. He trusted that these cases would be studied more carefully by the profession, and the facts be better known.

Dr. Shepard of Brooklyn, N. Y., thought that hot air baths and free perspiration would, by diverting the blood to the surface, greatly relieve the evident internal congestion in many of these cases, and be a most valuable remedy.

Dr. J. E. Turner of Wilton, Conn., thought all these cases should come under early restraint, and be prevented from using this or other drugs until they were insane. He would restrain any one who was found using narcotic drugs regularly. It was suicidal insanity and should be recognized.

Dr. Albert Day of the Washingtonian Home, Boston, Mass., read by title a paper "On the Hygienic Care of Ine-briates," which will be published later.

The annual election of officers resulted in the re-election of the former board. After the usual resolutions of thanks to Dr. Shepard for the use of his parlors, and his election as member of the association, the association adjourned to meet in Hartford, Conn., June 10, 1887.

Vol. IX.-3

COCAINE INEBRIETY.

By T. D. CROTHERS, M.D.,
Superintendent Walnut Lodge, Hartford, Conn.

My experience in cocaine inebriety is limited to seven cases. Two were under my care for treatment, three came personally for advice, and two consulted me by letter.

In the cases under my care a correct history was obtained; in the five cases who sought my advice by person and letter, their own personal statements were the chief sources of information. In two cases their statements were confirmed by other parties, and where such statements corresponded with the facts in other cases, they were accepted as probably true. The following are some of the facts which appeared from the history of these cases:

Alcohol, opium, chloral, bromides, and other narcotics, had been used more or less to excess in all these cases before cocaine was taken. In four of these cases coca had been used for months before cocaine was tried. Hence, they were all literally drug maniacs, or inebriates, whose special symptom of disease is a morbid impulse for narcotic drugs, which will bring rest and relief to the organism. Some details of the history of these cases will indicate the leading facts.

Case I. Had been under my care twice before for alcoholism and opium excesses, at intervals of two or three years; he had taken cocaine for six months, but latterly had suffered a delirious mania after using this drug, and becoming alarmed, came to me for treatment. He was a "repeater," who alternately went from one drug to another for relief.

Case 2. Under my care; had been treated for morphine excess two years before. He had used cocaine for one year, and had been a moderate and occasionally excessive user of spirits. He belonged to that class of drug-takers who try everything that promises relief for real or imaginary ills.

Case 3. Not under my care; was a landlord who had used alcohol for a long time; finally he resorted to chloral and bromides to break up the alcoholic impulse. He suffered from rheumatism, and took coca and then cocaine. He had used the latter for six months, and was alarmed at the extreme debility and nausea it produced.

Case 4. Not under my care; had used the bromides for insomnia, then changed to alcohol, and finally used cocaine; he had taken cocaine eight months, and was greatly debilitated, had night-sweats, and thought he had consumption.

Case 5. Had used alcohol for years, then tried chloroform, finally used coca, then cocaine; the latter he had used for over a year; he was anæmic, and had deranged nutrition, and his mind, was greatly enfeebled.

Case 6. Facts by letter. Had used patent bitters for years, then wine, and finally coca and cocaine. He was delirious from the latter at times, and unable to do business.

Case 7. Facts by letter. Had always used wine and cider; took bromides for sleep, then tinct coca, then cocaine.

In these cases the use of cocaine was merely another stage of the drug mania. The use of alcohol and other narcotics to excess had developed a state of the nervous system which called for relief, and they turned to any drug that would answer this purpose. Such persons often develop a credulity and a morbid impulse to try everything that promises relief, hence they are pioneers among experimenters.

Another fact of general interest from these cases was an inherited neurotic taint or tendency. Thus, four cases inherited a marked nerve defect from their ancestors; two had acquired a brain and nerve debility, and no history on this point was obtained from one case.

To particularize, Case 1 had an inebriate father and conimplive mother, and was an unstable, impulsive man.

Case 2 had an insane father and an epileptic brother, and wo inebriate uncles on his mother's side.

Case 3. Had a pauper ancestry, paralysis, hysteria, and reat eccentricity of conduct in parents and near relatives. Le was a very nervous, excitable man.

Case 4. Had two uncles in insane asylums, mother died of consumption, one brother an imbecile, and his father was a wine-drinker.

Case 5. Had a severe army experience, was a neurotic dating from wounds in the army, attacks of malaria and typhoid fever.

Case 6. Had a head injury in childhood, a sunstroke later, followed by a most persistent dyspepsia for years.

I think that further study and experience will sustain these two facts:

First. That nearly all the cocaine, bromide, chloral, ether, chloroform, and coca inebriates are complex cases or those who have used other drugs, including alcohol and opium, and have finally turned to some one of these drugs. That all of these cases have had a period of drug preparation, and may be called drug neurotics, who are always using some similar compound. Probably a large proportion of the alcohol and opium cases begin without this drug taking, but it may be said that the cocaine, bromide, ether, chloroform, and chloral takers follow as a rule from states of previous excess in drug taking.

The second fact is, that nearly all these drug maniacs are neurotics from inheritance and acquired states of degeneration. The morbid impulse for this or that drug is only another symptom of brain defect.

It is evident that a study of the symptoms and effects of any new narcotic must include the heredity and history of other drug excess. Where these clinical facts are not considered, such cases will present many confusing histories.

While cocaine has come into prominence as a local anæsthetic, the statements of its action in large and long-continued doses are of necessity vague and contradictory. Exhaustive histories and studies of many cases are needed before accurate conclusions can be reached.

The following are some of the facts which seem to be peculiar to cocaine cases. The first effect seems to have been that of a transient stimulant; a most agreeable exhilaration ending in sleep, with no unpleasant after effects. Later, when large doses were taken, the general stimulation at first became a marked exaltation, and in many cases a mania. The mind seemed to be in a whirl from one thought and subject to another, without ability to concentrate on any one object.

This stage would of course vary largely with the case and conditions, and resembles alcoholic delirium, only it is more diffuse and transient. The second stage, that of sleep and stupor, comes on quickly, and the desire for sleep seems overpowering and intense. The stupor is more like that from opium, only less pronounced and more easily broken up. On awakening, the least exertion is followed by extreme and most wretched debility; nausea and vomiting came on in some cases, also a pronounced melancholy which seeks relief from this drug again. The three stages of stimulation, narcotism, and depression, seem very intense, and may be called literally mania, coma, and melancholy.

In three of the cases I have noted, the first stage of exhilaration was protracted for a long time by taking small doses. The state produced was one of great satisfaction, with freedom from care and contentment with everything. After a time, the sleep impulse became annoying for the feason that it was not gratified. A short sleep would be followed by a waking period, filled with similar ungratified impulses. Large doses had to be taken to break up this impulse. In two cases large doses were taken for its rapid narcotic action. The first stage was to the patient a short confused scaling, with a pleasing rush of thought and events. To there, this stage was a wild confused mania. The sleep which followed was deep and profound. Profuse perspiration and general failure of nutrition followed.

In one case under my care a relapse took place, and I be been the heart's action. In the first stage of mania it was increased to 108, and as stupor came on, ran down to 70, but at all times was regular. The temperature did not tary over one degree, and was generally higher than natural.

The pupils were at first dilated, then contracted. A profound anæsthesia of the mucous membrane of both eyes, nose, and mouth was noticed. The narcotism resembled that from opium. On awakening a general prostration was apparent; the pulse and temperature were lowered. The stomach would not retain anything. Intense hyperæsthesia pervaded all parts of the body; insomnia and the deepest melancholy was present, and yielded slowly to treatment.

Another case, of an intelligent man, who described the first effects of cocaine as a sudden expulsion of all aches and pains, followed by a quiet satisfaction and a most pleasing natural sleep. Later, when taking large doses, his wretchedness would lift like a cloud, and great activity of both mind and body that was pleasurable followed. After the narcotic stage ended, he seemed to be worn out, without any hope or faith in the present or future. Every sensation was most miserable. Taste, sight, hearing, and feeling were all perverted, and, as he expressed it, seemed in league to drive him to madness.

In one case the mania of the first stage was noted by loss of memory and inability to recall any event of the past. The duration of the different stages varies greatly. Sometimes the mania of the first stage is longer than the period of narcotism, and vice versa. In some cases the last stage of melancholia is of great length.

So far, I believe the common sequelæ of alcohol and opium inebriety, particularly the neuralgias and congestions, are much less frequent in these cases. But in their place appears a general mental and muscular degeneration with extreme depression, particularly of the nervous, respiratory, circulatory, and vaso-motor systems. I think it very probable that the continued use of coca is often followed by excess in cocaine. One of the reasons is that the various preparations of coca on the market are compounded often from dangerous alcohols. In this case the action of coca is destroyed and replaced by the degeneration which comes from the alcohol. Thus, when tinctures of coca are given,

made from wood spirits, the effect of this remedy is to produce degeneration of both brain and nerves, which will seek relief from narcotics of any kind. I am also persuaded to believe that cocaine inebriety, or coca mania, will never become prominent, and will be confined to a class of neurotics who, by the use of other drugs, have prepared the soil for this new drug-mania. It will never take the place of alcohol or opium in common use. Its action is too uncertain and transient. The present novelty and glamour about its effects will die away when its real value is ascertained. The element of contagion in these cases presents a curious psychological phase; thus some extravagant newspaper statement of the terrible effects of this drug will rouse curiosity to test it. Or the printed history of a case appearing as daily news draws the attention of neurotics, and it is safe to say that a large per cent. not only purchase, but test this drug on themselves. Cocaine should not be used as a substitute in breaking away from the use of other narcotics. It should not be used in large or long-continued doses. In melancholia it is likely to provoke the disorder it is supposed to break up. It cannot be used indiscriminately. However valuable it may be, there is a certain limit to its power and practical use.

The treatment of cocaine inebriety is the same as that of alcohol or opium cases. Forced abstinence from the drug, rest, and building up the system, are the general methods pursued. More profound degeneration and debility exist than in other forms of inebriety, requiring a longer time for successful treatment.

States of mania and melancholy often continue for some time after the use of the drug is given up, and disappear very slowly. It is for these states that special surroundings and care are essential. The prognosis is always uncertain. The craving for drugs for their effects may be broken up and restoration follow, but such cases generally are unable to bear much exposure, and not unfrequently relapse on the slightest temptation. In the cases under my care, both

recovered, but will probably relapse, using the same or some other drug in future.

The following conclusions are sustained by the best evidence which has been presented so far.

The use of cocaine to excess in persons who have never used alcohol or other narcotic drugs before, is very rare Among inebriates and drug maniacs, cocaine inebriety is no doubt increasing. Its peculiar dangerous effects on the body will prevent its general use as an intoxicant to any great extent. It acts more rapidly than opium, but its effects pass off more quickly. Its first effect is more exhilarant than alcohol, but it is uncertain and variable. This stimulant action develops mania, followed by narcotism and melancholia. When given in cases of melancholia in large doses, if changes the case to mania, then finally relapses bringing back the case to melancholia again. As an intoxicant it is more dangerous than alcohol or opium. As a form of inebriety it is more difficult to treat, requiring a longer time to break up because of the physical and psychical complications. It cannot be used as a substitute for any other narcotic, or as an antidote or remedy.

The exportation of New England rum from Boston and other ports for the last few years shows the same tide-like movements that we have called attention to before. Thus in 1880, over 1,200,000 gallons were sent away, the next year it fell to 889,599 gallons. In 1882, it was at the lowest point, 563.911 gallons. In 1883, it went up to 578,789 gallons. In 1884, it rose to 667,847, and last year it was 875,539 gallons. It is noticeable that the most of these spirits go to places on the coast of Africa.

It is a curious fact that although the use of opium and its preparations are increasing, the American market has lately been over stocked, and a lot which cost four dollars a pound was sold at auction for one dollar and seventy-five cents a pound.

OPIUM ANTIDOTES.

BY J. B. MATTISON, M.D., BROOKLYN, N. Y.

If ought were asked for as to further proof of the widespread extent of opium addiction in this country, it could easily be given by citing the number of individuals engaged in vending the various nostrums, each of which it is asserted has the only true claim to merit as the one genuine sovereign cure for this phase of human ill. It is now about seventeen years since an illiterate brick-layer in a western city, who made some pretension to the healing art, by virtue of a small stock of herbs stored in a little back apartment, was struck with the shrewd idea that in this peculiar field lay a mine, which, perchance, might be worked to no little pecuniary profit. Acting on this impulse, the opiate mixture was compounded, advertising circulars, vaunting the nostrum, made their appearance, the aid of the press was secured, and business began. It grew apace, and the coffers of its enterprising projector expanded as the circle of his deluded victims widened, in their costly but luckless efforts for relief. It was not to be expected that this genius would long be permitted to enjoy a monopoly of such a stroke of fortune, and so, ere many moons had waned, claimants for like honor put in an appearance, the rivalry between them being measured by extent of their pecuniary resources, and fertility of advertising device. It proved a fatal attraction to more than one, who had begun a legitimate medical career, and had aken obligations, binding as an oath could make them, to do bight by their suffering fellows, but who ignored both personal and professional pledges in their greed for gold, and betook themselves to the camp of the common charlatan. The reason of this, probably, is the peculiar nature of this disorder, which impels its subjects to court privacy, and in every way secure themselves from public gaze. This feel-Vol. IX.--4

ing, which is largely the outcome of that mistaken opinion, held by the laity, and, strange to say, some in the profession as well, that those who by force of necessity, quite beyond control, have become victims to opium, are simply the slaves of a vicious indulgence, deserving censure rather than charity; this feeling, we say, is the main cause of that desire for secrecy on the part of the patient, so essential to the charlatan in this special field, and of which he cunningly takes advantage, to his own financial good. In hope of escape, the habitue often spends much of both time and treasure to no purpose, and after months or years, may be. realizing it futile, he abandons further efforts, and berates himself for his folly, yet finds some consolation in the thought that no one else is aware of the course he has been pursuing. Proof of this fact is not needed, yet it may be noted, one of these nostrum circulars is before the writer, in which, among several asserted claims to special merit, his absolute secrecy, even from nearest and dearest friends, or relatives.

It really is surprising, that men of more than average intelligence, some of our own fraternity, again and again, we have known such, will consign themselves to such keeping; case after case has been under our care in which months and years of time, and hundreds of dollars had been expended on these nostrums without good; in many instances, doubtless, ignorance as to the make-up of the mixtures leads to their purchase, yet it would seem that every well-educated physician should be aware of their nature. Such, however, is not the fact, and so with the hope that the reports given in this paper may be accorded with as wide publicity as their value demands, that it here sufficed to say, that what great advance has been made in the knowledge of drugs and their uses, no agent has yet been discovered that will take the place of opium, when once the system has become habituated to its use, and any individual making an assertion to the contrary, may be safely set down as a knave or a fool.

Some time ago, the writer was requested by an editor of

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a well-known journal, to prepare this exposé, and not long after a letter was received from the gentleman who has made the main report given, stating that he had been instructed by the State Board of Health to examine as many specimen opium antidotes as could be secured, and asking my aid in making the list as large as possible. The result is appended, making, it is thought, the most extensive yet presented, and one which should suffice to convince every reader, who may have had any doubt as to the true nature of these nostrums. Before giving details, it may be of interest to note the modus operandi of these individuals. In every instance, an accurate statement as to the daily or weekly amount of opium, or its equivalent, used, is an absolute essential in their so-called treatment, as one says: Be especially careful to determine accurately, how much of the drug you use in twenty-four hours, or in every seven days, if preferred. The time of taking, at what hours, is another point desired, and these being given, it is quite easy to prepare the mixture of such opiate strength as will give a certain amount of the habitual narcotic in each prescribed dose, this amount being exactly that of the previous taking. This done, the habitue is simply continuing his addiction under a new name, and care having been taken that the opiate shall be quite enough for his need, he trudges along, hugging the delusive hope that in no very long time he will reach his wished-for good. the initial amount of the nostrum supplied, is intended for one month's using. Then the patient having become accusformed, it is supposed, to this new order of things, another supply is given for a similar period, differing from the first, only in that the amount of opium is lessened with each suceeding month, and so the play goes on until the patient, alling in his effort, becomes distrustful and betakes himself some other specimen of the same genus, or else abandons the whole affair. The price, per month, of the nostrum, sepends mainly, of course, on the amount of opium it conand supposing a habitue to be taking one grain of morphia ally, it ranges from two and one-half to twenty dollars.

Patients are urged to procure a "full course," several months supply, in the out-set, the reward for which is a more or less generous reduction in the cost of the nostrums, and though this is not very explicity stated, a large stock of shekels to the credit of the vender. The mock honesty of some of these charlatans is amusing. One writes: I do not advertise or send out circulars; as there are hundreds of quacks who are doing such low and mean work, I have become disgusted. Another says, I am aware that there are heartless imposters, destitute alike of position and principle, who are constantly endeavoring to entrap and victimize the anxious and, perhaps, too credulous, sufferer. The cunningly-devised spurious recommendations of these swindlers are well calculated to deceive the unwary. You will most certainly be swindled by trusting to their representations. Still another, speaking of the so-called treatment which he, in common with others adopts, says, with an outburst of indignant virtue, it is practiced so shamefully and heartlessly by charlatans in various western and southern States.

Some of these nostrums are nothing but disguised solutions of morphia. Several years ago, the writer read a paper on this topic, before the Kings County Medical Society, and among the specimens, presented one analysis made by a competent chemist:

Water, .	•						28.66
Glycerine,	•	•	•		•	•	66.89
Morphia,.	•	•	÷	•	•	•	4.45
	*						T00.00

The coloring was aniline; others may contain quinine, strychnine, cannabis, atropia, hyoscyamia, or other ingredients; but be the mixture what it may, the prospect of failure is vastly greater than that of success.

Through the kindness of Dr. Abbott, health officer and secretary of the Massachusetts State Board of Health, I quote from the last official report of that gentleman, as follows:

One of the most evident proofs of an increase in the

consumption is the existence and growth of a considerable number of so-called cures or antidotes of the opium habit. These preparations are advertised broadcast in the public prints, and occasionally in professional journals, which should serve a better purpose. If these so-called cures were of a similar composition to the great mass of empyrical remedies, but little harm would result from their use. This is not the case, however, with the preparations in question. With but one exception, the active ingredient in the so-called cures examined by the analyst, prove to be opium itself, in one or another of its varied forms. The preparations of this character, enumerated in the analyst's report, were obtained, in all instances, either directly from the proprietors or from their authorized agents, and were accompanied by their published circulars.

The purchaser of such preparations thus becomes the victim of a cruel fraud, under the supposition that he is obtaining a remedy or antidote, the article which he receives being simply the enemy in disguise, against which he is bending his energies to obtain relief. This shameful practice deserves nothing but the severest condemnation. The circulars referred to as accompanying the cures, are omitted from this report. It is sufficient to say that their style is remarkably similar, in their methods of securing and fleecing their victims. Each one accusing the other of fraud, and publishing as endorsements the names of many prominent persons in various parts of the country. We have sufficient proof that, in many instances, such names are published without the least shadow of authority.

The nostrum samples we secured were examined by Dr. B F. Davenport, State analyst of the Massachusetts Board, and his report is appended:

If have to report upon twenty samples of so-called opium cures, which have been obtained from their proprietors. They have all been tested for the presence of morphine, and they have all responded to the usual reaction thereof, except the Keely's Double Chloride of Gold Cure.' This one, how-

ever, gave no reaction for the presence of even a trace of gold therein. The cures were all uniformly obtained, as for one who had acquired the habit of taking the, for an opium eater, very moderate quantity of only one grain of morphine per day. It was expected, as proved to be the case, that the cures for even such a mild case, would contain enough morphine to furnish unmistakable evidence of its presence, if they contained any at all. The twenty varieties of cures, were as follows: S. B. Collins, La Porte, Ind.; Mrs. J. A. Drollinger, La Porte, Ind.; W. B. Squire, Worthington, Ind.; P. B. Bowser, Logansport, Ind.; J. C. Beck, Cincinnati, Ohio; J. L. Stephens, Lebanon, Ohio; H. L. Baker, Toledo, Ohio; J. S. Carleton, Chicago, Ill.; L. Meeker, Chicago, Ill.; W. T. Phelon, Chicago, Ill.; L. E. Keeley, Dwight, Ill.; H. Kane, New York city; Charles C. Beers, New York city; Salvo Remedy Co., New York city; F. E. Marsh, Quincy, Mich.; B. S. Dispensary, Berrien Springs, Mich.; B. L. Woolley, Atlanta, Ga.; Geo. A. Bradford, Columbus, Ga.; J. C. Hoffman, Jefferson, Wis.; Jos. A. Dunn, Elizabeth, N. J."-Fournal of Medical Association.

The following are some of the conclusions from the late excellent address by Dr. Peterson, president of the Alabama Medical Society. Alcoholic liquors are never necessary in They are never necessary as food for man, etc. They do not give warmth and strength to the body, but diminish both. They do not increase the powers of resistance and endurance of mental and physical fatigue. They do not increase mental vigor. They give the heart accelerated action, temporary, followed by a reduction of tonicity. They may increase nerve tension for a time, but reaction follows quickly and greater exhaustion. They are harmful to brain workers who take but little exercise. In a physiological condition of the system they are never beneficial, and in disease should only be prescribed by an expert. As a medicine they are often important, but every possible restriction should be thrown around their improper sale and use.

Abstracts and Reviews.

INEBRIATE MANIACS.

Psychologists and students of mental science have long been aware of the presence of a new division of the army of the insane, a division which is steadily increasing, more mysterious and obscure than the ordinary insane, and constituting a new realm of the most fascinating physiological and psychological interest. It consists of the alcoholic, opium, chloral, ether, and chloroform inebriates. They appear in law courts, as both principals and associates in all degrees of crime, and are called drunkards, tramps, and dangerous classes. In conduct, character, and motive, they constantly display many prominent symptoms of insanity, such as manias, delusions, deliriums, and imbecilities. Yet public opinion refuses to recognize these symptoms, because they are associated with intervals of apparent sanity in act and conduct. Clergymen and moralists teach that these cases are simply moral disorders, growing out of "a heart deceitful and desperately wicked," and only remedied by moral and legal measures. Scientists, who study the history and progress of these cases, find that they are diseases, following a regular line of march, from definite causes, on through certain stages of growth, development, and decline, the same as in other maladies.

Many theories are urged to explain the presence of this army of inebriates; one of which asserts that inebriety is evidence of the moral failure of the age, of the increasing wickedness of the times, of the triumphs of the growth of evil over the good, etc. Another theory assumes that the great increase in the manufacture of all forms of alcohole and other drugs, and the facility with which they are procured, will fully explain the presence of this class. A third theory

considers them the defective, worn-out victims of this crushing, grinding civilization; the outgrowths of bad inheritance, bad living, and the unfit generally, who are slowly or rapidly being thrown out of the struggle. A fourth view regards them as simply coming into prominence, through the great advances in the physiology and pathology of the brain and nervous system, in which the physical character of these cases is recognized.

Inebriate maniacs have been called "border-land" lunatics, meaning persons who move up and down on the border-line between sanity and insanity, and, when studied closely, divide naturally into many classes. One of these classes, which in most cases represents extreme chronic stages, appears prominently in the daily press, in reports of criminal assaults and murders. When the genesis of the crime and the so-called criminal are studied, unmistakable symptoms of mental unsoundness appear. In most cases the victim is a neurotic by inheritance and growth. In other words, he was born with a defective brain and organism, and both growth and culture have been imperfect. Many and complex influences, of which alcohol or other narcotics are prominent, have prepared the soil, furnished the seed, and stimulated the growth of a positive disease of the brain. The higher brain-centers have slowly succumbed to a paralysis, as mysterious as it is certain in its march. The victim's capacity to comprehend his condition, and adjust himself to the surroundings, becomes less and less, and he is more and more a waif, drifting with every possible influence. In appearance, head, face, and body are angular and imperfectly developed, the nutrition is defective, the eye, the voice, and every act and movement indicate degeneration and disease. Any general history of the crime reveals delirium, hallucinations, delusions, and manical impulses. Thus, in one day, the papers recorded the following among other cases of this class: An inebriate, of previously quiet disposition, killed his wife, supposing she had put poison in his food. Another man in a similar state shot a stranger who differed with him on the age of Queen

Victoria. Another man killed his father, who remonstrated with him for overdriving a horse. Still another assaulted fatally his brother, who would not give him money. Two men, both intoxicated, mortally wounded each other in a quarrel as to who should pay for the spirits drank. Another man killed both wife and child, supposing the former was going to desert him. Thus, day after day, the records of these inebriate lunatics appar, and each case is as positively the act of a maniac as if committed by an inmate of an asylum, whose insanity was long ago adjudged. In each case a long premonitory stage has preceded this last act; the individual history of almost any inebriate furnishes abundant evidence of this. In the court-room this insanity of the prisoner is ignored, and the legal fiction, that drunkenness is no excuse for crime, prevails. The prisoner is assumed to be always a free agent, and the use of alcohol a willful act, the consequences of which he should be held accountable. As a result, the victim is destroyed, and the object of the law, to reform the offender and deter others from the commission of crime, lamentably fails.

The second class of these inebriate maniacs are less prominent in the press, but are more often seen in the lower and police courts. They are arrested for drunkenness, minor assaults, and all grades of breaches of the peace. They use alcohol, opium, or any other drug for its effect, and their character and conduct are a continuous history of insane and imbecile acts. In appearance they are suffering from disease, and the hereditary history is prominent in ancestral degenerations and defects. They are repeaters for the same offense over and over again, and their crime is of a low, imbecile type against both person and property, characterized by profound mental and moral paralysis. In popular estimation they are imply armies of vicious, wicked persons, who are so from ove of the bad and free choice of evil. This idea prevails in the court-room, and the judge, with a farcical stupidity, admonishes, rebukes, and sentences these poor victims, who are supposed to be made better by the moral and physical

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surroundings of the prison, and the sufferings which the vengeance of the law inflicts. The case may have appeared many times before for the same offense, and the act committed may have been particularly insane and motiveless, and yet the judge deals out justice on the legal theory that the prisoner is of sound mind, and fully conscious and responsible. The result is clearly seen in the records of police courts, showing that the number of persons who are repeatedly arrested for drunkenness are increasing. result more startling but equally true, appears. Every law court where inebriate maniacs are tried and punished, on the theory that drunkenness is no excuse for crime, and that the victim should be treated as of sound mind, with free will to do differently, is a court of death, more fatal than all the saloons and beer-shops in the world. Such courts destroy all possibility of restoration, and precipitate the victim to lower grades of degeneration. It has been estimated that ninety-nine out of every one hundred men who are arrested for drunkenness for the first time, and sentenced to jail, will be returned for the same offense within two years, and appear again with increasing frequency as long as they live. The report of the hospital at Deer Island, near Boston, where drunkards are sent on short sentences, for 1883, showed that one man had been sentenced to this place for the same offense, drunkenness, seventy-five times. Before the temperance committee of the English Parliament, in 1882. many cases were cited of men who had been sent to jails and workhouses from twenty to two hundred times for drunkenness. Practically, every sentence for drunkenness for ten, thirty, or sixty days, costs the tax-payers from fifty to one hundred and fifty dollars; and more completely unfits the victim and removes him from the possibility of living a temperate, healthy life. Enthusiastic temperance men have drawn the most startling conclusions from these lower court records of arrests for drunkenness. Here each arrest stands for a new man and case. The nine thousand cases recorded as having been sent to Deer Island in 1883 in reality only represent a little over two thousand different men and women, and yet the number of arrests is taken as evidence of the increase of drunkenness.

A third class of inebriate maniacs are less common, and yet they often come into great notoriety from some unusual act or crime. They are known as moderate or occasional excessive users of alcohol; or opium and chloral takers. In most cases they are from the middle and better classes of society, and are beyond all suspicion of insanity, and their use of these drugs are considered mere moral lapses. Such persons will suddenly exhibit great changes of character and conduct, and do the most insane acts, then resume a degree of sanity that corresponds with their previous character. Thus a prominent clergyman of wealth and high standing in the community, who was a wine-drinker, suddenly began a series of Wall Street speculations of the most uncertain, fraudulent nature. He implicated himself and a large number of friends, and finally was disgraced. A judge, occupying a most enviable position of character and reputation, who had used spirits and opium for years at night for various reasons, suddenly gave up his place and became a low office-seeker -was elected to the legislature, and became prominent as an unscrupulous politician. A New England clergyman, after thirty years of most earnest, devoted work, renounced the church and became an infidel of the most aggressive type. Later it was found that he had used chloroform and spirits in secret for years. A man of forty years, of tested honesty and trustworthiness, proved to be a defaulter. It was ascertained that he used chloral and opium in secret.

Hardly a year passes that bank defaulters, forgers, and swindlers do not appear among men whose previous character has given no intimation of such a career. When their secret history is ascertained, the use of alcohol, opium, and other drugs is found to be common.

Another class of previously reputable sane men suddenly commit crimes against good morals. The unusual boldness of their acts points to insanity, and it is then found that they

are secret or open drinkers, using alcohol or compounds of opium. Such men come into politics with a most insane ambition for office and childish delirium to appear in public as great men. They often become enthusiastic church and temperance men, acting along very unusual lines of conduct. and doing unusual things. Signs of mental failure are clearly traced in the childish credulity, or extraordinary skepticism, or extreme secretiveness, which are all foreign to the history of their past. Then, at last, such men leave strange wills, with strange bequests. They are contested; the expert is called in; and, while he is certain of insanity and irresponsibility of the testator from the history, he can not make it appear clearly to the court. These cases are more or less familiar to every one, yet the history of drinking or using narcotics is concealed. In an instance of recent date, the will of a very rich man contained a large bequest to the Freedman's Bureau. This was a very strange and unusual act; but the heirs, rather than expose the secret drinking of the testator, let the will stand. To history this was a very generous deed, but in reality it was the mere freak of a maniac.

These persons appear to all general observation sane and fully conscious of the nature and character of their acts; yet they are in a state of intellectual delirium and instability, which comes out prominently in the strange, unusual conduct. The co-ordinating brain-centers are so damaged as to prevent healthy, consistent, uniform brain-action. A certain range of thought and action may seem sane, but an ever-increasing undercurrent of disease carries them further from normal brain-health. These cases excite the wonderment of the hour, and to moralists are phases of human depravity, but to the psychologist are explosions of masked diseases almost unknown and undiscovered.

It will be apparent to all that the most unfortunate treatment and injustice is meted out to these cases. Thus, the inebriate maniac in delirium who commits murder and assault is not a criminal to be cured by punishment. His brain has broken down and needs the most careful restorative treatment. He is physically sick, and can never recover except by the use of well-directed remedies and along the line of exact laws and forces.

In the second class, the profound failure of the present methods of management should direct attention to the real means of cure. Science shows, beyond all doubt, that a system of work-house hospitals, where all these cases can come under exact physical care and restraint, and be organized into self-supporting quarantine stations, will not only protect the community and tax-payer, but put the victim in the best condition for permanent recovery. Here he can be made a producer, and taken from the ranks of consumers and parasites of society. If he is an incurable, he can be made self-supporting, and society and the world can be protected from his influence.

In the third class, when public opinion recognizes that the occasional or continuous use of alcohol or other narcotics is dangerous and likely to produce grave mental disturbance, these alterations of character and conduct will be no mystery. Such men will be recognized as diseased, and come under medical care and recover. Medical and scientific men must teach the world the nature and character of alcohol, and the diseases which are likely to come from its This moralists, clergymen, and reformed inebriates, can never do. To-day these inebriate maniacs appeal for recognition and sympathy from many homes and firesides. They call for help. They ask for bread. We are deaf to their entreaties - we give them stones. In language that can not be mistaken, they tell us of unstable brain-force, of tottering reason, of marked, insidious disease. We call it rice, and treat them as of sound mind and body. They ask for help for the brain, starved, disorganized, and growing eebler. We give them the pledge and prayer, and taunt them as vile, and willful, and wretched sinners. What wonder that the glimmerings of reason and the lights of a higher manhood should disappear in the darkness of total insanity

under such treatment? In the delirium of criminal assault, or the imbecilities of the low drunkard, or the strange acts and changes of character in the so-called moderate drinker, they mutely appeal for aid, and we brutally fine, imprison, and persecute them. This is the spirit and theory which seek to support through temperance efforts, through the church, and political parties, to remove an evil of which they have no comprehension. When all this thunder and roar of temperance reformation shall pass away, the still, small voice of Science will be heard, and the true condition of the inebriate and the nature of his malady will be recognized.

DR. CROTHERS in Popular Science Monthly.

MORPHOMANIA IN FRANCE.

M. le Prof. Ball, the celebrated alienist of St. Anne, dedicated a special article in the Journal de Medicine to morphomania, which, according to him, is rapidly assuming great proportions in France, especially amongst the gentler sex. The symptoms are very characteristic, but often the patient tries to put the medical attendant off the scent and then some difficulty in the diagnosis is experienced; but if a close observation is made, something unnatural in the conduct of the person will arouse suspicion. For instance, if he is in a meeting, his face will become changed and downcast and he no longer takes interest in what is passing around him, but if he gets an opportunity of absenting himself for a few minutes, he will return quite bright as before, for in that short interval he has given himself an injection. However, there are two sure signs which will betray the patient, no matter how he may try to conceal his habit, and those are to be found in the skin and the urine. The skin will be found to be covered with little dark spots, situated in the center of little indurations, about the size of a large shot. It is needless to add that these indurations are the result of the little wound of the needle, but as these lesions are generally found on the inside of the thighs, the patient refuses to let them be

seen, and in that case examination of the urine will prove of great service. A few drops of tincture of iron are put into the suspected liquid, and, if morphia be presented, a blue tinge will be produced. The prognosis of morphomania is not as fatal as is generally supposed, but there is a danger from the fact that the dose has to be continually increased, and in the end the cachexia becomes so pronounced that the patient falls an easy prey to tuberculosis. As to the treatment, Mr. Ball recommends a brusque suppression of the drug, provided the patient can be well watched, but in private practice he thought that it would be found necessary to proceed gradually.

Preparations of belladonna might be employed to calm the irritation, or cocaine, but this latter remedy might prove to be as bad as the evil it was given to cure.

Medical and Surgical Reporter.

REPORT ON THE INFLUENCE OF ALCOHOL AND BEER.

Dr. Bikfalvi reports a series of experiments on digestion in the *Deutsche Medicinal Zeitung*, with the following conclusions:

Ist. Alcohol even in small quantities arrests the digestive processes. The digestion of albuminates is arrested more than the transformation of dextrine to grape sugar. Gastric juice with 20 per cent. of alcohol digests six to seven times smaller quantities than the normal secretion. This is explained by the precipitation of pepsin by the alcohol:

2d. Beer does not promote digestion. It appears that this is due not so much to its alcohol as to the presence of arge quantities of neutral salts that bind the free acid of the gastric secretion. If a few drops of hydrochloric acid are added this no longer inhibits.

3d. Wine in small quantities appears to promote digestion; in large quantities its action is that of alcohol.

4th. Black coffee also when taken in small quantities

stimulates the digestive function, large quantities act unfavorably.

5th. Moderate smoking does not alter digestion, excessive smoking however is of bad influence, because the tobacco derivative alkaline reaction of nicotine neutralizes the gastric juice.

PERIODIC OPIOMANIA.

Dr. Hughes, in a late number of the Alienist and Neurologist, writes as follows on this subject:

There is a periodic form of morphia-craving, so much like periodical dipsomania as to entitle it to the term opiomania, which develops in patients of neurotic temperament who have been given morphia or opium to any considerable extent. This shows itself sometimes in persons who have been broken of the opium habit, and these are the most hopeless cases to treat.

This periodic opiomania is characterized by an over-whelming morbid craving for the drug, which comes on like the craving for drink to the periodic drinker, without warning, except a morbid restlessness and sometimes an irritable stomach, which a full dose of morphine a third to half a grain will appease, and if followed by a night of sleep, the craving will be allayed sometimes for a week, sometimes for a month. These cases should be studied more than they are in the light of what we know of the periodic drink craving. They are easily developed by the administration of morphine or opium to neuropaths, in whose ancestry insanity and allied nervous diseases have been numerous.

But this is not the acute neurosis sui generis developed by repeated excesses in opium-taking, in the non-hereditarily neuropathic, but rather a less painful and less violent and more chronic and enduring form. From three to six weeks of abstinence or abstinence and substitution combined, ordinarily suffices to cure the acute opium neurosis. The chronic form of the trouble is much more persistent, persisting oftentimes for a life-time, because a dormant morbid heredity has been awakened into active life not to slumber again till the last sleep of life overtakes the unfortunate sufferer. The true opium neurosis sustains about the same relation to the chronic periodic form of opium neuropathy that alcholism sustains to dipsomania.

Alcoholism is a morbid condition of the nervous system, developed by repeated alcoholic libations, dipsomania, a latent neuropathic condition, readily excited into activity by the poison. And the poison often develops this disease with surprising rapidity. These are the persons to whom a single drink is often dangerous and astonishes us with its consequences, because the latter are so extraordinarily disproportionate to the time the victim has been given to drink. Such persons become drunkards in a day, as it were; and persons like them become opiomaniacs or periodic opiumtakers, or have for the intoxication insatiable desire after a few doses of morphia or opium.

The opium maniac, like the dipsomaniac, is prepared by inherent organic instability to be made so after one or a limited number of toxic impressions. In some instances he is as susceptible, by hereditary instability of psychical nerve elements, as powder or dynamite are to explode, needing only the exciting spark or concussion of a marked opium impression. But true meconeuropathia, or the consequences of prolonged and continuous meconism in non-narcotic doses, so gradually induced that a kind of tolerance to the graver direct toxic effects is established, and the ordinary prompt narcotic effects are resisted by the organism, is, like chronic alcoholism, as contradistinguished from dipsomania, more gradually effected and developed by changes induced in the cerebro-spinal centers, through slow poisoning and nutritional perversion of neural tissue.

THERE are eleven different specifics on the market for the cure of inebriety, and over fifty different patent methods of reform and cure; and still the army of inebriates keep on undiminished.

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ALCOHOL AND TOBACCO STATISTICS.

The Boston Advertiser is responsible for the following:
The increase in the amount of whisky distilled and drunk during the year now ended was 1,600,000 gallons over the amount for 1885, the total consumption of this liquor being 7,700,000 gallons.

Estimating the population of the country at 60,000,000, this gives about one gallon and a pint for each one of us, including women and school children and those of yet younger years.

The consumption of beer amounts up to some 264,000,000 gallons, an increase of more than 1,500,000 from the preceding year, which admits of an allowance of eleven gallons to each inhabitant, or, counting out the children and one-half the adult population as total abstainers, the rest are to be credited with the imbibition of one-half pint daily.

Analyzing these figures further it is seen that while the increase in the total amount of spirits consumed is considerable, individually we are growing more temperate.

For in the years closely preceding, the quantity of whisky drunk in the United States averaged almost six quarts for each inhabitant; and going back to 1870, the records of the department show a production, under a low tax, that gave nearly two gallons yearly to each man, woman, and child in the country.

The growth of a preference for malt liquors, which these figures show very plainly, the average consumption of beer having increased from seven to eleven gallons within eight years, is doubtless one of the influences that have produced this result.

The use of tobacco is also constantly increasing, except in the form of snuff, the falling off in the consumption of that article reaching nearly two hundred thousand pounds.

In the comparatively novel practice of cigarette smoking, which has, in fact, come into vogue within less than fifteen years, there has been an increase of 25 per cent., the total

number burned being 1,310,000,000 or about twenty-two apiece all around.

Of manufactured tobacco for smoking and chewing, there were 191,000,000 pounds used, averaging about three and one-fourth pounds each, and of cigars 3,500,000,000, an increase of 152,000,000 from last year, or about fifty-nine for every inhabitant.

If, now, a calculation is made of what these large aggregates have cost the consumers, supposing them to have made their purchases at retail, we may reach an approximate imagination of the tax which our minor vices lay upon the collective purse of the average man. Taking the lowest prices—as four cents for a cigar, and ten cents for a gill of whisky, the total will be found to amount to more than \$1,280,000,000—not so very much less than our National debt—or \$20 each from all who live in our prosperous land.

PHYSICAL SOUNDNESS.

The *Philanthropist* is a monthly journal published in New York, devoted to the promotion of social purity and the suppression of vice. It is a valuable paper and is doing grand work. We give the following extract from an article by Dr. Lewis:

By physical soundness, we mean, a life in such consonance with the divine laws expressed in physical being, that strength, health, and long life are the normal results. Much the larger share of human suffering comes through impaired physical life. Weakness and disease make men a burden on society, rather than a help and blessing to it. Weakness and disease lead to poverty; these three are the prime cause of drunkenness, social impurity, larceny, and kindred evils. Mental imbecility is also promoted through weak and diseased physical life. This promotes crime and increases society's burdens. We can only state these salient facts. Each thoughtful man will apprehend their truth: Hence no man is free from guilt who transmits a single element of physical weakness or disease which he can avoid.

This is doubly true of all tendencies and diseases which impair nerve force. This is so intimately connected with character, mental and moral, that one cannot be touched without direct effect upon the other. The habitual use of stimulants and narcotics destroys nerve force and mental balance. These effects are often more prominent in the second and third generations, than in those who first indulge. Every man who uses alcohol, tobacco, opium, and the like, must transmit to his posterity, physical decay, mental unbalancing, and moral perversity.

MECONEUROPATHIA; By Dr. C. H. Hughes, Editor of the "Alienist and Neurologist." Reprint from this Journal.

In this excellent monograph the author draws a line of distinction, between the direct effect in physiological disturbance of chronic opium poisoning, and the remoter sequences to the central neural mechanism, cerebral, spinal, and ganglianic. He places the neural psychical entailments of both alcohol and opium upon the same morbid plane, so to speak.

The author, in a personal note, calls attention to chronic morphia neuropathy in its medico-legal aspects, and hopes to write a work on this subject. He believes that chronic morphia taking is like that of chronic alcoholism. In both cases the impaired volition and modified psychical character, entitles the victim to a most charitable consideration in courts of law, and often legal protection. He thinks the granting of divorces to husbands, on the ground of opium eating on the part of the wife, should be condemned as a crime against the victim of nervous disease, who was in most cases irresponsible.

Opium cases come frequently from some painful affection, either physical or psychical, for which opium has been found of great value, given by the druggist, physician, or husband of the victim. They are literally the agents leading her into

degradation and ruin; then, with the aid of the courts, abandoning her to the "Inferno of Despair."

The author has opened a "rich mine" of facts, and will no doubt develop some most practical truths in his further researches.

Stinson & Co., the great publishing house of Portland, Me., is one the best places to purchase fine steel plates in the country.

Inebriism, a pathological and psychological study, by T. L. Wright, M.D., Bellefontaine, Ohio, has reached its second edition, and we most heartily commend it to all.

An Epitome of New Remedies, by Parke, Davis & Co., Detroit, Mich., is a valuable reference work for the office table, giving a short history of all the new and many old drugs and their uses.

The Electrical Engineer, published at 115 Nassau St., N. Y. city, is the best journal published in this most fascinating field of research. It is edited by superior experts as well as scientific philosophers.

Science, a weekly publication of comments and notes on matters of science and progress, is both ably edited and practically the most valuable periodical that comes to the home of the thinking man.

New York to the Orient. By J. M. Emerson. E. R. Pelton & Co., publishers, 1886. This is a new practical record of a European trip by a practical man, and one that will amply repay the time spent in reading it.

The Homiletic Review for January and the new year promises a rich treat of the best thought from the ablest clergymen in the country. The subscription is three dollars a year. Funk & Wagnals of New York are the publishers.

Natural Causes and Supernatural Scemings is the name of the last work of Dr. Maudsley. It is undoubtedly his best work and one that will live a long time as the best presentation of the scientific side of the mysteries of life.

The Popular Science Monthly for January, 1887, D. Appleton & Co., publishers, New York city, begins the new year with a rich feast of scientific facts. A year's subscription to this monthly will bring larger returns than from any other source.

The Scientific American, published by Munn & Co., of New York, presents weekly to its readers the best and most reliable records of various improvements in machinery, while the scientific progress of the country can in no way be gleaned so well as by the regular perusal of its pages.

How to Strengthen the Memory. By M. L. Holbrook, M.D. Price \$1.00. New York: M. L. Holbrook & Co. This is a very clear, sensible work, describing the natural philosophical methods of strengthening the memory. To all who wish to improve their memories Dr. Holbrook's work will be of great aid, and we commend it cheerfully.

The Essential Nature of Religion. By J. Allanson Picton. Price, 15 cents. J. Fitzgerald, Publisher, 108 Chambers St., N. Y. The author of this profoundly philosophical essay holds that in the relation of our personal life to the world about us is found that which insures to religion an adequate scope and a permanent place, under all fairly conceivable resolutions of thought; and that though religion may be called by many names, its essence is recognizable in all the highest activities of human life, even where these have been condemned as irreligious and impious.

The History of the First Inebriate Asylum in the World, by its founder, Dr. Turner, is in the press of The Case, Lockwood & Brainard Co., and will be out soon. This will undoubtedly be the most important work on this subject issued, not only from a historical and scientific point of view, but as illustrating the storms of opposition and slow growth which greets every new advance of science. The story of its author, who like all other pioneer benefactors of the race, was denounced and bitterly opposed, is a sad, fascinating record. This work will mark a new era in the inebriate asylum movement.

Editorial.

JOURNAL FOR 1887.

Ten years ago the first number of the Journal appeared. By the few specialists and pioneers in this field it was most warmly welcomed. But it was evident that only in the next century, and by the next generation would its real worth be understood and appreciated. The ten years which have passed, have been marked by struggles, misrepresentations, sneers, and doubts, from both moralists and scientists. But through all this there has been a steady, silent growth of the facts, and recognition of the principles which have been presented in this journal.

The dogma of the disease of inebriety was sharply disputed ten years ago. To-day it is accepted by all advanced students of science. Asylums for the treatment of inebriates were denounced as pretending to treat a disease which did not exist. To-day such statements would reflect on the intelligence or honesty of the author.

Here, as elsewhere, a few men are always doubters. The war is still a failure, religion and history a sham, and scientific advance only a retrograde. To these men inebriety is still vice and wickedness, and all really scientific efforts to solve it a delusion. The JOURNAL OF INEBRIETY has the unique experience of seeing its essays and papers going the rounds of the literary world, credited to every other source but the right one. Whenever its articles are translated into German or French, they are very sure to be re translated into English and be credited to foreign authors. Many very valuable papers which appeared first in its pages, have brought great credit to new and unknown authors, and given permanent place in temperance works and prize essays. Some temperance critics after denouncing us sharply have appropriated as their own entire articles from the JOURNAL with but little

Medical and temperance politicians have been fortunate in getting the credit for learned articles that were first published in the Journal under the signature of different authors. Many of the editorials have had a strange itinerate history and appear in many unexpected forms and places. Dr. Mason's statistical papers, and Drs. Parrish, Wright, and Day's philosophic deductions, like the "Wandering Jew," are ever on the march, incessantly appearing here and there, in both new and old dresses and shapes, but never credited or labeled so they can be traced to their real authors. The JOURNAL OF INEBRIETY is not complaining, and has no time to hunt down this parasitical army who feed on its pages. The next century is rapidly nearing, and the army of scientific advance are joining us from all sides. Their aid and encouragement are increasing; voices of cheer and kindly criticism come up from all sides. Over the seas, into the libraries and homes of many of the scientific workers of the world, this journal goes with welcome. Its pages are open for all truth. It represents no one man, asylum, or theory. Its aim is to present the facts, which the largest experience and study indicates to be true to-day. The scientific study of the inebriate and his malady has scarcely begun. Only a few men have landed on the shores of this new continent of psychological research, and are preparing to move inland to discover the country.

The Journal of Inebriety seeks to record these discoveries, and point out the way to understand the laws and forces which control inebriety and the inebriate. Who will join with us in this great work? who will study these poor inebriates in their homes and firesides, and ascertain the physical conditions which made them what they are? who will unite with us in our efforts to solve this problem, on the lines of physical and psychological researches. The Journal of Inebriety has left the stream of experiment and is headed out into the great ocean of discovery! Another ten years is before us; years of constantly increasing growth, of fuller and larger acceptance of the truths we urge.

PERIODICAL INEBRIETY.

No class of inebriates present more fascinating interest, than those in whom the drink impulse recurs at fixed and stated intervals. Like the paroxysms of intermittent fever, their regular recurrence and distinct free intervals, point to some unknown laws whose uniformity is both mysterious and startling; or, like bodies approaching the sun, their orbit grows smaller, and the free interval of sobriety shorter, until finally they merge. The periodical drinker has become the steady user of spirits, and has passed into the realm of dementia and paralysis. In the following case, the exact recurrence of the drink impulse, and its unchanging history, make it noteworthy.

B. a graduate of Yale College, and a lawyer of great oratorical abilities, became a steady drinker of beer and wine in 1868. In 1874, he was an inebriate, drinking constantly to intoxication. He had two attacks of delirium tremens, lost all position in society, became an outcast and inmate of the lowest places, and was also frequently arrested for drunkenness. His heredity was from a drinking, gambling father, and nervous mother, who became insane finally, and died in an asylum. In 1876, he joined the Murphy Movement, and became a lecturer. For a long time he worked with great power and sobriety, then suddenly drank to great excess for a week or more. Then signed the pledge and began again. Three months after, he fell as before, and after a few days became temperate and started again. In 1879, he came under my care for a short time. It was ascertained that this drink paroxysm returned every ninety-one days, rarely ever varying more than a few hours. It came on most unexpectedly, and if he could drink to stupor for two or three days, it would seem to wear away, and in a week die out altogether, if not, it might last ten days, but not longer. In 1884, I saw this case again, and learned from him these very curious facts. He is still in the lecture field, speaking every week from three to five times, for nine or ten months of the

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year. He is constantly traveling, and has good health, takes great care to live as regular as possible; never uses any spirits or tobacco, and has no desire or taste for them. Every ninety-one days (no matter where he is, or what he may be doing), a strange, nervous trembling comes over him. This is followed by a great thirst for water, and finally spirits His mind becomes filled with thoughts of the pleasures of the effects of spirits. Everything suggests this in new and fascinating forms. All his old drink experience will come back with ravishing minuteness. His fear of betrayal of this condition, produces the most intense agony of mind. He becomes pale, and perspires, cannot talk well, breathes with great rapidity. If he can be taken to a room and be alone, he will drink large quantities of water, and vomit freely; then if he can get spirits, or bromide of sodium, and become stupid for a few hours, this feeling will wear away, A high fever and great prostration follows, and in a week or more, he is able to go on with his work. For three years past he has not taken spirits at these times, but keeps by him always large quantities of bromide of sodium. So regular and certain is the return of this drink paroxysm, that he prepares for it in advance, arranging to be with some friends, on or about this time. He is obliged to do this, for fear he will be caught at some hotel or among strangers, and use spirits. He has tried repeatedly (by becoming interested in some work or topic) to forget the time of this drink impulse, and has partially succeeded, but it invariably comes on again. He has been seized on the lecture platform, in the cars, or in the night, wakened from a sound sleep and filled with this drink delirium. He calls these attacks his "mind drunks," and when over, never thinks of them until a day or so before the regular time of approach. Then he is filled with apprehension that they will result in apoplexy and death. He is a most earnest, energetic man, clear, and fully sensible of his condition, reasons well, and seems above the average in culture and intelligence. As a lecturer in the temperance field, he is a man of great power and force.

Recently, I received a letter from him, in which he says that it is twenty years since he stopped the use of spirits, and during all this time, this drink craze has come back regularly every three months. He thinks they are as intense as ever, but not of so long duration. He has been able for several years to pass over them without taking spirits, but he must have bromide or chloral to help him. He now takes better care of his health, works less, takes more rest, and thinks he will finally overcome these paroxysms. The same desire for the effects of spirits follows an intense thirst, as before. He says he "is crazy at these times, and worse than all, he is most painfully conscious of it." What he seeks is stupor to keep down this impulse, and enable him to control himself. In all probability this drink paroxysm will die out, or develop into some form of mania, from the use of spirits again, and from which he may not recover. As long as he retains his usual vigor and power, no change will naturally follow. But should he break down, and his health be permanently impaired, a very uncertain future is before him.

There is a very striking correspondence in the following: A judge in a court of last resort gave among other reasons for denying a new trial to an inebriate who was convicted of capital crime: that drunkenness had been considered always a vice and wickedness in all nations, and laws had been instituted for its punishment; that all moral teachings, as laid down in the holy writ and common law, based on experience and medical testimony, sustained this view. The drunkard has ever been considered a criminal to be punished.

In 1662 Sir Matthew Hale in condemning two women to death as witches in London gave as his reasons: "That there are such creatures as witches, he made no doubt at all; for, first, the scriptures affirmed so much; secondly, the wisdom of all nations had provided laws against such persons, which is an argument of their confidence of such crime; third, Sir Thomas Brown, a physician, was clearly of the

opinion that such persons were bewitched; that in Denmark lately there had been a great discovery of witches who used the same way of afflicting persons."

These profound errors may have the sanction of religious and secular teachings, and be accepted by the most learned and intelligent, and only in the next age be recognized and excite profound wonder at their existence.

MORAL INSANITY IN INEBRIETY.

The inebriate is always morally insane. His conduct and thoughts indicate clearly impairment of the higher brain functions. Brain nutrition and circulation are deranged, and both structural and functional lesions follow. Conditions of anæsthesia of the higher brain centers, and failure to recognize the difference between right and wrong are common. Beginning in selfishness, loss of pride, indifference to honor, truthfulness, and the rights of others, with grossness of thought and act, it finally culminates in a moral palsy that cannot be mistaken. Often the intellectual activity and physical condition seem unchanged. The ordinary duties of life are fulfilled and realized, and no criminal act or word reveals the real condition. The victim has been born with a defective brain, and alcohol with other causes bave developed this defect into positive degeneration. Or the brain has suffered from some injury which takes on this form of degeneration. The following brief notes of cases point to a new field of research, that is, so far, practically unknown.

Dr. Hall, professor of Physiology at Vassar College, formerly Physician of the Woman's Reformatory Hospital in Massachusetts, sends us the following:

Case one was a woman who had been imprisoned over a hundred times for inebriety She began to drink early in life, and was never free from spirits except when in prison. Her husband was dead, her family had grown respected members of society, and had practically disowned her, as

beyond all hope of recovery. She never was known to utter a word which would indicate that she felt the least sorrow or remorse for her conduct. Arguments were useless, she was irresponsive to every appeal to her pride or honor. Finally, she died utterly unconscious of any wrong or moral injury to herself, or others.

The second case was a girl of sixteen, who drank spirits from early life. She declared she would always drink whenever she could get it. She gave no reason or excuse for this course of conduct; neither was she obstinate or obdurate, but simply outside the pale of ordinary motives and reasoning. No further history of this case is given, but a short, troubled life and early death is the common fate of such cases.

Dr. B. sends me the following:

An only son, well educated, of fine, moral character, after three months' service in the late war, came home a moderate drinker. Slowly he developed the very lowest traits of character, became a bar-keeper and steady drinker. Was treacherous, deceitful, and slanderous. He forged notes on his father, and used every means to procure money. All love for his parents, honor, pride, and self-respect, were gone. While he did not commit any criminal act, and seemed to possess a degree of intelligence, he seemed to have no consciousness of duty to others. He was in a semi-intoxicated state most of the time, and never gave any excuse or reason for his course of life. Some years ago I was called in consultation in the case of a merchant, who had been a loving, gentle husband up to the time of failure in business, when he became an inebriate, and drank every day to excess. His character changed, and he became brutal to his wife, using violence on every occasion. He told falsehoods, deceived his friends, and was dishonest and treacherous. He seemed keener and more active in business, but his moral character had changed. He spent his evenings in low brothels and bar-rooms, was very profane in his language, and changed in pride and appearance. The question of his sanity was raised, and a commission decided he was fully sane. In a second examination, in which I was present, he was affirmed to be insane. Two years later, general paralysis developed, and he is now an inmate of an asylum.

A middle-aged man was placed in my care, who, when under the influence of spirits, engaged in the most extraordinary swindling schemes. He associated with gambles and the lowest characters, and acted as a receiver for articles that had been stolen. During this time he was not intoxicated, but drank steadily. He treated his family brutally. and neglected his business, that of a druggist. He seemed of fair intelligence, gave no reasons or excuse for his conduct. and seemed to have no conception of honor or duty. He obeyed all the rules, when under observation, but could not be trusted in any respect. He was under treatment four months, and remained free from spirits, but was ever planning schemes of dishonesty, and intensely selfish and untruthful. His former history was that of a proud, kindhearted man, who was always very generous and honorable in his relations to others. A few months after leaving my care, he was sentenced to State prison for forgery.

A man of twenty-two came under care, for continuous drinking and spending his time in the lowest brothels. He was the only son of a distinguished professional man, and had been brought up in surroundings of great refinement and culture. At puberty he manifested a taste for low company, which steadily increased. He would spend all his spare time with hackmen, and in low saloons. He entered college, and seemed very bright and capable. He was very selfish to his parents and associates, was untruthful, dishonest, and treacherous. He brought his low companions in college, and seemed to take pleasure in involving others in trouble. He was expelled from college, and drank to great excess for a time, then became a steady, moderate drinker. He listened in silence to all rebukes and entreaty, made no apology or gave any reason for his conduct. When urged, said he would do better, but never altered his conduct, or tried to change. He drank with every opportunity, and was without honor or sense of duty to any one. I testified that he was insane, and he was taken to a private asylum, where the superintendent, after an examination, discharged him as sane. A few weeks later, he was arrested for swindling, and finally went to an insane asylum, and died later.

In a case in which I was consulted, three boys in a family all manifested, in early life, the lowest tastes, with cruelty to animals, and all drank, and were intoxicated from early childhood, with every opportunity. One died at thirteen, from some acute disease following syphilis. The second one drank, had syphilis, and finally was sent to an insane asylum for dementia. The third one is living at home, associating with the coachman, and the lowest company he can find. He drinks every day, and has no sense of honor, or affection for any one. The father was a moderate drinker, and speculator, who died early, leaving a fortune. The mother was a leader of fashion, a proud, spirited, nervous woman, whose mind was much impaired at the singular conduct of her sons.

These cases are sufficient to show that moral insanity is very intimately related to inebriety. The term moral insanity is clinically correct, and describes a diseased state of the higher brain centers, which are called the moral faculties. Of course, other diseased states are associated with it. While the man may reason and exhibit a fair degree of brain vigor, he seems without any power to distinguish between right and wrong, or to recognize any claims of honor or duty. This is a physical condition, either congenital or acquired, whether it can be cured or not, is a problem for the future. There can be no question of the value of physical restraint, and early care and treatment.

Morpheomania may always be treated by abrupt withdrawal of the drug, except in conditions when such methods are contra-indicated by the vital forces of the patient, or concomitant pathological phenomena. The method should also be abandoned if reactionary collapse result.

INEBRIETY IN PARIS.

A correspondent sends us the following: "Drunkenness is apparently on the increase in Paris. The number of workingmen who ruin themselves by absorbing too much absinthe, and other deleterious mixtures, grows more and more. There is, therefore, abundant room for the operations of an energetic temperance society to repress the ravages caused by 'petit bleu' and the opal colored liquor, which is imbibed by most Parisians in a moderate quantity in order to give them an appetite for dinner. Within the past fortnight several deaths from drunkenness have occurred in the metropolis. In one case a respectable official in one of the public departments was found dead in his bed. In a cupboard near him were several empty bottles which had con-The post-mortem examination disclosed the tained rum. fact that he had died from the effects of large and frequent doses of undiluted Jamaica. Only yesterday a drunken woman, hitherto an abnormal spectacle in the streets of Paris, set fire to her clothes with a match on entering her room and was burned to death. It is not at all uncommon to meet workmen returning home so utterly intoxicated that they fall down at every step, and are only preserved from breaking their skulls or being run over by vehicles by the providential intervention that watches over the inebriate. A short time since I saw a drunken lamplighter trying to illuminate the shades of evening by lighting a tree with his six-foot pole. A magnanimous policeman, who for a few moments placidly watched the man's effort to pursue his occupation under difficulties, finally went over to him, took the pole, lighted the lamps, and sent the devotee of Bacchus home between two boys."

HE was Professor of Diseases of the Mind and Nervous System, and wrote me, "Your views of inebriety are extravagant. I have never seen a case of disease pure and simple among inebriates, and I think your journal and the theories it promulgates are beyond the pale of scientific recognition.

Later, he wrote, "My consin is on trial for murder committed in a state of intoxication. I am convinced he is diseased and irresponsible; will you send me papers and books that I may be posted on the disease side of these cases." The answer was, "Study your cousin's case, as you would one of general paralysis. Go out in the street and study every inebriate you can; you will find more facts from this source, than has ever been printed."

THE TREATMENT OF INEBRIETY.

The result of all experience hitherto may be summed up in one word - asylums. The patient should be placed where restraint can be used to replace his own weakened will power. His mode of life should be the most placid and uneventful one, compatible with a certain degree of contentment, and he should be under the daily, nay hourly, observation of men skilled in that branch of the profession which relates to inebriety. These indications can only be fulfilled in an asylum, and to such he should go. It is to be hoped that the public will one day see this matter in its true light, and provide shelter for a class which needs medical care and treatment to the full, as much as they who crowd our insane hospitals, and which promises so much better results than those suffering from any other form of mental alienation. As bearing particularly upon this point, and showing the opinion of men who have made a study of the matter, I cannot forbear making the following quotation from a paper by Dr. Crothers, of Hartford, Conn.: "In every town and city of the country there are men and women who are slowly committing suicide by drink; destroying the peace and happiness of others, breaking up good order and healthy society, and gathering about them influences which always end in misery and ruin. Because such cases do not give strong evidence of mental disorder, they are allowed to go on destroying both themselves and their families. Nothing can be more reprehensible than to stand by and see all this sacrifice of both life and property, and not forcibly stop it. Every ine-Vol. IX.-8

briate should be placed in an asylum, and cared for as an insane man; if he is incurable, keep him under restraint all his life-time. This is humanity, this is charity, this is economy, and this is the highest civilization of the brotherhood of man."— Dr. Vittum.

NEED OF INEBRIATE ASYLUMS.

Dr. Jewell, the Superintendent of the Home for Inebriates, in San Francisco, Cal., in a paper printed by the State Board of Health, makes the following reference to inebriate asylums: "The State should establish asylums for drunkards, under the management of those having great experience, and the courts, and Commissioners of Lunacy, should be authorized to commit chronic drunkards to these asylums, for not less than one year, and in some cases for life. The first commitment should be for one year, during which time the patient should undergo a course of treatment for this malady. At the end of his term he should be released, but if he resumed his former habits of intoxication he should be again committed, for two years. If committed a third time, it should be for three years. The patients in these asylums should be made to reimburse the State for their expenses, either by paying for their keep, or by laboring at some trade or employment, so as not to be an incumbrance on the State. The money for the support of these institutions should come from those benefited by the sale of alcoholic liquors; and there should be provision made in the law so that a certain amount, say one-fourth, of the patient's earnings should go to the State, one-fourth to be retained for him, and paid to him on discharge, and one-half to his family, if he has any; if no family, then one-half to the State, and one-half to the patient on discharge. The State, the patient, and his family would benefit greatly by such a course. Crime would decrease, the death-rate would decrease, and human happiness would be greatly increased. Time, restraint, moral influences, the exercise of strong will power, and constant employment, are the means, with proper medicines and discipline, by which drunkenness is to be cured."

THE end of the long trial was reached, the verdict was, "Guilty of murder in the first degree." The counsel for the defense asked for a stay of sentence, and intimated the injustice of the verdict. The judge denied this, and in his sentence sneered at the medical witnesses, "as so-called experts in drunkenness," whose testimony was contradicted by two centuries of study and experience, and who sought to get legal recognition of a doctrine that was subversive of all law and order. He thanked the jury for their courage in ignoring this false theory of defense, and warned the prisoner to prepare for the more terrible punishment in the next world. The prisoner was a poor Andersonville soldier, who after two years of hard service on the battle-fields, was starved nine months in this prison. He came home a wreck and an inebriate. For twenty years he drifted up and down the world, drank, and was sentenced to jail repeatedly for this offense. He was alone and had no friends except barkeepers, and was a poor, broken-down inebriate, with diseased body and brain. In a moment of great provocation he struck a man, who was killed by the blow. Two medical men examined him and swore that he was diseased and irresponsible. They swore that inebriety was a disease, and in this case the prisoner was fully insane. The governor commuted this sentence to imprisonment for life, and the judge labors under the delusion that the cause of justice was subverted, and law and order is in great peril.

Demorest's Monthly Magazine for the new year, has increased attractions, and may be said to be one of the best family and home magazines published. Send the subscription, two dollars for a year's numbers, to the publishers, New York city.

INEBRIATE JURORS.

A valued correspondent vouches for the following: In a western city an inebriate was on trial for manslaughter. The defense was insanity from alcohol. After a long trial, and deliberation of two days, the jury brought in a verdict of guilty. A new trial was granted, on the grounds that two of the jury were so much intoxicated as not to be able to decide on the verdict. It was alleged that all the jury drank, and had several free fights in the jury-room. At the close of the second trial, one of the jury had an attack of delirium tremens, and rushed for the judge, to whip him. In the third trial, the jury brought in a verdict of guilty, but not responsible. This was not accepted, then they disagreed. The case was then taken into another court, where the plea of guilty was made, and the judge sentenced him for life, with a heavy fine. The defense now asks for a new trial, on the ground of the incompetency of the judge, who, it is claimed, was partially intoxicated when sentencing the prisoner.

The inebriate is on trial for murder. The law inquires: Did the prisoner have the power to distinguish between right and wrong? Was the crime committed under an insane delusion? No matter what the answers may be to these inquiries, the law assumes that all drinking is voluntary and under the control of the person, and hence he is to be condemned and punished always. The only defense allowed is that of delirium tremens. The victim is punished. The supposed justice is great injustice. The truth of voluntary control in drinking is a great untruth, which any study will disprove.

THE great mortality among English medical men contradicts the oft-repeated assertion that education in physiology and the nature of alcohol will prevent men from drinking.

Clinical Notes and Comments.

CHLORAL POISONING.

Dr. Lewis in the New York Medical Monthly, writes on the above subject, that alcohol is in no sense an antidote for chloral poisoning, yet persons who take alcohol are less susceptible to chloral poisoning. He mentions a case where a dipsomaniac, under treatment, was given 100 grains to procure sleep, and died soon after. He mentions another case, where an inebriate was given 80 grains, at one time, with no bad effects, and after died from the effects of 20 grains. He concludes that chloral is a dangerous remedy to produce narcotism in inebriates, that it should always be given with great care, and also, that its habitual use is worse than that of opium.

OPIUM NEUROSIS

is a central neurotic change brought about by the long-persisting perversion of function and impairment of central nervous nutrition from its persisting presence in the nutrient pabulum of the circulation. The psychosis of opium taking is a blended intoxication and chronic poisoning of the psychical centers of the brain; other symptoms of acute opium poisoning are essentially different, being mainly a profound paralysis of sensation and of the centers of involuntary motion, especially having their origin in the medulla and upper part of the spinal cord - profound narcosis, lowered respiratory movements, etc., while chronic opium poisoning, or meconeuropathia, is characterized by repeated nerve excitations, in which the nerve centers, not being completely overcome, a kind of tolerance is established, with progressively developing abnormal molecular neural changes, which are as repeatedly covered up and masked by the renewed doses, till some sudden deprivation of the drug or failure to appropriate it, reveals, in full force, the neural mischief which has been gradually done. Opium, like a bank defaulter, both makes and masks the mischief done, which may be kept concealed so long as he stays in the institution. — Dr. Hughes in "Alienist and Neurologist."

SPECIAL PHASES OF INEBRIETY.

Some inebriates are exceedingly economical during the carouse, and so manage to satisfy their desire for drink through the pockets of friends or fellow-drinkers, and only drink when they are invited. On the other hand, a lavish wastefulness characterizes some, and they are ever ready to treat, not only friends, but any who may be near at hand. These peculiarities are not accidental, but uniform in the individuals possessing them. Some drink only on Saturdays, and oftener after sundown on that day, sleep off the fit, go to church the next day, and are sober the remainder of the week. Some have peculiar days on which they become debauched, and do not indulge at other times. Public holidays, private anniversaries, as of marriage, or the birth of a child, are occasions that are thus celebrated. I have known the proprietor of an extensive mercantile house, who, for eleven months and two weeks of each year, applied himself closely to business, in which he was successful, who, on the same day of the same month in each year, joined himself to a man of low estate, with whom he could not be on terms of social freedom when at home and sober, and occupied two weeks on a fishing excursion. Before the arrival of the appointed day he arranged his business for a fortnight's absence, drew checks to meet the wants of his home and his store, made appointments for the day of his return, and equipped himself to meet his companion, who was to serve as his guide and care taker. With a boat on the bay, or river, a tent for the shore, and an abundant supply of "creature comforts," they commenced at the appointed time.

Fishing by daylight, and tenting at night were to be continued during the allotted vacation, under the following agreement:

For a dozen consecutive nights, the merchant was to be supplied with whisky in quantities sufficient to produce intoxication, and his companion was to keep sober, in order to protect their property and themselves, and to do all the offices of cook and "maid of all work." The last day and night were to be spent in "sobering up," and getting things in order for a return to the duties of the head of a family, and the head of a mercantile house. At no other time in the year did this gentleman indulge in strong drink, and it was the only specified time when the fisherman was under bonds to keep sober. Before leaving home, an estimate was made of the exact quantities of spirits needed for the whole time, and no more procured; so that the fisherman was obliged to be exact in portioning his rations, and a check was thus placed upon himself.— Dr. Parrish.

Incbriety is a disease, and often a symptom of cerebral disorder. Like other diseases of the brain it may be inherited; may skip over two or three generations and break out in a family that supposes it had long been delivered from its presence. Like other chronic nervous diseases it is very obstinate, and sometimes utterly incurable. Like other chronic brain diseases, it needs both physical and metaphysical medical treatment, medicine for the congested or exhausted brain, as well as rest, relaxation, advice, care, watchfulness, exhortation, and in some cases compulsion. Moral or metaphysical treatment alone will not avail to cure it usually, any more than it will avail to cure epilepsy, or neuralgia, or paralysis, or insanity.—Dr. George M. Beard.

Coffee-houses to take the place of bar-rooms are being established in New York, and will no doubt serve a very useful purpose.

The inebriate is always a man with an intemperate and distempered mind. He is thoroughly insincere to himself and every relation of life about him.

Inebriety must be studied outside of any preconceived theory of its origin and character. Each case must be examined as something new, and from its classified symptology, the real facts will be apparent.

The *Physicians Visiting List for* 1887, by Lindsay & Blakistons of Philadelphia, Pa., has been before the public thirty-five years, and has attained a degree of perfection that commends it to all physicians.

The Reheim's *Chamber of Commerce* reports that over five millions bottles of champagne less were sold in 1886 than in 1885, also ten millions less than in 1882-3. England is the greatest consumer of champagne.

Seventeen per cent. of the insane under treatment in Ohio, are classed as coming from inebriety. Heredity is put down as present in thirty-eight per cent. Of the insane in the professions, physicians are in the largest proportions.

Destructive manias in inebriates who are intoxicated, seem to depend on some state of cerebral anæmia. In such cases, both heart disease and severe forms of dyspepsia will be found associated. In some cases, an irregular heart action precedes the mania, which may be foreshadowed for some time.

Dr. Mays, of the Stockton Insane Asylum of California, writes: "One-half of the insane owe their derangement to hereditary influence, inheriting an ancestral taint or predisposition. The families of intemperate parents furnish the recruiting ground for insane asylums. These unfortunate children, if not idiots or epileptics, are liable to grow up with querulous, explosive tempers, with feeble powers of self-guidance, weak in temptation, unstable, self-indulgent, vicious, hysterical. They form the bulk of what is known as the defective classes."

The fartherest researches into the nature and character of inebriety, give us only fragmentary views of the whole subject. Like men looking out from a window, we only get narrow and partial conceptions of this great army of neurotics. From the procession in front of us, we can faintly realize the origin and destination of the march.

According to the internal revenue returns for 1883, two hundred and six thousand, nine hundred and forty-four places were licensed in the United States as wholesalers and retailers of malt liquors and spirits, including breweries and rectifiers. In 1884 this number had decreased eight thousand eight hundred and fourteen from the year before.

An eminent physician, now dead, protested earnestly against the ignorance of explaining morbid mental phenomena by theological terms, and yet fell into the same error in calling all drunkenness a vice and sin. His erroneous observation and reasoning has done much to retard the progress of truth in this direction, and the real aid he gave to science, was neutralized by his defectively biased judgment.

The first Asylum for Inebriates has just been opened near Milan, Italy. It is intended for the better class, who can pay for the best medical care and surroundings. In all the hospitals for insane, wards are set apart for inebriates, and their treatment as partially insane, has been carried on successfully for many years, but this is the first organized effort to treat them in a separate hospital.

According to Mr. Brace of the Children's Aid Society of New York city, the Industrial Schools of that organization are doing much to prevent the growth of a race of inebriates. He says that drunkenness has decreased fifty per cent. in the last ten years, from the police returns, and crime has decreased twelve and a half per cent., all of which can be traced to these efforts to prevent recruiting from the young into these dangerous, defective classes. During the past year, eleven thousand children have been under their care and instruction and thirty-two hundred have been sent to new homes in the West.

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MEDICINES FOR INEBRIATES.

We have sought to have on our advertising pages only such remedies as we could commend to all our patrons. We take great pleasure in calling attention to the following, believing they will be found of great value and usefulness:

Coca Cordial, prepared by Parke, Davis & Co., is very extensively used as a tonic in all cases of nerve debility.

The *Hypo-Phosphates* of *Fellows* can be relied upon in states of general degeneration and failure of brain and nerve force. It has been used for years in England in large hospitals, as well as private practice.

The Murdock's Liquid Food may be given as a nutrient tonic where syphillis or scrofula has complicated the disease. It is largely used in Boston, and is highly commended.

Lactated Food, by Wells, Richardson & Co., has been used in opium cases to allay the irritation of the stomach with the best results.

Peptonized Cod Liver and Milk, by Reed & Carrick, is the best and latest preparation of oil as a medicinal tonic. In cases of inebriety where profound degeneration is going on, this is unequaled as a remedy.

Maltine, with the various iron and vegetable tonics combined, is an indispensable remedy in a great variety of cases. It should be in the stock of all physicians.

The Anglo Swiss Milk Food, made by a company of this name in New York, has the endorsement of the leading physicians in this country, and its medicinal value seems to be established beyond question.

Colden's Liquid Beef Tonic should be given in gastric disturbances following nerve exhaustion, and in many forms of inebriety it is a good substitute for spirits for a time.

Lactopeptine is a standard remedy which every physician should have in his case.

Horsford's Acid Phosphate is another remedy that can be used in a great variety of diseases with the best results, and should be always at command.

Papine is a de-narcotized opiate, which we have used in insomnia and the delirium from alcoholic excess, getting better results than from any other sedative. In delirium tremens it is highly commended.

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of each bottle.

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DAILY NEWSPAPERS IN CITIES HAVING more
than 21,000 population, omitting all but the best.
A SMALL LIST OF NEWSPAPERS IN which to advertise every section of the country: being a choice
selection made up with great care, guided by long
experience.

vertise every section of the country: being a choice selection made up with great care, guided by long experience.

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

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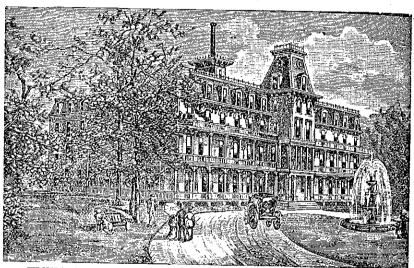
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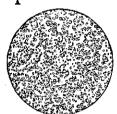
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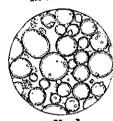


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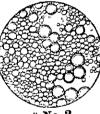


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Vol. IX.--11

The value of Murdock's Liquid Food is Recognized in All Countries, and is Indorsed by all National Medical Societies that have Investigated its Value.

There never was an essay read before any Medical Society on Raw Food Extracts, except on Murdock's Liquid Food, and counterfeit manufacturers of Extracts have published many of our essays to show the value of their counterfeits.

Send for Essay and DISCUSSION before the Brilish Medical Association at Brighton, England, 1886 (Essay), by the Vice-President of the American Medical Association and others on the value of Murdock's Liquid Food over all Foods and Extracts known, it being the ONLY Raw Condensed Food, free from insulable matter.

Also essay read before the American Medical Association at Richmond, Va., and Washington, D. C.:



at Richmond, Va., and Washington, D. C.;
Its value was recognized by the Profession from results obtained in the
Free Hospitals that have been estabshed and supported by our Mr. A. L.
Murdock during the last four years.
They now equal

140 FREE BEDS,
and contain 38,000 feet of Floor.

Con Lind for an above tind by the

Our Liquid food can be retained by the weakest stomach. Four tablespoonfuls daily will make eight per cent, new blood weekly. When used for infants, never change their food, but add five or more drops of Liquid Food at each feeding, and their lost or needed vitality will be

and their lost or needed vitality will be restored in less than thirty days.

Send for the report of the Chairman of the Section of Obstetrics of the American Institute of Homespathy, read at Saratoga at the Annual Meeting of 1886. Circulars were sent by him to all the Physicians in the United States, asking what their experience was with Murdock's Liquid Food in its use for infants under, as well as over, one

Then what results, with all the different Milk preparations, Grain Foods, Peptonoid Foods, and Beef Extracts, compared with Mardock's Liquid Food.

The column show that it is the Standard Food and Extract, as the percentage of fives restored was the largest when need.

The returns show that it is the Standard Food and Extract, as the percentage of lives restored was the largest when ased.

We extract from the report. After calling attention to the fact that one-quarter of the homocopathic protession are accustomed frequently to prescribe this food for children less than a year old, as well as over, he remarks:

"It is singularly adapted to scrofulous, syphilitic, and tubercular constitutions, its life-restoring power manifesting itself in each with a relative clearness and power corresponding to the order of enumeration. For fair-haired children who are inclined to grow fleshy it is more symptomatically recommended, while Duncan's acid babies find it particularly useful. Accordingly it is chiefly employed for marsamus and ansemic conditions resulting either from non-assimilation of food or from simple summer complaints. Should a child vomit all milk food, and suffer synchronously with diarrheea or dysentery, the demand for this food is emphatic and tumnistakable; also in general irritability of the stomach, particularly if there be sour-smelling diarrhea, the food passing through undigested. For the prematurely born it stands preeminent. For those 'weak and debilitated from any cause, Murdock's Food is probably the best in the world.' Should any indication of cerebral hyperzemia appear, the quantity of food must be diminished; so, too, if after its protracted use vomiting and diarrhea ensue; the child has been overfed. Should the taste or oder of any given bottle chance to be disagreeable, add water until they disappear, and let the purchaser congratulate himself upon getting more nutriment than he paid for; When given in combination with milk in cases of indigestion, the quantity of milk should be diminished until all curds disappear from the stool, the quantity of Food, of course, being proportionately increased."

The Sarceied Staff at Murdock's Free Hospital for Women are in daily attendance, except. Saturdays, to evalue methods.

The Surgical Stuff at Murdock's Free Hospital for Women are in daily attendance, except Saturdays, to examine patients and assign heds. EVERY BED FREE.

The Surgical Staff at Murdock's Free Hospital for Women are in daily attendance, except Satisfically, to Country patients and assign bods. EVERY BED FIRE.

Our Free Surgical Hospital for Women, located on Huntington avenue, above West Chester park, contains fifty (50) beds, in charge of a staff of five surgeons, members of the Massachusetts Medical Society.

Our Free Surgical Hospital for Women, located on Gainsborough street, corner of Huntington avenue, contains 50 beds, in charge of a staff of five surgeons, members of the Massachusetts Homeopathic Medical Society.

Our Free Home for Homeless Boys contains 40 beds, and is located 11 to 21 Causeway street. Many of these boys suffer from Scrofula, Eczema, and other skin diseases, which yield quickly to the use of our Liquid food.

From the fact that no two beeves or sheep are alike is the reason of our different brands being different in flavor.

All brands are made by the same formula. The letter represents the day of make, and the figure the tank.

If richer, it is stronger in smell and flavor, and will bear a greater reduction. It cannot be reduced so low but it will be superior to all other preparations in treating chronic cases.

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It Differs in Effect from all Others, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

It has Sustained a High Reputation in America and England for efficiency in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs, and is employed also in various nervous and debilitating diseases with success.

Its Curative Properties are largely attributable to Stimulant, Tonic, and Nutritive qualities, whereby the various organic functions are recruited.

In Cases where innervating constitutional treatment is applied, and tonic treatment is desirable, this preparation will be found to act with safety and satisfaction.

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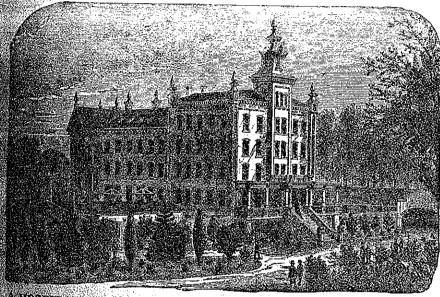
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