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TABLE OF CONTENTS.

JULY, 1894.

DIFFERENTIAL DIAGNOSIS OF ALCOHOLIC COMA FROM OTHER FORMS OF COMA. DR. LEWIS D. MASON.....	
A STUDY OF THE ILL EFFECTS OF TOBACCO ON THE THROAT AND NOSE. DR. WILLIAM T. CATHELL.....	
A CONTRIBUTION TO THE STUDY OF INEBRIETY. DR. CHAS. MCCARTHY.....	
PROHIBITORY LAWS.....	
THE LATE DR. ALBERT DAY. DR. L. D. MASON.....	
ABSTRACTS AND REVIEWS	
HOME FOR THE LURE OF INEBRIATES, SAN FRANCISCO.....	
REPORT OF WALNUT LODGE HOSPITAL.....	
TOUR-HABIT CURES.....	
SANITATION PRACTICALLY.....	
CHILDREN OF DRINKERS.....	
SALOON STATISTICS.....	
DISCUSSION ON COCAINE.....	
INTENT AND CRIME.....	
MEDICAL TEMPERANCE ASSOCIATION.....	
KINGS COUNTY INEBRIATE HOME.....	
EDITORIAL:	
INEBRIETY AND SYPHILIS.....	
RETROGRADING.....	
CLINICAL NOTES AND COMMENTS.....	

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DIFFERENTIAL DIAGNOSIS OF ALCOHOLIC
COMA FROM OTHER FORMS OF COMA, WITH
ESPECIAL REFERENCE TO THE CARE OF
PERSONS FOUND BY THE POLICE ON THE
STREETS IN A COMATOSE OR SEMI-COMA-
TOSE CONDITION.

By LEWIS D. MASON, M.D.,

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The differential diagnosis of alcoholic coma from other forms of coma is not unfrequently attended with much difficulty, and not only to those who have given little, if any, attention to the differentiation of the various forms of coma, but also to experienced practitioners and diagnosticians. It may be said that certain cerebral conditions are very similar to alcoholic coma in their general symptoms — and not unfrequently mistaken for it. This is especially the result when, as is not uncommonly the case, the person is taken sick or faint upon the street, and sympathetic bystanders administer the usual dose of whisky from the ever-present "pocket flask." Under such circumstances a cerebral lesion with its accompanying stupor, complicated with the smell of

alcohol in the breath of the person, may well tax for the time being even the diagnostic skill of an experienced practitioner. A similar condition also pertains as when a person, we will say, returning from some convivial entertainment slightly intoxicated, falls and sustains a cerebral lesion. Here we have a decidedly mixed case, and unless the symptoms that accompany the cerebral lesion are well marked, such as are manifest in the case of a fracture of the skull with depression, or fracture at the base with aural hemorrhage, or a marked facial paralysis or hemiplegia, immediate diagnosis cannot be made, and we will of necessity have to delay the diagnosis until, it may be, some hours have elapsed and the effect of the alcoholic complication passed off.

It will be noticed that the difficulty of and the failure to make a proper diagnosis in these cases is first due to the great similarity under certain conditions of alcoholic coma and other forms of coma of cerebral or other origin; and, secondly, to the fact that the person who attempts to make it is incompetent to do so, or is superficial, careless, or indifferent in arriving at his conclusions, or by force of necessity due to the urgency of the case, is forced, as it were, to decide hastily, and so literally "jump at" an erroneous conclusion.

Take a hypothetical case. A person is found unconscious on the street by the police. The police are in doubt and call an ambulance. The ambulance surgeon detects the odor of alcohol, and other symptoms similar to alcoholic intoxication — stupor, mental confusion, partial consciousness; on being aroused, in a maudlin way the person may give his name and address, then lapse into unconsciousness. There is no apparent evidence of any cerebral disease or injury, or, indeed, of any other condition that could produce just these symptoms. Here is a case that certainly simulates alcoholic intoxication; besides, there is the corroborative evidence — the alcoholic odor to the breath. The decision must be promptly made. The hospital has a standing rule that "drunks" must not be taken in, or, in the official language, they are "refused." The ambulance surgeon must not break

this rule; therefore, on what he thinks is good evidence, he "refuses to remove the case," and in his desire naturally not to infringe the hospital rule, he gives the benefit of the doubt to the hospital, and the patient is removed to the station house. He is there received and registered as "drunk;" if at all demonstrative, "disorderly." He is placed in a cell. Some hours will elapse before his case is disposed of, and in the meanwhile he will sleep off his "drunk."

In due time the cell door is unlocked, but the prisoner will never appear before an earthly tribunal. The "dead drunk" has slept his last sleep. Next in order a "coroner's case." An inquest is held. The testimony is taken before the usual jury, and the cause assigned is "alcoholism and exposure;" but unfortunately for the authorities and fortunately for the deceased, his friends are not satisfied with the finding of the coroner's jury, and insist on an autopsy, and the actual cause of death is found to be fracture of the skull, or some other fatal cerebral lesion.

A similar case occurred not long since in a prominent western city, and formed the basis of an editorial in one of our leading medical journals.* Calling attention to the evils that attend the present method of dealing with the class of cases under consideration here, it said: "The intelligent coroner's jury heard the testimony of the intelligent officers, and rendered the intelligent verdict that death was the result of acute alcoholism." A second inquest held resulted in a verdict in accordance with facts—a fracture of the skull. The testimony further brought out the fact that the deceased was not a drinking man.

We now desire to dwell more especially at first upon the differentiation of alcoholic coma from other forms of coma. Dr. J. Hughlings Jackson, F.R.C.P., in his article on "Cerebral Hemorrhage and Apoplexy,"—*Reynolds' System of Medicine*, p. 902—thus writes under the caption "Special Diagnosis":

"*Drunkenness*.—The smell of drink must only lead us

* Journal of the Amer. Med. Association.

to a very careful examination of drunkenness, as patients who suffer cerebral hemorrhage may have been drinking, or may have taken spirits for premonitory symptoms. Oddly enough, patients soundly drunk, their real condition not being recognized, are now and then treated by doses of brandy and water.

This shows in another way the difficulties of diagnosis. A drunken man may be in one of two conditions. (1) He may be insensible without excitement; he may, indeed, be as deeply comatose as if he had extensive and fatal cerebral hemorrhage. This is so when the patient has been 'sucking the monkey,' that is, sucking raw spirits out of a cask by aid of a gas piping, or when he has drunk off a large quantity of spirits for a wager or out of bravado. In these cases, from the condition of the patient alone we cannot make a diagnosis, although, fortunately, it is usually made for us by the history. If we hear that the insensibility began suddenly, or if the patient all at once staggered and fell insensible, cerebral or meningeal hemorrhage is almost as likely.

Let us now suppose there is no history of the mode of onset, *the patient being found in the street by the police*. We try to rouse him, and we may get him to give his name or his address. There is, perhaps, some evidence that the case is not one of cerebral hemorrhage, but it had better be disregarded, as patients comatose from fatal cerebral lesions of several kinds can be aroused so far. That he resists our endeavors to examine him or swears when aroused is of no value at all as excluding fatal lesion of the brain. The patient may vomit (as he may in cerebral hemorrhage), and the vomit may reveal the nature of the case; if he does not we are justified in doubtful cases in using the stomach pump. Then the drunken patient oftener passes his urine and feces than do other apoplectic patients. Again, we may find alcohol in the urine. The mere presence of alcohol in the urine is not to be relied on to show that the apoplectic patient is suffering from a poisonous dose of alcohol only.

As before said, a drunken man may owe his coma in part

at least to hemorrhage into the arachnoid cavity. However, Dr. Anstie tells me that it would be possible to recognize the presence of a poisonous dose of alcohol in the system if one drop of the urine itself added to 15 minims of a chromic acid solution* turned the latter immediately a bright emerald green.

The other condition is one of excitement, of which there are all degrees. As we have seen, the patient, who, when left to himself, is insensible, may be aroused to resist and swear, but the main features of a case to which we are called may be one of 'uproariousness.' If the patient be violent and struggle, he is probably drunk.

A cautious man will still continue his examination for other causes, because it is certain that after severe and fatal injuries to the head the patient may struggle and swear, and even, as I saw in one of Mr. Hutchinson's cases, make a definite reply, as, 'What's that to you about my tongue?' when asked to put his tongue out. I have recorded a case supplied to me by Mr. Stephen Mackenzie, in which violence and swearing were the striking symptoms in a case of death from meningeal hemorrhage. As in this case, we have often a history of a mode of onset under circumstances which exclude the diagnosis of drunkenness. But to make a diagnosis from the condition of the patient only is quite a different thing. We can only make a diagnosis by exclusion, and the most important thing is to exclude injury to the head. The young practitioner must not hastily conclude that a patient is 'only drunk' even if he be only confused, or if he swears or is violent, or if he lies on his back insensible, growling or swearing if disturbed. If he does, I am quite certain that he will have now and then bitterly to regret trusting to such circumstances. To have said that a patient was 'only drunk' when a post mortem examination shows a fatal lesion of the brain is very painful to all concerned. Besides, deep intoxication is itself a serious matter."

* Bichromate of potash 1 part, and 300 parts by weight of strong sulphuric acid.

An article entitled "Practical Differentiation of Inebriety from Coma, etc.," written by Dr. John Morris of Baltimore, Md., was published in *THE QUARTERLY JOURNAL OF INEBRIETY*, June, 1879, also since appearing as a reprint.* This article is full of suggestion, and of so practical a nature that we are almost tempted to incorporate it in this paper, but we will endeavor to give an ample synopsis of it.

"The frequent occurrence of blunders in mistaking brain diseases for drunkenness, and the serious reproach they bring on medical men, render it necessary that more earnest attention should be paid to the subject than heretofore, and that a higher knowledge should be obtained of the character of the dangers incident to these accidents. Unfortunately, drunkenness has not, save in a few instances, been studied as a disease, and consequently the manifestations pertaining to it are very little understood. This ignorance is particularly unfortunate when it is necessary to distinguish between it and brain troubles."

With this statement the author then enumerates the different conditions resulting from disease or injury that may be mistaken for drunkenness.

1. Fracture of the skull.
2. Concussion of the brain.
3. Cerebral hemorrhage.
4. Embolism and thrombosis.
5. Uraemia.
6. Epilepsy.
7. Narcotic poisoning.
8. Heat apoplexy.

"In case of fracture of skull or concussion, in the absence of a history, the diagnosis is extremely difficult. Coma in these cases, frequently profound, simulates drunkenness. Alcoholic odor on breath is not a reliable guide, as a moderate quantity of alcohol, not enough to produce coma, may so affect the breath; also, alcohol is frequently given in case of accident, after the accident, before the physician arrives.

* "The Disease of Inebriety," E. B. Treat, publisher, New York, 1893.

"The temperature, the condition of the pupils, the breathing, should be carefully noted; but the true rule *is to keep the patient under close and constant watch* until a fixed diagnosis is obtained. I desire to emphasize the fact that there are conditions under which it is clearly impossible to draw the line between simple profound alcoholic coma and coma arising from cerebral lesions; or, on the other hand, to diagnose certain forms of cerebral lesions from alcoholic intoxication, until in both instances the case may have been under observation some hours. In all cases look for wounds or bruises, or depression of skull, and the usual signs belonging to all forms of cerebral lesions, *whether the breath of the patient be alcoholic or not.*"

Mr. Lawson, of Middlesex Hospital, reports a case as follows:

"The patient was taken to the police cell as drunk; examined by a physician; recovered from his apparent semi-consciousness; was able to converse after a few hours; severe cerebral symptoms came on; was transferred to hospital; died on the thirteenth day; autopsy revealed laceration of brain substance, extensive hemorrhage, and fracture or fissure extending into lambdoidal suture. A remarkable feature of this case was absence of paralysis notwithstanding severe cerebral injury; with the exception of loss of power over sphincters there was no paralysis whatever."

Cerebral hemorrhage is more frequently mistaken for drunkenness than any other trouble, for the reason that the symptoms are similar in several stages of the two conditions.

There is a stage of noisy violence and uproar in both, and then a condition of complete coma.

In ordinary cases of apoplexy we look for paralysis of one side or the other; but this does not obtain if the hemorrhage be into the pons or lateral ventricle. We may have convulsions in both diseases, but usually they are more severe on one side in apoplexy.

"The state of the pupil cannot always be relied on as a differential test."

Examine urine for albumen, casts, other evidence of kidney disease, and also for alcohol.

In case of marked alcoholic coma use stomach pump, evacuate and examine contents of stomach, note alcoholic fumes, etc. In as far as possible, get a history of the case antedating the attack of coma.

Note the rate and condition of pulse.

Note the frequency and depth of the respiration.

Note the temperature, whether elevated, normal, or sub-normal.

Endeavor to arouse patient, ascertain degree of coma, and note any response to external impressions.

"In conclusion, observe close attention and watchfulness in all cases of coma supposed to be due to drunkenness. Many of these cases should be placed in the observation or reception ward of a hospital—in cases of doubt, a few hours will clear up the diagnosis, and determine whether the case is one of simple alcoholic coma or something more serious. After all, this is the only plan that can be followed in a certain class of doubtful cases, and is far better than to make a hasty diagnosis, and have the usual deplorable results which a mistaken diagnosis is certain to include."

The system heretofore pursued has been most barbarous, both in this country and Europe, and is a reproach to our civilization. Dwelling on this subject, Dr. John Curnan pointedly says :

"I must enter a protest against the routine treatment of drunkenness too generally followed, viz.: Emetics or the stomach pump, cold effusion, flecking the skin with a wet towel, and then the interrupted galvanic current.

"A patient having grumbled out a name and perhaps an address, is turned over to a policeman who speedily consigns him to a cold cell to sleep off his symptoms; it cannot too often be insisted upon that a drunken man is suffering from acute poison and cannot be too closely watched.

"All police stations should have a regularly appointed medical officer in charge, and every case of sickness, or

Doctor MacEwen of Glasgow says "that the ordinary opinion that dilation of the pupils is found in alcoholic coma is incorrect, but that contraction is the rule. He accidentally discovered, that if a patient was shaken, or rudely disturbed, the pupils dilated, but very soon contracted again."

He therefore lays down as a rule, that an insensible person, who, being left undisturbed for ten to thirty minutes, has contracted pupils which dilate on his being shaken, without any return of consciousness, and then contract again, can be under no other state than alcoholic coma. Unfortunately for this test, Dr. Reynolds has observed the same phenomena in patients suffering from acute softening under the same tests.

The truth is that in cerebral hemorrhage the pupils present no fixed regularity. These conditions may even vary in different cases of the same lesion.

Ingravescent apoplexy generally commences with delirium or convulsions, and coma comes on slowly and gradually. These are the cases that are frequently mistaken for drunkenness, provided the smell of alcohol is discovered in the breath of the patient.

Embolism and Thrombosis. In embolism, coma is sudden and transient; in thrombosis, paralytic symptoms are marked.

Uræmic coma. Generally preceded by convulsions—breath a peculiar odor—urine albuminous—and other evidence of kidney disease—patient can be catheterized and urine examined.

In cases of coma, where uræmia is suspected and there is suppression of urine, catheterization finding an empty bladder will help confirm diagnosis.

Urine may become temporarily albuminous from the inordinate use of alcohol—even when kidney disease does not exist, the urine and the action of the kidneys becoming normal after the effects of the alcohol have passed away.

Epilepsy. Is often complicated with alcoholic intoxication, as the results of it. Epileptic coma is, however,

usually of short duration. The tongue is bitten or bleeding. Where epilepsy follows an alcoholic debauch, the coma may be prolonged—possibly merge into an alcoholic coma, the patient sleeping off the effect in a few hours.

Opium Poisoning. Coma from an overdose of opium is similar to alcoholic coma. The extreme contraction of the pupils, regarded as the distinguishing mark in opium coma, may also occur, though possibly to not so great an extent as in alcoholic coma, and according to Dr. Wilks in apoplexy seated in *Pons varolii*. Dr. Morris thinks that the breathing in opium coma is slower than in alcoholic coma. The smell of opium, particularly if laudanum has been taken, can be detected, and is an important aid to diagnosis.

Heat Apoplexy—Sunstroke. “Coma is often the result of sunstroke, and mental disturbance and outward violence not an unfrequent result of aggravated cases. One valuable diagnostic mark in sunstroke always present is intense heat of the head found in no other disease except yellow fever.” In cases of alcoholic coma, the temperature would be at or below normal.

Method of Examination in Coma.

First. *Head* for fracture or evidences of cerebral lesions, scalp wounds or contusions, bleeding from ears.

Second. *Face*—facial paralysis, congested or pale.

Eyes—squinting, conjugate deviation.

Eyelids—œdematous or not.

Pupils—contracted, dilated, irregular.

Mouth—bleeding, odor of breath, alcohol or opium.

Tongue—for cicatrices, or recent tooth wounds.

Body—hemiplegia or external or internal injuries or convulsive movements.

Bladder—note absence, condition, quantity of urine.

aggravated case of drunkenness, should be put under his care.

"Certain necessary instruments and appliances should be on hand. When these precautions are taken, and when inebriety is added to the list of diseases and its treatment taught in our schools, many lives will be saved and much unhappiness spared the community."

We have taken the liberty to present the article of Dr. Morris so fully because it not only covers the subject under discussion, but shows that the abuses involved in the method of dealing with the class of cases under consideration has been before the public for many years, and the system, with some slight improvement, if any, is still in operation. We have also *italicized* those suggestions or facts in the article that we desired to emphasize and also amplified and modified somewhat the rules laid down for examination of a person in a comatose or semi-comatose condition. We may suggest also in this connection that the police might have some simple instruction in "first aid" to such cases before medical aid can be had, such simple rules as opening the shirt collar, placing the body in a favorable position, and especially avoiding rough handling, clubbing the feet, cold water affusions, etc., before a correct diagnosis be made. The various cerebral-sedatives produce symptoms analogous to alcoholic intoxication — opium has already been referred to. But we desire to call particular attention to that condition which results from the long-continued exhibition of the bromides and is known as bromism.

Bartholow describes it as follows: "Various mental symptoms are in some subjects produced by the long-continued use of the bromides. Weakness of mind, without perversion of intellection, is a very constant result of the continued use of large doses — headache, confusion of mind, *and a sort of intoxication*, had long ago been observed to follow the use of bromide of potassium in even moderate doses (Puche).

"A form of mental derangement with hallucinations of a melancholic character has been observed by Hammond and

others." Indeed, so profound is the mental depression produced that suicide has not been an uncommon sequence of this condition. "The disorders of voluntary gait, the apparent defects of co-ordination, are variously explained; but they are doubtless made of several factors of which the cutaneous anæsthesia is the most influential. The bromides possess the power to destroy or impair the irritability of the motor and sensory nerves, and the contractility of muscle, and to these effects must be attributed in part the disorders of voluntary movement." Here we have a condition very much resembling alcoholic intoxication — confusion of mind, loss of memory, partial loss of co-ordination, a stumbling, uncertain gait — cutaneous anaesthesia.

Hammond of New York reports a case in which a patient of his while under the full action of the bromides, was arrested because of his staggering gait and his mental confusion and inability to give an account of himself. This patient was taken to the station house and the justice was about to impose the usual fine of "ten dollars or ten days," when Dr. Hammond appeared, interceded for the prisoner, explained the cause of his apparent intoxication, and secured his release.

A physician related to me his personal experiences while under full dosage of bromides — his memory seemed to fail him, almost completely; he made a professional call and remained in the house two hours, when, as it was an ordinary call, ten or fifteen minutes would have been sufficient. He afterwards said the patient regarded him as intoxicated; he also told me that he endeavored to read an article to a medical friend, and was told that he repeated the reading of it several times, not conscious of the fact he had previously read it.

Those who are at all familiar with intoxication from the bromides will at once see the similarity between that form of intoxication and intoxication from alcohol.

In addition to the statements of so prominent an observer as Dr. Jackson, and the article of Dr. Morris, to which

we have already referred, we will give the testimony of two prominent observers—Dr. Norman Kerr of London, England, and Dr. A. Baer of Berlin, Germany, who, in reply to a request for information as to the method of dealing with the class of cases under consideration, courteously answered in the following communications :

The London Police and their Procedure with Persons found "Dead Drunk" on the Streets. By Norman Kerr, M.D., F.R.S., London, Eng.

Strict injunctions are given to the metropolitan police force, and to the police force of Britain generally, to exercise the greatest caution in differentiating between drunkenness and illness in cases of individuals arrested for presumed drunkenness.

In an address to police constables on their duties, on the 5th of June, 1882, one of Her Majesty's judges, Sir Henry Hawkins, inculcated on his hearers the necessity to be very careful to distinguish between cases of illness and drunkenness, as many serious errors had been committed for want of care in this respect. Yet the heading, "Drunk or Dying," appears every now and again in English newspapers. No later than the 26th of March, 1894, the London *Daily Telegraph* reports the case of a girl of 15 years of age who was brought up before a police magistrate on a charge of having been found drunk on Sunday afternoon on the streets. The evidence showed that a serious mistake had indeed been made, the girl belonging to a "Band of Hope." She had just left Sunday-school, and fallen down in an epileptic fit, having been subject to such attacks for some years. The wrongly accused girl was discharged. In this case there ought not to have been so much difficulty in the diagnosis as in the case of a man with apoplexy, or with fracture of the skull. If the case was rightly reported by the *Daily Telegraph*, the police instructions do not appear to have been properly carried out. Colonel Howard Vincent, Q.C., M.P., in his "Police

Code for the British Empire" (1889), says: "Persons found on the streets in fits should be carefully taken to the nearest hospital or registered medical practitioner." I have seen several such cases at the request of the constable, and have immediately, when in doubt as to the diagnosis, advised the convulsed person to be taken to the nearest hospital or infirmary, which has been acted on by the constable, who was armed with my visiting card, on which was indicated the doubt and a request for admission as an urgent case.

Regarding persons found insensible, Colonel Howard Vincent, who was a high police functionary, says: "Insensibility is the suspension of the functions of animal life, except those of respiration and circulation. Insensibility is liable to be mistaken for drunkenness, and it must be remembered that the conditions may be complicated with each other and with the effects of drink, and that no single sign can be relied upon in forming a conclusion on the condition of the patient. When a person is found insensible, the following points must be observed:

"*a.* The position of the body and its surroundings.

"*b.* The cause of insensibility. Place the body on the back, with the head inclined to one side, the arms by the side, and extend the legs; examine the head and body, pass the fingers gently over the surface, search for wounds, bruises, swellings, or depressions; ascertain the state of the respiration, whether easy or difficult, the presence or absence of stiffness, and the odor of the breath."

In the same volume in which Mr. *Monro*, Q.C., late Chief Commissioner of Police in London, in his preface, says that "this code has been in use among the police force for several years," we are told that "persons are frequently found insensible on the streets in reality suffering from apoplexy or other natural causes, the symptoms of which give the sufferer very much the appearance of persons under the influence of drink." Such cases will require great caution, especially if there is no smell of drink. "The police should be especially careful not to assume that a person is drunk,

save on sufficient and incontestable grounds; for illness or the excitement of being taken into custody may at first contribute to such conclusion. In all such cases the first thing to do is to try to rouse the drunkard by gently shaking him. If that fails, the neckcloth and collar should be loosened and the head raised a little, by which means breathing is made easier." It is also laid down that care is to be taken in conveying the apparently drunk and insensible to the station, and placing them in a proper cell. The practice of a constable, when a man is found drunk on the streets, is to take him to the police station, and in presence of an inspector apply certain tests. If the tests indicate suspicion of disease, the divisional surgeon is sent for by the inspector, and, at his discretion, sends the individual to either the infirmary or a hospital.

Though a part of the above "code of instructions" and procedure seems proper enough, there can be little doubt that, probably from a levity begotten partly of the frequency of mere drunkenness, and partly of unacquaintance with the disease phenomena present in intoxication, the presence of drinking, as evidenced by the alcoholic odor of the breath, frequently so absorbs the attention as to throw the possibility of disease into the background.

A striking case recurs to my mind. A gentleman, aged 55, was found staggering and apparently mumbling incoherently on the street. He had been suddenly attacked by paralysis, and attempted to utter the word "Home," with his address, but could not. The constable thought he was drunk, which irritated the sufferer, who was quite conscious, happily. He saw a friend passing, and held out his hand. His friend, knowing his complete sobriety, recognized the gravity of the case, and took the stricken gentleman home. Curious to say, speech was regained on reaching his house, but the symptoms proved to be the initiation of general paralysis, which was fatal in eighteen months thereafter.

I have known a teetotaler treated, and very naturally so from the symptoms, as drunk, while insensible in an apoplec-

tic fit and suffering from a fractured skull. Nor is such an error in diagnosis confined to constables. But a short time ago a man was charged with drunkenness who had been examined and certified as "drunk" by a surgeon who had been called to the station by the inspector in charge.

The practice in London is to *put no drunkard in a cold cell*, and the instructions are *to visit a drunken man in his cell every half hour*.

A similar mistake as that related has again and again been made by *hospital surgeons*, and *apparently drunken cases have been refused admittance which afterwards ended fatally*, simply because only intoxication was seen, and hospitals could not have accommodation for the immense number of cases of drunken coma or insensibility. If there is a vacant bed, of course grave cases are never knowingly refused.

In view of the difficulty of the diagnosis between simple uncomplicated alcoholic coma and injuries or other serious lesions, I have long come to the conclusion that all cases of alcoholic coma, whether apparently complicated with disease or not, should at once be taken to special wards, either in the police station or hospital or infirmaries, or some other receiving house or home. In my opinion, the fact of being found "dead drunk" should be sufficient warrant for a constable to take such procedure on his own responsibility, if the services of a surgeon cannot at once be procured. If taken to hospital, the public purse should be at the cost of such ward provision, duly appointed and kept at a temperature not below blood heat.

There would be considerable expense incurred, but an imperative duty owed by the State to every person, from whatever cause found either unconscious or uncontrollable on the public way—a duty now very imperfectly paid in Britain—would be honorably fulfilled. I verily believe that not a few innocent lives would be saved, and that such a provision for the helpless and incapacitated would prove a true economy in the end.

Rules that govern the Berlin police in the case of persons found unconscious, etc., upon the streets. By Dr. A. Baer, Berlin, Germany.

“Every person found in coma or unconscious on the street, shall be brought immediately to a public hospital, in the first cab or carriage (*droschke*), or, if delay is possible, in a proper vehicle for the transportation of diseases. The policeman who finds a person in such condition shall transport said person on his own responsibility, without special order from his superior. In all cases, it makes no difference in the disposal of the case whether the coma be due to a cerebral lesion, an apoplexy, or simple drunkenness.

II. Every person who is found hurt or on the street in a helpless state shall be brought by the policeman (*a*) to his own house if he has one or (*b*) to a hospital if he has no lodging. In all these cases the policeman has to enquire the matter of fact and announce it to his superior police court.

III. If a person is found drunk he shall be brought to his own house, even if he is also unconscious, if the house or domicile is known or can be ascertained. The drunken person must be brought to the hospital if he is unconscious or comatose, and if his lodging is unknown.

A drunken person who is disorderly or scandalous is to be brought to the police station, and shall remain until the state of drunkenness has ceased. The name of this person is registered and then the person (having gotten over his intoxication) is given his freedom. If this person has done some wrong or has injured other persons, the fact must be announced to the police court and the person is thereupon transported to the police prison.

IV. All drunken persons brought to the police not quite unconscious, but in a helpless state, shall remain in the police room (station), which must be warmed, and a policeman shall see at short periods if the drunken person sleeps or what else he does. If there is a sign of dangerous illness a physician of the neighborhood is sent for, and if the condition is serious and the case urgent the patient is taken to

the hospital, the case is registered and announced to the superior police court."

Drunkeness, without some injurious behavior, is not punishable in Germany, as with us, subject to fine and imprisonment.

The Parisian system is most complete and satisfactory, and has been in operation many years. The description of it I take from the preface of the English translation of Dr. V. Magnan's work on "Alcoholism," translated by W. S. Greenfield, M.D., M.R.C.P., and published by Lewis of London, 1876. He writes :

"The Bureau d'Admission of the Department of the Seine at St. Anne Asylum in Paris of which Dr. Magnan is one of the two physicians, is an institution to which no exact parallel exists in England (we may add, or elsewhere). To it are brought all the cases of insanity previous to their admission to the various public asylums, and all cases of acute delirium and mania which fall under the care of the *police of Paris*. It is here that they are examined and their admission or rejection decided upon ; if admitted they are drafted to the one or other of the asylums which is the most suited to the class of the patient or the form of his malady.

"The Bureau d'Admission is quite distinct from the St. Anne Asylum itself, and under altogether different administration. In order to provide accommodation for the temporary lodgment of patients on their way to other asylums and also for the reception of the more acute cases, it is provided with about 50 beds, and is fitted up in every way as a small asylum. Here there are brought all the cases of delirium tremens and simple alcoholic delirium which fall *under the notice of the police*, and a large number from the lower and middle classes of society, and here they are treated until their recovery. Cases too, of fever with delirium are not infrequent, and it need scarcely be said that acute delirious mania is also often seen. Hence it comes to pass that a very large proportion of all the cases of delirium tremens occurring in Paris and its vicinity come under observation here. . .

There is also an out-patient department to which not

only cases of mental derangement but all forms of nervous disorder, especially epilepsy, are gratuitously admitted, etc.

The Parisian system is such that all cases of mental derangements, all cases of coma, all doubtful cases, which cannot be disposed of in any other way, such as taken to their homes or special hospitals, all such cases found by the police on the streets, in boarding houses, or in public resorts, are brought to a central bureau, to which is attached a hospital, a reception hospital, where they may remain until further disposed of. This system has the advantage that the case is promptly removed, and is without delay brought under the observation of competent medical men, and is at once placed under proper treatment, or assigned to such an institution as is suited to the class and nature of the disease of the patient. There is no unnecessary delay, no lack of prompt treatment, and the dangers of a "mistaken diagnosis," which is the opprobrium of medicine and surgery, are greatly lessened, if indeed it occur at all, because those who sit in judgment upon these cases are physicians of experience, and experts in their specialties, and have opportunities and a sufficient period of time to properly diagnose and treat the cases brought to them. There is no urgency because the case is a doubtful one, and therefore no occasion for a hasty diagnosis.

In glancing over the English, German, and French methods of dealing with the cases under consideration it will be noted that there are some points in common; while the police of each nationality endeavor to secure medical aid for the person, the French by aid of the central hospital system invariably seem to secure that aid in the promptest and most direct manner.

The Parisian method does not describe the conveyance of such persons, by what method, public or private. The German method refers to the privilege of hailing a passing cab or carriage, and thus getting its conveyance from a private source, a "disease wagon," or one conveying sick persons is spoken of.

Dr. Kerr informs me that in London they do not have any conveyance similar to our "ambulance system." Cer-

tainly it would seem the large European cities ought to have all the advantages derived from the telephone, the telegraph, and the "ambulance service," as we have it in all our large American cities, at least in New York and Brooklyn. Let me recommend to our transatlantic brethren the "ambulance service," susceptible of improvement, no doubt, and yet indispensable when promptness not only, but comfort to the injured are both combined.

We believe, with the best features of the English, German, and French methods, incorporated with our American ambulance service, the best results could be obtained in caring for those who are taken sick, unconscious, or insane on the streets of our cities.

It may be of interest to give a brief statement of the ambulance service of the city of Brooklyn for the year 1893:

During the year 1893 there were arrested for various specified offences, 33,748; of this number 23,307 were intoxicated when arrested. The total "ambulance calls" were 8,705, of these 399 were specified as "alcoholism." 5,264 "ambulance calls" were by the police, the balance by citizens or institutions, etc. It will be noticed that the ratio of the "ambulance calls" for cases of "alcoholism" in comparison with other causes were about one in twenty-one or twenty-two.

The disposition of the cases of "alcoholism" was as follows:

	Hospital.	Precincts.	Home.	Not removed.	No record.
L. I. City Hospital, . . .	11	..	..	..	..
Homeopathic " . . .	30	12	24	198	20
Charity " . . .	6	..	..	..	..
Norwegian " . . .	7	..	..	..	..
East District " . . .	19	..	..	..	..
St. Catharine's " . . .	27	..	..	..	..
St. Mary's " . . .	14	..	..	..	..
City " . . .	18	..	..	..	..
Meth. Epis'pal " . . .	13	..	..	..	..
Total,	145	12	24	198	20

Total cases, 399.

It will be observed that exclusive of those taken to hospitals, or precincts, or taken home, a large percentage were "not removed," that is, were considered ineligible cases for hospital treatment, so that if we include the 12 precinct cases, 210 persons of the 399 for whom the ambulance was called did not receive hospital treatment; of the balance 24 were taken home and as to the disposition of 20 there was no record.

A more detailed record of the cases of "alcoholism"—from the time the ambulance was "called" until the final disposition of the cases, would render this department of the "ambulance service" more effective, and by a more accurate system of recording this class of cases be the means of preventing the errors to which the present method is liable, being also, from a statistical point of view, of value as the city increases in population. This branch of the "ambulance service" will increase also, and to be effective must be thoroughly systematized, and the average so-called "drunk" be carefully examined by a competent medical officer and given, at least, the advantages that the "ambulance service" extends to the generality of the diseases and injuries.

We believe, that by selecting and combining the best features of the English, German, and French methods, the police and medical authorities can secure a more perfect method of caring for the class of cases under consideration; we might almost add a perfect method, if we consider the advantage that the "ambulance system" gives us, in handling these cases with celerity and dispatch.

With a view to enquire into, and if possible to remedy, the present method of dealing with persons who are found upon the streets by the police, said persons being in a condition of complete or partial coma, or a state of mental aberration from disease, injury, alcohol, or other narcotic drugs, a committee was appointed by the president of the "Kings County Medical Society," Feb. 20, 1894, on motion of Dr. J. H. Raymond. The committee submitted, May 28, 1894, the following report and recommendations to the society:

BROOKLYN, May 28, 1894.

Mr. President, and Members of the Medical Society of the County of Kings:

GENTLEMEN:— Your committee, appointed February 20th, to report "what means have been provided in the city of Brooklyn for the immediate care of persons found unconscious in the streets" would respectfully present the following preliminary report.

In the brief time which has elapsed since they were appointed, they have had only time to make a superficial examination of the subject, but they feel that they have already ascertained enough to warrant them in making this preliminary report, and also in suggesting some recommendations, which are based on facts which have come to their knowledge.

They are not prepared to give specific instances which have occurred in this city, yet from their knowledge of the system in vogue and from the experience of cities where the conditions are not very dissimilar, they are satisfied that in Brooklyn there can be an improvement in the methods of managing such cases.

Perhaps in no better way can these defects be shown than by narrating concisely some instances which have come to the knowledge of your committee, and as it is not their intention or desire to criticise individuals, but systems, the places in which the events occurred will be omitted.

CASE I. Man found unconscious in the area-way of a dwelling. Taken by police to station-house. Ambulance surgeon summoned. After examination, during which the smell of liquor was recognized in the breath, the diagnosis of "drunk" was made, and man left lying on the floor of the station-house. Later, a more experienced physician by chance came to the station-house and examined the man. He advised that the man be sent to the hospital, stating that it was impossible for any one to tell whether he was suffering from alcoholic coma or from a fracture of the skull. His suggestion

was carried out, and the next day the man died, and the autopsy revealed an extensive fracture of the skull at the base.

CASE 2. Man found unconscious in the street. A well-wisher, who found him, rushed immediately to the nearest drug-store and obtained a glass of whisky, which he gave him. Ambulance surgeon was summoned and pronounced the man "drunk" and refused to take him to a hospital. The man subsequently died, and the autopsy showed a fracture of the skull, and the man's history was ascertained to be that of a perfectly temperate man.

CASE 3. Man, aged 55, suffering from incipient general paralysis, was arrested for intoxication.

CASE 4. Girl, aged 15, attacked with epileptic coma, was arrested for intoxication.

CASE 5. Fracture with cerebral laceration treated for alcoholism.

CASE 6. Uraemic coma mistaken for alcoholism.

CASE 7. Man found unconscious, taken to hospital, where he was refused admittance on the ground that he was only a "drunk." Was taken to the station-house, where he died. Autopsy revealed a fracture of the skull.

CASE 8. Man seen by a policeman to be reeling in the street. Was arrested on the charge of intoxication and locked up over night in a station-house. He was able to send word to his physician, a most eminent practitioner, who had great difficulty in convincing the police justice, before whom the man was brought, that his patient never drank, and that what the policeman took for evidence of drunkenness was the result of poisoning from bromides.

The following extract from the Journal of the American Medical Association is so much to the point that we venture to quote it:

The death of John Markey a few days ago in Chicago from a fractured skull, he having been run into by a street-car and booked for drunkenness by the police, is another evidence of the stupidity of the average policeman, and the

careless disregard for life that obtains in this country among police officers. An inquest was held. 'The intelligent coroner's jury heard the testimony of the intelligent officers, and rendered the intelligent verdict that the death was the result of acute alcoholism.' His wife was not satisfied, as she knew her husband was not a drinking man, and she induced the coroner to have a post-mortem made, when it was found that his skull was fractured. A second inquest was held, which resulted in a verdict in accordance with the facts.

"A man is found in the streets unconscious, no matter whether it is due to apoplexy, fracture of the skull, or any lesion of the brain; he is thrust into a cell to sleep off his supposed drunk (often to be found dead in the morning) or for the same reason not received at a hospital, when if he had been properly cared for his life might have been saved. In some cases, no doubt, there may have been evidence that the party had been drinking, and probably had received his injury while intoxicated, but this is no reason why he should be neglected. The police should be instructed, so that at least when in doubt a medical man be called to see the case. The judgment, "dead drunk," is too often literally true. Instances of this character have often occurred, and within the last six months twelve cases have been noted in different cities, and it is high time that something should be done to stop it. Unfortunately, the police are not alone in this disregard of life, as two months ago two ambulance surgeons of New York committed the same mistake, we might almost say the same crime."

These instances are but samples, and they might be greatly multiplied; they undoubtedly indicate a deficiency in the public service in most cities, which, in the name of humanity, demands a remedy.

The frequent occurrence of mistaken diagnosis makes it necessary that more earnest attention be paid to this subject than has hitherto been paid. The differential diagnosis between alcohol coma and cerebral conditions simulating it is

not easy, indeed, is sometimes impossible. Fracture of the skull, concussion of the brain, cerebral hemorrhage, embolism, thrombosis, uraemia, epileptic coma, narcotic poisoning, and heat apoplexy have all been mistaken for alcoholic coma. This is especially the case when an alcoholic condition has accompanied the other condition. Such mistakes have been made by well-informed medical men, and it is therefore not surprising that a policeman or a recent graduate of medicine, acting as an ambulance surgeon, should likewise err in diagnosis.

Your committee do not at this time feel prepared to make a final report on the matter intrusted to them, but do, nevertheless, feel justified in offering the following recommendations, asking that they may be continued as a committee until such time as they are prepared to make a final report.

Recommendations. First:—That while they believe that the system which exists in Paris is, perhaps, the most perfect, by which all persons found unconscious in the streets are taken to a special hospital where they have the most enlightened treatment possible, still it is a question with them whether the distances are not so great as to make such a system impracticable in Brooklyn. They prefer, therefore, to keep this question under advisement for a longer time.

Second. That all persons found upon the street in an unconscious or semi-unconscious condition, or wandering about in a state of mental aberration, shall be removed to their homes, or if they have no homes or their residence cannot be ascertained, then to the nearest hospital, and a visiting physician or surgeon shall be at once summoned.

Third. That alcoholism or suspected alcoholism should not exclude such persons from the benefit of proper medical treatment, inasmuch as simple cases of alcoholic coma, partial or complete, are serious and demand treatment, and again, alcoholism often obscures and is associated with serious cerebral lesions. In any event, therefore, such cases should have proper medical treatment.

Fourth. If for any reason such cases cannot be taken

either to their homes or to the hospital, and must be taken to a station-house, they should be placed in rooms properly warmed, and a physician should be summoned to examine them. If they remain in the station-houses, they should be visited every half hour by the watchman, and if any alarming symptoms supervene, a physician should be immediately sent for. The practice of locking in a cell for hours without inspection a person unconscious from alcohol, whether the same is complicated with injury or not, is inhuman.

Fifth. In case of doubt, as between the police and the ambulance surgeon, a police surgeon should be summoned, and the disposition of the case should be determined by him.

Signed by the committee.

J. H. RAYMOND, M.D., *Chairman,*

J. C. SHAW, M.D.,

L. D. MASON, M.D., *Secretary.*

Those who are interested in the work of the Committee and desire to communicate with them on the subject, can do so by addressing the secretary,

DR. L. D. MASON, 171 Joralemon Street, Brooklyn, N. Y.

WHAT THE BRITISHERS ARE DRINKING NOWADAYS.

It appears from Sir W. Harcourt's statement in his budget speech that while less coffee and cocoa, strong wines and spirits were drunk last year than usual, there was more than a corresponding increase in the consumption of tea, light and sparkling wines, and beer. Tea shows an increase of 6,000,000 pounds, and is clearly ousting coffee even as a breakfast beverage. Between 1876 and 1893 the consumption of strong wines, like port and sherry, has gone down from 11,000,000 gallons to 4,700,000—a very remarkable decline, which has to be set against an increase of 1,900,000 gallons of light and sparkling wine, as well as against the increase in tea and beer. The latter shows a record consumption last year.

A STUDY OF THE ILL EFFECTS OF TOBACCO
ON THE THROAT AND NOSE.*

BY WILLIAM T. CATHELL, M.D., BALTIMORE, MD.

Mr. President and Gentlemen :— Early in my professional career I attended Mr. McG., a stout, middle-aged man, who died from the abuse of tobacco in smoking and chewing. The history of this terrible case was briefly as follows: He was a brass-finisher by trade, and purposely taught himself to use tobacco, under the belief that it was a prophylactic against the harmful vapors unavoidably inhaled in that occupation. From the moderate use of tobacco he gradually drifted into the slavish habit of chewing and smoking strong plug tobacco, all the time, except for a period of about four minutes taken for breakfast, five and a quarter minutes for dinner, and three and a third for supper, even sitting up in bed several times every night either to chew, or to whiff his favorite short-stem clay pipe.

The result was that in the course of time a warty-looking ~~pimple~~ or growth formed under the tongue, just posterior to the sublingual glands, which gradually enlarged, ulcerated, and formed a deep sulcus at the root of the tongue, which ~~mass~~ gradually enlarged and become more and more malignant, until every fibre and every papilla of the tongue became diseased and enlarged to such a degree that the horrid swollen mass protruded from the mouth, with its tip and anterior third fissured and angry.

The gums became red, scurvied, and unusually separated from the teeth, many of which loosened and fell out; his breath was loaded with fetor, the lumen of the throat was encroached upon, deglutition became more and more difficult

*Read at the 93d semi-annual meeting of The Medical and Chirurgical Faculty of Maryland, held at Annapolis, Md., Wednesday, November 22, 1893.

and was finally impossible, which caused a constant dripping of saliva, resembling ptyalism. The glands of the neck, both anterior and post-cervical, on both sides, next became infiltrated and enlarged, but luckily did not ulcerate; after he could not swallow, his adipose tissue was completely absorbed, his muscles all wasted, and he became fearfully emaciated, with complexion bronzed, eyes sunk, and entire countenance hideously distorted; his blood was no longer fully oxygenated, his breathing became asthmatic, and, added to all else, he could speak with only a pitiful, tongueless, inarticulate sound, and finally, after protracted, unappeasable torture, death came to his relief, October 11, 1886, in his fifty-fourth year.

Microscopic examination of a section of the sublingual mass revealed the fibrous stroma and the characteristic alveolar structure and the epithelial cells of cancer.

His death certificate should have been *Tabaci felo de se*, effected by impregnating the glands of the tongue, mouth, and throat by an almost continuous application of the juice and smoke of King James's "baneful weed."

Encountering this case so soon after the sad death of General Grant in July, 1885, directed my attention, early in practice, to the harm that may flow from the abuse of tobacco; and since adopting a specialty that brings me into constant contact with the throats and noses of smokers and chewers, of every age and physical condition, I have continued in this enlarged field to note its effects on these parts, and while I would fain be neither a bigot nor a partizan in any tobacco controversy, I shall in this paper attempt to sum up the results of my study and experience.

Smoking and chewing, like malaria, alcohol, coffee, tight-lacing, late hours, high-heeled French shoes, and other debatable agents, do not affect all alike, and some devotees suffer so little from its use and, within certain limits, even from its abuse, as to be practically exempt from harm.

I know a man whose pipe is seldom out of his mouth except when he is eating or sleeping; and another, who lights

one cigar by the stump of another all day except when he is eating, who, when he is where he cannot smoke, is chewing, and habitually sleeps with a quid in his mouth, without any appreciable injury; and each of you know robust and healthy lovers of the weed, leading active outdoor lives, who can smoke and chew any and every kind of tobacco, good or bad, with apparent impunity.

But, notwithstanding such exceptions, I am fully convinced that, as a rule, the majority of all who chew constantly, or smoke more than two or three cigars or pipefuls of tobacco a day, venture on dangerous ground.

For this reason I would divide the patrons of tobacco into three classes: 1st, those strong and healthy people who can use it, and, within certain limits, abuse it too, without injury; 2d, those who can use it in moderation, with little or no discernible injury, but suffer if they abuse it, and 3d, those to whom tobacco is toxic, who must suffer if they attempt to use it in any way at all.

The last two cases fall within the scope of this paper, and I have seen so many diseased conditions of the upper air passages created or made worse by it, that I have little hesitation in attributing the existence of a considerable proportion of important throat and nasal diseases that increase, and remain obstinate, to the use of tobacco by these two classes.

We all know that nicotine and the dark-brown empyreumatic oil produced in burning, are tobacco's two most harmful ingredients, and that to this oil is due the stale, pathognomonic smell of the old pipe and of the stale stump.

Nicotine is present in about 2 per cent. in the mildest Havana tobacco, and ranges up to about 7 per cent. in the strongest Virginia.

Notwithstanding the fact that the properties of tobacco, chemical and physical, differ in chewing and smoking, and also with the variety — and in smoking, also with the method — yet the pathological action of tobacco on the upper air passages is somewhat the same no matter in what form its

ingredients are brought in contact with them ; but, as a general rule, smoking is worst, because tobacco, burning either in cigar, cigarette, or pipe, not only imparts everything natural to tobacco, but also adds the oil and other products of combustion, and discharges them hot into the mouth and upper air-passages ; and the harder the burning weed is drawn in, the more deeply these go, and thus the hot smoke, impregnated with nicotine and the oil, comes in contact with every part of the throat and nose.

The smoker takes in less of the nicotine but more of the oil, etc. ; the chewer little or no oil, but more of the nicotine ; but both chewing and smoking involve spitting, or swallowing the saliva, and both impregnate all the fluids that come into contact with the mucous linings with tobacco. On the whole, however, I have seen chewing seriously affect as many persons as smoking, but were the mass of smokers to indulge that habit as constantly as the mass of chewers do, its ill-effects on the smokers' air-passages would be much more frequently seen, and we would much oftener find the mucous membranes of the patrons of the cigar, cigarette, and pipe in a thoroughly diseased condition, because these not only keep large quantities of the harmful constituents in continuous contact with the delicate mucous linings of the parts, but also because inferior grades of strong tobacco may be, and are, used in preparing smoking tobacco ; and the burning of certain salts of potassium existing in it, and the heavy, heated smoke, are all added to its own irritating power.

In chewing, one escapes the empyreumatic oil produced in burning, which would always be terribly toxic to the mouth and upper air-passages were it not for the fact that while smoking there is an abnormal secretion continually taking place from the relaxed mucous membranes, which, although it makes a good vehicle for conveying the nicotine, yet prevents more than a fraction of it from being absorbed by these membranes, the balance being either expectorated or swallowed ; and we all know that spitting

is a waste and swallowing these tobacco-tinctured secretions, either to prevent this waste of saliva, or because there is no convenient place to spit, is very harmful to the whole economy.

Of course, the one who both smokes and chews risks all the dangers that tobacco can present.

Whether the pipe, cigar, or cigarette instils most oil and nicotine, and which is safest to smoke, are also questions of importance. Short pipes and thick dumpy cigars are most apt to induce cancer, etc., and no habitual smoker should smoke his cigar down to the very end, but should throw the last third away, as analysis has shown that the arrested nicotine, nicotianin, and empyreumatic oil are there, all thickly accumulated. Using pipes with long stems, and smoking all cigars and cigarettes through smokers, enables the wise to escape much of the poison and heat, and robs smoking of half its harmful powers; and the later in the day one smokes or chews the less it injures, and the earlier in the morning the smoke or chew is taken the more it inhibits nerve-power and nutritive activity; and further, no one should shut himself up in a small room at any time, to smoke and create around himself a cloud of nicotine, for an increased amount of poison is then condensed on the delicate mucous membrane of the whole respiratory tract, and is thence taken into the entire system.

Cigarette smoking makes a delicate person's lips and face lose their natural healthy hue quicker than any other mode of using tobacco.

Tobacco is a potent agent that certainly is capable of creating a cachexy that interferes with both growth and repair, and I find that all inflammatory affections and lesions of the throat and nose, and especially those of specific origin, are more persistent, and recover more slowly in persons suffering with what I might call tobacco scurvy; and not only the specialist, but also the general practitioner, knows how difficult it is to heal lesions, whether specific or benign, in the mouths, throats, and noses of those who either chew or

smoke excessively, or rub snuff ; and a scratch, pimple, blister or wart, or a sore lip, mouth, tongue, or throat, may be made cancerous by keeping it bathed in tobacco juice or smoke especially if the person is suffering with chronic tobacco intoxication of his system. In fact it is scarcely possible to heal a sore or ulcer in the mouth, throat, or nose of one who persists in chewing or smoking.

For the same reason, no one with decayed or broken teeth, or dental plates that rub the gums, or cut the tongue, or mouth, should either smoke or chew, for either of these may be the fatal starting-point. I have the records of five cases of epithelial cancer of the lips and tongue, four of which occurred in great smokers. Mrs. General U. S. Grant told, in 1886, that General Grant's fatal case of throat disease began by his abrading a spot in the pharynx with the rough skin of a peach he was eating, and I have but little doubt that constantly bathing this abraded surface with tobacco smoke and tobacco-laden saliva, while his blood was already drenched and saturated with tobacco poison, did its fatal work for him.

Further, tobacco certainly acts as a depressant to feeble people, and lowers their stamina ; and such persons with a cancerous diathesis, or a syphilitic taint, or a scrofulous constitution, should not use it in any form, for in all such subjects, the delicate pulpy tissue of the mouth, throat, and nose is very prone to inflammatory action, and also to ulceration from smoking or chewing, and in a large proportion of cases these degenerate into, or light up, the affection their predisposition or constitution indicates ; and, in my opinion, no one who is aware that he has inherited a weak or diseased constitution, or defective vitality, should risk reducing his stamina further, by the use of this agent ; and science, in the form of physiology and chemistry, teaches, and my experience confirms, that if such a one uses tobacco while growing and maturing, he will not only have a weaker body and a weaker brain, but he will also be much more liable to catarrhal ailments of the upper air-passages ; and I am quite

sure that all throat and nose specialists will agree that tobacco has a softening and relaxing influence on the mucous membranes of the mouth, throat, and nose, in many who attempt its use, and induces catarrhal and other affections, and that it is unwise for certain varieties of defective people to risk its bad effects.

Neither can persons suffering with any form of neurasthenia smoke or chew without injury, and yet these are the very persons who oftenest have the *FURORE TABACI*; some smoking innumerable cigarettes, or lighting one cigar after another until they smoke six, eight, or a dozen a day.

Smoking also creates in some persons a persistent hacking cough, due to tenacious mucus that accumulates in the pharynx and larynx, dependent on a morbid, infiltrated condition of the tissues of the palate and throat, which often degenerates into a condition that closely resembles clergyman's sore-throat, or into diseased throat and post-nasal catarrh combined. I make an emphatic interdiction of tobacco in all such cases.

I am also convinced that in some people there exists a close sympathy between the olfactory and the nerves of the mouth, and that in some the frontal sinuses are also invaded after tobacco excesses, as gravedo and frontal headache often attest.

Besides the classes I have spoken of, whoever else finds that tobacco is injuring him should stop its use; but unfortunately, many of those it is affecting never realize that it is doing them any harm, attributing all their ailments to other causes.

When tobacco induces a sense of tumefaction, heat, and bricking in the throat it should be let alone, and those whom it occasionally makes sick, and persons with a poor appetite, and those recovering from wasting sickness, are among the ones it injures most.

The habit of swallowing tobacco-smoke and then expelling it through the nose, and also of coughing it into the lungs, are both very injurious, as they irritate and dry the

mucous membrane of the pharynx, larynx, and trachea, and subject them to the various tobacco affections. Blowing it through the nose is also harmful, as it is a fruitful cause of the hypertrophic thickening of its mucous membrane so often discovered in smokers, and the sense of smell is also greatly impaired by smoke-blowing.

I would not be understood to say that tobacco induces these affections only, but it is chiefly with them that I come in contact.

With feminine smokers and chewers I have had no experience, and with snuff-pinchers and snuff-rubbers but little; but I have encountered two cases of nasal polypi in females due to the use of snuff, which is less astonishing when we remember that all tobacco dust has a notoriously irritating affinity for the Schneiderian mucous membrane.

There is in my mind a strong suspicion that the high degree of injury that follows cigarette smoking is not due solely to the tobacco they contain, but is also due in part to its union with the so-called rice-paper wrappers in combustion; and I would here emphasize that in all smoking, and in chewing too, much depends on the quality of the tobacco.

I can usually distinguish the oral cavity of the person who carries smoking to excess by the dusky red, velvety, or hyperæmic appearance of the lining of the mouth, throat, and nose, and by the throat becoming irritable and hoarse upon every extra effort in speaking and singing.

Tobacco cautiously used is certainly a charming pleasure in ripe manhood, and a solace in old age, and is rather beneficial than otherwise to thousands of healthy but careworn and toilworn people, and also to tens of thousands of soldiers, sailors, and other idle people, on whose hands time hangs heavily; and were one to ask me how to get the good out of it without risking the bad, I should advise him, among other things, to avoid smoking another's pipe, for fear of contracting disease,—the largest indurated specific sore I ever saw was on a colored man's lower lip, contracted from another's

pipe; also, never to even smoke his own after it had become blackened and oil-soaked, and also never to light a stale stump, or habitually smoke a short stem pipe.

A cigar-smoker or a cigarette-holder, or a new or freshly burned clay pipe, in point of safety and cleanliness, is far superior to putting mouth-to-weed in smoking, and one's whole mouth and throat should be thoroughly cleansed with water after every smoke.

Neither striplings with unformed constitutions, nor weakly growing youths, should venture to either smoke or chew, because in youth the vital centers are all unripe and delicate, and the mucous membranes are then marvelously hypersensitive to the effects of smoking and chewing; and if a growing boy's, or an undeveloped puny youth's, mucous membranes absorb either nicotine or the empyreumatic oil of tobacco, it poisons his springs of life, and stunts his development mentally, morally, and physically; and if he expectorates these poisons, then the loss of saliva lessens the growth and repair of his delicate and easily injured vital centers, and I am positive I have seen more than one unripe devotee stunted in body and mind; and I could at this moment name half a dozen young men and boys who are injuring their throats and noses with cigarettes, who will later in life have granular or follicular pharyngitis, somewhat akin to clergyman's sore-throat, with an annoying discharge of mucus from the posterior nares into the throat, with relaxed flapping uvula, which may hang on for years, and neither get well nor kill, but be an annoyance to himself and to every one around. I know a feeble, narrow-shouldered young man, who is at this moment cigaretting himself to either the invalid's couch or the grave, through his delicate mucous membranes; and we, as hygienists, can do the weakly ones of the rising generation no greater service than to point out tobacco's injurious effects on their throats, upper air-passages, etc. I have observed but few youths whose sensitive mucous linings could endure tobacco's toxic influence without showing symptoms of weakness, morbidity, and disease;

and were I to recast our pharmacopœia, I would not only call hyoscyamus hensbane, aconitum wolfsbane, and arsenic ratsbane, but would be strongly tempted to give tobacco the synonym of youthsbane.

If any one considers this indictment overdrawn, let him stand at Broadway and Baltimore Street, or at Charles and Preston, or at any other spot where he can see a constant stream of passing men, boys, and youths, and carefully scan all the immature and sickly devotees who pass with cigar, pipe, cigarette, or quid in mouth, and he will soon detect written on many of their faces and figures the unmistakable signs of tobacco cachexy, some with pale, sharp, wizened visage, round shoulders, shuffling walk, and anxious, nervous, tell-tale addresses; others with complexions stained an ugly green or a dirty yellow or a dusky bronze color, as if their blood were turned to a greenish or yellowish fluid, instead of the natural red.

The mouth, throat, and nose of a healthy person have a clean, smooth, pale, pinkish, or lilac hue. Examine these tobacco mouths, throats, and noses, and you will find every part unclean and ugly; probably a mouthful of saliva, as offensive as a bar-room spit-box, that must be either expectorated or swallowed before you can begin to examine; tongue furred, teeth incrustated with a dirty, scurvy-like, greenish deposit; the buccal surface of the cheeks either in a state of active or sluggish congestion; gums, palatine arches, velum palati, pharynx, epiglottis, larynx, Schneiderian membrane, and all the other soft tissues turgid and injected, or velvety, granular, purple with hyperæmia, and streaked with mucus, instead of being a clean, natural red.

You will find, however, in this flaccid throng, that all have one set of muscles that are firm and strongly developed — *i. e.*, the muscles of the mouth and lips — made so by the local exercise of grasping the cigar, pipe, or cigarette with jaws, lips, and teeth, together with the constant gymnastic motions of chewing and spitting.

Some of this tobacco throng will present cases of ozena;

others catarrh of the throat or nasal passages, buccal inflammation, epiglottitis, relaxed and tickling uvula, chronic tonsillitis, laryngitis, trachitis, hoarseness or nasal twang in talking, due to thickening within the larynx, loss or impairment of smell, rotten breath, etc., which can easily be interpreted by the experienced; and I risk nothing in asserting that five per cent. of all constant smokers and ten per cent. of all constant chewers, and twenty-five per cent. of all who constantly do both, are affected with one or another of these affections, and not thirty per cent. of immature and sickly smokers' throats and noses will be found in a perfectly normal condition.

I do not think any one can safely use tobacco in any form in boyhood or early youth, and I am sure that smoking before the eighteenth year and chewing before the nineteenth year cut off from many a youth half his stamina, and lessen all his natural talents and attributes; and I ask you to-day, as anatomists and physiologists, to think of a frail boy; or a callow youth, who secretes and then ejects half a pint or a pint of tobacco-tinctured saliva daily, while both he and his friends are wondering why he is below par. You know and I know that it is as unnatural and harmful to him to keep his sensitive absorbents and lacteals bathed in tobacco-tinctured, tissue-altering saliva, either by smoking or chewing, as it would be for a fifteen-months-old colt to carry heavy weights on his back; and the delicately constituted youth, who learns to "chaw" because others do, or to show his rough side, or tries to blow as big a cloud of smoke as the other fellow does, is injuring himself mentally, morally, and physically; and although he may not realize it now, yet the day is not far distant when he will know it, and know it with regret.

In conclusion, I believe the majority of those who arraign tobacco, from King James in 1641 down to the cranks of to-day, draw their indictments entirely too heavy. Personally, I have little or no prejudice against the proper use of the weed, either in smoking or chewing. Nor would I dare

to say that every votary of tobacco is injured, or is on the road to ruin. Life is short, and every one should get all the rational, harmless enjoyment out of it he can; and while I am perfectly willing to agree that some can use either mild or strong, good or bad tobacco very freely, and experience no ill effects, I am also quite positive that it is highly injurious to the upper air-passages of all youths, and also to numerous adults, and that to some of these the free use of even the mildest and best tobacco is almost akin to suicide; and I think that we as physicians should counsel all growing youths to shun it entirely, and every adult with defective stamina, or a tendency towards any organic disease, or a bias for any cachexy, or an inclination towards any affection of the throat or nose, either to let it alone forever, or to determinately limit its use to a harmless quantity.

ALCOHOLISM AND INSANITY.—The part which alcohol has played in the genesis of insanity in Ireland has been brought out in bold relief in the special report, just issued, of the Inspectors of Lunatics in that country. Of the medical superintendents of the twenty-two district asylums, twenty agree that, in their experience the most prevalent cause of insanity, after heredity, was alcoholism. The proportion of cases of lunacy due to alcohol varied from 10 to 35 per cent. of the whole admissions. The reports from two asylums pointedly refer to transformed inebriate transmission. The superintendent of the Ballinasloe district says that the offspring of inebriates are liable to many neurotic diseases, and, from Killarney, that cases of epileptic mania have occurred in the children of inebriates. — *British Medical Journal*.

HARVARD COLLEGE trustees have at last decided that no rum, brandy, or claret shall be permitted at reunions of classes or college commencements. This is a great innovation, and significant of a change of public sentiment.

A CONTRIBUTION TO THE STUDY OF INEBRIETY.

BY CHARLES MCCARTHY, M.D., INEBRIATE RETREAT,
NORTHCOTE, MELBOURNE.

*Hon. Member American Association for Cure of Inebriates. Hon. Member
Council of the Society for the Study and Cure of Inebriety in England.*

As to statistics of cure, they are valueless unless based on large numbers in inebriety, where the public demand a new definition of cure, namely, its permanency. The inebriate has such a craving for stimulants or narcotics, etc., that if not under restraint, he cannot refrain from over-indulgence; the drunkard can, if he choose.

The inebriate is suffering from disease of the nervous system—he is laboring under moral insanity. There is no inebriety in a medical sense without disease of the brain, either functional or structural. The man may appear to reason well, but though his language may be sane, his conduct is insane. Generally speaking, no exhortation, no consideration (temporal or spiritual), no ruin staring him in the face, no affection for family will weigh with him; indulge he must, and will, until he becomes helpless. Consequences are nothing to him before indulgence, and everything after; then his remorse imposes on his friends, who determine to give him another trial. But, alas! the paroxysms and the scenes are repeated until he dies, or becomes insane.

To say that this state depends on vice, betrays extreme ignorance. It may have been so at first, but it is disease now.

What are the causes of inebriety? They are numerous. The most frequent cause is indulgence in alcohol acting on a constitution predisposed to nervous disease; were it not for this predisposition, the person's excessive indulgence may

terminate in lunacy or death, without his becoming an inebriate. Next to this, and nearly allied to it, but much more difficult to cure, are hereditary cases, which are very frequently periodical. This heredity may be from parents or grandparents, or from more remote sources. There is nothing strange in this. I have often called the attention of parents to the fact that the new-born babe did not resemble either of them, when I was informed that it resembled an uncle or an aunt, or more distant relative. It is quite certain that all children inherit some taint or peculiarity of their parents or relatives—some children one thing, some another. When the father and mother are both drunkards before the child's conception, there is great probability that the child's nature will be degraded, so that it may be born an idiot; or, when grown up, become imbecile, consumptive, an inebriate, a drunkard, or a criminal, the source of whose misfortune is never dreamed of. Many of this class inhabit the jails, the lunatic asylums, or end their lives on the gallows.

It is not outside this consideration to state that the neglect of early religious and moral training and education will very materially tend to insure and accelerate the degradation necessarily resulting from heredity and over-indulgence, and at the same time certainly impede, if not hinder, the cure of inebriates. I think it very improbable that an inebriate who does not believe in a future judgment, can be cured, as he has no motive strong enough to induce him to have recourse to any self-denial, which is certainly necessary as an adjuvant in effecting permanent cure. This is no contradiction of the view, that inebriety is a disease, as our lunacy doctors well know and utilize in practice.

This question of heredity as to drink, profligacy, lunacy, ignorance, indulgence, and all inherited unhealthy states and diseases, is a question of the utmost importance, and should engage the serious consideration of legislators, and of all those who wish well to posterity. This is of more importance than the interest of the liquor trade. As inebriety is a frequent cause of insanity, so may it also be a symptom

of insanity. Sunstroke, shock, grief, melancholy, remorse debilitating diseases, injury to the brain, in fact any cause that may produce insanity, may be the cause of inebriety. A sound mind requires a sound brain and healthy body; yes, and healthy ancestors, those who have marriageable sons or daughters, should not forget this. I need say no more, nor perhaps so much, to a medical audience, but others may profit by these warning remarks, which are free of all technicalities.

What is to be done about inebriety? Let the medical profession insist upon the establishment of inebriate retreats, suitable for all classes; the chief secretary said last month that if Parliament desired it, he would establish them. Let the medical profession, the only persons capable of viewing this matter in all its bearings, speak out on the subject. It has latterly been the custom here to exclude medical men from commissions on subjects which they only know anything of, and the consequence is that from want of knowledge, recommendations are made to Parliament by commissions of laymen, and members of Parliament think they ought to carry out these recommendations as if they were made by experts (see the absurd blunders and mistakes of the New Inebriates' Act passed a few days ago; it must be amended next session). I need scarcely say anything as to the medical treatment, my main dependence being on time. I give no hope of cure in less than three months in the mildest case, six months being required in the majority of cases, and twelve months, or longer, in bad cases; yet the new Act says three months must be the maximum time! but says thoughtlessly, the time may be prolonged if a wife and two medical men each make a solemn declaration, that the man that has lived in the retreat for three months is not cured!!

Again it says, that if the patient be out for a time with the superintendent's consent, he shall be punished by being kept in longer. Again it says, the patient may be detained until as hereinafter provided; that hereinafter refers to Section 10 of the old Act, which is omitted in the new.

The same ignorance appears in the Lunacy Amendment Act; more faith is placed in ignorant jurymen than in medical men. The fact is, that many members of the community who have access to the public press feel it their duty to make a greater sensation when they hear of a case of doubtful insanity being sent to the asylum, than if that same lunatic committed half a dozen murders before his arrest; but presumption is always accompanied by ignorance. I may here be permitted to state, that for many years I have been of opinion that where lunacy is pleaded in a capital case, the jury ought to be composed exclusively of medical experts. There has been a popular opinion, that women are more difficult to cure of inebriety than men. That has not been my experience; women are certainly more easily managed in a retreat than men, and I think as easily cured, if not more so, than men. For sixteen years that the retreat is open, I never had a death among my female patients, and very few among the males; only two males I think directly from drink.

There is no mystery about the treatment, and I therefore shall not detain you with it. Australian youths are decidedly more opposed to discipline than Europeans, and therefore more difficult of cure. Any opinion formed from practice outside a retreat as to the curability of men or women of any age, is of no value, from the fact that alcohol cannot be kept from them; confinement in a jail does not meet the question. My own opinion is, that men and women of any age can be cured if sufficient time be afforded. I believe that twelve months in a retreat will cure 80 per cent., six months 60 per cent., three months 30 per cent., but in a shorter time than three months, I only expect recovery, not cure. Too frequent visits, and too much correspondence, will hinder cure. Vicious patients are mostly drunkards, and require years for cure; a penitentiary is their proper place, not an inebriate retreat.

I shall now, with your permission, venture to make a few remarks that may be useful to the younger members of the

profession, in relation to drink. The first is, that if they are called to a suckling baby in convulsions, they make special enquiry as to whether the mother takes gin, especially if there be a succession of convulsions. Another is, never to recommend spirits of any kind to a nurse for the sake of the child, under the impression that it would improve her milk in quantity or quality; any nurse that cannot do without alcohol, ought not to suckle at all. Be extremely careful in prescribing spirits to patients; whatever quantity you order will be exceeded and continued longer than you intended. Women will absolutely deny to the medical man, even to their husbands, that they take alcohol to excess, or at all, but attribute their state to nervous debility. When you find a man, especially a publican, who cannot take his breakfast without alcohol, tell him he is on the straight road to inebriety. Warn the police not to put a man helplessly drunk into a cold cell; discourage the use and abuse of tobacco, as well as of alcohol, by example and advice; do these things as a conscientious and moral duty, and when so acting, fear not pecuniary consequences. The trust and confidence bestowed by patients on conscientious medical men is extraordinary, and where offense is taken against moral advice, the medical man feels that he performed a sacred duty.

THE Postmaster-General has decided that no applicant shall be appointed to the position of postmaster in a town where at any time he has sold spirits. He says, "I am convinced that any man directly or indirectly interested in the liquor business is in a measure unfitted by his occupation to fully discharge his official duties in any branch of the postal service."

A PHYSICIAN recently died in Wisconsin who was a tea inebriate. He had for years chronic indigestion from the large quantities of tea used. He was delirious and exhausted and finally died of paralysis.

PROHIBITORY LAWS.

The following extract is from a criticism of an article in the *Popular Science Monthly* for June, entitled, "Should Prohibitory Laws be Abolished?" by Dr. T. D. Crothers.

"To any one who will examine from the scientific side the various questions concerning the drink problem, and the remedies offered, many new facts and conclusions will appear. From this point of view, the accumulation of facts and their comparative accuracy is required, with indifference concerning any possible conclusions they may indicate. Wherever personal feelings and self-interest enter into such inquiry, the value and accuracy of the results are impaired. As in a law court, the question is simply one of *facts* and their *meaning*. Some of the facts may be grouped and studied!

"In a general way it may be stated that the physiological action of alcohol on the body is practically unknown. Theories of its value as a food, as a nutrient, and as a force producer, and its usefulness as a beverage, when examined are found to be unverifiable or untrue. Evidence of its value in health and in moderation rests on theory and superstition, and is not sustained by appeals to facts.

"The question of its value as a medicine is by no means settled. Men eminent in science, and fully competent to decide, express doubt, or deny its value altogether. Leading physicians and teachers of medicine prescribe less and less spirits, and the extent of its use in disease is becoming more limited every year.

"The evidence of its value as a beverage is doubtful, to say the least, while the disastrous effects of alcohol cannot be questioned, and the accumulated evidence of years brings this fact into increasing prominence.

"A historical retrospect of the legal efforts to control and restrict the use of spirits suggests an evolution and growth

that has not been considered before. Outside of biblical literature, whose teachings and laws are so often quoted, a remarkable chapter of legal enactments and restrictions can be traced. Beginning with the fragmentary inscriptions found on Egyptian papyri and monuments, and extending to the codes, philosophies, and enactments of the greatest philosophers, rulers, and judges of Grecian and Roman civilization, there is a continuous record of prohibitory laws and restrictions concerning the use of spirits and drunkenness. The laws of the Spartans were far more absolute than any modern enactments, and were also remarkable for the clear comprehension of the nature of spirits and their action on the body. These laws were active for many years, and were highly commended.

English history contains many records of prohibitory, restrictive laws, some of which were very prominent for a time, then fell into disuse. Laws of similar import have followed the path of civilization from the earliest dawn and wherever spirits have been used. They have been urged and defended by the greatest philosophers, teachers, and leaders of civilization.

Prohibitory laws and enactments in this country are a repetition of the reform efforts of centuries ago, only on a higher plane, showing decided evolution and growth. The laws of those early times were based on observation of the effects of spirits, and the expediency of checking these evils. The same laws in modern times are founded on moral theories and facts which seem to indicate no other means for relief.

"In all times the sanitary evils of drink have been recognized at first only faintly, then in an increasing ratio, down to the present. To-day scientists and sanitarians are beginning to understand the perilous and dangerous influence of alcohol in nearly all conditions of life.

"Modern prohibitory laws appear to be founded on mixed theories, and are not clear or harmonious in their workings. The applications of these laws, from the earliest settlements

of the country down to the present time, give abundant illustrations of this. In several States prohibitory laws have been on trial for a quarter of a century and more, and have seemed to meet the expectations of their supporters. In others such enactments have been abandoned after a short experiment for various complicating reasons. Political partisanship has been so intimately concerned with these questions that the facts are very obscure.

“The assertions and denials of the practical value of prohibitory enactments are equally confusing. The only unbiased authority from the census and internal revenue reports, in the states where these laws are in force, points to a diminishing use of spirits, better social and sanitary conditions, and lessened lawlessness.

“Widely different explanations of this fact are urged and defended with great positiveness. High license and local option have their warm defenders and bitter opponents. Their value in different communities rests on the same uncertain and differently explained facts; often their adoption or rejection is mere caprice, political selfishness, and the changing sentiment of the hour.

“The theoretical scientific study of spirits and their effects opens up another field that brings a wider conception to the problem. Here the student is confronted with the same evidence of evolution. Theories urged two thousand years ago — that drunkenness was a disease, and that spirits was an exciting cause, in some cases merely exploding a condition which was due to influences more remote and widely varied, or building up a morbid state which will require the narcotism of spirits ever after — have become demonstrable facts of modern times.

“The remedies for these are restraint, control, and medical treatment of the victims, by legal enactments, prohibitory and coercive. It is also evident that vast ranges of unknown causes and conditions, which enter into the phenomena of life and living, are the basal factors of drunkenness and inebriety. Remedies — legislative, social, and medical — to be effectual must be founded on some general knowledge of

these causes. Such are some of the general facts of the drink problem as seen to-day. Many of them are very significant, and have a meaning which is unmistakable.

"The great revolutions of theories concerning alcohol and its physiological action on the body, together with the rapid accumulation of evidence contradicting all previous conceptions of its value as a nutrient, stimulant, and beverage, are conclusive that the facts are not all known. Countries and cities where wine and beer and other alcoholic drinks have been used freely, without question, are invaded by temperance and total abstinence societies. Theories of the value of spirits that have come down unquestioned are being challenged and proof of their truth demanded.

"The French National Temperance Society, the Society against the Abuses of Alcohol for the Rhine Provinces, the Belgian Total Abstinence Society, the Netherland Society, the Swiss Society, the Italian Society, the Austrian and Prussian Society, the Norwegian, Russian, Danish, and numerous other societies, are urging total abstinence theories, and denying the value of spirits in the very centers of all spirit-drinking countries. Four international congresses have been held in these countries during the past ten years, in which eminent medical men have presented and defended the total abstinence side of the drink problem.

"The real facts, separated from all partisan sensationalism, agree that alcohol is a poison, a paralyzant, and narcotic, and its defenders admit this as true, but only in large and reckless quantities. The question then turns on what quantities are safe or dangerous, and what is the possible amount that can be taken within health limits. This is similar to drawing boundary lines between twilight and darkness, and is obviously impossible with the present limits of our knowledge.

"The evidence up to this time from the chemical laboratory, from experiments, from hospital studies, from statistics, and other sources, clearly proves that alcohol is a poison and is positively dangerous to health — in what way, in what conditions, and under what circumstances is yet an open question, in which difference of opinion will exist until more exhaustive

experimental studies are made. Text-books for schools and colleges and partisan discussions often contain statements conveying the misleading impression that the facts about alcohol are known, when, in reality, beyond a few general principles, we are profoundly ignorant of its physiological action. The facts concerning its ravages and baneful influence are too common to be called in question, and the statement that it is the greatest peril to modern civilization has a basis in actual experience.

"It appears to be a conclusion, which all scientific and sociological progress is verifying, that a more complete knowledge of alcohol will demand some form of prohibitory laws; whether like those existing at present or not it is impossible now to say. Such laws will not depend on any sentiment or any theory, but will be founded on demonstrated truths, and the necessity for self-preservation. It will not be a question of Maine law, or whether prohibition prohibits, or whether any party or society or public sentiment favors or opposes it. Action will be taken on the same principle that a foul water supply is cleansed or a sanitary nuisance removed. The questions of high or low license, local option, and all the various schemes of partial or complete restriction, with the vast machinery of moral forces that seek relief by the church, the pledge, the prayer, and the temperance society, will be forgotten, and the evil will be dealt with in the summary way in which enlightened communities deal with other ascertained causes of dangerous disease.

"While the average citizen may be slow to unlearn and change his views about alcohol, he is ever quick to recognize and provide for dangers that peril his personal interests. Show this man that every place where spirits are sold as a beverage is a "poison center" and every drinker is a suicidal maniac, whose presence is dangerous to the happiness and peace of the community, and he will at once become a practical prohibitionist. This is the direction toward which all temperance agitation is drifting.

"Sanitary boards, government commissions, and hospital authorities must gather the facts from very wide sources, and

the generalizations from these will supplement and sustain the laboratory and hospital work and point out conclusions that will be real advances in this field. Inebriate asylums (at present obscure and bitterly opposed) will become very important aids in the study of the causes of inebriety. Like prohibitory laws, they will become a recognized necessity when the disease of inebriety and the poison of alcohol are understood.

"Beyond all theory and agitation there is another movement of startling significance. Everywhere the moderate and excessive drinking man is looked upon with suspicion. His capacity is doubted, and his weakness is recognized as dangerous in all positions of trust and confidence. Corporations and companies demand employes to be total abstainers. Railroads, manufactories, and even retail liquor dealers of the better class require all workmen to be temperate men. This is extending to all occupations, and the moderate drinker is being crowded out as dangerous and unfit. This movement has no sentiment, but is the result of experience and the recognition of the danger of the use of alcohol as a beverage. Nothing can be more absolute than these unwritten prohibitory laws which discharge workmen seen in saloons and refuse to employ skilled men because they use spirits in moderation.

"To repeal all restrictive and prohibitory laws and open the doors for the free use of rum is to act in opposition to all the facts of observation and experience. On the other hand, to insist that prohibitory laws are the only measures to correct the drink evils, or that high license and local option are equally powerful as remedies, is to assume a knowledge of alcohol and inebriety that has not been attained. The highest wisdom of to-day demands the facts and reasons for the use of alcohol, and why it should be literally and theoretically the cause of so much loss and peril to the race. All hope for the future solution of these questions must come from accurately observed facts and their teachings, and, like the problems of the stars above us, be determined along lines of scientific inquiry."

THE LATE DR. ALBERT DAY.

 BY L. D. MASON, M.D.,

Brooklyn, N. Y.

One by one the pioneers of our work — the advance guard that has hewn a path through a wilderness of ignorance and prejudice, and established on a firm foundation the principles of our association — are taken from us — Turner, Parish, Mason, Parker, and others — and now our late friend and associate, Dr. Day.

It may be truly said of these men they have labored, and we have entered into their labors. One marked feature of their lives was the pure, unselfish desire that actuated them, namely, to assert and demonstrate the curability of inebriety as a disease. To this end, no sacrifice was too great. Time, health, wealth, and talent were alike poured out like water, if it need be, to establish this principle.

When we look out on life and see the small men who attach themselves to any cause simply for the remuneration it will give them, we compare them to the leech that infests our ponds, or to the barnacle that clings to and fouls the bottom and retards the onward motion of many a mighty ship.

How the lives of men like our late friend shine out when the motive of their life-work is scrutinized, analyzed, and demonstrated! It is like the leading air in a beautiful symphony — blending with all other sounds in perfect harmony, and yet predominating above all.

It is the principal figure or object in the painting that is in perfect accord with its surroundings, but which alone gives value and force to the subject.

Who can impute the motive of such lives, or interpret that motive, except on the highest grounds of self-consecra-

tion, self-abnegation, and the absence of selfishness in any form ?

Such was the life of Dr. Day.

To encompass in a brief sketch a life of over 70 years — connected as it was with the direct and collateral issues of the temperance cause in all its phases — would not be possible except in a full and complete biography, which will appear in due time ; but it may not be out of place, and in some measure place him before us, if we give his brief autobiography as he gave it to those who assembled to do him honor on the occasion of the celebration of his seventieth birthday, held at the Washingtonian Home, October 15, 1891, at Boston :

“ To give a detailed history of my past life would far exceed both my time and your patience, and, on the whole, be hardly necessary, as it would be almost a history of the temperance cause from its inception to the present moment, to which my whole life has been devoted. There are a few facts connected with my early life which but few are acquainted with, and these I will mention.

“ I was born in the town of Wells, Maine, in 1821 ; consequently I am now seventy years of age ; and since the time when I became old enough to form opinions, and act in accordance with my own judgment, I have been an active combatant against the unnecessary use of alcoholic liquors of any description, and utterly opposed to their use as a beverage under any circumstances whatever, never admitting artificial stimulation to be designated as a social amenity, nor the freedom of intoxication as the ease of friendly and sympathetic association, nor the frivolity of drunkenness as the hilarity of joyousness.

“ When so young as just to be able to write my name, I was enrolled as a member of a temperance society, and at the age of eighteen was recording secretary of the first total abstinence society formed in the State of Maine. If any of you are familiar with the history of the efforts which have been made by the people of New England against the power

of alcohol, you must remember that here temperance societies and total abstinence societies are far from being identical. My ardor increased with years, and in every place where circumstances occasioned me to become a resident—particularly at Sanford, Maine, and Lowell, Mass.—my influence made an impression. In 1850 I became a resident of Boston, and became identified with almost every true benevolent movement made in the city at that period.

“In the summer of 1857, a small number of gentlemen, citizens of Boston, associated themselves under the name of ‘Home for the Fallen,’ of which, upon urgent request, I accepted charge; and, without tracing its growth step by step, I will simply state that from this embryo sprang, the Washingtonian Home, incorporated in 1859, the pioneer of all kindred institutions. Thus it will be seen that for fifty years I have been an active agent in the temperance cause during thirty-four of which I have had charge of institutions for the cure of inebriety. I have faith to believe that in general, my efforts have been appreciated; and that my success has been equal to more than could reasonably be expected, thousands of letters on file in my possession will bear testimony. Much more could be said of personal efforts, experiences, failures, and successes; but I refrain, lest I be charged with egotism.”

“And now, friends, let me say one word more in relation to myself. I have now reached the ‘three score and ten’ years that the Psalmist allots as the normal measure of human life. My bank account of material wealth is exceedingly small, but I am constantly receiving testimonies of the good will and wishes of those who have been blessed by my efforts, and the institution which I have the honor to represent.

“When I commenced my labors in this field, I was obliged to cultivate unbroken ground and tread unknown paths. Myself, and others who were associated with me, walked by faith alone. We had no precedents to which we

could refer. The way was dark, and the clouds were lowering, but the nature of our work was soon heralded, not only over our own country, but the civilized world; and messages were sent to us to inquire about the nature of the blazing star which had arisen in the East of civilized America. Then people and nations have since established institutions similar to our own, and success has attended all which have been conducted on the principle that was first announced by us, and the work will go on as a great factor in the redemption and cure of those who have fallen by the enemy of our race — intemperance.

“I have treated, during the last thirty-four years, nearly eleven thousand cases of inebriety, most of whom had descended low in that path; and they have represented all classes of society — from the presidential mansion to the lowest hovel of habitation — and have embraced national senators and representatives, judges of our courts, lawyers, physicians, clergymen, and, in fact, there is no calling, high or low, whose representatives have not been under my care. Had I time to give personal histories of cures, I could prove the saying that truth indeed is stranger than fiction.

“I will now say, in closing this somewhat lengthy address, that should I, by reason of strength, reach four score years I shall continue my work even to the end.”

At this meeting it was the privilege of the writer in common with the members of the “Association for the Study and Cure of Inebriety” to extend the hand of fellowship to Dr. Day, and congratulate him on the success he had achieved in his life work. He seemed then in as good physical and mental vigor as is often attained by one of his years, and before him, as we thought and as he thought, there were yet years of active labor in the cause to which he had devoted his life. There was not a prolonged illness; death laid its hand upon his heart and it ceased to beat. He passed away on April 27, 1894. Surely it is no poetical fancy to say with such an instance before us —

“There is no death! what seems so is transition;
 This life of mortal breath
 Is but a suburb of the life Elysian,
 Whose portal we call Death.”

Mourning friends—physicians, clergymen, lawyers, business men, and many he had saved from a drunkard's life and death, gathered around the body of our fallen friend, and in the silent lineaments of death saw reflected the peace of one at rest.

In temperament Dr. Day was naturally cheerful; we generally saw him with a smile on his face. He was by no means phlegmatic, nor was he over sanguine. His was an even temperament, and he had himself under control. It may be this valuable characteristic of temperament enabled him to bear the fret and worry of many years of uphill controversy that must have necessarily beset his path. But it was not a mere optimistic view of life that sustained him. Let us hear again his own testimony:

“In contending earnestly against intemperance, we have the help and friendship of Him who is Almighty. We have allies in all that is pure, rational, divine in the human soul; in the progressive intelligence of the age; in whatever elevates public sentiment; in religion, in legislation, in philosophy; in the yearnings of the parent; in the prayers of the Christian; in the teachings of God's house; in the influence of God's spirit. With these allies, friends, helpers, let good men not despair; but be strong in the faith, that, in due time, they shall reap if they faint not.”

The “hidden springs of comfort” from which Dr. Day drew not only his inspiration but his endurance, were of a high religious order; he was eminently a Christian. It was not an arm of flesh on which he leaned, but the arm of his Heavenly Father was round about him and sustained him. This was the source of his cheerfulness, the hidden spring of his comfort and courage. With apostolic firmness he could face all difficulty and say, “If God be for us who can be against us.”

The character of Dr. Day must have included charity, tenderness, forbearance, and a strong humanity; it did include all these, for these characteristics led him up to his work and sustained him in it. His philanthropy extended to the lowest grades of degenerated manhood, and made him an uplifting force, and he did his work cheerfully, genially, and with an almost seeming unconsciousness of self.

"Howe'er it be, it seems to me
'Tis only noble to be good;
Kind words are more than coronets,
And simple faith than Norman blood."

Dr. Day as a member of our association, and as our chief officer was most loyal and active to our cause and to the standard under which he fought. With him there was not any compromise, and he did not desire to compromise. He was heart and soul in the work, and his addresses, written and spoken, and his printed articles as well as his private conversation, all attested that to him inebriety was a disease, and that it was through medical treatment that the inebriate must be relieved. As an asylum physician of thirty-four years' standing, Dr. Day firmly believed in this method as the only satisfactory one that answered the question, "How shall we treat the inebriate?"

It is natural that

"Like our shadows,
Our wishes lengthen as our sun declines."

He may be our fellow laborer would have preferred to live a little longer, perchance to see the capstone placed on the climax of his hopes, and yet he must have had a vision of the glorious temple of his desires rising in all its beautiful proportions in the horizon of the twilight of his life. There is a point in some lives where heaven and earth seem to blend, and it may be that if our friend did not enter into the promised land of the full realization of his life-work, nevertheless we believe the vision of the result of that life was not withheld from him, and the solution of the problem of it and its fulfillment was assured to him.

The volume of his life-work is closed, the volume of eternal life is opened; the spirit of a just man is made perfect. In the strength of such a life let our lives be made stronger. Let us take courage and re-enter the battle of life with renewed zeal. "With malice towards none, with charity towards all, with firmness in the right, as God gives us to see the right, let us, as did our worthy co-laborer, maintain the doctrines we profess.

WHEREAS, God in His providence has seen fit to remove by death from our midst our late associate and president Dr. Albert H. Day,

Resolved, That as members of the "Association for the Study and Cure of Inebriety" we deeply feel the loss our society has sustained in the sudden death of our presiding officer.

Resolved, That we desire to bear testimony to the invaluable aid that he rendered our association in his mature judgment and wise counsels.

Resolved, That we tender to the family of our late associate our heartfelt sympathy in this their time of bereavement.

Resolved, That a copy of these resolutions be sent to the secular and medical press, and be printed in the JOURNAL OF INEBRIETY, and such other journals, both American and foreign, as may represent the specialty of inebriety.

Resolved, That a copy of these resolutions be properly engrossed and sent to the family of the deceased.

THE Temperance Reform League of Massachusetts have received a special charter to treat inebriates on a new plan. A committee has reported "that an hospital be established in which convenience of location and arrangement may admit the application of such psychical treatment of inebriates as has already given admitted evidence of efficacy." This will no doubt include hypnotism, mind and faith cures, and its workings will be watched with great interest by many persons who are looking for the unknown.

Abstracts and Reviews.

HOME FOR THE CURE OF INEBRIATES, SAN FRANCISCO, CAL.

The annual report of this noted asylum by the well known medical expert, Dr. Potter, who is superintendent, is before us. The following extracts will be of great interest to our eastern readers and show how much good work is being done on the western slope in this new field of study.

On January 1, 1893, there were 24 cases in the House, and during the year there were 1,026 admitted, making a total of 1,050 cases treated, of which 705 were admitted for alcoholism, 328 for insanity, 102 of which were alcoholic cases, 13 for morphinism and cocainism, and 5 for bromism, insomnia, etc. As many of the alcoholic cases were re-admissions, of the same persons, in some instances several times during the year, the actual number of individuals under this heading was much less, namely, 437. These numbers are exhibited in detail in the following table:

TABLE OF INDIVIDUAL CASES ADMITTED.

Admitted for	Remarks.	Males.	Females.	Total.	Aggregate.
Alcoholism..... (705 Admissions).....	Admitted once only*	156	27	183	.....
	" 2 to 3 times	112	18	130	.....
	" over 3 times	119	5	124	437*
Insanity (328)†	Com'ted to asylums	129	43	172	.....
	Discharg'd by Court " by Supt.	115 21	19 1	134 23	328†
Morphine and Cocainism.....	.....	8	5	13	13
Bromism, Insomnia, etc.....	.....	4	1	5	5
Totals,		664	119	783	783

* Of these 34 had delirium tremens when admitted.

† Of these 102 had delirium tremens when admitted.

Besides the 437 individual cases of alcoholism, 102, or more than one-half of the cases of insanity discharged by the court, were cases of the same kind, but who, being in delirium tremens, were supposed to be insane when arrested. These added to the others gives a total of 807 admissions, or 539 individual cases of alcoholism altogether, of which 102 plus 36, or 138 in all, were in delirium tremens when received.

Among these cases it will be observed that 183 plus 102, or 285, were persons who had never been in the Home before, and who have not returned thereto since. It may be assumed that very few (or none) would be brought here for a first "spree"; hence nearly all our cases may be considered as victims of the alcohol habit, making all due allowance for those who have left the city; and for those who have continued drinking, though not to such an extent as to require to be replaced under treatment here, it may reasonably be assumed that a large proportion of this number (285) have remained free from drink as a result of their treatment and detention in this institution. It is quite impossible to follow up these people, in so changeable a community as this, to ascertain the results in their cases; but a few notable ones, personally known to some of your honorable body, as well as to myself, may be mentioned in detail.

Morphine and Cocaine Cases.—Of the thirteen persons admitted on account of these habits four stayed only a few days,—not long enough to accomplish any results. Two were entirely free from the combined habit when discharged, but went back through evil associations; two are yet in the House, and five were discharged cured, of whom three are known to have remained free from these drugs ever since, while the results in the other two cases are unknown. One of these is a physician using twelve grains of morphine and forty-eight grains of cocaine daily, by the hypodermic syringe, who, when admitted, was insane from his abuse of these drugs. He was entirely free from both in three weeks, and was discharged at the end of a month, sound in mind and

body. Another, a young man of good family, had used from ten to twenty grains of morphine daily for six years, and had commenced the use of cocaine. He remained five weeks in the House, and was discharged in perfect health. He called on me lately, looking well, and stated that he had never touched either drug since.

The method of treatment adopted here for morphine cases is that of very gradual reduction of the drug, and at the same time the gradual substitution of sedative treatment by other medicaments according to the requirements of each individual — some requiring very little medication indeed, others a great deal. This method gives but very little suffering in any case, confined to a slight diarrhoea and some restlessness and insomnia, all of which are easily controlled. The patient is not allowed to know anything about the rate of reduction or the remedies used, and all medicine is given by the mouth, the syringe being dropped from the first. There is no difficulty in curing the worst case of morphine habituation without suffering, provided sufficient time is given to do the work in. It can be done in five or six weeks, but a period of two months is the least which ought to be devoted thereto. The danger is in going out into the world too soon, before sufficient tone has been acquired by the nervous system to enable the patient to withstand temptation. Those who go back to the habit after a thorough course of treatment are nearly all persons of low associations, who resort to opium joints, and consort with other habitués. Unless they break away entirely from such surroundings they are certain to resume their former condition of drug-slavery.

Alcohol was used in the treatment of only three cases during the year, none of which recovered. They were two worn-out cases of general debility, and one friendless, half-starved outcast admitted in delirium tremens. Every case of delirium tremens in which no alcohol was used recovered. From statements made to me by patients who had previously gone to general hospitals for treatment for inebriety, I am satisfied that the policy of this House is the correct one,

namely, to give no alcohol ordinarily in the treatment of acute alcoholism. The patients themselves say that recovery is quicker and with less suffering under this system; and that the method of "tapering off," pursued in some hospitals simply "prolongs the agony," or, in the words of others makes it a "terrible long time between drinks." The influence of the mind over the body is so great that the knowledge that liquor *can* be had as a part of the treatment invariably induces an overwhelming desire for it; while, on the other hand, the certainty that none will be given under any circumstances operates to sustain the nervous system in the fight for recovery.

The deaths during the year were only five in all, of which but one was from alcoholism directly,—a friendless, homeless outcast, who had been greatly neglected and half-starved before admission. Of the others, one (a woman) died from acute mania, one from heart disease, and two from general break-up of the system, both the latter having been placed here in a dying condition by friends who desired to furnish them a place to die in. Hence, in 705 alcoholic admissions, and 102 charged with insanity, but found to be in delirium tremens, making a total of 807 alcoholic cases in all, of which 138 were in delirium tremens, there was but one death. This is a remarkable showing, considering the large number of cases received in delirium tremens and the bad physical condition of the great majority.

The report of Walnut Lodge Hospital of Hartford, Conn., for 1893 contains the following:

The whole number of cases treated during the year have been fifty-seven. Of those discharged, sixteen are recorded as recovered, all of whom have gone back to their former places in business and society with every prospect of permanent restoration. Twenty-one were discharged as greatly improved and practically recovered, and able to go out with a fair degree of health, and begin a new career

of changed life and living. In this class are the dipsomaniacs and periodical drinkers, who are likely to relapse from any special strain or drain on the nervous system, or any special exciting causes. In this class are persons who will neglect to keep up the degree of mental and physical vigor which they have acquired under treatment, becoming reckless and over-confident, and thus fail; others will make a permanent recovery. Eight cases were markedly benefited, although considered incurable and remaining but a short time. Four cases were insane, and the treatment simply unmasked the real symptoms and character of the case. In view of the fact that the usual time of treatment is always inadequate for full restoration, the results are very hopeful.

Six women were under treatment during the year. In three the inebriety began at the change of life, and was associated with nervous exhaustion. They made a good recovery. Two began the use of beer and finally spirits for menstrual troubles, and only used it at these periods. One was a pronounced paranoic with delusions, who used spirits as a medicine on all occasions of distress. A new feature in the history of patients this year is the number of persons who have taken the various *Gold Cure Remedies* and relapsed. The number of this class received during the year were thirty-one. Compared with others who had not used these secret remedies, they were more degenerate, depressed, and irritable. In treatment they recovered more slowly, and suffered more prominently from insomnia and hallucinations.

In the study of the history of cases of inebriety, remarkable examples of heredity and of the operation of physical laws constantly appear. These cases are often great problems, in which the facts are not known only in a very general way. But they present the clearest evidence possible that inebriety is a condition governed by laws and forces which move along lines fixed and unchanging. No treatment can promise any results unless it is founded on a study and knowledge of these laws, and along the lines of physical forces.

Of the thirty-two cases of heredity, eleven gave a history of moderate and excessive drinking parents. In fourteen cases grandparents on both sides were inebriates, and also other members of the family. In two cases all the male members of the family for three generations had used spirits to excess. In one case, the male members for two generations began to drink at a certain time of life and abstain at another definite date. These periods in five persons were more or less exact, only varying a few months in the origin and termination. In three cases the parents of the third generation back had been inebriates, and the heredity passed over two generations, breaking out in two cases after the hardship of army life; in another case without any special exciting causes.

The term *traumatism* includes all cases where injury has been followed by the use of spirits. Such cases have a history of blows on the head, sun or heat stroke, severe injury to the body, and profound mental shocks, in most cases or which periods of unconsciousness and mental delirium have followed. Six of these cases were evidently temperate men up to this time, and began to drink dating from this event. In one case an old fracture which had healed with extensive bony growths that pressed on the nerves, was followed by inebriety. In two cases a history of acute gastritis and enteritis preceded the drink craze.

Exhaustion as a cause describes a class of cases preceded by profound anæmia and general debility, also states of cell and tissue starvation.

Environment appears to be an active cause in a small number of cases, but when other predisposing conditions are present, it is a very influential factor.

Inebriety follows a consumptive, rheumatic, and hysteric diathesis, and in a certain number of cases is clearly a symptom of paresis, dementia, and melancholia. Syphilitic brain degeneration has often a drink period which is overlooked and misunderstood. Nearly all cases of inebriety present combinations of causes, which are with difficulty traced to

find the central and leading one. Among these may be mentioned nutrient, psychical, hygienic, sociological, cosmical, and other causes. Spirits in most cases is simply the match to explode and concentrate an accumulation of degenerative influences which have been forming in the past. These cases may be grouped into certain forms, as in the following table :

Periodical Inebriates,	22
Constant Inebriates,	15
Irregular Inebriates,	9
Spirits and Opium alternately,	5
Cocaine Inebriate,	1
Chloral and Spirits,	1
Opium Inebriety,	2
Dipsomaniacs,	3

In this grouping the periodic cases, with their distinct free intervals of sobriety and drink paroxysms, are the most interesting. In some cases the length of this free interval and the return of the paroxysm can be predicted with almost mathematical certainty. These cases have many points resembling epilepsy and other paroxysmal neuroses. The dipsomaniacs with an overpowering impulse or mania for spirits are not very common. The constant and irregular inebriates are usually largely influenced by nutrition, environment, and conditions of ill-health, and also psychical states. The periodic drinkers are those who turn to opium, chloral, and other drugs for relief. Some of these alternate from one narcotic to another until death brings relief. The following statistics are presented :

AGE OF PERSONS UNDER TREATMENT.

From 20 to 30 years of age,	10	From 50 to 60 years of age,	4
From 30 to 40 "	29	From 60 to 65 "	1
From 40 to 50 "	13		

SOCIAL CONDITION.

Married, living with wife,	22	Widows,	3
Married, and separated from wife,	15	Single,	9
Widowers,	8		

OCCUPATIONS.

Expressmen,	2	Watchmaker,	1
Merchants,	3	Railroad Clerk,	1
Lawyers,	6	Speculators,	2

Judge,	1	Gardener,	1
Liveryman,	1	Reporter,	1
Brokers,	3	Drummers,	3
Hotel Keeper,	1	Importers,	2
Physicians,	4	Undertaker,	1
Engineers,	2	Farmer,	1
Railroad Officials,	2	Restaurant Keeper,	1
Manufacturers,	3	Capitalists,	2
Clerks,	3	Women :	
Machinists,	2	Housewives,	3
Lumberman,	1	No occupation,	2
Clergyman,	1	Teacher,	1

DURATION OF THE INEBRIETY.

Less than five years,	6	From fifteen to twenty years,	8
From five to ten years,	17	From twenty to twenty-five years,	3
From ten to fifteen years,	21	Over twenty-five years,	2

EDUCATION.

Collegiate,	16	Academic,	24
University,	4	Common School,	13

LIQUOR-HABIT CURES.

A paper on this subject by Professor Cosgrave, of the Royal College of Surgeons, Ireland, appears in the *Medical Press and Circular*, and is a timely exposure of, and warning against, the nostrums, hailing mostly from the other side of the Atlantic, on which the victims of the drink crave and their friends spend uselessly large sums of money. The condition of things which provides a market for the drink cures of the quack is one that indicates a limited, if not a defective, intelligence. But it is not difficult to trace the process by which the market has been provided; and then the supply comes in response to the foolish demand; the fools are answered according to their folly, and — victimized. Let us briefly note how the market for drink cures has been created.

The study of inebriety is daily demonstrating more clearly that the condition expressed by the word is a condition of disease. The significance of that teaching is fully recognized by total abstainers. It is recognized by them as an argument which adds greatly to the cogency of every other consideration by which men and women are in-

duced to abstain ; and also as an argument which may be influential in quarters where moral considerations have little weight. In no condition of life is health despised. It is true now, as in the days of Job, that "all a man hath will he give for his life." But the large majority of the people in this country continue the use of strong drink, which is known to impair health, and thus seem to prefer having their life preserved through being cured of disease to having it preserved by the avoidance of disease. We do not say that in so many words they would acknowledge this to be the principle upon which they act ; but we give this as an expression in words of what their conduct signifies. The experience of total abstainers has long ago proved that abstinence is conducive to health. But drinkers prefer not to be convinced by such testimony.—*Editorial in Temperance Record.*

The men of science are now proving that the use of alcohol impairs health and produces disease, and so shortens life. But as the avoidance of that disease involves the one thing which drinkers are resolved not to do, *viz.*, abstain from alcohol in every shape and form, a cry goes up from them for a cure, and the "cures" are supplied by the empirics. The drinkers prefer the hope of being saved by a "cure" to the certainty of being saved through the abstinence that avoids the disease. Folly and credulity generally go together, and the knave finds his profit in the credulity that is born of folly. And so it comes about that the cry of the fools is responded to by the knaves.

But while all this is true, and the fools might really be left to reap the reward of their folly, Professor Cosgrave has done well in exposing the quackery of some of the so-called "cures." And in doing so he lays down some principles which it is of the greatest importance should be circulated far and wide. He says: "One way in which we can do good is by letting it be known that while inebriety is to a great extent a disease, it is not a disease which any specific can cure." And then he goes on to say that "the rational

method of treatment of the inebriate is to enforce absolute abstinence and to try and build up the system to a condition of health." The conclusions of a man of such experience and attainments as Professor Cosgrave are not to be lightly or heedlessly thrust aside.

SANITATION PRACTICALLY.

Mr. Willis Barnes, a lawyer of eminence in New York city, has an excellent article on this subject, in which occurs the following on the alcoholic traffic, which —

"Causes physical influences which places the human body in a receptive condition favorable for the development of insanitation, disease, and death.

"Causes influence upon the brain and nerve tissue which produces insanitation, insanity, mental diseases, and death.

"Causes a lowering of moral tone, which disregards well-known laws of sanitation.

"Causes crime, sorrow, grief, mental worry, waste of money, property, physical and mental strength, which in turn lowers social status, defeats home comforts, and creates environment, which promotes insanitation.

"Causes physical and mental taint in parents which is reproduced in offspring.

"Causes conditions which make it necessary to establish hospitals, poor-houses, and jails, all evidence of the existence of insanitation in the community.

"Laws are passed empowering boards of health to take action for the protection of communities against all classes of disease save that of alcoholism. This disease goes on unchecked by law. There is no quarantine for the alcoholic.

"He or she may disseminate their poisonous diseased germ upon untold thousands, but not one word of legal control is raised to stem the current of this iniquity upon innocent infancy.

"Alcohol creates more mental and physical disease,

more mental and physical suffering, than all other diseases put together.

“The disease—alcoholism—is more infectious, more contagious, and should receive more strict quarantine than all other known diseases. Alcohol not only creates mental and physical deterioration, but it stamps disease upon the body politic and engenders poverty, waste, and loss of everything necessary to promote the welfare of communities. The alcoholic traffic is a curse upon the resident of the farm, the village, and the town, and produces influences which cause insanitation of the most pronounced character.”

CHILDREN OF DRINKERS.

A distinguished specialist in children's diseases has carefully noted the difference between twelve families of drinkers and twelve families of temperate ones during a period of twelve years, with the result that he found the twelve drinking families produced in those years fifty-seven children, while the temperates were accountable for sixty-one. Of the drinkers, twenty-five children died in the first week of life, as against six on the other side. The latter deaths were from weakness, while the former were attributable to weakness, convulsive attacks, or to œdema of the brain and membranes. To this cheerful record is added five who were idiots, five so stunted in growth as to be really dwarfs, five when older became epileptics, one, a boy, had grave chorea ending in idiocy, five more were diseased and deformed, and two of the epileptics became by inheritance drinkers. Ten, therefore, of this fifty-seven, only, showed during life normal disposition and development of body and mind. On the parts of the temperates, as before stated, five died in the first week of weakness, while four in later years of childhood had curable nervous diseases. Two only showed inherited nervous defects. Thus fifty were normal, in every way sound in body and mind.

SALOON STATISTICS.

The census department at Washington have brought out some very interesting statistics concerning saloons of the country. In 345 cities, whose population exceeded 10,000, special inquiries were made. 257 of these cities report having saloons; 40 have no saloons, and 48 are silent and make no report. In these 257 cities the population was, in 1880, 15,316,167, and the number of saloons 61,336, an average of one saloon for every 250 persons, including men, women, and children. The distribution of saloons varies widely, from one saloon to every 69 persons in Atlantic City, N. J.; one to 72 in Lexington, Ky.; one to 79 in Butterfield, Mon.; one to 2,141 in Northampton, and one to 6,286 in Waltham, Mass. In cities of over 100,000 the range is from one saloon to every 103 persons in San Francisco and one to every 128 persons in Buffalo, and one to 1,728 persons in Worcester, Mass., and one to every 1,491 persons in Lincoln, Neb. In Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, and some other western States, the saloons are most numerous to the population. In Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, and Arkansas, the saloons are the least to the population. These figures give some idea of the extent of one of the greatest evils of the times.

DISCUSSION ON COCAINE.

In a report made to the "Société de Chirurgie," by Dr. Reclus, of a case of death due to the careless employment of cocaine, he asks if the rules which regulate the administration of this valuable anæsthetic are sufficiently familiar to the medical public. Dr. Reclus's report, and the discussion which followed, are well calculated to continue our doubts upon this subject. He cited a case of a man, seventy-two years of age, affected with arterio-sclerosis, in whom a physician, with the view of facilitating catheterism, injected

into the urethra 20 grammes of a five per cent. solution of cocaine. Death immediately ensued, and the operator was so astounded by the result, that he thought it his duty to report the case to the Surgical Society, at the same time insisting that he administered a moderate dose of the cocaine. To him M. Reclus responded by saying: "You ought rather to say a foolish dose." Those most experienced in the daily use of this alkaloid, agree with M. Reclus that it should be employed according to certain inflexible rules. The solution for hypodermic injections should be from $\frac{1}{100}$ to $\frac{2}{100}$ at the utmost. Stronger solutions should never be used; and surgeons, generally, are unanimously agreed upon this point. The accidents that supervene are invariably due to too strong doses. This particularly applies to hypodermic injections. A solution of cocaine applied to a mucous surface is more or less rapidly absorbed, according to the nature of the mucous membrane, in view of its special physiological properties. In the case reported the mucous surface was that of the urethra, which, in all cases, absorbs more rapidly than that of the bladder, and, moreover, consideration should be given to the possible raw surfaces of the canal in its narrow or prostatic portions. Dubuc operated in five cases of lithotrity, after injecting 30 grammes of a solution of five per cent. into the bladder, when inflamed, and ten into the healthy bladder. — *Medical Times*.

INTENT AND CRIME.

Intent is one of the essential elements to many crimes. What constitutes intent is often a very difficult question to determine. It is one more than merely legal, though the law may lay down rules with respect to it and governing its application to crime. There is no human gauge by which the duration of intent can be measured, says the Supreme Court of Louisiana, in the case of *State vs. Ashley*, decided at its July (1893) term (13, *Southern Reporter*, 738).

If killing has been done with the malicious intent to kill, the case is one of murder, although that malicious intention was formed at the moment of striking the fatal blow. Therefore, it does not necessarily follow that a homicide is not murder because done in sudden passion. There are many cases where that fact would entitle an accused neither to an acquittal nor to a verdict of manslaughter. And a charge to a jury which assumes that drunkenness is so inconsistent with malice that, when shown to exist at the time of the killing, it becomes the duty of the State to seek for the latter at a period anterior to the drunkenness, and to show affirmatively that the drinking was for the purpose of committing the deed, is palpably false.—*Lancet-Clinic.*

The American Medical Association, at San Francisco, was noted for several papers on Inebriety and Morphinism by Drs. Crothers, Hughes, Mattison, and others. In the section of neurology and medical jurisprudence, Dr. Gavigan of San Francisco offered the following resolutions, which were adopted after some very interesting remarks:

“WHEREAS, in view of the fact that the problems concerning the care and treatment of inebriates have become a practical necessity in every part of the country, therefore be it

“*Resolved*, That we earnestly urge and advise the establishment of special asylums for the care and treatment of habitual drinkers in each State of the Union.

“*Resolved*, That such asylums be organized by the State as industrial homes where each person can be placed under restraint, medical care and treatment for a sufficient length of time to permit of a full restoration.

“*Resolved*, That the time has come for means and measures based on scientific experience to gather and control the habitual inebriates and thus avert the danger and peril to public health, and lessen the burden to society which comes from this source.”

MEDICAL TEMPERANCE ASSOCIATION.

The fourth annual meeting of this association at San Francisco was of more than usual interest in the character of the papers read. Both President and Vice-President had excellent addresses. The prize committee reported a paper worthy of prize, on "Spectroscopic Studies of the Blood of Persons who had used Spirits." Dr. Kellogg, the chairman of committee on original studies, reported in a paper of much merit. Dr. Crothers read a paper on "Bad Air in Inebriety."

Resolutions were passed enlarging the scope of the membership and giving the JOURNAL to all who paid the regular membership due. Nineteen new members were reported during the year, and altogether a very encouraging outlook for the future was presented. The meeting drew together a number of persons who discussed the topics presented very intelligently.

The old officers were re-elected, and Dr. Kellogg continues his prize offer of one hundred dollars for the best essay "On the Non-Alcoholic Treatment of Disease."

THERE can be no question that every thought and action leaves its impress on the individual cell and in some way modifies its action, and its chemical and physiological properties. The use of alcohol or any drugs that seriously affect protoplasm must change the organism in many ways. The continuous poisoning by opium or alcohol must of necessity modify the delicate nerve processes, and change the natural health and vigor of the organism.

In the Thirty-Sixth Annual Report of Washingtonian Home, Boston, Mass., the Superintendent, Dr. Ellsworth, remarks as follows:

In this broad land to-day there is no disease more prevalent than inebriety, and none less seldom understood. In fact, the recognition of inebriety as a disease is only recently confirmed, although it has been asserted as a theory for a thousand years. The common idea that intemperance

is but a vice, a breach of the moral law and a sin against God, must slowly give way before the enlightenment born of modern scientific investigation. There are few families in the United States which have not had at least one relative who has been the victim of intemperance. How very important, then, that there should be a clear understanding of the real nature of inebriety, and that we employ such means of cure as medical science and experience indicate. The peculiarities of each case must be taken into account, as what would suit one most admirably would not be adapted to another.

The disease of inebriety is a disease which requires the utmost skill and care in treatment, to build up the shattered nervous system, restore the lost will power, and remove the craving for alcohol. The same can be said of the opium and chloral habits. I believe the permanent cure of these diseases can only be accomplished by attention to fundamental therapeutic laws, and not by patent nostrums or select remedies. Various alcoholic disorders which may affect the inebriate call for special treatment. Inebriety should be considered as one of a group of nervous affections, as a constitutional disease of the nervous system characterized by a strong morbid craving for intoxicants. Never before in the treatment of nervous and mental diseases, in inebriety and the morphia habit, have we been able to treat them so exactly, and obtain such certain and permanent results as we can to-day.

While patients are constantly under medical supervision, and are cared for by trained nurses, supplementing this care are the strong moral, and other fortifying and unlifting influences, to insure a permanent reform in their habits. It is of the highest importance that firmness and perseverance in the paths of rectitude be sedulously cultivated. Every influence tending to aid in this consummation is a remedial agent urgently called for. It is my plan to stimulate in the patient self-effort, to strengthen his physical and moral nature, to surround him with all the refining and ennobling influences

of a true home. For many years we have had, at intervals, epidemic waves of temperance work. All the various methods help to rouse public sentiment and to bring out the facts as to the disease of inebriety and its curability. There is no doubt that a certain number are restored by each method. I am friendly to each and every method that promises relief. My greatest aim and desire is that the good work of the "Home," born of the great Washingtonian movement, shall continue, and be even more productive of good in the future than it has been in the past.

A new feature in the history of patients this year is the number of persons who have taken the "Gold Cure" remedies and relapsed. The number of this class of patients received in this institution during the past year was twenty. Compared with others who had not used these remedies, they were more depressed and irritable, and, under treatment, they recovered more slowly.

One hundred and fifty cases have been under treatment during the year.

Number of delirium cases treated during the year was fifteen; all recovered.

Six patients who were sent here for treatment proved to be insane. The treatment unmasked the symptoms and character of each case. One was paresis, three were dementia, and two were melancholia. Two are now in an insane asylum, one committed suicide, one is yet under treatment, and one is unrestrained in his family at home. The case of paresis died soon after being admitted.

DR. E. C. FOWNES of New York recently died from general paralysis, associated with low muttering delirium. For twenty years he has used large quantities of coffee daily, made as strong as possible. He was a coffee inebriate, and for years remained in seclusion, in charge of a nurse, having no wants or troubles except to procure his usual quantity of strong coffee.

KINGS COUNTY INEBRIATE HOME.

The twenty-sixth annual report of the Inebriates' Home at Fort Hamilton, New York, for 1893, contains some very interesting statistical facts. There were admitted during the year 338 cases, with the 152 at the beginning of the year, making in all treated during the year 490 cases. At the close of the year there were 32 pay patients, and 122 indigent poor sent there by the county. During the year six deaths occurred, and four were transferred to other hospitals and three hundred and twenty-six were discharged. Of this number 189 engaged in business, and are reported as doing well; 42 are unimproved and relapsed; 46 have been lost sight of and 46 were readmissions; and three have died since leaving the institution.

Of the social condition, 246 were married, 37 were widowers, and 192 were single. 15 women were under treatment during the year. The oldest patient was 80 and the youngest 18 years of age. The largest number of cases were clerks in occupation, 57 in all; laborers came next, 56; salesmen, 20; no occupation, 19; bookkeepers, 17; painters, 15; carpenters, 13; printers and butchers, both 12 each; engineers, 10; merchants, 11. Of the professions, 7 lawyers and 2 physicians, 1 veterinary surgeon, and 1 dentist are all that appear. Liquor dealers number 7 and bartenders 12. The rest of the occupations include almost every form of labor known. The table of ages is suggestive: from 20 to 30, 66; from 30 to 40, 135; from 40 to 50, 153; from 50 to 60, 92; from 60 to 70, 35; over 70, 8.

For over a quarter of a century this Home has received the indigent and worthy poor of the county of Kings by special commitments from the courts. It has also a part of the building appropriated for voluntary cases, who pay for their board and care. Both departments have been conducted with success. The superintendent, Dr. Blanchard, has been for many years in charge, and has become known as a leading specialist in this field. The statistics of this

institution have furnished some very conclusive facts, and settled several important questions in this field. Hence the work of this Home and its prosperity is of unusual interest to all scientific students.

INEBRIETY.

In its closing hour the Ontario Medical Association in convention declared drunkenness not a crime but a disease, and adopted a petition to the lieutenant-governor asking that industrial reformatories may be established by the Ontario government for the reception of dipsomaniacs.—*Toronto World.*

ALCOHOLISM AND BEER.

At the Eleventh International Medical Congress held at Rome, March 29–April 5, 1894, Dr. S. Laache of Christiana, Norway, in an address on the subject, "Idopathic Hypertrophy (enlargement) of the Heart," said :

"Alcoholism is a factor of considerable importance, especially that form seen in beer drinkers, which is, according to the interesting researches of Bollinger, a preponderating cause of so-called idopathic hypertrophy. The plethora provoked by the immoderate ingestion of beer, and the increase of blood-pressure resulting therefrom, furnishes an explanation of the increasing part, disputing the first place even with tuberculosis, which cardiac affections play in the mortality statistics of Munich. The overheart constitutes certainly the sad reverse of the medal. I refer to so justly celebrated Bavarian beer. But at the same time it furnishes a new and interesting aspect of the multiple manifestations of chronic alcoholism."

THE USES OF CODEINE. — Perininger, with a view to observing to what extent codeine could replace morphine, tested it in a variety of patients. The author did not find it successful as a narcotic, only short periods of sleep having

been produced in his patients. When pain was present it only slightly relieved. In cases of tuberculosis its action was analogous to that of morphine, producing the same relief. Similar observations made in patients suffering from bronchitis. Dyspeptic symptoms, sometimes produced by a long use of morphine, were not complained of. Some cases of dyspepsia appeared to be improved by its use. In pertussis its use was followed by excellent results. He concludes by stating that he does not consider codeine to be a substitute for morphine, though in isolated cases it appears to act better.

TEMPERANCE IN ALL NATIONS.— A history of the cause in all countries of the globe, together with the papers, essays, addresses, and discussions of the World's Temperance Congress. Edited by J. N. STEARNS, secretary of the National Temperance Society, and published by this society, New York city, 1893.

This work originally published in two volumes is now combined in one, and sold at two dollars. It comprises about 1,000 pages, and is neatly printed and bound in cloth. This work is a very successful attempt to give an outline view of the temperance work in all countries of the world. Leaders of all the various organized efforts personally write of their labors and success. Two hundred representatives of all phases of the temperance cause present facts, figures, conclusions, statements, and opinions, that are a revelation to the reader. The historical part is a wonderful story of the great oncoming revolution of public sentiment concerning alcohol. It points out clearly the growth and development of the cause of temperance in its highest sense. It shows that alcohol and all its attendant evils are doomed by an evolution far beyond the levels of reformers, and their confident efforts. It is the veritable handwriting on the walls of the present, announcing the passing away of the delusions of alcohol, and the approach of a new kingdom

and new world of thought. The second part, consisting of thirty-four different papers, all of more or less value, has a melancholy interest in the fact that only four physicians are represented. This is of all topics a medical one, and seventeen clergymen, seven teachers, and six women essayed the task of describing the dangers and losses from alcohol.

Ninety different addresses were given at the different meetings, principally on the various topics presented. These speakers struck all the various notes of this evil, and as a whole the medley is confusing, and pitched below the natural levels of the topic. Yet as a picture of the thought of the reformers of to-day, it is intensely interesting. Taken as a whole, this volume should be in the hands of every student of the social problems of the day. To the temperance reformer it is invaluable as a view of the cause and its advocates. To the scientific man it has both a historical and psychological interest, pointing out the signs of the times, and indicating lines of evolutionary race marches, unknown before.

The *Seventeenth Annual Report of the Conn. Agricultural Experiment Station at New Haven* has just been issued. It is a volume of 331 pages, containing papers on fertilizers, feeding stuffs, dairy matters, diseases of fruit trees and vines and other matters of interest to farmers, fruit growers, and dairymen. This report is sent free to all applicants within the State, so far as the limited edition permits.

The Homiletic Review, by Funk & Wagnalls, New York city, is an excellent magazine, and would make a rich present for the pastor of any church.

Few persons realize the wealth of facts that appear in the *Popular Science Monthly* every month. Facts of geology, chemistry, botany, social and sanitary science, and all the entire field of science is presented in outline during the year.

We always watch the weekly issues of the *New York Voice* for facts of practical temperance. No paper gives more reliable facts and statistics.

Editorial.

INEBRIETY AND SYPHILIS.

Instances like the following are not only common, but suggestive of causes and conditions that are not understood. Persons who have been moderate and only occasional users of spirits, after contracting syphilis, become inebriates, generally paroxysmal or periodical, using spirits to great excess, and seldom able to use spirits in small quantities after this infection. It is also noted that a certain number of inebriates, after a short period of excessive use of spirits, become delirious, wildly boastful, and have all the symptoms of paretics; talk and act as if in possession of vast sums of money, and unlimited powers of body and mind. Such persons are rarely quarrelsome or irritable, and these delusions pass away quickly after a sleep. In most of these cases a history of recent syphilis is found, and practically large doses of iodides and mercury seem to be most efficacious as remedies. Some cases of periodical drinking, which approach dipsomania in intensity, are found to recover quickly from the use of mercury and iodides, and the inference is clear that syphilitic poison is an active factor in the causation. In the absence of any extended study of this topic, the clinical impression prevails that syphilis is a very active cause of inebriety, especially in persons who are occasional or moderate drinkers. Such persons, after an injection of syphilitic poison, become inebriates. The symptoms are different from others who are free from this poison. The tendency to psychical delirium is greater, and the paroxysm is associated with muscular trembling and egotistical delusions. The history of syphilis is always denied, but scars and indurated glands negative such statements. The tendon reflexes are often absent, and muscular co-ordi-

and watched him silently disappearing over the "outer bar." Dr. Day was an earnest, enthusiastic man, whose personal influence over the inebriates he treated was stimulating and very helpful. No other man had ever seen and treated so many of this class.

A STARTLING wave of crime is now sweeping over the New England States, characterized by assaults, mostly fatal and usually committed by inebriates occupying positions of life called the middle classes. Ten such cases are recorded in which inebriates who are of the working classes, actively employed, either so-called moderate drinkers, or those who drink to excess at intervals, have coolly committed murder. All of these cases drank heavily before the act, and the motive was not clear, or the consciousness of the crime manifested by the criminal. In all these cases a jury will decide the mental state of the prisoner. Lawyers and experts will exaggerate and minimize the facts of the crime. The judge will gravely point out the legal test of responsibility and accountability, and some of these criminals will be punished by death. In all these trials the same delusion and profound blunder will exist, *viz.*: that it is possible for a man to use alcohol to stupor, at intervals or continuously, and be of sound mind capable of determining the nature and consequences of his acts; also that it is possible for any one poisoned with alcohol to have normal reason and sanity.

THE great principle of cause and effect is not understood in the ordinary discussions of inebriety. The capricious and accidental and the apparent is accepted as the real, and no effort is made to eliminate or to discriminate causes. Here, as elsewhere, occurs the old mistake of accepting the mysterious and supernatural as the real without question or doubt. It is easier to call inebriety a sin and moral disorder

nation is disturbed. When the eyes are shut they walk with difficulty, and distinct sections of the body are anæsthetic or hyperæsthetic. Symptoms of paresis are common, and pass away after a few weeks' treatment. Mercury and baths are found to be most practical remedies. Some periodical inebriates, whose drink paroxysm comes on with distinct intervals, have been successfully treated by mercury and bark given for a short period before the anticipated attack. The returning drink craze would be simply a period of short depression, rather than the irritation and intense desire for drink common to such occasions. A noted dipsomaniac, whose drink paroxysms were marked by wild gambling and wilder speculations, was cured by a course of the iodides and sulphur baths. How far syphilis complicated or was the active cause it is difficult to say. Inebriates who contract syphilis, after the drink craze has become settled, are more degenerate; and the impression prevails that delirium tremens are more common in such cases. The poison of syphilis is a very serious complication in all cases of inebriety, whether it is an exciting or predisposing cause, or whether it comes in after as a source of additional degeneration, there can be no doubt that it has a powerful influence in such cases. A shrewd quack recently received a great deal of credit for the restoration of a prominent inebriate; the real remedies were iodides and mercury, and the poison of syphilis was the active cause. A very broad field of research is open in this direction.

DR. ALBERT DAY died at his home, Melrose Highlands, April 27, 1894. He had been suffering from heart disease — principally valvular insufficiency and enlargement of the walls of the heart; yet he was able to be about until the day of his death. A few months before his death he retired from the active charge of Washingtonian Home, and opened a private retreat for a few cases at Melrose Highlands, Mass. Like a true soldier, he died at his post. The unfortunates for whom he had spent his life stood around his death bed,

who would consign every one to asylums on the slightest pretexts. He took pains to sneer at all inebriate asylums and their managers, and call the theory of disease "a fad." Finally, he defended home treatment of the insane, and pointed to this case as one saved from the blighting effects of asylum treatment. Six months later John Doe, during a paroxysm of drink, shot and killed his wife and child; then killed himself. We have only to add that this neurologist is a teacher, and may possibly awake to the realization that there are more facts in science than he has ever dreamed of.

DR. MASON'S report, which appears in this number, is the first official action taken by a medical society in this country on the first care of persons found unconscious on the street with an alcoholic breath. This journal has repeatedly called attention to the very grave mistakes which follow the policeman's diagnosis, and often the hasty judgment of physicians, on such cases. This is the first authoritative medical inquiry made in this country on this topic, and reveals the fact that the present methods are very crude compared with other countries. There can be no doubt that many valuable lives are sacrificed every year from neglect in failing to recognize the actual condition of the person found unconscious on the street, and give the proper care essential at that time. The delusion that an alcoholic odor is proof of drunkenness and that the victim requires no special care is common in this country. In Europe such a person is treated as sick, and an effort made to determine the conditions and causes of this state. In all our larger cities the frequency of the coroner's verdict, "Found dead in the cell, of alcoholism," and where an autopsy is made, hemorrhage, fracture, and other lesions appear, show a wide field for medical inquiry.

The Kings County Medical Society have taken the initiative, and will continue this work, through its committee, until some legislative action shall place the subject on a scientific basis.

than to inquire into the physical conditions of the life of the person. The progress of scientific thought demands a study of the relations of causes and effects. Knowledge that does not include the facts of the relationship of causes is of little value. The evils that we deplore and seek to remove remain until we find the causes and apply our remedies here, then the effects disappear. In human life the range of causes are so complex, and the point of departure from the normal is so obscure, that only a critical study will indicate in a general way the present condition. The inebriate represents a wide range of causes that have concentrated into the desire for spirits. This is simply an effect, some lowered state of the nerve centers, and functional activities, which find relief from the narcotism of alcohol. The early causes of inebriety work uniformly and have a distinct relationship, which are seen in some cases and are not in others, proving that our means of examination are still imperfect. The central law of the universe is the same here as elsewhere; an orderly sequence of cause and effect reigns supreme. Inebriety is the effect, and the causes are clear and tangible to rigid scientific scrutiny. The spirit of modern research demands the facts for every theory and every system of relief, and calls in question every statement concerning inebriety and its treatment that is not along the line of cause and effect.

RETROGRADING.

The lawmakers of Minnesota and their friends have at last gone back to the old statutes, which have everywhere been failures. The inebriate is thought to be cured by fines of from 10 to 40 dollars for the first offense, from 40 to 60 dollars for the second offense, and ninety days in the workhouse for the third; notwithstanding the experience of every large city and town of this country and Europe, also the statistics of courts covering a quarter of a century, showing that such means are not only useless, but encourage the very conditions they seek to remove. The delusion that

such remedies are effectual continues. The gold cure specifics and all the modern "short cuts" are scientific advances compared with these methods. Some day, not far off, an awakening will take place, and the blind Solons of that State will realize that to ignore the experience of the past is to fall back into delusions and errors that are both degenerating and destructive.

THE assertion that cases of opium inebriety never permanently recover is not true. A number of cases occupying positions of trust are well known to have been opium-takers and fully recovered. Others of this class conceal this part of their history, and are only known to physicians who have had personal care of them. The better class of alcoholics and opium inebriates, who make a permanent recovery, are rarely known to the general public. They seek retirement, and never pose as cured men, either from a feeling of shame at their own former condition, or fear to revive old memories and impressions that are more and more painful as they recede. The men who seem to take pride in publishing the fact of their cure are most likely to relapse. The opium cases who disappear from view are either permanently restored or contract some acute disease and die. Many relapse and become alcoholics, or use cocaine or some other narcotic drug; but they are never concealed, and always appear as anxious seekers for some sources of relief. The reason for the belief that opium cases are incurable is based on the observation that practically many are incurable before they go under treatment. From this class all others are judged.

It is a great mistake to suppose that no injury follows from the use of spirits, because there are no apparent symptoms. The so-called moderate use of spirits may continue for some time and no particular symptoms will be recognized.

Statistics and statements of the harmlessness of spirits, based on observations of moderate drinkers, are always misleading. Sooner or later, the delusion is unmasked, and premature old age, acute organic affections, sudden death from trivial causes, heart failures, palsies, and many other diseases noted for their excessive fatality will follow. Beyond this the defective children which come after tell the story of the progressive degeneration following the continuous depression of the delicate nerve cell and fibers. The physical failures, the early mortality, and exhaustion and low vitality are traceable clearly to this one cause coming on step by step. No other poison is so positive in its effects and so difficult to recover from. Syphilis and malaria can be seen and in some slight measure neutralized and prevented, but the effects of continuous use of spirits is followed by injury beyond any present knowledge to remove and prevent. The use of spirits may be checked, but the injury following is not repaired; there is loss of vitality, loss of cell force and co-ordination and impairment of the finer functions of brain activity, both chemical, physiological, and psychological. In a word, the moderate drinker is not in a normal state, and is becoming more abnormal every day he uses spirits.

JOHN DOE had a severe war experience; besides several wounds, he suffered at Salisbury as a prisoner for a year. He became a very successful business man after the war, and occupied many places of trust. He was temperate, and considered a strong, vigorous man. When fifty he had an attack of rheumatic fever, and began to drink spirits to excess. Two years later he was a periodical inebriate, and had manifested homicidal tendencies when intoxicated. In a consultation two physicians—one in charge of an inebriate asylum, and the other an insane asylum—agreed that he should go under treatment in an insane asylum for a year. Later an eminent neurologist opposed this conclusion, and wrote a severe arraignment of lunacy specialists

We have urged in these pages frequently that the indiscriminate treatment of persons found stupid or delirious with an alcoholic odor on the streets is a disgrace to our intelligence, and ought to be changed at once. Leading medical men have sustained our position, and an increasing number of cases bring the strongest reasons for new and rational means of dealing with this class. The secretary of this committee, the well-known Dr. Mason, solicits communications bearing on this topic; also records of cases, and all that will enable him to continue farther studies in this field. Police surgeons and hospital physicians who are called to make the first diagnosis of such cases will find a new field of facts of intense practical interest. Many lives now sacrificed through neglect will be saved when these obscure cases are understood and treated properly.

THE dangers of cocaine are recapitulated in the *American Journal of Ophthalmology* in a paper by Dr. Albert R. Baker of Cleveland, who collects a list of ten fatal cases of poisoning by the drug. The smallest fatal dose where a measured quantity was given was two-thirds of a grain, which was injected into an eye with the result that immediate unconsciousness was produced followed by death in four hours. One grain injected into the gums by a dentist produced death in a few minutes. The application of a ten per cent. solution to the larynx with a brush was also fatal, unconsciousness following almost at once and death in three hours. The author also reports a case where the instillation of a six per cent. solution into the eye was followed by alarming depression, with periods of unconsciousness attended with delirium. Other and similar cases have been reported. — *Northwestern Lancet*.

MRS. SILVER of Detroit has been awarded a verdict, \$1,100 by a jury, against a saloon-keeper of that city who sold liquor to her husband after she had told him not to do so.

Clinical Notes and Comments.

INTERESTING CASE OF ALCOHOLIC INEBRIETY.

MODIFIED FAILURE OF STRYCHNIA NITRATE.

S. W., age 50, has been a periodical inebriate for more than thirty years. At one time was a total abstainer for a period of eight years. When called to this patient first, he had been drinking heavily for six weeks. His history included four treatments by the Keeley method, with only temporary relief. I regarded the case as one suitable for prolonged institution treatment, and so expressed myself. As this did not meet the approval of the family, the case was put upon strychnia nitrate, gr. $\frac{1}{4}$ t. i. d, hypodermically, together with small doses of the bromides, with digitalis and trional gr. xx as a hypnotic. No alcohol was allowed. The following morning, twelve hours after, tremor excessive, mind clear, and will co-operative; examination of urine negative. Improvement from this point was rapid, and in four days the patient was out and attending to his business, which was extensive.

He continued to improve for six weeks, when, hearing some bad news, he began drinking; was again put under treatment, with the same results, followed by relapse in about the same length of time. In these relapses it was noted that small quantities of alcohol would be followed by an active delirium. Hallucinations of sight and hearing, with delusions, especially of place, were prominent symptoms. A modified condition of ambulatory automatism was also noted.

Following the last period of drinking was a condition of delayed ideation, speech thick, wrong selection of words — not amounting, however, to total aphasia, as the right word

would be recollected if sufficient time were given. Accounts in great detail would be given of imaginary occurrences, the patient recognizing that it was not probable that these things really did occur. Inco-ordination of muscular movements extended to such acts as buttoning clothing and to walking. A tendency to watch the feet, as in locomotor ataxia, was noticed. At the same time the pupil-reflex and patellar-reflexes were normal, and swaying with the eyes closed was not excessive. No hemiplegic symptoms developed. The patient had during the latter period of his history two falls, striking the head in both instances; but presented no symptoms directly after. Headache at no time a prominent symptom.

Two weeks' abstinence from alcohol was sufficient to very largely show a recovery from all the symptoms recorded.

The case is especially interesting in view of the pathological problems presenting. The question of meningeal hemorrhage I was disposed to throw out, on account of the lack of headache and absence of hemiplegia; but rather attributed the symptoms to a tendency to neuritis, affecting not only the peripheral nerves, but also affecting the cortical brain cells.

It would be a pleasure to me to see the opinions of others on this subject.

E. F. ARNOLD, M.D.,
28 E. 20th St., New York City.

We have received a package of reprints of the following papers, by J. H. Kellogg, M.D., the well-known superintendent of the famous Battle Creek Sanitarium: "Experimental Inquiries Respecting the Physiological Effects of Alcohol;" "A New Dynamometer for Use in Anthropometry;" "Important Discoveries Relating to Digestion;" "The Influence of Dress in Producing the Physical Degeneracy of Women;" "The Relation of Recent Bacteriological Studies to the

Etiology of Typhoid Fever;" and several other very interesting surgical papers. Dr. Kellogg is a very prolific, original, and graphic writer, and all his articles are always timely and suggestive. Copies of these and other articles will be sent on application to the author.

CASE OF TOBACCO DEAFNESS.

Among the poisons for the nervus acusticus Politzer names tobacco as well as chininum, acidum salicylicum, morphinum, chloroformum. And also Dvorzak and Heinrich who, under the auspices of Schroff, intoxicated themselves acutely by nicotinum, enumerate thickness of hearing among their symptoms. The following case, in which the nervous data of the family are hemiplegia spartica infantilis of a sister and idiocy of a cousin, may be of interest. J. P., aged 14, had become dull of hearing since four years; last summer he improved a little, but the next winter he deteriorated again, so that his family called him completely deaf. Inquiry learned that the left ear was nearly deaf, and the other one very dull of hearing. The membranæ tympani were normal. There was a light catarrhus of the pharynx. No amblyopia. Sensorium intact. Pupil- and patella-reflexes present. Pulse without particularity. No growing thin, no tremor, all functions normal. He smoked and chewed tobacco the whole day, so that the consumed quantity of tobacco even at a rough guess was not to be calculated.

The severe prescription to use no tobacco at all, and to take much food, had the consequence that after three weeks he heard well again, which after six weeks (February, 1894) still was confirmed. The boy, who had grown thicker meanwhile, in the beginning of May became dull of hearing again, and it was proved that he had chewed tobacco again during the last three weeks. New severe prohibition had the result that he now hears very well.

DR. PIERRE F. SPAINK.

Apeldoorn, Holland, 20 May, 1894.

THE REMEDY PAR EXCELLENCE. — In the April, 1894, number of the *Universal Medical Journal*, the companion publication to the "*Annual of the Universal Medical Sciences*," a magazine covering the progress of every branch of medicine in all parts of the world, and both edited by Chas. E. Sajous, M.D., Paris, France, we find the following notice of antikamnia extracted from an article by Julian, which originally appeared in the *North Carolina Medical Journal*: "The importance attached to this drug, I think, is due to its anodyne and analgesic power, and the celerity with which it acts. As an antipyretic in fevers, it acts more slowly than antipyrine, but it is not attended with depression of the cardiac system and cyanosis. Whenever a sedative and an analgesic together is indicated, this remedy meets the demand. In severe headaches it is the remedy *par excellence*."

We invite attention to the advertisement of the Physicians' Mutual Manufacturing Company of Chicago. This company was organized two years ago to manufacture and sell direct to the physicians for cash, its object being to supply pure and accurate prescriptions with full amount of drug and pure drug in everything they make, that the physician can always rely on effect. As they reserve no profit for druggists, traveling men, or bad debts, they can afford to sell very close. They have stockholders in every State and their goods are guaranteed satisfactory or money refunded. Give them a trial. They sell Quinine in tablets at 40 cents per ounce, and make up anything listed by other manufacturers at about 25 per cent. less than their prices.

We have received two very excellent volumes from the Open Court Publishing Co., Chicago: one on diseases of the will; the other on double consciousness, which we shall review in our next.

THERAPEUTICS OF TRIONAL.

In an inaugural dissertation presented to the University of Freiburg, Dr. Otto Bakofen gives an interesting review of the extensive literature of Trional, and calls attention to the unanimity that exists in the views of authors as to the excellent properties of this remedy. The advantages of Trional consists especially in its reliability and efficacy in those conditions of sleeplessness in which experience has shown it is most difficult to obtain permanent results. This applies more particularly to simple agrypnia and the insomnia of persons suffering from mental diseases or excitement due to alcohol. In cases of simple insomnia Trional has always proved effective; while favorable testimony is more and more accumulating with reference to its utility in cases of alcoholic excitement, which are known to be rebellious to other hypnotics. Among mental disorders, even violent maniacal excitement has been successfully controlled for a prolonged period. The morphine and cocaine disease has also been treated with excellent results by Trional. Of especial note is the extremely favorable opinion expressed by Collatz on the ground of his personal experience with it in cases of cardiac affections. According to his observations patients suffering from serious heart lesions bear well the remedy, even when continuously administered, and experience considerable relief of the distressing symptoms. It should also be mentioned that Trional acts in smaller doses than Sulfohal and also more promptly than the latter. Its use is rarely attended with after effects, but these, if developed, are less marked than those observed from Sulfohal, although the experience of the last few years has shown that with regard to both these drugs sequelæ always result from an improper method of administration, and can be readily avoided. The conclusions deduced by Dr. Bakofen from his experiments on animals are that Trional is perfectly free from toxic effects when employed in the medicinal doses and in the manner prescribed by competent clinical observers.

There are two or three symptoms in the latest treatment of narcomania which I would like explained, *viz.*, Why does the free nightly exhibition of trional induce aphasia (temporal)? Again, in the substitution of codeine *vice* morphia it is a fact that one great purpose is subserved (and not known to those who write), *viz.*, that while morphine induces an almost uncontrollable desire for alcoholics, codeine, *per contra*, does away with all desire for alcohol. So a grand point is gained, because the moment a narcomanic flies to alcohol, when he is reducing the amount of morphia-taking, then all his powers of resistance are thrown to the winds, and he flies at once to an extra dose of morphia. All this is prevented when codeine is used *vice* morphine. Again, diaphoresis, especially during sleep, does not take place under codeine, and thus the patient's strength is subserved.

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grape, has only to be tried to be accepted and adopted as the great drink tonic of the times. We take pleasure in urging our readers to try this grape food, or rather grape juice, as a medicinal agent as well as a tonic drink in hot weather. The New York agent is N. Barbour, 77 Warren street.

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fully recommend this water as worthy of a trial, and if the invalid could go to the springs it would give greater promise of success and cure. We shall notice this spring and water again.

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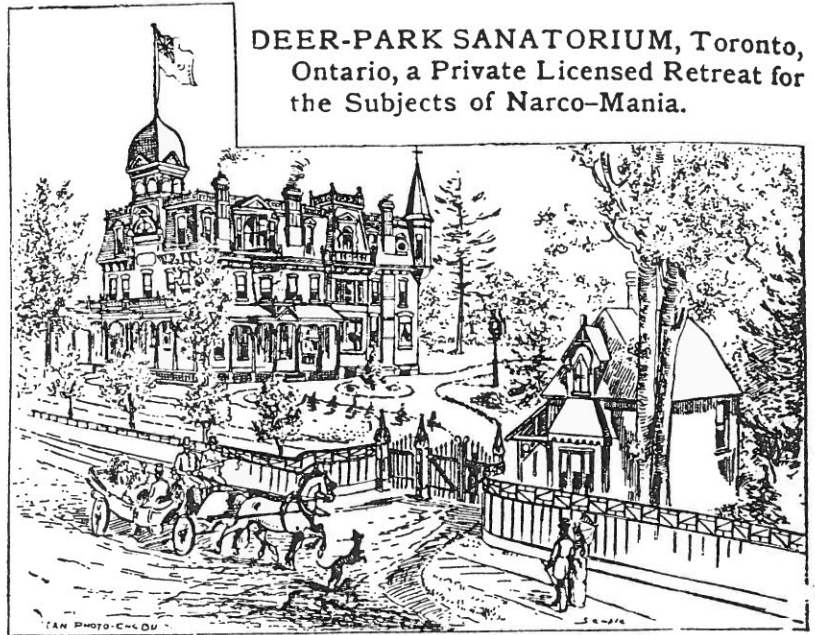
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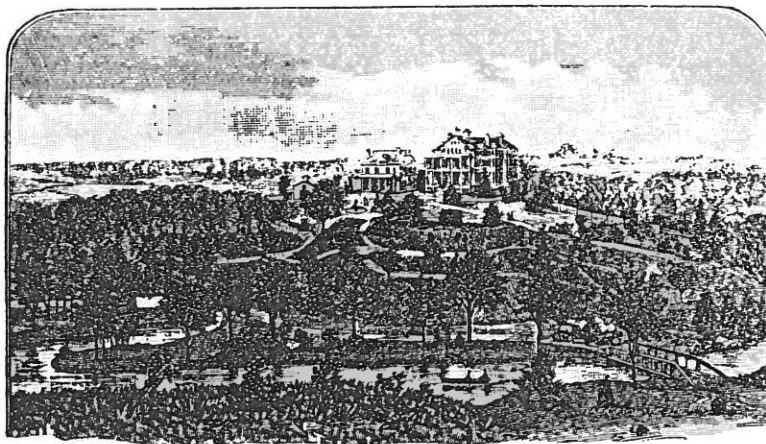
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PAGE	PAGE		
CHAPTER I.—Early history of the Theory of Disease in Inebriety.....	17	CHAPTER XXI.—Treatment.—Its Nature and Plan.....	213
CHAPTER II.—Theory in Modern Times.—Its Scientific Study.....	21	CHAPTER XXII.—Inebriate Asylums and their Work.....	230
CHAPTER III.—Different forms of Inebriety.—Classes of Inebriates.....	26	CHAPTER XXIII.—Hygienic Treatment.	141
CHAPTER IV.—Dipsomania.—Its Varieties.	28	CHAPTER XXIV.—Duty of the State....	252
CHAPTER V.—Philosophy and Etiology...	38	CHAP. XXV.—Care of Pauper Inebriates	254
CHAPTER VI.—Inebriate Diathesis.....	47	CHAPTER XXVI.—Medico-legal Considerations.....	275
CHAPTER VII.—Predisposing Causes....	55	CHAPTER XXVII.—Rulings of Judges and the Law.....	286
CHAPTER VIII.—Traumatism and Injury.	67	CHAPTER XXVIII.—Irresponsibility in Inebriety.....	294
CHAPTER IX.—Adversity, Sunstroke, Heat, and other Causes.....	80	CHAPTER XXIX.—Special Forms of Irresponsibility, trance, etc.....	305
CHAPTER X.—Inebriety in America....	91	CHAPTER XXX.—Relations of Inebriety, Coma, and Brain Disease.....	316
CHAPTER XI.—Mortality of Inebriety.—Fatality in Epidemics.....	100	CHAPTER XXXI.—Inebriety from Opium.	326
CHAP. XII.—Inebriety and Consumption	103	CHAPTER XXXIII.—From Ether.....	341
CHAPTER XIII.—Effects of Alcohol and Beer on the Mental Functions.....	113	CHAPTER XXXIV.—From Cocaine.....	349
CHAPTER XIV.—Diagnosis of Inebriety.—Study of Social Statistics.....	118	CHAPTER XXXV.—From Chloroform...	354
CHAPTER XV.—Delirium Tremens.....	131	CHAPTER XXXVI.—From Coffee and Tea	356
CHAPTER XVI.—General facts of Heredity.	145	CHAPTER XXXVII.—Psychosis caused by Nicotine.....	367
CHAPTER XVIII.—Statistics of Heredity.	183	CHAPTER XXXVIII.—Arsenic and Ginger	371
CHAPTER XIX; XX.—Pathology, &c.....	193		

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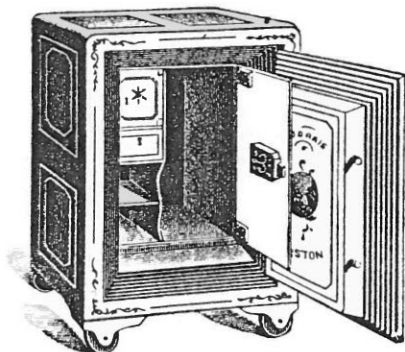
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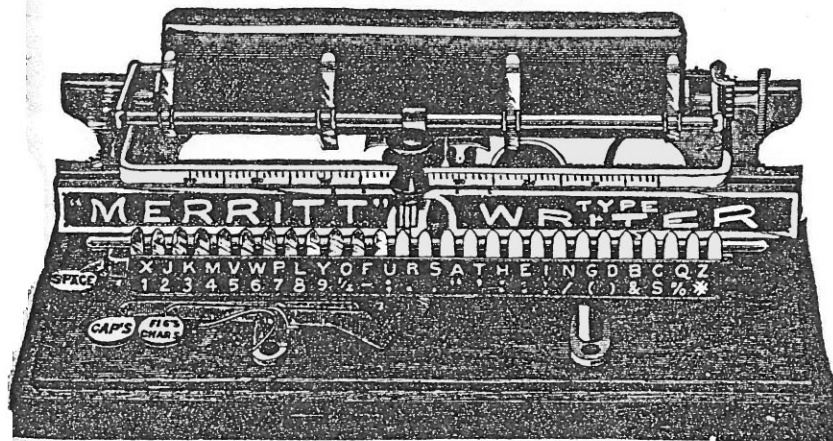
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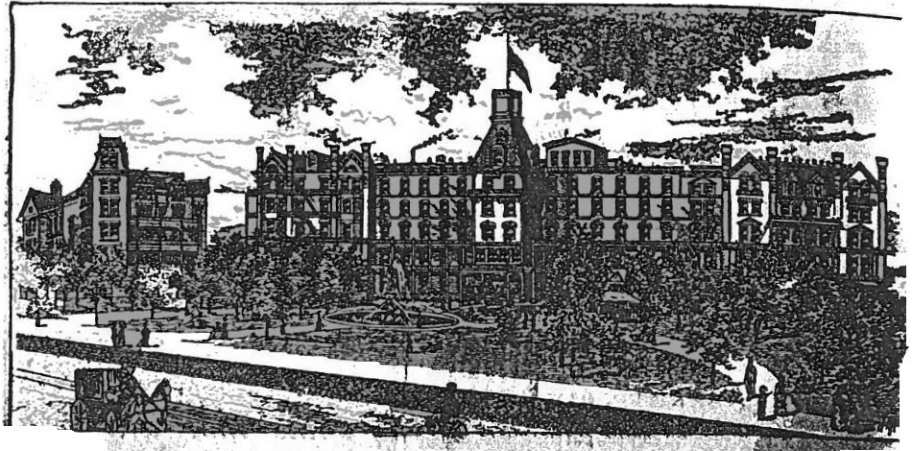
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