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R
 Horsford's Acid Phosphate f ʒ ss
 Quininæ Sulph. gr. xvj
 Syrupi Simplicis f ʒ ij
 Aquæ f ʒ vss
M.
 Sig: A tablespoonful in a wine glass of water.

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R
 Emulsion Olei Morrhue 50 p.c. f ʒ viij
 Horsford's Acid Phosphate f ʒ j
M.
 Sig: A tablespoonful.

***ACID PHOSPHATE WITH WINE OF PEPSIN.**

R
 Vini Pepsinæ f ʒ vj
 Horsford's Acid Phosphate f ʒ ij
M.
 Sig: A dessertspoonful in water.

ACID PHOSPHATE WITH ELIXIR OF IRON AND QUININE.

R
 Elix. Ferri et Quininæ
 Horsford's Acid Phosphate aa f ʒ viij
M.
 Sig: A teaspoonful in water.

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R
 Horsford's Acid Phosphate f ʒ vj
 Tinct. Nucis Vom. f ʒ j
 Tinct. Gentianæ Comp. f ʒ ij
 Syrupi Simplicis f ʒ iij
M.
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THE
QUARTERLY JOURNAL OF INEBRIETY.

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APRIL, 1887.

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

THE INVARIABLE TENDENCY OF DRUNKENNESS TO CRIME. — WHENCE COMES IT?

By T. L. WRIGHT, M.D., BELLEFONTAINE, O.,
Author of "Inebriism, a Pathological and Psychological Study."

I refer to the essential nature of drunkenness as weakening the moral perceptions, and thus favoring the assaults of temptation, whether it comes in the guise of seductive immorality or in the form of flagrant criminality.

With respect to the irrepressible proclivity to wrongdoing which is characteristic of drunkenness, the key to the whole discussion is found in the words: *weakening the moral perceptions*. It is therefore right that some attention should be given to the existence of the fact, as well as to the meaning of it. In addressing the readers of this JOURNAL, I assume some things as granted, upon which, in popular publications, I would think it proper to dilate somewhat.*

The anæsthetic — the benumbing — the paralyzing influence of alcohol upon the nervous system is distributed impartially over the whole, the universal nervous organism. It is displayed in the structures of ordinary sensibility through

* I have discussed the points referred to, in the JOURNAL OF INEBRIETY, July, 1882, and October, 1883, and also at length, in my little book — INEBRIISM. — W.

the more or less complete suspension of common feeling, considerable injuries being but slightly noticed, or not noticed at all. It is seen in the system or centers of the motor capacities through the inco-ordinate and partially suspended motor movements: the sensibility and force of that sub-system of nerves being, in a great measure, destroyed. The lethargic influence of alcohol upon nervous function is seen also in the suppression of acute and vivid intellectual movements; the nervous centers presiding over the rational powers being disabled, repressed, stupefied. "They err in vision, they stumble in judgment," being "swallowed up of wine." The disabling effects of strong drink are likewise observed in the obtunding of the association fibres and centers of the nervous system — out of the perfect freedom and vitality of which, the sense of personal identity, and all ideas of moral responsibility and duty are formed and have their being.

The corruption, and indeed dissolution, of the moral nature through the power of alcohol, are open to observation in the petty and despicable vices of drunkenness, as well as in the astounding baseness and seeming depravity of its more conspicuous outrages.

The very nature of the offenses against law and decency which belongs to drunkenness, often betrays their origin. As a rule it may be said that the shortcomings and crimes of drunkenness are not those of premeditation and malevolent reasoning; are not of choice; are not incited by natural and regular motive: but they owe their existence to simple defect — to the incapacities and irregularities of moral deformation — to impulse, rather than to deliberation and will. These crimes become possible, and indeed inevitable, because the only power really adequate to their repression is physically inoperative. The natural defense against their exhibition and activity — the nervous basis of the moral constitution — is broken down and disabled.

While this condition of nerve-defect may, to a certain degree, eliminate premeditated malice from drunkenness,

that condition is all the more dangerous to society, by reason of its entire independence of mental control. The limit to crime is unbounded. It may extend into the regions of frenzy—knowing no law, and being totally insensible to restraint. It is obvious that, in proportion as the feelings are removed from the restraints and supervision of reason and judgment, they come under the dominion of selfishness, passion, and trust; and these, in drunkenness, often comprise, in themselves, the whole being. The moral feelings having become oblivious, selfishness, passion, and lust assume their place and sway and drive the mind to their own interests.

Hence the offenses and crimes of drunkenness, while not always heinous in the ordinary sense of the term, are apt to exhibit an astonishingly selfish turpitude. They extend all the way from simple untruthfulness to the vilest indecencies, to assaults evincing unspeakable depravity, and very often, also, to the most unpitying truculence and murder.

Remorse is feeble in the drunkard, even when sober; but when actual intoxication is upon him, it is impossible. The more terrible crimes of drunkenness, therefore, resemble the deliberate, but insensate bloodthirstiness of some reptilian monster, in whose physical structure the neurine instruments of the finer sensibilities have never been placed. And the reason of this is plain: the drunken man and the saurian are, for the time being, established in some considerable degree of relationship with each other. The moral sensibilities of the former are stupefied and dormant; while in the latter they have not, and never had, an existence.

In short, all the several portions of the nervous organism are obtunded, paralyzed, repressed by the toxic properties of alcohol when a man is drunk. Not only are the nerve-functions subdued and hindered by a reduced impressibility of the nerve structure, but the strength and tone of the really repressive nervous functions themselves are impaired, so that inhibition is itself inhibited. The mind acts not unlike

a team of balky horses — there is much splashing and plunging, and make-believe, but little actual force or progress.

The nerve tissue being disabled and poisoned, its functions are correspondingly incomplete and irregular. And this state is one of the constituent conditions of drunkenness. The idea that intoxication is the representative of some radically new power or force introduced from without, that it is solely an exposition of the peculiar and superadded properties of alcohol, is an error. Drunkenness is the representation of disabilities imposed upon the entire round of nerve-function by virtue of the abortive impress of alcohol. It is incorrect to say that alcohol invests the mind and disposition with new characteristics, either good or bad, derived wholly from that substance, and which have no actual foundation in human nature. It deranges, and at times destroys the mutual inter-dependence of the several subsidiary nervous organizations which, in their collective capacity, preside over, and formulate human character. It also weakens, and in varying degrees depresses, or even extinguishes them in severalty.

The great law of physical or mental, or moral monstrosity, is defect. Deformities of redundancy may be corrected in the physical body by amputation or excision; and undue excitement of the natural powers of mind and morals is frequently amenable to therapeutical appliances, as well as to the restraints of mental effort and volition. But absence of feature or limb, or deficit in the mental or moral instruments is irremediable, is fatal. Drunkenness, when in full tide and completion, is moral monstrosity.

It is doubtful if the influence of alcohol upon the moral constitution of man is in any degree modified by the civil or the social habits of life. Education, in many ways a powerful conservator of morality, is nearly, if not quite, powerless for good in drunkenness; for the moral capacities, ordinarily obedient to the commands of mental culture, are absent, or in a state of insensibility. A rational view of this subject, as well as observation, teaches that with respect to the refine-

ments of education, drunkenness is entirely independent of them, because unconscious of them. In so far as this point is concerned, alcohol appears to produce the same effects upon the cultivated, as upon the ignorant and vulgar.

But in its specific effects upon *personality*, alcohol unquestionably acts in a disabling manner, in some degree differently, in different individuals. And it is reasonable to suppose that in particular persons it acts more directly on certain sub-systems of the nervous organism, while in others it affects more decidedly other systems. Sometimes, for instance, the disability seems to be confined especially to the movements of the limbs: at other times, the intellectual faculties appear to be the most affected; while again, the moral capacities are mainly impressed and paralyzed. These considerations sufficiently explain the well-marked distinctions that often appear in the leading characteristics of intoxication in different individuals. They also show the reason why drunkenness in the same person exhibits different leading features in separate seasons of excess. In addition, they interpret certain facts which appear most clearly in a protracted period of drunkenness; the most obvious and dangerous moral obliquities, for example, come into view, as a rule, near the end of a debauch, when the moral feelings have been bereft of sensibility, if not, indeed, of existence. But notwithstanding the differences that may appear in the completeness of the anæsthetic state in divers and sundry persons, and notwithstanding its greater oppression at times, on one part of the nervous system than upon another, the leading fact remains, that in every instance of intoxication the entire nervous organism is, to a notable extent, brought under the corrupting and ignominious domination of alcohol.

It evidently requires the active and working powers of the nervous system to bring the intellectual faculties into normal relationship with things exterior to them. The same qualities of nervous freedom and brightness are necessary, in order to rightly contemplate and understand the nature and duties of morality. The anæsthesia of drunkenness pre-

vents a just and natural conception of the moral nature, and of its proper relationships and dependencies. When a man is drunk his moral perceptions are dulled and obscured; they take place in shadow and darkness. Moral characteristics, as seen clearly and readily by the healthful powers, are unnoticed by the mind whose instruments are pinioned and prostrate through alcohol. The final result is, that drunkenness always so affects the moral perceptions that the natural barriers and antipathies to vice and crime are thrown down; and the way is smoothed over for the approach and entrance of temptation in every form, and from every direction.

Compunction is impossible in drunkenness, and the inebriate indulges, unrestrained, in a swarm of vices. Amongst these, none is more audacious or contemptible than lying. No matter how "fine a fellow" the drunkard may be, his word is taken with suspicion or protest. Yet, it is not presumed that drunkenness strenuously seeks out falsehood. It does not take much pains to seek anything. The drunken man simply seizes the shortest and easiest way to solve any and every problem presented to him. His moral imbecility is so great that he holds truth in cheap estimation. He is incapacitated from analyzing its nature, for he is incapable of feeling it; and he is very liable to employ falsehood in all emergencies that will, in his opinion, subserve his interest or contribute to his ease. This is especially the case in things that relate to the gratification of his propensity for intoxication. In pursuit of this object, there is a pretty constant resort to some kind of deceit and misrepresentation.

Only a few days ago a man who is a frequent and furious spasmodic drunkard, and who had recently pledged himself to total abstinence from liquor, called to see his sick mother. Having satisfied his mind that there was not likely to be any sudden crisis or emergency in her case, he informed her that he had very pressing business in two or three of the neighboring towns. He solemnly declared to her that she need not be uneasy about his drinking, as he had not the least desire to indulge in liquor. He started for the depot, and

before reaching it, was well filled with whisky. In two days he returned bloated, shameless, and defiant. His "business" was all a lying pretext. Such men often form their schemes for a season of drunkenness with great elaboration and cunning; beginning their approaches from afar, and never hesitating to employ a mountain of lies in furtherance of their object.

The *chronic* drunkard is apt to become habitually false on all subjects and on all occasions. He is prone to indulge in stories that are silly as well as incredible, and that, too, with great precision of statement, and detail of circumstance. I know a physician who had for many years tampered with alcohol, and morphia, and chloral. He lived in the capital city of a Western State. On a visit East he busied himself in recounting wonderful stories. He informed some friends that "it was a curious fact that drugs were cheaper in the Western cities than in the Eastern. Take quinine, as an example," said he, "I purchased an ounce out West, and I was surprised to learn that the price was only fifty cents. I told the druggist," he continued, "I would take two ounces at that price, but he replied that if I took a dollar's worth he would make it three ounces for that money"—and much more in the same strain.

This habit seems often to be a kind of automatic representation of the long-existing moral deficiency inseparable from drunkenness. It is the unconscious outcome of prolonged moral hebetude in relation to many essential elements of a useful life, and especially in relation to the cardinal virtue of truthfulness. It is, however, an incident showing the innate tendency of drunkenness to vice and crime.

The news of the day fully illustrates the effects of alcohol in the production of crime. Some man in a responsible position begins to indulge in wine. The next thing to appear is the "strange woman." Then expenses increase, and funds are embezzled; then gambling or forgery are resorted to; and last of all, flight, or punishment, or suicide: but in every instance comes degradation and ruin. All this time alcohol

is paralyzing the moral sensibilities, and deceiving the rational judgment as to the facts and consequences.

And so it is that intemperance always modifies the normal characteristics of human nature. The mind, therefore, being indelibly impressed by the defects imposed upon it by drunkenness, is transported from a position distant from crime, to another position not so distant.

Unquestionably the natural predisposition to criminality is greater in some minds than in others; and in such, the work of alcohol in the production of crime is easy. While the movement *towards* crime always is present under alcoholic influence, yet, the goal of actual criminality is not reached under equal alcoholic impressions—the natural affinity of the human disposition with criminality being unequal in different individuals—being, no doubt, entirely absent in many. But that drunkenness increases the susceptibility to criminal influences where it is already in existence, and creates a susceptibility where it does not naturally exist, must be true from the fact that an obtuse and lethargic moral sense is an invariable and impregnable part of that abnormal condition known as drunkenness. An intoxicated man will commit offences in thought, in speech, and in conduct which, in his sober mind, he would view with shame and indignation. The unvarying tendency of drunkenness is towards crime.

I will indulge in a single general inference. When society, in consideration of money paid into the public treasury, becomes a partner in the dramselling business, it is engaged in weakening the moral perceptions of human kind, and it becomes a party to the crimes of alcohol.

The expenditures for *Wine, Spirits, and Porter* at the Pennsylvania Hospital for the past year, were \$2,031.95. The bills for medicines, for the same period, were \$1,774.88. The physicians seem to be ardent followers of the Todd and Bennet system of practice.

INEBRIATES IN INSANE ASYLUMS.

BY T. W. FISHER, M.D.,

Superintendent Boston Lunatic Asylum.

For many years there have been attempts on the part of superintendents of insane hospitals to secure the passage of a law allowing the commitment of dipsomaniacs to some special institution for their custody and treatment. In England this movement resulted, after years of discussion in Parliament, in the passage of an habitual drunkard's bill, whereby such persons may voluntarily seclude themselves in special institutions for definite periods. The writer has often advocated before legislative committees, and the Board of Health, Lunacy, and Charity, and in a paper on "Insane Drunkards," read before the Massachusetts Medical Society, in 1879, legalizing the commitment of inebriates to special institutions for long periods of from one to three years. He also demonstrated, in defending an action for damages for improper certification of an inebriate, at considerable trouble and expense, that, in the opinion of the Supreme Court of Massachusetts, there is such a disease a dipsomania, and that, in the absence of special institutions, such cases might be committed to hospitals for the insane.

Soon after this decision, if not in consequence of it, renewed efforts were made by the Board of Health, Lunacy, and Charity, to secure the passage of a law on this subject, and in 1885 the following law, not wholly in accord with their recommendation, was passed:

AN ACT CONCERNING HOSPITAL TREATMENT FOR CERTAIN PERSONS SUBJECT TO DIPSOMANIA OR HABITUAL DRUNKENNESS.

Be it enacted, etc., as follows:

SECTION I. Whoever is given to or subject to dipsomania, or habitual drunkenness, whether in public or in private, may be committed to one of the

State lunatic hospitals; *provided, however*, that no such person shall be so committed until satisfactory evidence is furnished to the judge before whom the proceedings for commitment are had that such person is not of bad repute or of bad character, apart from his habits of inebriety.

SEC. 2. The provisions of chapter eighty-seven of the Public Statutes, and of acts amendatory to such chapter, relative to the commitment of an insane person to a lunatic hospital, shall be applicable to, and shall govern the commitment of, any person under this act except that in all proceedings relative to the commitment of any such person it shall be specifically alleged that he is subject to dipsomania, instead of alleging that he is insane.

SEC. 3. All the laws relative to persons committed to lunatic hospitals on ground of insanity shall apply to persons committed thereto under the provisions of this act; *provided*, that no person so committed shall be discharged therefrom unless it appears probable that he will not continue to be subject to dipsomania or habitual drunkenness, or that his confinement therein is not longer necessary for the safety of the public or for his own welfare.

SEC. 4. This act shall take effect upon its passage. [*Approved June 18, 1885.*]

It will be seen this act does not include this hospital in its provisions; but it has been construed as applying to it by the committing magistrate. The provision allowing commitment to lunatic hospitals may have been a compromise on the part of the legislature to avoid the expense of establishing a special institution for inebriates. It certainly was not what superintendents had asked for, but what they had always earnestly protested against. They had hoped for a law to relieve them of such inebriates as did, from time to time, get committed to their hospitals on the claim that they were insane; and a law was passed legalizing the commitment to insane hospitals of habitual drunkards without any inquiry as to their sanity. This law was passed in the face of the fact that all the hospitals were full to overflowing with cases of ordinary insanity, so that hundreds were compelled to sleep in attics and on corridor floors. Under this pressure one superintendent expressed himself as having degenerated into a big policeman, spending his time in trying to keep order and maintain discipline in a crowd of lunatics and inebriates, instead of devoting his time to his proper work of treating insanity.

This law, as it stands, is defective, and liable to abuse in several ways. In the first place, inebriates should be com-

mitted to some special institution and not to a lunatic hospital. They not only take up the room needed by the insane, but after the first few days they are practically sane, and find themselves surrounded by the depressing influences of an insane hospital, and subjected to restraints and regulations primarily adapted to the insane. To be sure, they are better off then when at large, exposed to temptations to drink, and much may be done for them in the way of kind treatment and moral management; but they are out of place, and they often feel it and show it; while many are considerate and give little trouble, sometimes they interfere sadly with the discipline and interrupt the harmony of an asylum ward. They may refuse to associate with the insane, or claim privileges which cannot be granted their insane neighbors, and which if granted them, cause more or less jealousy and hard feeling. In the second place they should be committed for a definite time, either for one, two, or three years. This is necessary, because a long hygienic treatment is required to restore the enfeebled brain to its normal state of health and vigor, and to allow the weakened will to regain ascendancy over the appetite for stimulants. The inebriate's whole constitution needs reconstruction, and this process must not be interrupted by occasional drinking. It is better also for the inebriate to know definitely what he is to look forward to, so as to ensure contentment and repose of mind as far as is possible. The patient should expend his energies in healthful employment and in the attempt at recovery, and not in efforts for his own release. The present law subjects the superintendents to constant importunities for discharge on the part of the inebriate and his friends. Plausible reasons are advanced, ingenious schemes are made use of, and all sorts of influence brought to bear for a patient's discharge when one would have supposed that removal from home for a year would have been a great relief to the inebriate's family and friends.

I have endeavored to conform to the rule here that no habitual drunkard shall be discharged under a year's deten-

tion, as that was the shortest period of commitment ever proposed in the discussion in the Legislature and Parliament. I failed in applying this rule in almost the first case committed. After a two months' residence, this person was allowed to go home on trial, at the personal request of the judge who committed him, to avoid a long and unprofitable rehearing of the whole case on its merits. Fortunately, this patient has so far justified the confidence reposed in him, and has been discharged.

In the third place, the law should allow compulsory labor to be performed by inebriates, within certain limits, and at the discretion of the superintendent, partly to re-imburse the Commonwealth for their support, but more especially as a hygienic measure. Idleness in the wards of a lunatic hospital is as far as possible from the best treatment of inebriety. Varied employment in the open air when possible, for a few hours daily, with similar periods for recreation out of doors is the essential feature of such treatment. The majority of insane persons are unable to work, while most inebriates are. It would be wrong to compel an insane person to work, while inebriates might be induced to work, by promises of reward, deprivation of privileges, and other forms of moral suasion. The opportunities for work in most hospitals are already too limited, and lack in variety, while in an inebriate asylum there would be no objection to the use of tools of any kind.

The law is also liable to abuse in several ways. In the first place, physicians are not unlikely to apply the law to some inebriates who are not of unsound mind. The use of both terms, "dipsomaniac" and "habitual drunkard" tends to create confusion and ambiguity in certifying. Dipsomania, either inherited or acquired, would be a proper cause of commitment. Persons affected with an inherited tendency to that form of impulsive insanity, characterized by an insane desire to drink, are dipsomaniacs by inheritance. These cases are rare; they have a defective or degenerated cerebral organization, which leads them to impulsive acts.

through a weakness of the will and excessive energy of the animal instincts. In another more numerous class the brain has been so damaged by inebriety or other causes, such as ill health, blows on the head, sunstroke, etc., as to prevent all possibility of self-control in relation to drink. These are causes of acquired dipsomania. Persons of sound mind who drink habitually from choice are not proper subjects for commitment. They are vicious drunkards, who should be punished rather than treated. These are nice distinctions it is true, but they are real ones, and it is therefore important that physicians should look carefully for the element of unsoundness of mind in the cases they are called on to examine.

There is also some danger that the judges may not sufficiently regard the clause which requires that satisfactory evidence shall be furnished that the inebriate is not a person of bad repute or of bad character apart from his habits of inebriety. Such evidence is not likely to be presented unless demanded, and the facts carefully elicited from reluctant witnesses. It would, indeed, be unfortunate if our insane hospitals should be used as convenient retreats for vicious and disreputable drunkards to recuperate in.

The preceding remarks are based not so much on the actual operation of the new law as upon our past experience with inebriates, generally. From January 1, 1881, to the passage of the new law there had been received, either committed as insane, or as voluntary patients, fourteen dipsomaniacs. Of these, two voluntary cases still remain, one slightly demented, and one who goes out daily in search of employment, and who is about to be discharged; two voluntary cases are at home, and doing fairly well; one is at work in a good position; one is in the house of correction; and one has been committed to another hospital. Of the committed cases, one has been repeatedly sent to Deer Island, and six are at home, and doing well as far as is known. The results in these fourteen cases are certainly more favorable, as regards recovery, than the same number of insane cases would show.

Ten persons have been committed under the new law since June 18, 1885,—seven males and three females. Of these, one was discharged six months ago, and has not relapsed; two have been out on trial, and relapsed; and the rest remain,—three of them being hopelessly demented. These three might have been committed as insane, and they now belong to the numerous class of patients made insane by drink.

Report on Classification of Mental Diseases, as adopted at the Saratoga meeting, by Hon. CLARK BELL, the American delegate, is an admirable grouping and plan of classification which reflects great credit on the committee. It is as follows: 1. *Mañia*—Acute, Chronic, Recurrent, Puerperal. 2. *Melancholia*—Acute, Chronic, Recurrent, Puerperal. 3. *Primary Delusional*—Insanity. 4. *Dementia*—Primary, Secondary, Senile, Organic Tremors, Hemorrhages. 5. *General Paralysis of the Insane*. 6. *Epilepsy*. 7. *Toxic Insanity* (Alcoholism, Morphine, etc.). 8. *Congenital Mental*—Deficiency, Idiocy, Imbecility, Cretinism.

The Internal Collector reports an increase of seventeen more distilleries in Georgia, during the last year, and also increased production of spirits. A great increase of licenses granted are also reported, in Vermont, Pennsylvania, Indiana, Michigan, Wisconsin, and Kansas. One hundred and fourteen new distilleries have gone into operation in 1886, over the country.

The Annual Report of the New York State Board of Charities for 1886, show an increase of insane, in the different asylums, of eight hundred and twenty-six during the year. Also an increase of paupers and reformatory classes. This can be traced in some measure to the ruinous policy of "Ring rule" which has existed for a long time.

DEATH IN A TURKISH BATH.

BY CHARLES H. SHEPARD, M.D., BROOKLYN, N. Y.

The recent case of death of an inebriate who went to sleep in a Turkish bath, reported by the *London Daily News*, has been the text for much comment and many reflections, based more on imagination than solid facts. There may be danger in sleeping in a temperature of 120°, but it is infinitesimal. Do we hesitate to go to sleep because the night is very hot? By no means. There is, however, great danger in the habit of excessive drinking, whatever the person may do afterward, whether it be going to the Turkish bath or to church, but the bath would be the safest place to go at that time. The habit of the bath is a most laudable one, and is to be encouraged at all times, as it tends to the welfare and betterment of the community—to elevate, and not degrade, man. It is on the side of virtue, and not of vice. Because some may, at times, use it to get relief from their excesses is no more the fault of the bath than is the fact that people will sin during the week and go to church on Sunday to get absolution the fault of the church. People are not made weaker or debilitated by the bath. On the contrary, they are made stronger and more vigorous and more able to use what strength they have. Disease and bad habits most certainly weaken, but the bath never. Let us look a little further and not hastily say, when a man dies, that the last thing he touched killed him. There is too much reasoning from the surface. Is the sun to be blamed for bringing noxious air from undrained swamps? If one takes a Turkish bath to-day, and to-morrow is attacked with rheumatism or other disease, is that the fault of the bath? Emphatically no.

Prof. Draper, in one of his lectures, states that "a sea-

man will pass from regions where the mercury freezes to the equator, where the temperature is 130° in the shade, without serious injury." Could any one be so foolish as, for one moment, to think that, when in the higher temperature, they did not both eat and sleep with impunity, and does not the experience of travelers confirm this, over and over again? Then there is the region of equatorial Africa, where the heat experienced and recorded by Capt. Griffiths was 156° in the sun, and 132° in the shade. Had they not slept and eaten while there, neither he nor his companions would have survived to tell the tale. As an instance of desert temperature, Humboldt refers to Capt. Lyon, who experienced, for "whole months, the thermometer between 117° and 128° , in the oasis of Mongouk, Sahara. In the western part of Turkistan, a region of Central Asia, the temperature ranges from 26° below zero in winter to 150° above in summer; and yet people are born, live, and die there.

Dr. Hammond says: "The place with the highest temperature, within my knowledge, at which a man can sleep with *safety*, not, however, with any degree of comfort, is Fort Yuma, in Arizona. I have known the temperature there to be 120° in the shade, and fully as hot at night."

The mean temperature at Fort Mojave, Arizona, for the months of June, July, and August, in 1870 and 1873, ranged from 116° to 118° . Of course the extreme was much above that.

If it is a fact that the bath is weakening, how is it that persons, weakened and debilitated by disease, can take one or two baths a day and rapidly recover? Again, how is it that the attendants have worked in the heat of the bath several hours daily for years and not lost a day from sickness? A fact most prominent in relation to these attendants is that they invariably improve in health and strength after commencing that kind of work. Mr. D. Urquhart, to whom modern civilization is indebted for the revival of the ancient Roman, or Turkish bath, as it is now called, states, in the "Manual of the Turkish Bath," that the best shampooing he

ever received was from a man ninety years old, who had been a worker in the bath since he was eight years of age.

The lace-makers of Nottingham, England, carry on their business, day after day, in rooms heated to a temperature of 120°. In a report regarding the workers in the Comstock mines, where the temperature varies from 108° to 116°, and not unfrequently rises to 123°, it is stated that the constant enormous activity of their perspiratory functions and the personal cleanliness resulting from their daily baths seem to have abolished among them the disease supposed elsewhere to be characteristic of their avocation. It is admitted by all observers that they are healthier than their wives and children. In some of our naval vessels, particularly of the "Monitor" pattern, the average temperature at which the firemen and coal-heavers worked was 157°. The highest recorded temperature was 181°.

Prof. Carpenter, in "Human Physiology," says: "Many instances are on record of heat of from 250° to 280° being endured in dry air for a considerable length of time, even by persons unaccustomed to a particularly high temperature, and persons whose occupations are such as to require it, can sustain a much higher degree of heat, though not, perhaps, for any long period. The workmen of the late Sir F. Chantrey have been accustomed to enter a furnace in which his molds were dried while the floor was red hot and a thermometer in the air stood at 360°; and Chabert, the 'Fire King,' was in the habit of entering an oven whose temperature was from 400° to 600°.

The physician who stated that the frequent use of the Turkish bath was killing cannot have had much practical knowledge of the bath, for a long-continued personal acquaintance with its workings has more than disproved such an idea. Since our establishment of the Turkish bath in Brooklyn we have given over three hundred thousand baths, with not a single death, nor even a serious injury to any one from the bath. Many of the ablest and best physicians in the land both use the bath themselves and send their patients fre-

quently to it. This fact is well known to all who keep up with the advancing strides of modern medicine.

The frequent use of the Turkish bath, instead of being killing, is enlivening and helps to prolong life and increase its vigor. A person who is given, to excess in drink, and who makes frequent use of the Turkish bath, is therefore more likely to live longer than if he did not so use the bath. The effect of the bath in such cases is to soothe and quiet the morbid craving for drink by reducing the inflamed condition of the mucus membrane and taking the inflammatory materials from the blood. Indeed, the bath has been used with much success in Great Britain as an antidote to the cravings of the drunkard.

The daily use of the bath has been found in many cases of great advantage to persons in ordinary health. By that means they are fortified against disease and their systems toned up and invigorated. Death has come to man in the pulpit, on the ferryboat, at the table. Is it at all wonderful that it should come to one while in the bath, when he has taken the surest course, by dissipation, to bring that condition about? Rest assured, the bath, in and of itself, is not the thing to hasten that time. Over a quarter of a century's study and use of the bath has convinced me, by overwhelming proofs, that it is one of the greatest blessings vouchsafed to man. It has attained its present position in spite of stolid conservatism, and when the laws of hygiene are as well understood as their surpassing importance renders imperative, its triumph will be more conspicuous than that of any other therapeutical agent. When the bath shall have become the frequent practice of the people there will be less sickness and suffering in the land, for the whole community will thereby be placed on a higher plane of health.

Abstracts and Reviews.

PHYSIOLOGICAL ACTION OF ALCOHOL.

Dujardin-Beaumetz, in a recent lecture on "Beverages in Common Use," speaks of alcohol as follows :

"Alcohol is of itself an irritant, and when applied to mucous membranes, it develops a sensation of heat and burning which is the greater the more concentrated the alcohol. When introduced into the stomach, besides the symptom of irritation, it occasions an exaggeration in the acidity of the gastric juice.

"In the normal state the acidity of Marcellin's gastric juice was represented by 1.3 gms. of hydrochloric acid per litre. During digestion, the acidity rose to 1.7 gms. but as soon as an alcoholic stimulant was introduced the acidity went up to 2.7 gms. and even 4 gms. per litre.

"This is a capital point in the physiology of alcohol as far as its influence on digestion is concerned, and this property is utilized to a certain extent in all countries, and especially in Normandy, where it is a common custom to make a hole, as they call it, in the middle of a meal by drinking a small glass of brandy. In this way the acidity of the gastric juice is augmented, and the stomachal digestion is increased. From this fact there arises an important indication,— to give to patients affected with dyspepsia from want of secretion of gastric juice a small glass of liquor after their meals.

"But it will not do to prolong this action of the alcohols, for little by little the pepsin glands become worn out and cease their functions, to give place to the increased secretion of the mucous glands.

"All our alcoholic dyspeptics go through about the same history. There is first of all, gastric irritation with pyrosis resulting from the exaggerated acidity of the gastric juice,

then these symptoms give place to gastrorrhœa, characterized by the pituitous vomiting and dyspepsia of drunkards. Alcohol when ingested, is absorbed by all parts of the digestive tubes, but especially by the intestines. It is taken up by the radicles of the portal vein and passes into the hepatic circulation, where its presence determines portal periphlebitis, the origin of the cirrhosis of drunkards. Then it enters the general circulation to be eliminated by the lungs and kidneys, whether in the state of unchanged alcohol or in that of acetic acid and aldehyde.

“Many hypotheses have been put forth as to the physiological action of the alcohols. It is one of the most interesting of medico-physiological questions, of which I can only sum up here the leading points. All these hypotheses may be reduced to two. The first is the theory maintained since 1869 by Lallemand, Duroy, and Perrin, which affirm that alcohol is neither transformed nor destroyed in the organism, and that the total quantity being eliminated unchanged, it cannot be considered a food. The other theory is, that alcohol undergoes combustion and transformation in the economy and therefore acts the part of a food. This is the view which I hold. You put together in the circulating blood two chemical bodies, the one alcohol, having a strong affinity for oxygen, the other hæmoglobin, ready to yield up its oxygen under the most feeble influence, that of an inert gas for instance, and you pretend that no exchange takes place between these bodies. Exchanges do take place, and I have demonstrated with my pupil, Jaillet, the transformation *in vitro* of alcohol into acetic acid under the influence of hæmoglobin. I believe, then, fully in the combustion of a part of the alcohol ingested, and this combustion takes place at the expense of the oxygen of the hæmoglobin of the blood corpuscles.

“So, then, to sum up my view as to the physiological action of alcohol, I should say that, when introduced into the economy in non-toxic doses a certain part of the alcohol is

oxidized and is transformed into acetic acid, then alkaline acetates, then into carbonates.

"Alcohol is, then, a food, but a waste-restraining food, which, instead of energizing the combustions, slows them by robbing the blood corpuscles of a certain quantity of oxygen. It is this action on the blood corpuscles which explains to us the antithermic power of the alcohols, and action which attains its maximum of intensity when toxic doses of alcohol are administered. In such toxic cases the alcohol is no longer burned but destroys the globules and dissolves the oxyhaemoglobin. Ordinarily not all the oxygen ingested undergoes combustion, a part unchanged acts directly on the cerebro-spinal axis and there determines phenomena of intoxication of sleep and of vaso-motor modification, varying according to the quantity of alcohol ingested.

MENTAL DYSPEPSIA A CAUSE OF INEBRIETY.

In a recent paper read before the Macon Medical Society, and published in the *Atlanta Medical and Surgical Journal*, Dr. Fuller writes as follows:

"The average American is to a greater or less extent a confirmed dyspeptic. He complains of his stomach as the weakest part of his physical system. It is to him the heel of Achilles, where the arrows of pain and disease inflict the mortal wound. Like the bankrupt treasure of a nation, it not only ceases to afford a generous relief to a thousand legitimate demands, but it becomes a cause of pain, apprehension, and torment. The stomach supplies building material to the architectural edifice of the human body. It supplies material to repair the waste incidental to organic and intellectual life. The nervous tissue must suffer waste in order that the current of thought may flow. Every thought, every logical process, is the product of certain chemical changes in the elements of the nervous tissue, from the condition of organic life to that of dead matter.

"In mental dyspepsia the stomach has ceased to furnish the brain with sufficient material to equal the waste caused by the intellectual effort. The successive steps by which the scholar is unconsciously led down a pathway of physical bankruptcy, having their origin in mental dyspepsia, are important and interesting from a physiological point of view. The relations existing between mental dyspepsia and inebriety are entirely overlooked by the physiological writer and teacher. The nervous tissue is, without exception, the most important of any part of the body. Within the gray cells of this tissue the life force is stored, that mysterious life-principle that awakens into activity all of the phenomena of vitality exhibited by the various organs of the body. Of course this tissue requires a constant supply of building material to compensate the waste that is constantly going on in its substance. Every thought of the brain, every contraction of a muscle, and every secretory or excretory function of an organ requires in the act a certain expenditure of nerve force or energy, and the production of this must necessarily require in turn the supply of nerve food. Now an animal tissue has the habit, like the cannibal, of feeding upon its own substance, relying upon the stomach to replace the amount consumed as rapidly as it takes place.

"From this it will be clearly understood that the labor performed by the nervous tissue is incomparably greater than any other in the human body. Now the amount of building material required by a living tissue to meet the waste resulting from labor is always in proportion to the amount of labor performed. Food is a latent form of vital action, and vital action is the source of labor. Hence whenever it happens that the stomach is not supplied with proper and sufficient food to repair the waste of nervous tissue, almost infinite physiological mischief follows. The nervous tissue falters in its functions, and the wheels and levers in the various dependent organs vibrate with a diminished speed. While the instinct of self-preservation becomes aroused as the starving nervous tissue through the sense of

hunger clamors for food, every other tissue experiencing a deficiency in vital action demands food.

"The victim of this dietetic error is rational conscious of a deficiency. His reason hears the voice of Nature, but her language is unintelligible, or he does not wish to understand. The victim devours with an almost insatiable appetite the fat and muscle-forming varieties of food that chiefly constitute the present popular bill of fare. At last his digestive organs falter in their functions beneath the weight of the useless burden. His nature, intellectual and physical, feels crushed beneath an unsatisfied want, and even staggers and reels under the invisible burden. If the labor he is accustomed to perform is chiefly infellectual, the mischief and disaster to the whole system is doubly increased. For the process of intellection occasions a much greater proportional waste of the elements that compose its substance than is exhibited by the other portions of the nervous tissues in the performance of the purely organic processes.

"At this juncture the condition of the victim, from a physiological point of view, is painful in the extreme, for the stomach, in common with the other organs of the body, experiencing a deficiency in vital energy, besides being crushed beneath a fatal burden, signally fails to fulfill its important office of supplying the waste incidental to vital action, and the blood in consequence becomes still more impoverished in elements requisite to supply the demand of the nervous tissue. The germ of that uncomfortable disease, mental dyspepsia, has taken root. The victim is tortured with a longing and craving that is almost insupportable. He feels depressed, languid, and gloomy. A sense of weariness, which he expresses in the significant word "goneness," never forsakes him. He toils at his daily task, but he does it with a painful effort. He will not admit to his friends that he is sick, and he becomes ill-natured and indolent. An effort that he once would have made with assurance and delight now assumes proportions from which he recoils with fear and distrust. At last the torture becomes unbearable,

and he calls a physician. Then the crisis has come. Nine times out of ten, to "brace up his system" and to quiet his rebellious nerves, the medical practitioner prescribes a brain stimulant, either alcohol or opium, as the thing indicated as the proper remedy, or frequently combines them in a single prescription. A poison is given to supply the place of concrete, assimilable brain food; under its stimulating effects the patient feels invigorated. But the seeming salutary effect is founded upon the fatal physiological law that brain stimulants temporarily supply the place of brain and nerve food. The dose of the poison from time to time is given more frequently and increased in quantity as the demand arises. The victim finds on experience that during the period of excitement resulting from its stimulating effect he can resume his interrupted labor. But between the periods of excitement his mental and physical torture seems to be doubly aggravated. It may be that his daily toil earns his daily bread. If so, he must work, even if he works under the excitement of a stimulating poison.

"In this manner the appetite for stimulating brain poisons is innocently and unconsciously acquired by the victim of mental dyspepsia. The number of these victims is increasing from year to year in a frightful ratio. After a little thought and reflection all will agree that intellectual activity has increased in our land for the past fifty years; that among a given number of population, four times as many subjects studied and mastered, four times as many opinions promulgated and defended in the place of a single one fifty years ago.

"As a result from the friction incidental to social, professional, commercial, and political life, an ill-fed cerebral tissue is the inevitable: hence the average individual engaged in any occupation or profession requiring continuous and intense intellectual activity is usually broken down physically and intellectually between the ages of forty and fifty years. Now and then these conditions become so extreme that reason is dethroned. We cannot tell how soon

that destroying bolt will descend. Incipient insanity may gradually come on, subdue the strongest will, and cloud the brightest intellect long before the victim dreams of what is coming. How many men and women become old at this age and give up their places for younger ones who are only too soon to follow in their footsteps. This condition to me seems to be a great loss of time; a failure in the end that might have been avoided if the foundation had been fitly laid; but instead, he or she crawls away upon the shelf to die a physical and intellectual wreck.

"The remedy for mental dyspepsia is suggested by its cause. It can be nothing else but natural assimilable brain food joined to an efficient fulfillment of the digestive functions. This food must contain in itself the same chemical elements that enter into the constitution of the nervous tissue. It must be concrete, soluble, with chemical affinities so easily broken as to impose the least possible tax upon the digestive organs. To this we must add an observance of physical laws relating to the functions of digestion and assimilation."

ACUTE PSYCHOSIS IN OPIUM CASES.

An acute psychosis resulting from opium in the blood in moderate quantities is, I am convinced from long observation and diligent inquiry, associated with inherent central nerve instability, often and most usually associated with the insane temperament, already actively displayed in some member of the family, and only dormant in the individual till aroused by the disturbing influence of the drug, and, like acute insanity, developed by alcoholic intoxication; hence the latest neuropathic tendency becomes an active disease. Here both opium and alcohol become valuable diagnostic signs in our search for a dormant hereditary psychopathic tendency. Alcohol never develops acute mania, nor opium real insanity, unless there is an organic tendency in that

direction. An inherent instability must be there, only awaiting its peculiar train of exciting causes.

The sum of this subject, as thus only preliminarily and too cursorily presented, is this :

1. Single or a few large doses of opium cause an acute narcosis and well-known forms of physiological depression, which we are not here considering.

2. Under gradual habituation to increasing doses, acute, narcotic, ordinary toxic effects are, in great measure, resisted by the organism, and sensory analgesia and psychical exaltation, followed by brain-weariness, somnolentia, and sleep after each repetition of the dose, are the chief ordinary manifestations, with a final more or less impaired function of bowels, liver, and skin, and with certain psychical features. This true chronic meconism or papaverism and its characteristic symptomatology is due to the combined influence of a damaged and a poisoned nervous system.

3. A true acute psychosis is developed in the neuropathically inclined, as insanity is developed by a large drink or two of some strong alcoholic beverage. This is the acute insanity of opium, requiring two factors, hereditary predisposition and a central toxic influence, to induce it.

4. A hereditary instability of nerve element leads some organisms to irresistibly crave stimulants at certain times, generally after ordinary nervous and physical exhaustion, and these are satisfied with alcohol or opium. If they happen to find solace in opium readily, they become meconophagists ; or if alcohol first falls in their way, and the insatiate longings of their unstable nervous organisms find, in some beverage containing it, the agreeable and temporarily satisfying impression their neuropathic organisms crave, their will (mastered by the lower dominant organic feeling) becomes a slave to the tyranny of a bad organism, regardless of consequences, and they enter, like the luckless DeQuincy, into an Iliad of woes.

The mark and impress which it makes upon the central nervous system after the poison is no longer present in the

blood masks or modifies the symptomatic expression of the damaged neural mechanism.

This is the true meconeuropathia, or morbid condition of nervous system engendered by the repeated and long-continued assaults of the toxic enemy on the cerebro-spinal and ganglionic centers, and which comes on shortly after the withdrawal of the drug, and abides with the system long after the drug is taken away, especially in permanent psychical aberration and final dementia.

If we contrast the prominent symptoms of opium present and opium absent in *meconophagism* and *meconopathia* or meconeuropathia, we find in all cases in the former constipation, psychical satisfaction or exaltation, followed by drowsiness and sleep, analgesia, fair tonicity of stomach and skin. In the latter, we find always very loose bowels, requiring medical restraint after the first day. Relaxed and perspiring skin, nausea and vomiting, sensory hyperaesthesia of special senses, hyperalgesia, especially about flexor regions of forearm and about joints of lower extremities (true meconalgias), psychical depression and insomnia, psychical delusions of dread and of approaching calamities.

The opium neurosis is not cured, even when the patient has been weaned from his accustomed drug, but he is often subject to neuropathical symptoms, and a proper subject for continued neurological treatment, requiring treatment for many months after cessation, to prevent a return to the use of the drug that damaged and enslaved. The patient is not safe from neural damage, even though he may never return to the drug, until he fattens some, feeds well habitually, and sleeps much, and can resume his ordinary occupation without nervous fatigue and an inclination to take to opium or other form of stimulation. With this view of this disease, it would be fitting here to protest against the substitution of some other form of stimulation for opium, abandoned or withdrawn, and, when the disease-weakened nervous system has been enslaved by another stimulant narcotic, call that a cure.—*Dr. Hughes in Alienist and Neurologist.*

SOME FACTS FROM THE LAST INTERNAL
REVENUE REPORT.

The number of distilleries registered during the year was 6,422 and the number operated 6,034. Of this latter number 5,075 were fruit distilleries. The total spirit producing capacity of grain and molasses distilleries in operation Sept. 1, last, was 188,747 gallons per day. The producing capacity of similar distilleries operated Sept. 1, 1880, was 282,928 gallons a day. The number of grain distilleries registered during the year was 1,132, of which number 950 were operated, a decrease of 63 in the number registered and an increase of 32 in the number operated, as compared with the previous year. The decrease occurs in the class of distilleries having the smallest capacity for the production of spirits, there having been a falling off of seventy-four in the number of distilleries of this class registered and of five in the number operated. In the larger distilleries there was an increase of eleven in the number registered and an increase of thirty-seven in the number operated. There were nine rum distilleries registered and nine operated, the same number reported for the previous fiscal year. There were 5,101 fruit distilleries registered and 5,075 operated, an increase of 806 in the number registered and eighty-three in the number operated during the previous year.

The quantity of grain used in the production of spirits during the year is an increase of 1,340,129 bushels over the amount used in the preceding fiscal year, and is 2,003,361 bushels less than the average for the last nine years. The number of gallons of spirits produced from grain during the year shows an increase of 7,310,182 gallons over the product of the year ending June 20, 1885, and is 873,605 gallons less than the average product for the last nine years. The quantity of spirits produced and deposited in distillery warehouses during the year is more than the production of the year 1885 by 5,429,017 gallons. The quantity of spirits withdrawn tax paid, from distillery warehouses during the

year is more than the quantity withdrawn from distillery warehouses during the previous fiscal year by 1,447,519 gallons. If the 967,500 gallons of domestic spirits exported and re-imported during the year upon payment of a custom duty equal to the internal revenue tax be added the quantity virtually withdrawn from distilleries was, during the year, 70,064,400 gallons, or 1,592,462 gallons more than during the previous year. The quantity of distilled spirits removed in bond for export during the year was 5,646,656 taxable (proof) gallons, as compared with 10,671,118 gallons withdrawn for export during the previous year, being a net decrease of 5,024,462 gallons.

The falling off in exportation in 1886, as compared with 1885, is due mainly to the decreased withdrawals for export of bourbon and rye whiskies and of alcohol, although there was a decrease as to all kinds of spirits except high wines, as follows: in bourbon whisky, 1,829,179 gallons; rye whisky, 373,641; alcohol, 2,623,607; rum, 143,302; gin, 79; pure, neutral, or cologne spirits, 16,172; in miscellaneous, 40,304.

Although the tax was paid during the last year on more than a million gallons of bourbon and rye whiskies in excess of the quantity on which tax was paid during the preceding year, the production in 1885 was so much greater than the withdrawals as to leave a net balance in warehouse, June 30, 1886, of 4,000,000 gallons greater than was on hand July 1, 1885. The production of all kinds of spirits was also two million gallons greater during the months of July, August, and September, 1886, than during the corresponding months of 1885, while the tax-paid withdrawals were 500,000 gallons less. The bulk of the bourbon and rye whiskies reported in 1886 went to swell the stocks in the warehouses of Bremen, Hamburg, and Bermuda. The tendency since June 30, 1885, the Commissioner says, has been to the present time to increase the stock of bourbon and rye whiskies in distillery warehouses. The largest importation of rye and bourbon whisky are to Bremen and Hamburg, and the largest importations of rum are to Africa.

The production of tobacco shows an increase in manufacture of 10,798,280 pounds; in the number of cigars and cigarettes of 433,507,247; in tobacco exported of 29,369,220 pounds. The number of cigars imported during the fiscal year ending June 20, 1886, was 73,139,078.

INEBRIETY IN PARANOIA.

The following extract is from a paper on *Paranoia*, by Dr. Zenner, before the Academy of Medicine:

"There is one complication of which I wish to speak while still on the subject of diagnosis, and that is alcoholism. Some of these cases, especially when the disease is congenital, become addicted to drink, and thus mask the real disease. I saw a case of this kind very recently: a man who had been sent to the asylum several times as a case of alcoholism, and in each instance detained a few weeks, when he should have been kept there indefinitely. He is thirty-one years of age, has a family taint of insanity, and striking irregularities about the face and head. His mental symptoms appear to date back about six years. He has frequent hallucinations of both vision and hearing. His chief delusion is that the foreman in a shop where he formerly worked is his enemy and trying to injure him. A girl passed his home, and as she worked in the shop with the foreman, he knew the latter sent her there to watch him. The same was true of a man he saw, who only lived in the same neighborhood as the foreman. A number of articles in the daily papers, one about a monster in South Carolina, others about various bits of scandal, which a sound mind could bring into no possible relation with the patient, he knew were written about himself. They were instigated by the foreman, and were intended to convey to a young lady to whom patient was engaged the idea that he was immoral. At another time he believed the foreman prevented him from marrying a lady by the influence of magnetism, and he went to the court in order to have the foreman restrained in this action. He

subsequently shot at and slightly wounded said foreman, and the case gained a medico-legal interest. The prognosis of this disease is usually very unfavorable. The patient's condition may remain at a standstill for a long time, but he very rarely recovers. Very rarely recoveries have been reported after the disease has existed a long time. In women this is most likely to occur at the second climacteric. It is said to occur more frequently where there is no hereditary taint. In old cases the delusions often multiply, and the intelligence becomes correspondingly impaired. The prognosis is much more favorable in the abortive forms of the disease. The treatment should be of a tonic character, every effort being made by diet, medicines, and hygienic regulations, to strengthen the nervous system. Efforts should be made to keep the mind pleasantly employed, and to direct it away from the bodily functions. Patients who conceal their delusions are able to attend to business and associate with others. But when delusions of persecutions are prominent, especially if they be of such character as to threaten others with danger, the patient should be kept under constant surveillance."

DEGENERATION OF THE COLUMNS OF GALL IN AN INEBRIATE.

Dr. Vierprdt, in a late number of *Arch. of Psychiatrie*, mentions the following case. A. M., workingman, æt 30, phthisical, had been drinking to excess for years, gastric disturbances in consequence. March, 1884, was suddenly seized with stabbing pains ascending from feet to trunk, periodically weakness and ataxia of lower extremities with anorexia and vomiting, weakness increased up to June, 1884, from that time onward great improvement in this respect. All symptoms returned in October, to which formications in the legs were superadded. Middle of September, patient became bedridden. Venereal infection denied; no chest trouble at the time was received into clinic. January, 1885, examination revealed slight inequality of pupils; light reflex

normal; evidences of pulmonary trouble, testicles small; no objective symptoms of syphilis. Considerable uniform atrophy of all muscles of upper extremities with corresponding diminution of muscular power; toxic condition of muscles about normal; no ataxia and no disturbance of muscular sense; no hyperæsthesias or paræsthesias anywhere; peripheral nerves neither thickened nor painful. Tendon phenomena very weak; muscles sensitive to slightest touch. Lower extremities muscular status about the same as in upper extremities, atrophy more pronounced in lower legs than in thighs; muscular power in keeping with atrophy; legs fall asleep; also formications; no marked sensory disturbances and no hyperæsthesia; muscular sense normal; knee-jerks abolished; cutaneous reflexes fairly preserved; distinct ataxia; Romberg's symptom present. Bladder and rectum normal. Increased excitability of muscles in upper and lower extremities; percussiom of nerves produces contractions in muscles supplied by these nerves; electrical reactions unaltered. All symptoms progressed; occasional variations in amount of paresis ataxia less marked. In the latter stages hyperæsthesia of the skin of lower extremities; knee-jerks remain absent, plantar reflexes normal. No vesical or rectal trouble at any time and no changes in electrical reactions. Patient developed pleuritis with effusion and died April 12th. Dr. Vierordt made a diagnosis of multiple neuritis. The autopsy revealed besides evidences of pulmonary tuberculosis, etc., a degeneration of the column of gall, most marked in the oblongata and cervical spinal cord. In the middle and lower dorsal segments very slight disease of posterior root-zone. Lumbar segments entirely normal; in the medulla oblongata the degeneration of columns of gall was complete, peripheral nerves normal. Vierordt looks upon the disease of the columns of gall as a primary degeneration and not secondary to the affection of the posterior root-zones in the lower and middle dorsal segments, but the affection of the posterior roots might have followed upon diseases in the columns of all.

POST-MORTEM RECORDS OF INEBRIATES.

The following notes of autopsies of inebriates who died at the Boston Lunatic Asylum, taken from the last report, is of much interest, and suggests a new field of study not yet occupied.

Case 1. Inebriety with delirium of grandeur and general paresis, ch. leptomeningitis; ext. hydrocephalus; ch. ependymitis; atrophy of the cortex; œdema of brain; *état criblé* of white matter and basal ganglion; ch. endarteritis of basal vessels. Microscopic appearance—Vessels of gray matter of convolutions showed effusion beneath adventitia; lamina not contracted. Lungs—double hydrothorax; ch. adhesive pleurisy; gen. visic. emphysema; atelactasis of lung; hypospastic congestion. Fibro-myoma of stomach; fatty infiltration of liver.

Case 2. Inebriety with delirium of grandeur; general paresis: epileptic attacks; gross lesions, œdema of pia; atrophy of frontal convolutions. Heart—ch. endarteritis of coronary arteries. Lungs—recent pleurisy with effusion; putrid bronchitis; gangrene of the lungs; senile atrophy of the spleen and kidneys; diphtheritic inflammation, and suppurative prostatitis with calculi, in the bladder.

Case 3. Inebriety with general paresis; comatose attacks; œdema of pia; atrophy; ch. ependymitis; *état criblé* of white substance. Microscopical appearance—pigmentation of ganglion cells. In the spinal cord pigmentation of cells; numerous corpora; amylacea; sclerosis of posterior columns in lumbar and dorsal regions. Thickening of the pericardium and brown atrophy of the heart, and same of the liver. Interstitial nephritis. Putrid bronchitis; broncho-pneumonia. Gangrene of both lungs.

Case 4. Inebriety—suicidal melancholy; œdema and anæmia; myxo-lipoma of valve; ch. pericarditis of heart. Œdema and emphysema of lungs.

Case 5. Inebriety—general paralysis; epileptiform at-

tacks; ch. int. hæm; pachymeningitis; œdema of pia; atrophy; ch. ependymitis. Microscopically—ch. meningencephalitis; infiltration of adventitial sheaths; fatty degeneration of the heart, and the same of the kidneys and tubules, ch. adhesion of lungs, pleurisy; acute bronchitis; broncho-pneumonia.

Case 6. Inebriety—general paralysis; œdema of the pia; atrophy; ch. ependymitis; *etat criblé*. Microscopically—ch. interstitial encephalitis; infiltration of vessel walls; fatty infiltration of wall of the right ventricle of heart. Embolism of pulmonary arteries, hemorrhage; congestion of liver, kidney, and spleen; enchymosis of bladder and thrombosis and œdema of the lower right extremity.

Case 7. Inebriety—syphilitic; general paralysis. Ch. leptomeningitis and œdema of the pia; multiple epnumata; apoplectic cysts of basal ganglia; ch. ependymitis; chronic adhesions; pleurisy and ephysema of lungs; nodules in mesentaria.

Case 8. Inebriety—hallucinations of liquids; delirium of persecution, melancholia; anæmia; ch. adhesions, pleurisy, and chronic tuberculosis in both lungs. Tubercular ulcerations and perforations of the intestines; ch. perisplenitis, and acute purulent peritonitis.

Case 9. Inebriety—heredity; hallucinations of hearing and seeing; cataleptic attacks; strange muscular movements; dementia; old tuberculosis: broncho-pneumonia; tuberculous ulcerations in intestines, and miliary tuberculosis of the liver.

Case 10. Inebriety—hallucinations of sight; senile dementia; œdema of pia; circumscribed osteo-porosis of calvaria atrophy; also atrophy of cortex under the microscope. Hypertrophy of the heart and insufficiency of the tricuspid; chronic adhesions of the lungs; pleurisy; emphysema; œdema; necrosis and circumscribed gangrene of colon; congestion of the liver, spleen, and kidney, and recent circumscribed peritonitis.

*THE CURE OF INEBRIETY.

[The following extract from a lecture by Dr. Crothers, was read before the Institute of Social Science of New York City.]

In the cure of inebriety there is probably more agitation and interest than ever before. The efforts of societies and parties, of the pulpit and rostrum, with the increasing books and papers from the press, have never been more active than to-day. Yet reports show that inebriety is increasing, and that more spirits are made and consumed every year.

All the temperance efforts and legal means for the cure and prevention of inebriety are based on the theory that it is a moral disorder which the victim can control at will, or a wicked habit that he can continue or put away at his own pleasure. This theory of inebriety is theoretical, and embodies the same error which follows every new advance of thought, namely, explaining all human action from some moral or theological standpoint. Thus the phenomenon of insanity was explained as a possession of the Devil, and the victims were supposed to enter into a compact with evil spirits, voluntarily. The remedy was severe punishment. Public attention was occupied for ages in persecuting and punishing the insane and epileptics on this theory of the causation. Law, religion, government, and public sentiment, all failed in the cure and prevention by this means, and these diseases went on unchecked, simply because the real causes were unknown.

Inebriety is regarded in the same way as wickedness, and the same means are urged as a remedy. Over fifty thousand inebriates were sent to jail in 1886, and punished as willful and voluntary drunkards. Armies of moralists and temperance people are pledging and praying the inebriate to stop drinking, and exercise his will, and be temperate and well again.

Yet all such efforts fail, and often tend to increase the very condition which they seek to remedy. They fail because they are based on a false assumption of the causes, and not on any accurate study of the history or real condition of the

patient. A new era is dawning for the inebriate. His diseased condition, and the need of special medical care in special surroundings, is a truth that is spreading slowly and surely in all directions. Not far away in the future inebriety will be regarded as small-pox cases are now in every community. The inebriate will be forced to go into quarantine and be treated for his malady until he recovers. The delusion that he can stop at will because he says so, will pass away. Public sentiment will not permit the victim to grow into chronic stages; the army of moderate and periodic drinkers will be forced to disappear, and the saloons which they have supported will close in obedience to a higher law than any prohibition sentiment.

Public sentiment will realize that every inebriate is not only diseased, but dangerous to society, to himself, and all his surroundings, and demand legal guardianship and restriction of personal liberty until he recovers. When these poor victims realize that society will not tolerate their presence or allow them personal liberty in this state, they will seek help and aid before they reach extreme stages.

This is the teaching of all modern science,—to check the disease at the beginning, to seize the poor wail on the street and the rich man's son, who are just at the beginning of inebriety, and force them into conditions of health and sobriety, to save the one from becoming a prey on society and a burden to the producer and tax-payer, and the other from destroying society and himself and leaving a tide of misery and sorrow that will continue long after. When society shall realize and act on these facts, the great centers of pauperism and criminality will be broken up. This will be accomplished by the establishment of work-house hospitals, where the inebriate can be treated and restrained. Such places must be located in the country, removed from large cities and towns, and conducted on a military basis. They must have all the best appliances and remedial means to build up and restore the debilitated victim. They should be military training hospitals, where all the surroundings are under the exact care of the physician, and every condition of

life is regulated with steady uniformity. Besides the medicinal and hygienic treatment, there should be educational and industrial training, and each one should be employed, both in body and mind, every day. He should be placed in a condition for the best culture and building up of the entire man. Every defect of body and mind should be antagonized and remedied as far as possible. Each case should be an object of study to ascertain the real state and the means to strengthen and improve it. These hospitals should be built and conducted entirely from the license fund or the taxes on the sale of spirits. They should, in a large measure, be self supporting from the labor of the inmates, and independent of the tax-payers. These places would most naturally divide into three distinct grades. The first class of hospitals should be for recent cases, where the inmates can be committed by the courts, or voluntarily commit themselves for one or two years. The second class should receive chronic cases for longer terms of treatment—from one to three years. The third class should be for the incurables, or those who give no reasonable promise of restoration. The time should be from five to ten years and life. The latter class should be thoroughly organized into military habits of life and work, and kept in the best conditions of forced healthy living. Employment and mental occupation should be carried out literally as a stimulus to strengthen the body and mind. Where it was possible the rewards of his labor, beyond a sum to pay for care, should be turned over to his family and friends or held in trust for him. He should be encouraged to healthy work and living by all possible means and surroundings. The semi-chronic cases should be treated substantially the same way, only occupation and training of the mind and body should be more suited to the wants of each case. The amusements should also be of a sanitary character.

The recent cases should have the same exact discipline, filling the mind with new duties and new thoughts, and suited to build up the exhausted, overworked man, as well as the gormand and under-worked idler. All persons should

pay for their care if possible, and be required to render some service which would be credited on their bills. These hospitals should be literally quarantine stations, where the inebriate can be housed and protected and society saved from the losses following his career.

If ten thousand poor chronic inebriates could be taken from New York and placed in such hospitals, and made self supporting, who could estimate the gain to society, to morals, to the tax-payer, and to civilization? This can and will be done in the near future. If ten thousand semi-chronic cases of inebriety could be taken from New York and quarantined two or five years in such military hospitals, and made to pay for their care by labor, who could estimate how many would be returned to health and temperate living again?— who could estimate the relief from sorrow, misery, wretchedness, and losses? This will also be a reality a little farther on. If ten thousand recent cases of inebriety could be taken out of their surroundings in New York and placed in these hospitals, where forced conditions of the highest degree of health and vigor are maintained, a large percentage would recover. The gain to society and the world would be beyond all computation. Now each one of these propositions and the practical working of a military hospital is a reality, based on evidence constantly accumulating. Every prison, penitentiary, or hospital, every asylum or home where inebriates come under care and restraint bring such evidence. They show that such a method of treatment, combining the varied experiences of all these institutions can be made practical and is the only scientific way of solving this problem. To banish the still and saloon does not prevent inebriety or cure the inebriate; it only changes the direction of the drink current. But quarantine the inebriate in a hospital, as one suffering from contagious disease, and the victim is cured, the spread of the disease is prevented, and a knowledge of the causes ascertained, from which the remedies can be known and applied. To punish the inebriate as a criminal cannot cure his inebriety, but it always unfits him for living a temperate, healthy life hereafter. To

attempt a cure by faith and prayer is to depend on false hopes, the failure of which is followed by increased degeneration. To attempt any form of treatment without knowing any other fact except that the victim drinks to excess is always to blunder and fail.

The time has come to recognize the physical conditions which enter into all cases of inebriety, and to apply exact remedies along the line of nature's laws and forces.

The late Dr. Bellows, in an address delivered ten years ago, said: "Inebriates, like criminals and insane, will all be eventually restrained in hospitals, and treated with medical and psychological skill the moment their liberty becomes dangerous to society. The terms of their confinement will be limited only by the possibilities of cure and the conditions of their disorder. Society gains nothing by holding prisoner for an hour any man who is fit to be at large. Liberty and human rights gain nothing by allowing any man to be at large for a moment who is destroying himself, his family, and his neighbors. What we need is what we are fast gaining, namely, a possession of the tests and gauges of the fitness and unfitness, and we shall be able to treat the inebriate successfully the same as in other diseases."

As scientific men the question comes to us, can this great army of five hundred thousand inebriates in this country be the outburst of a vicious element in human nature? If this is so, religion and civilization have failed. If this army of inebriates sprung from physiological and psychological causes, then the problem of cure and prevention is a question for science. If inebriety is a vice and sin, then the Church and State must apply the remedy.

Insanity has been studied for over a century by many able and learned scientists, and yet only a few facts have been established, and preparation made for more exact study. The realm of the unknown has been scarcely penetrated. Inebriety, an infinitely more complex disease, has never been studied. Only a few pioneers are approaching it from a physical standpoint, and their views of necessity must be outlines of laws, forces, and facts, that are yet to be dis-

covered. Some of these outline facts may be summarized as follows:

All accurate study of the inebriate indicates a distinct range of causes, both physiological and psychological, from which inebriety springs.

When the histories of inebriates are compared, they are found to follow a regular line of progress, obeying a certain order of events, from the beginning, development, progress, decline, on to extinction.

This march is governed by conditions and forces of which we have only a faint conception. Heredity, disease, injury, starvation, neglect, are only the general names for some of these forces.

In the cure of inebriety all study of cases points to a physical causation to be removed by physical means.

Work-house hospitals as quarantine stations, where every condition of disease can be treated, give the greatest promise of relief. Here the victim is removed from all exciting causes, and protected from himself and others; and here we can understand some of the causes beyond the saloon, and so-called free will, and deceitful heart.

From this very general review of some of the causes of inebriety, and the means of cure, it is apparent that, like the early Northman, we have only touched on the shores of a vast continent of the unknown, which, not far away in the future, the march of science will disclose.

THE MORPHINE HABIT: BY DR. B. BALL, OF THE PARIS FACULTY OF MEDICINE; J. Fitzgerald, publisher, 108 Chambers St., New York. Price 15 cents, post-free.

This work contains three lectures on Morphiomania, which were delivered at the clinic of Mental Diseases. In the first lecture, which discussed the effects of the abuse of morphia, the following distinction is made: "It is first necessary to distinguish between morphinism and morphiomania. By morphinism must be understood the sum of the effects produced by prolonged abuse of morphia. Morphia-

mania is with respect to opium what dipsomania is with respect to alcohol. There is morphiomania when the person feels the irresistible need of taking morphine. It is thus an independent disease, having its own characteristics; but just as dipsomania leads to alcoholism, so morphiomania leads inevitably to morphinism. There is, however, a very great difference. Dipsomania is an intermittent neurosis; the longing for drink does not exist continually in the dipsomaniac, and his disease is almost absolutely incurable, as are the greater number of nervous diseases in which the attacks occur at intervals. Morphiomania is, on the other hand, a continuous neurosis; those suffering from it have constant need of their stimulant, and for this very reason it is curable, and often is cured. Hence it is that confirmed drunkards, who are drunk every day of their lives, may be cured; the dipsomaniac, never."

One of the reasons given for the first use of morphine "is that it allays physical pain, mental suffering, and moral neuralgia." The latter term is new and suggestive.

The second lecture treats of the "effects of abstinence from morphia." The various symptoms are detailed, and the *Mania Lectuaria* is described at length. Of the cases where other stimulants are taken, he remarks: "The morphiomaniac often takes other excitants in addition to his favorite drug. Some take coffee, and this practice is approved by Zambaco. The greater number combine with morphine the use of chloroform, of chloral, and, above all, of alcoholic liquors. Many morphiomaniacs are at the same time habitual drunkards. Patients of this class are most liable to experience serious trouble as the result of abstinence; collapse is with them more frequent; they present much more often the phenomena of delirium tremens. Their organization is seriously impaired, and their nervous system radically disordered; in such cases the efforts of the physician are absolutely fruitless

The third lecture discusses the diagnosis, prognosis, and treatment, concluding that morphiomania is a curable affection; "it is more curable than dipsomania, but is none the

less a powerful enemy to combat. We must be armed against it with all the means which science furnishes, and never make the slightest concession to the whims of the patient. We must never forget that the habitual duplicity of these patients continually tends to lead the physician into error."

Four lectures by this author fill up the rest of the volume, on the following topics: Borderland of Insanity, Cerebral Dualism, Prolonged Dreams, Insanity in Twins.

The author has evidently not studied of morphiamania as thoroughly as our American experts, but he has presented some very suggestive and interesting details, that are positive contributions to the literature of this subject.

The Twenty-Third Annual Report of the Washingtonian Home of Chicago, Ill., for 1886, is of more than usual interest. Eight hundred and sixty-seven inmates were admitted during the year. The average number was over seventy-three, and the average time of treatment was about twenty-eight days. Of the forms of inebriety, eight hundred and fifty-five were put down as periodical inebriates, and only one hundred and one as constant inebriates. Only five of this aggregate number were due to heredity, and all the rest acquired this disorder or habit. Sixty had delirium tremens, and only sixteen were insane. One hundred and eighty-seven had had delirium tremens. The physician's report is equally startling in unusual statistical figures. Thus, six hundred and forty-seven are put down as moderate alcoholism; insane, thirteen. Under the head of complications of the nervous system, only thirteen in nine hundred and thirty-three had nervous prostration; one had neuralgia, and one general debility. Of the liver troubles, in all these cases, one had hepatitis, one congestion of the liver, and one cirrhosis. Of the kidneys, only one had inflammation of the kidneys; three had dyspepsia. Twenty-three of the persons under treatment were not under the physician's care in the hospital. To the average student of inebriety the number of periodic inebriates who have no heredity and the great freedom from complicating diseases completely upsets all previous notions and studies of this disorder.

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Science and Crime: and other Essays. By Andrew Wilson, F. L. S. J. Fitzgerald, publisher, 108 Chambers St., New York. Price, fifteen cents, post free. This pleasant little volume comprises seven chapters on as many different subjects of popular scientific interest. The leading essay, "Science and Crime," shows what effective aids science is able to render to the legal Nemesis in tracking the criminal. The other essays bear the titles of "The Earliest Known Life-Relic," "Skates and Rays," "About Kangaroos," "Leaves," "Giants," "The Polity of a Pond." The book will serve to entertain the mind pleasantly, as well as profitably, during an hour of leisure.

The *Swiss Cross*, a monthly magazine of the Agassiz Association, is devoted to the spread of science among all classes. It is an admirable journal and deserves a wide patronage.—N. D. C. HODGES, publisher, 47 Lafayette Place, New York city.

The *Therapeutical Drinking of Hot Water*, by Dr. Ephraim Cutter of New York, is a very suggestive little volume.

The Popular Science Monthly has suffered in the loss of its most distinguished founder, Dr. Guamans. But as in all other great enterprises of the world, the Journal goes on with increasing value, a grand monument to the genius of its founder.

The Homiletic Review, by Funk & Wagnalls of New York city, grows better every month and will well repay the time spent in reading it.

The Electrical Engineer of New York city, comes every month crowded with new and most interesting facts, which are almost of necessity essential to every thinking man.

Science is a weekly New York journal, which comments very fairly on all matters of science and progress, and is reliable in all its teachings.

The Scientific American has become the great weekly journal of mechanists, and all who are watching the new inventions of the age. Munn & Co., New York city, are the publishers.

Editorial.

SIXTY-SEVEN YEARS AGO.

In May, 1830, a report was made by a special committee of the Connecticut State Medical Society at their annual meeting, which is of rare historic interest. This committee consisting of Dr. Todd (then superintendent of the Hartford Insane Retreat), Drs. Cogswell, Woodward, Sumner, and Gridley, had evidently been appointed the year before "to inquire whether it is expedient and practicable to establish an institution for the reformation of intemperate persons."

This report was probably written by Dr. Todd, and the following free extracts show a remarkable conception of inebriety and its treatment. The report opens with a statement that inebriety is a misfortune, and associated with disease of body or mind. That the victim is without strength and resolution to recover. "Their disease excites no sympathy; their sufferings call forth no pity; their consciences and friends reproach them; their resolutions fail them; and promises of reformation are made only to be broken." Ignorance of parents and facility for getting spirits are mentioned as causes. The contagion of inebriety is outlined in the following: "It often happens that inebriates are possessed of uncommon vivacity and fascinating address, which render them interesting, and in proportion as they are interesting, they become dangerous associates. One individual of this character has been often known to seduce an extensive circle of unsuspecting companions into inebriety, from which it was difficult if not impossible to reclaim them."

The danger of legal treatment in fine and imprisonment was recognized in the following. "By the existing laws of the State a person guilty of inebriety may be sent to a workhouse for punishment. There he is looked upon as a crimi-

nal; his associates are criminals, some of them guilty of heinous offenses; and instead of being reclaimed he is usually made worse. Being associated with companions who have lost all self-respect and all regard for the opinions of others, he is by their companionship prepared for the commission of gross crimes, and consequently returns a more dangerous member of the community. This is no picture of imaginary evil, but a statement which every day's observation proves to be literally true. Whenever an attempt has been made to effect a reformation of an intemperate person through the agency of legal penalties he has become more degraded and more desperate."

Temperance societies are mentioned as having produced "a most desirable change in the opinions and practices of others, but they do not brighten the prospects of permanent restoration in the inebriate."

"There never was a time when greater and more successful efforts were made to prevent the extension of this vice, and we are compelled to believe there never was so faint a prospect of the drunkard's forsaking his companions or his cup. In support of this statement the records of courts and hospitals are referred to, and a question is asked, Shall inebriates be permitted to pursue their unhappy career without an effort made to restrain or correct them? shall they be subjected to penal discipline, which has proved so positively injurious and ultimately detrimental to society?"

The philosophic method of first investigating the nature and character of inebriety, before attempting its cure, is referred to as the true scientific way of solving the problem. The first use of alcohol to remove lassitude and dejection, and its continued use, bringing on disease of both function and structure, are mentioned at some length. Also the folly of attempting restoration of the physical system by moral means. From this the conclusion is reached that institutions for inebriates are absolutely necessary for their treatment and cure. The following are a summary of the ends accomplished by such institutions: "Where they shall be

subjected to salutary discipline and needful restraint." "Where they shall have no access to intoxicating liquors." "Where they shall be constantly and usefully employed." "Where they shall not be contaminated by evil associates, and where they shall have no opportunity of exerting an unfavorable influence upon others." "Where they shall receive medical aid to restore their debilitated constitutions; to relieve the sufferings occasioned by past habits, and to eradicate the strong but artificial propensity, which they have acquired for indulgence in the use of inebriating drink." "Where they shall receive the benefit of moral precepts, correct examples, and such instruction and preparation for the performance of those long-neglected duties, which they owe to others and themselves." "Where in short, by an enlightened system of physical and moral treatment, they may be reformed and restored to their families and society."

The authors make a financial argument showing what it costs to care for the inebriate and paupers who spring directly from this source, and the direct gain to the taxpayers and to society by the establishment of an asylum for inebriates.

The following describes the superintendent who would be successful in such an asylum. "In him must be found a combination of rare and excellent qualities which will secure the affection as well as the respect of those who are to be reformed by his exertions. He must himself be a pattern of industry and temperance in order to induce others to practice temperance, and pursue industriously whatever they may be required to perform. In him dignity must be combined with cheerfulness, energy with mildness, and firmness with forbearance. His moral character and his moral precepts must be of that elevated standard which will secure the confidence of the public as well as those who are committed to his charge."

This report closes with a reference to the changes of the law needed to hold these cases at least one year, and the practical nature of this movement. A series of resolutions

were adopted on the acceptance of this report, fully endorsing it, also providing a committee to form an association for the establishment of an asylum. A committee of correspondence was appointed consisting of two of the most eminent physicians in each county of the State.

Thus ended an effort which indicated a remarkably clear view of this subject. Over half a century has passed, and these facts are still unrecognized by the masses. The birth of great truths is long and laborious. Pioneers point them out far in advance. The mass of the profession follow on slowly, dragging up public sentiment to recognize the great facts. In another century the inebriate and his malady will be recognized practically by all.

CEREBRAL PNEUMONIA IN INEBRIETY.

A large per cent. of all inebriates die from pneumonia. Cerebral symptoms and complications are common in these cases, and are described by the term, cerebral pneumonia. The symptoms in such cases vary widely, depending on the causes, also brain susceptibility, and exhaustion. The effect of high fever and increased heart action on degenerate brain and nerve centers in inebriates is manifest in symptoms that often mask the pneumonia, requiring a careful examination to determine meningial inflammation or meningial irritation or pneumonia.

Thus, in one case, an inebriate suffered from chill and pain of the lungs. The next day he was delirious, and died a few days later of supposed acute meningitis. The autopsy revealed the pneumonia. In another case, after a short period of exhaustion and dull pain, profound depression and melancholy came on. Except a rapid pulse and high temperature, no other symptom of note was present. He died a week after the attack, and the post mortem indicated pneumonia. In a third case, after a chill and fever of two days, the patient suddenly became delirious and remained so until

death, within a week. Pneumonia was found, though unsuspected during his illness.

Magnus Huss long ago pointed out two varieties of pneumonia appearing in inebriates that are even now overlooked. The first form appeared in those who used alcohol to great excess, and all the symptoms came on suddenly. Gastric derangements and a feeling of faintness, with enervation and loss of sleep, are the first symptoms. Often a chill is the first mark of any disturbance. From this point two different conditions may come on, one of great muscular and mental activity. The face will seem to swell and the eyes glisten and flash, the hands and arms tremble, and the patient talk incessantly, often stammering. Delusions that are first transient, then permanent, appear. Often this state closely resembles delirium tremens, only it quickly merges into extreme exhaustion and death. In some cases, the trembling delirium begins as soon as the chill subsides; in others it comes on slowly, but seldom lasts over three or four days. No complaint of pain is made, and no cough is apparent. The second condition of this disease will first appear in a sudden change of expression, sunken eyes, and great apathy of mind, high fever, rapid pulse, and a rapidly increasing exhaustion. Both body and mind seem struck with paralysis, and except a chill and hectic flush in the evening, no prominent symptoms are noticed.

In the second variety of cerebral pneumonia, an adynamic condition develops at once. Insomnia, or drowsiness, and mild delusions appear at first. Trembling of the hands and legs and stammering speech follow; then picking at imaginary objects, whispering to imaginary persons, and finally death. No chill or cough are noticed, only high temperature and pulse.

Another form has been described, in which delirium of anxiety to do something is the first symptom. The person will go to bed with exhaustion, and have this confused and changing delirium which ends in death in a few days. He looks bad, will not eat, has high pulse and temperature, and

rolls and tosses in bed. The delirium may concern his business or family interests, and may last for two or three days, during which he will walk about, then suddenly he will go to bed, and soon after die.

These are only general symptoms, which appear among those who are greatly enervated. Almost endless varieties of symptoms will appear in those who have had syphilis, head injuries from heat and traumatism, nerve and spinal injuries, and lesions of the heart, liver, and stomach.

One practical fact should never be forgotten. Whenever inebriates exhibit cerebral changes or great exhaustion, the lungs should always be examined. A rapid pulse and high temperature should suggest the same examination. Delirium tremens, or great depression, melancholy, change of face, insomnia, stupor, and other symptoms point to inflammation of the lungs, as both a primary and secondary cause. Complications with malaria, cirrhosis of the liver, abscess in both the liver and lungs, or gangrene, are all factors to be considered in cerebral pneumonia. If the case appears as one of delirium tremens, the question of alcohol in the treatment will be prominent. How far it can be given, and how far it will aggravate or relieve conditions of disease present are most important problems to be settled from the symptoms of each case.

THE COLONIAL AND INTERNATIONAL CONGRESS ON INEBRIETY.

This Congress, organized last year, will hold a session in London, England, Wednesday, July 6, 1887. The meetings will be held at Westminster Town Hall, and consist of three sessions. The morning session at 10.30 A. M., and the afternoon at 2 P. M., followed by a public dinner at 6.30 P. M. The next day a lunch and meeting will be had at the Dalrymple Home for Inebriates, under the auspices of Canon Duckworth and committee. Dr. Norman Kerr will preside, sustained by a list of the most distinguished physicians and

others as vice-presidents. Among the persons who will read papers from this country are the following: Drs. Parrish Davis, Mason, Mann, Crothers, and Clark Bell, Esq. Among the vice-presidents from this country, are Drs. Day, Blanchard, Matison, Wright, and Hughes. This is the first congress devoted to the study of inebriety ever held, of an international character. The list of vice-presidents embracing names of the most distinguished men in Europe, which we published in the last number, shows that at last the subject of inebriety is coming to the front as a scientific topic. The scientific world is prepared for it, and from this and future gatherings we shall anticipate the best results.

ADVISING SUICIDE TO INEBRIATES.

It is not generally known that advice to commit suicide is an offense, and punishable by law. If it can be proved that the suicide was the direct result of the counsel of another, the crime is a misdemeanor. The relatives of the suicide may have a civil action for damages, the penalty of which is both fine and imprisonment. Under certain circumstances the charge would be accessory to the act, and would be manslaughter in the first degree. In a case of an inebriate who committed suicide lately, where the insurance was contested, the following facts appeared. The victim had just recovered from a protracted drink paroxysm and applied to his guardian for help. The guardian, after scolding him severely, advised him to go and drown himself. This he did within an hour after the advice was given. The probability is, that he acted on this advice and would not have done so had it not been given. An inebriate under my care went home, and after a severe paroxysm of drink, came to his brother begging to be sent back. In anger his brother advised that he go and shoot himself. He went away and drank freely that afternoon, and committed suicide in the evening by shooting.

These cases are by no means uncommon, and follow most naturally from the dangerous theories of the vice of inebriety.

The inebriate's mind is always very susceptible to suicidal impulses. The despair at his failure to control himself, and the degeneration of both brain and nerve centers, with impaired vigor, encourage morbid impulses of any form, and more particularly if suggested from without. A word or look, or the slightest suggestion to such men in this state, may explode or give direction to diseased brain force, that will develop homicidal or suicidal maniacs. The same caution should be observed with inebriates, as that exercised among the insane. The appearance of sanity and control should never be accepted as conclusive, or relied upon. The advice to end inebriety by suicide should be severely punished in all circles and under all conditions.

CAPACITY OF JURORS.

An inebriate shot a stranger while intoxicated. On the trial for murder, the defense was insanity and irresponsibility at the time. A number of medical experts testified, and were crossexamined on the nature and character of insanity. Hypothetical cases involving the mental state, and possible mental action, at the time of the murder, were presented, and answered in all degrees of confusion. Statements, exceptions, and qualifications of insanity and responsibility were made by each expert. Different views of different authors and different conclusions of the facts were cited freely.

The most profound questions of the nature and action of the mind, were handled with reckless familiarity. Both counsel and judge commented with increasing confusion on these questions, and the jury went out to agree upon the true facts of the case. Three farmers, one horse trader, four merchants, two mechanics, and two clerks, set down to determine the degree of sanity and insanity of the victim. With the training which comes from these separate avoca-

tions they are called to determine questions of mind and body, mental health and disease, and the judicial obligations and relations. All questions which the philosophers and experts of ages have failed to solve. In two hours these great questions are decided. The prisoner was of sound mind at the time of the murder, hence was guilty.

In the sentence to death the judge comments on the fair trial and impartial judgment of the jury. Later the man is hung and justice is supposed to be appeased, and others deterred from similar crimes. A century hence these farcical efforts to administer justice will be matters of wonder and ridicule. Inebriety or insanity is not a mere nomonial condition, which can be determined from the limited observation of twelve non-experts, before whom a mass of conflicting testimony by opposing counsel are presented. No inebriate or insane person should ever be tried for crime before a jury. His case should be determined by experts after a long exhaustive study and inquiry.

AGED INEBRIATE.

In the *Boston Courier* for September, 1825, occurs this paragraph: "Donald McDonald, who claimed to be one hundred and three years of age, was brought before the court, charged with being a common drunkard, of which he had been convicted once before. Donald stated that he had been in various battles of the Revolution, and sailed with Paul Jones, and was at the taking of Quebec. He was found guilty and sentenced to the House of Correction for three months."

The following notice in the *Boston Patriot* of 1829, indicated that "Donald" was still living and uncured: "Donald McDonald, the Scotchman, who has numbered upwards of 110 years, was sent to the House of Industry on Saturday of last week in a state of intoxication. He had been suffered to go at large but four days previous, and during two of them was seen about our streets, a drunken brawler."

Clinical Notes and Comments.

ALCOHOL IN TONICS AND BITTERS.

The analyst of the Massachusetts State Board of Health has lately made a report of the examination of forty-seven samples of patent *tonics* and bitters which are sold on the market as medicines; many of them are claimed to be temperance drinks and free from alcohol. In all of them alcohol was found, showing that this was the real agent and basis of the medicines. The following is the name of the medicine and the per cent. of alcohol by volume found in each one:

Tonics.—Carter's Physical Extract, Georgetown, Mass., 22 per cent.; Hooker's Wigwam Tonic, Haverill, Mass., 20.7 per cent.; Hoofland's German Tonic, Philadelphia, 29.3 per cent.; Hop Tonic, Grand Rapids, 7 per cent.; Howe's Arabian Tonic, New York, 13.2 per cent.; Jackson's Golden Seal Tonic, Boston, 19.6 per cent.; Liebig Company's Coca Beef Tonic, New York, 23.2 per cent.; Parker's Tonic, New York (advertised as without stimulants), 42.6 per cent.; Schenck's Sea Weed Tonic, Philadelphia, 19.5 per cent.

Bitters.—Atwood's Quinine Tonic Bitters, Boston, 29.2 per cent.; Atwood's Jaundice Bitters, Portland, 22.3 per cent.; Baxter's Mandrake Bitters, Burlington, 16.5 per cent.; Baker's Stomach Bitters, New York, 42.6 per cent.; Brown's Iron Bitters, Baltimore, 19.7 per cent.; Burdock Blood Bitters, Buffalo, 25.2 per cent.; Carter's Scotch Bitters, Georgetown, 17.6 per cent.; Colton's Bitters, Westfield, 27.1 per cent.; Drake's Plantation Bitters, New York, 33.2 per cent.; Flink's Quaker's Bitters, Boston, 21.4 per cent.; Goodhue's Bitters, Boston, 16.1 per cent.; Hartshorn's Bitters, Boston, 22.2 per cent.; Hoofland's German Bitters, Philadelphia, claimed to be free from all alcohol, 25.6 per cent.; Hop Bitters, Rochester, 12 per cent.; Hostetter's Stomach Bitters, Pittsburgh,

44.3 per cent. ; Sulphur Bitters, Boston, contains no sulphur, 20.5 per cent. ; Langley's Bitters, Boston, 18.1 per cent. ; Mexican Tonic Bitters, Boston, 22.4 per cent. ; Porter's Stomach Bitters, New York, 27.9 per cent. ; Bush's Bitters, New York, 35 per cent. ; Sherry Wine Bitters, Wakefield, 47.5 per cent. ; Cinchonia Bitters, Providence, 13.1 per cent. ; German Bitters, Concord, 21.5 per cent. ; Strengthening Bitters, New Bedford, 29 per cent. ; Old Continental Bitters, Lynn, 11.4 per cent. ; Walker's Vinegar Bitters, New York, 61 per cent. ; Warner's Safe Tonic Bitters, Rochester, 35.7 per cent. ; Warner's Billious Bitters, Boston, 21.5 per cent. ; Wheeler's Tonic Sherry Wine Bitters, Boston, 18.8 per cent. ; Wheat Bitters, New York, 13.6 per cent. ; Faith Whitcom's Nerve Bitters, Boston, 20.3 per cent. ; Williams' Vegetable Jaundice Bitters, Lowell, 18.5 per cent.

INFLUENCE OF ALCOHOL IN NURSING.

Dr. Decaisne, in *La Temperance*, calls attention to the great mortality of infants who nurse women that use spirits. A number of cases are cited which have been reported by physicians in Paris, where previously healthy children became restless, nervous, and finally died of convulsions. It was ascertained that the nurses used spirits freely. In some cases, extreme indigestion was first noted, this soon passed into enteritis and death ; in others the nervous symptoms were more prominent, and convulsive phenomena followed. Several cases were mentioned where the stupor, and finally the death of infants, were due to the opium taking by the nurses. He gives several instances which came under his care, where the convulsive symptoms and marasmus of previously healthy children, were found to come from the beer and wine-drinking nurses. When these nurses were discharged, and healthy, temperate women put in their place, these symptoms of disease in the children passed away. He condemns the practice of many nursing women, taking beer or any form of alcohol to keep up their strength. He warns

all mothers to watch the habits of nurses, and on no account permit them to use any form of alcohol or opium. He calls attention to the fact, that many obscure diseases of infants may be traced to this source. In all cases he asserts that alcohol, in nursing women, increases the urinary secretions, and diminishes the carbonic acid; also the alimentation and assimilation, and both the quality and quantity of milk. He also believes that both alcohol and opium are directly transmitted through the mother's milk.

DRUGGIST'S FRAUDS.

The *St. Louis Medical and Surgical Journal* calls attention to the substitution by druggists of poor inferior drug compounds, for those called for by physicians. In the West, where "Bromidia" is used extensively, druggists often make up this preparation from drugs and sell it as the original Bromidia. Horsford's Acid Phosphate, Park Davis' Coca Cordial, Fellows' Hypophosphites, and many others are frequently substituted by the druggist to the great damage of all. Reputable pharmacists owe it to themselves to expose these vultures and drive them from the trade. In doing so they should have the aid and countenance of every physician. In the meantime, let every physician not content himself with shunning the shops of those whom he detects in the nefarious habit of substitution, but boldly denounce them, and warn his patients against carrying prescriptions to them. Concerted action of this sort will soon purge the trade of the offending members.

The Baltimore Academy of Medicine has lately discussed the use of alcohol as an anæsthetic. Drs. Van Bibber and Ashley related some very striking cases where its anæsthetic effect was more favorable than that of chloroform. In labor and puerperal eclampsia, it had been used with great efficiency.

MURDERS BY INEBRIATES.

A correspondent sends us the following: "During the year 1886, there were eighteen hundred and seventy-four murders reported by telegraph in the United States and Canada. Three hundred and ninety-six were caused in part or entirely by spirits. Six hundred were put down as coming from quarrels. Of this number at least half were provoked or grew out of states of intoxication. Of four hundred cases ascribed to jealousy, one-third started from drink. Nearly two hundred cases were put down as from unknown causes. Here, also, a large per cent. might be traced to spirits as the real cause."

From these and other statistics he concludes that at least twelve hundred murders occur every year which are due to inebriety.

DELIRIUM TREMENS.

Dr. Reed, in the *Massachusetts Medical Journal*, writes as follows: "Formerly it was a universal and it is a common custom to regard this disease as the characteristic event in the nervous life of drunkards, but now it is known to bear but small importance in comparison with the long train of chronic nervous symptoms which make up the picture of chronic alcoholism. Formerly it was supposed that delirium tremens was the inevitable result of temporary abstinence after habits of drinking. The system lost its accustomed stimulus. Both these ideas were quite wrong. Delirium may never occur—never does occur—in the vast majority even of excessive drunkards, and its outbreak is not caused by abstinence, but the abstinence is a symptom of the outbreak; moreover, many patients do not abstain, but drink on into the heights of delirium. All one can say is that in a certain (not large) percentage of people who drink heavily the course of chronic symptoms occasionally culminates in an attack of delirium tremens. Now, the important thing to remember is, that all the alarming train of symptoms

would (barring accidents) subside spontaneously in about three days from the outbreak of the more acute symptoms, or perhaps a week from the first occurrence of total insomnia and spectral illusions, the average delirium tremens patient will get his first sleep, and from that moment will rapidly convalesce, provided he has been kept entirely from alcohol and has been fairly fed, and provided that no violent attempts have been made to narcotize him with opium. However, it is not necessary nowadays to let the attack run so long a course; for in the bromides and hydrate of chloral we possess remedies which we may safely give with boldness to procure sleep, whereas opium was never safe when given boldly."

EYE SYMPTOMS IN INEBRIATES.

In one case the *eyes* are intensely red when the patient is under the influence of spirits. These states only last a short time and go off quickly. A state of mild inflammation goes on that often clears up quickly. The *eyes seem* to be paralyzed and fixed, the muscles are rigid, the eyes protruding and seemingly incapable of turning from one side to the other. In *other cases* the eyes have a rocking, oscillating motion, as if in a state of quivering and trembling. In *some cases* they are drawn together, squinting, as if the light was unpleasant and would be shut off. In *other cases* the eyes are dilated and stand out from the head. In others they flash or are dull and heavy, or change suddenly from one state to the other. In *other cases* one eye is turned up and the other down. Astigmatism is often seen. Palsy of one or more muscles may come on any time.

The number of persons arrested in England and Wales as drunk and disorderly for the six years past were as follows: 1880, 172,859; 1881, 171,481; 1882, 189,697; 1883, 192,907; 1884, 198,274; 1885, 183,221. This shows a regular increase up to 1884, then a decline.

ALCOHOL AS A REMEDY FOR CHILDREN.

The Journal of the American Medical Association gives some extracts from Prof. Deunne's paper on the above subject, in a report of the Jenner Hospital for children at Berne, Switzerland. He believes alcohol very dangerous in all diseases of children, and should never be used as an antipyretic. He has seen two cases of children who had cirrhosis of the liver, where alcohol had been taken for a long time, and was used for dietetic purposes. In other cases a marked cessation, or even a retrogression, in mental development was noticed where alcohol was used. Five cases developed epilepsy from the abuse of drink, in his observation. In seventy-one cases of epileptics in children, he was able to trace twenty-one to parents who had used spirits to excess. Alcohol was always a prominent factor in causing night terrors and chorea in children. He thinks alcohol in many cases of children will prove injurious, and give rise to severe diseases of the nervous system. He doubts the value of alcohol as a food or dietetic remedy, and says it should never be given.

MORPHINISM IN ACUTE DISEASE.

M. Richardière lately read a paper on this subject, before the Paris Société Medico-Pratique, in which he mentioned at length some of the unrecognized influences which complicated acute diseases in morphia causes. Delirium is common in all acute diseases that appear in morphiomanias. Delirium tremens will start up often from some profound shock to the organism. Pneumonia will be ushered in and followed all along by delirium. Spasmodic coughing and varied extreme nerve symptoms will come and go. When the morphia is withdrawn, many very serious symptoms appear, and at times take on such an alarming aspect as to require a return to the use of morphia. Gastritis, pleurisy, rheumatic affections of the joints, and other diseases may

appear on the removal of the morphia. These and other diseases may appear more or less marked while the morphia is used.

The caution he gives is to watch all such cases carefully, and be ready to return to the morphia, where it has been withdrawn, or to recognize the influence of morphia when these cases appear.

COCAINE DOSAGE AND COCAINE ADDICTION.

Dr. Mattison, the well known specialist of Brooklyn, N. Y., has lately read an exhaustive paper on this subject, before the King's County Medical Society, and which has been published in the *Medical Register*.

The object of this paper is to show the dangerous and fatal effects from the ignorant and incautious use of cocaine, and also to indicate that the statements of Drs. Hammond and Bosworth of New York concerning the harmless character of cocaine, are contradicted by all clinical experience, so far.

Notes and records of fifty cases of cocaine poisoning are detailed at some length. The principal symptoms seem to have been in all these cases the sudden prostration and collapse, with violent headache, vertigo, nausea, delirium, vomiting, and unconsciousness. In many cases mania and delirium, with motor paralysis, were prominent. The question of cocaine inebriety which has been denied, is answered as follows: "I venture to assert there are more cases of cocaine taking in this country to-day, less than three years since its arrival, than of chloral, after a period of more than six times as long." The doctor announces that this paper is only a preliminary to a more extensive study of cocaine inebriety. This we shall look forward to with great interest, and expect from his great energy and wide-spread studies an exhaustive summary of the entire subject.

The following are the conclusions of this paper: "Cocaine may be toxic, sometimes deadly, in large doses. It may give rise to dangerous or even fatal symptoms in doses

usually deemed safe. The danger near and remote is greatest when given under the skin. It may produce a diseased condition, in which the will is prostrate and the patient powerless — a true toxic neurosis, more marked and less hopeful than that from alcohol or opium.”

If education in physiology and the nature of alcohol would prevent men from becoming inebriates, we should expect physicians to be the most temperate of men. In England inebriety among medical men is very common. In this country it is a source of great mortality among physicians, either directly or indirectly. It is asserted that medical men are more often inebriates than any other professional class. If this is true, there can be but little hope in temperance instruction in the school-room.

The mental effect of punishment where the labor is monotonous, uninteresting, and devoid of all activity of mind, is depressing, irritating, and finally debasing to the mental faculties. Where the mind is acute and hypersensitive, acute melancholy and degenerative changes come on. But where it is coarser and already palsied and degenerative, the effect is to harden and increase the debasement and debility.

Dr. Lauze writes in the *Le Medical Progress* of Paris, France, that the continuous use of alcohol produces constant cerebral congestion and degeneration of the layer of brain-cells closest in contact with the vessels of the pia mater. General paralysis is the most common result, and is particularly a disease of a worn-out brain forced into abnormal activity, and driven beyond the point of exhaustion.

A leading daily has a very prominent advertisement of a brand of “Hand Made, Sour Mash Bourbon Whisky.” In large head lines occurs the following terribly literal statement: “Is death to malaria, chills and fever, typhoid fever, indigestion, dyspepsia, surgical fevers, blood poisoning, consump-

tion, sleeplessness, and dissimilation of food." As usual, several distinguished chemists certify that it is good for family uses.

Fournier maintains that the poison of syphilis is increased to great virulence by inebriety, bringing on cutaneous lesions, and producing severe symptoms, tertiary in character, early in the secondary stage, creating special types of malignant eruption, involving large areas of skin surface, causing more frequent outbreaks of the syphilides, depressing the system, and finally predisposing to early nervous manifestations, causing deposits in the brain and spinal marrow.—*Medical Record*.

The Doctor, a paper devoted entirely to personal medical news and gossip, first appeared in December last, and has been seen twice a month ever since. Every observation proves that this paper fills a great void in the medical heart, of wanting to know something personal of his neighbor and his neighbor's doings. The genial editor, Mr. Wells, is an astronomer, and his pages are full of discoveries of great *Stars, Planets, and Comets*, and their movements, in the medical heavens. Send two dollars to the editor's address, 20 Astor Place, New York City, and get this semi-monthly *Doctor*, filled to the brim with facts and fancies concerning the great unwritten work of physicians.

The English report of the commissioners of lunacy for the year ending 1885, indicate that twenty-one and nine-tenths per cent. of all the insane were made so by alcoholic spirits. The whole number of the insane were 79,704. It is evident from the list of causes, that an equally large proportion of cases, due to inebriety, were put down to other causes. Dr. Brown's statement that fully fifty per cent. of all insanity were due to excess of spirits, seems to be confirmed from these figures.

Dr. Formad, in his recent analysis of the anatomical lesions of two hundred and fifty inebriates, shows that cirrhosis is not a common condition of the liver in these cases.

He found only six cases in two hundred and fifty autopsies, and these were all in the chronic and worst class of inebriates. The old view that every inebriate had cirrhosis, and that cirrhotic liver was always an indication of severe drinking, must be given up. Dr. Formad also found that cyanitic induration of the kidney, and chronic gastritis with mammillation of the stomach, was present in nearly every case.

The report of the Committee on provision for Idiotic and Feeble-minded persons read by Dr. Kerlin at the Conference of Charities and Correction, has the following among other conclusions: "That in thirty-four per cent. of idiocy, there should be the family history of alcoholism, with cases of epilepsy, nervous disease, and crime. In the same inheritance is an argument for the restraint of alcoholic inebriety." This is confirmed by Dr. Beech of England, who reports from 38 to 40 per cent. of all idiocy caused by alcoholism. The German Conference for the Care of Idiots, declared inebriety was the principal cause of idiocy.

The inebriate, of all men in every community, needs protection. While they are not technically insane, they are without mental power of control, and subject to contingencies and influences which they are powerless to resist. They become the prey of their own diseased fancies, and the wills of those who wish to use them for some selfish end. They often possess a mental constitution so fragile and even tottering that the least strain carries them over into the domain of insanity. Their history clearly points out their feebleness, and the need of help and protection, not of jails or prisons, but of hospitals and homes.

Every one who examines the Turkish Bath as a remedy for inebriety and nervous diseases, is astonished at its value, and that it is not better known and more generally used. An inebriate physician wrote me, that after the drink paroxysm he suffers acutely from gastritis, most intolerable thirst, and inability to retain anything on his stomach. He has never found any relief from remedies at these times. He finally

used the Turkish bath, and the relief was rapid and permanent. From that time he has used these baths in gastritis from all causes, and has found them very valuable. Dr. Shepard's Turkish baths on Brooklyn Heights, are no doubt the most scientific and complete in this country, and should be tried in such cases.

Dr. Baudug speaks of Maltine as follows: "My very successful experience with Maltine makes me feel it a duty to the profession to point out some of the principal features of merit this very valuable preparation possesses.

It contains *three* most nutritive and digestive agents, rich as they are in phosphates, diastase, and albuminoids. Hence, at a glance, it is apparent that, for constructive metamorphosis of the brain and nervous system at large, this preparation must prove most efficacious. The large proportion of brain and bone-producing food it contains, therefore, makes it of incalculable benefit in many forms of wasting and asthenic disease. The large proportion of diastase and other albuminoids present in its composition gives it both digestive and nutritive value. Its digestive properties, in fact, enhance its nutritive or tissue-forming capacity.

"In a word, in nearly all cases of general debility, wasting or atrophic affections, and in nearly all varieties of indigestion, Maltine is a therapeutic auxiliary, the most valuable we have as yet encountered, and of which we can conscientiously say we do not tire, being daily more and more convinced of its advantages. With the long and very extensive practical experience we have had of its value, we would be at an infinite loss to replace it in our daily practice now that our confidence in its real merits has been so fully established."

It appears to me that the "Acid Phosphate," originally prescribed by Prof. Horsford of Cambridge, U. S. A., is not so well known in this country as its merits deserve. A glance at the formula will, however, readily convince one of

its value in suitable cases. Each fluid drachm gives, on analysis, $5\frac{1}{2}$ grains of free phosphoric acid, and nearly four grains of phosphate of lime, magnesia, iron, and potash. The following are a few brief notes of some of the cases in which I have prescribed it with complete success.

Mr. G., aged 69, consulted me November, 1885, for eczema on the arms, legs, palms of the hands, and trunk. The patient complained of much debility and nervous exhaustion, and he was a man who had led a very busy business life with much worry. In December, 1885, I prescribed Horsford's acid tonic with much good effect, and in February, 1886, I heard that he was quite well.—*Dr. Starlin, London Medical Press.*

We mentioned in the last issue of the JOURNAL some of the remedies we could cheerfully endorse. We repeat it, with some of the reasons why each one may be good.

Murdock Liquid Food is employed with excellent results in anæmia and non-assimilation of food.

The *Anglo-Swiss Milk Food* of New York is particularly a farinaceous food for invalids.

Colden's Liquid Beef Tonic has taken high rank for conditions of nerve exhaustion following the use of alcohol.

Peptonized Cod Liver Oil and Milk, by Reed & Carnrick, should always be given as an oil tonic and stimulant.

Lactated Food is fast becoming a standard remedy in all forms of inebriety.

Fellowes' Hypophosphates is unequalled as a remedy in all forms of nerve and brain degeneration.

Lactopeptine should be in the case of every physician. Its uses are as varied and valuable as quinine or salts.

Horsford's Acid Phosphates is equally valuable and useful in a widespread class of cases.

The *Bromidia* has come into very general use, despite all competition.

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COLDEN'S Liquid Beef Tonic is endorsed by scores of physicians, who are growing to realize more and more its importance in repairing, in accordance with the principles of dietetics, the **waste which disease entails.** It consists of the extract of Beef (by Baron Liebig's process) spirit rendered non-injurious to the most delicate stomach by extraction of the Fusel Oil, soluble Citrate of Iron, Cinchona, Gentian, and other bitter tonics. An official analysis of this preparation by the eminent Chemist, ARTHUR HILL HASSALL, M. D., F. R. S., and an endorsement by the late SIR ERASMUS WILSON, F. R. S., are printed on the label of each bottle.

As a **nutrient**, and a **reliable tonic** in all cases of debility and weakness, Malarial Fever, Anæmia, Chlorosis, Incipient Consumption, etc., it is the best preparation ever used. It acts directly on the sentient Gastric Nerves, stimulating the follicles to secretion, and gives to weakened individuals that first prerequisite to improvement — an appetite. It strengthens the nervous system when unstrung by disease, and has been employed with remarkable success as a remedy for Drunkenness and the Opium Habit.

Its Range of Action Embraces all Cases of Debility.

In order that physicians may form some idea of the nature of its ingredients, I will upon application in person, or by letter (enclosing a card), send a sample bottle of COLDEN'S LIQUID BEEF TONIC to any physician in regular standing, in the United States. Please ask your Dispensing Druggist (if he has not already a supply) to order it. In prescribing this preparation, physicians should be particular to mention "COLDEN'S" — viz.: "*Ext. carnis, fl. comp. (Colden's).*" It is put up in pint bottles, and can be had of Wholesale and Retail Druggists generally throughout the United States.

C. N. CRITTENTON, Sole Agent, 115 Fulton St. New-York.

GLENN'S Sulphur Soap.

ALL physicians know that *skin diseases* are more or less constitutional, or dependent upon some specific poison in the blood, which, if eradicated by internal treatment, needs something to remove its appearance from the surface. Experience has proved that the best possible aid in the accomplishment of this end is obtained by the use of *Sulphur in soap.* GLENN'S SULPHUR SOAP is the best combination of its kind, and the one now generally used. It is for sale by all Druggists, at 25 cents a cake, or 3 cakes for 60 cents.

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Has been on trial among physicians for very many years as a Toilet Soap and Healing Agent, and its superior virtues have been unanimously conceded in all cases where the use of tar is indicated. Unsolicited expressions of its excellence have been received from the Medical Faculty generally. **IT IS THE BEST TAR SOAP MADE.** None genuine unless stamped "A. Constantine's Persian Healing Pine-Tar Soap." For sale by all Druggists.

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Dr. Bradner, recently of Philadelphia, was formerly at the Pennsylvania Hospital for the Insane, associated with the late Dr. Thomas S. Kirkbride, in whose memory our Villa is named, and has made a speciality of mental diseases, during his whole professional career—nearly twenty years.

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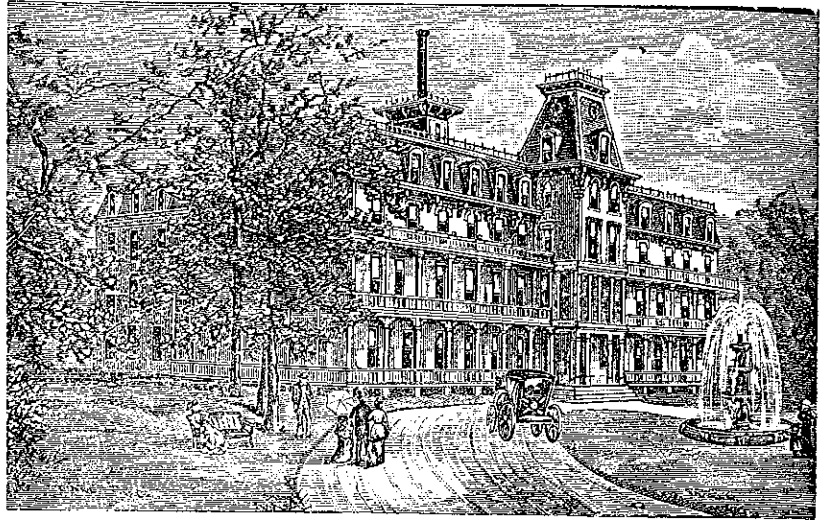
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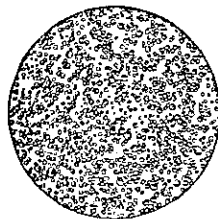
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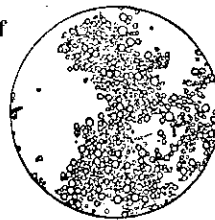
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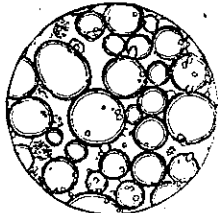


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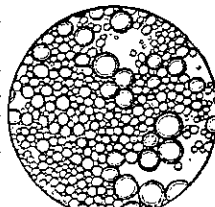


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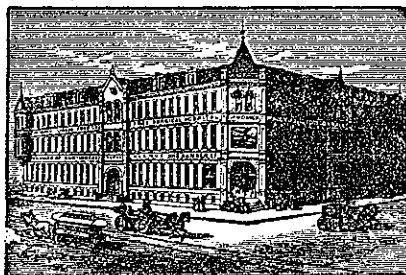
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American Institute of Homoeopathy, read at Saratoga at the Annual Meeting of 1886.

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

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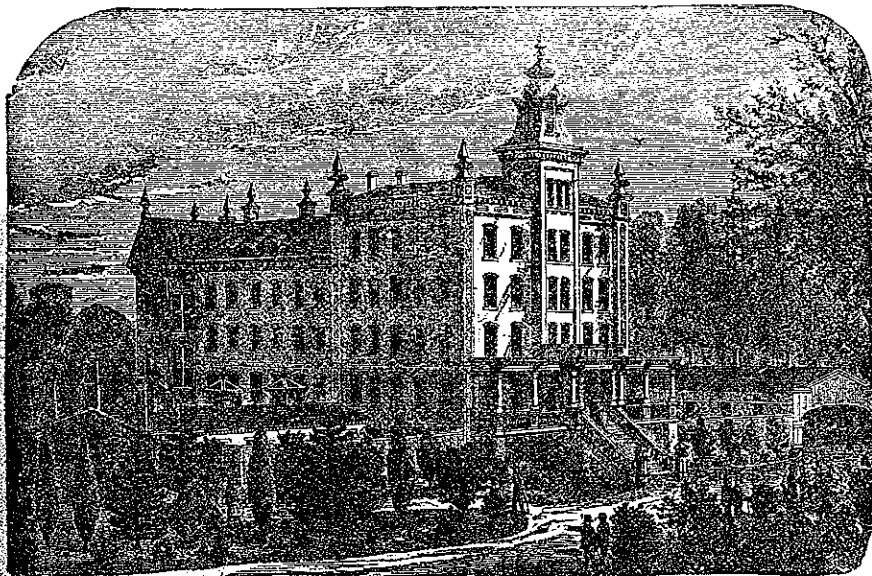
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