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ALCOHOLIC HALLUCINATION.

By Frederick W. Mann, M.D.,
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The mental disturbances arising from the action of alcohol are noteworthy for their diversity of manifestation. They not only simulate all the phenomena of insanity from simple melancholia or emotional exaltation to fully systematized hallucination, but they comprise all the mental phenomena typical of other toxic agents. The splendid phantasmagoria of opium, the vivid visual and auditory imagery of atropine; the time and space illusions of hashish, the despondent forebodings of henbane, all find their counterparts in the delirium of alcohol.

We do not propose to speak of the simpler forms of sensory or intellectual disturbance attributable to the action of alcohol. Between these and the more complex pathological phenomena, the difference is only one of degree, physiological illusion passing by imperceptible gradations into hallucination. In considering alcoholic hallucination we do not, of necessity, therefore, refer the phenomena to any particular
Alcoholic Hallucination.

site or area. A hallucination is the result of the projection of a mental image outwards, when there is no external agency answering to it. A person is hallucinated when these projections of the imagination no longer correspond with external reality. There is no essential difference between the simpler forms of illusion and complex forms of hallucination, save that sensation, the direct factor of perception, is more and more subordinated and the indirect or-representative elements of perception are more and more accentuated. In severe forms of hallucination of the insane, where the amount of sensuous impression is practically evanescent, the imagination and representative elements of cognition are engaged in the association of images having all the significance and force of actual percepts. This is equally so with alcoholics although with these latter, it is even more difficult than with the insane to say how far the elements of sensation enter into the composition of hallucination.

The following are accounted by Griesinger the proximate causes of hallucination: A state of deep mental and bodily exhaustion; local diseases of the organs of sense; morbid emotional states, as fear; the outward calm, between sleeping and waking, and the action of certain poisons, as opium, belladonna, or cannabis indica. In alcoholismus the mental disturbances are manifestly due to either the first or last mentioned of these causes—the state of deep bodily and mental exhaustion the condition of inebriety engenders or the toxic action of the drug on the central nervous system.

Various theories have been advanced in explanation of the origin of hallucination. These for all practical purposes are, however, reducible to four, the peripheral or sensory, the psychical, the psycho-sensory, and that one which, relying largely upon most recent acquisitions in cerebral physiology and pathology, attributes all hallucination to super-excitation of the perceptive centers of the cortex. There is a daily increasing amount of evidence in favor of the cortical origin of hallucination. Accepting this latter theory, we may still preserve the convenient if incomplete distinction established by Baillarger; those have organs, and irritation of the Salpét of Charcot term a psych process to.

The reduced frequently called upon is imitated most prevailing language, any other being deception. Most the most Modesty p the general have invested to in no deviation hallucinative visual hallucination.

The visual varied. This may be gone or usually presented by and other is one of the poisoning, a patient typical. T without any arose from potash whit
Alcoholic Hallucination.

Baillarger and divide hallucinations into psycho-sensory or those having an originating impulse in the peripheral sense organs, and psychical hallucinations, those due to automatic irritation of the central perceptive mechanism. To these, the Salpêtrière School, inspired by the fertilizing researches of Charcot and his associates, have recently added what they term a psycho-motor hallucination, one arising by analogous process to the sensory ones, in the cortical motor centers.

The resemblance of alcoholismus to insanity has been so frequently and forcibly insisted upon, that we do not feel called upon to reiterate the many points by which insanity is imitated. Among the insane auditory hallucinations are most prevalent. The ear, as custodian of the keys of language, presides over a wider empire of experiences than any other sense—the largest proportion of our thought being dependent upon the integrity of our auditory impressions. Most of the writers on alcoholismus have considered the most frequent hallucinations to be those of vision. Modesty precludes opposing our own limited experience to the general testimony of the many distinguished authors who have investigated this subject, otherwise we should be disposed to insist that in this respect also alcoholismus shows no deviation from the phenomena of insanity in that auditory hallucination is a more common feature of that disease than visual hallucination.

The visual hallucinations of alcoholics are exceedingly varied. They may be hideous, grotesque, or awful, or they may be gorgeous, splendid, or inspiring. Unpleasant features usually predominate, and the patient is puzzled and tormented by the presence of rats, mice, beetles, worms, fleas, and other insects. This condition of zoöpsic hallucination is one of the commonest among the phenomena of alcohol poisoning, and may be illustrated by the account given us by a patient whose whole course of hallucination was strikingly typical. This description is written by the patient himself, without any prompting or assistance. He tells us how he arose from his bed to take a dose of a solution of bromide of potash which had been prescribed for him:
"I began to think about returning to my bed when, looking down at the floor, I saw two tiny white mice playing with each other, rolling and tumbling each other over and over and capering in the most frolicsome manner.

"I was much amused, but did not stir for fear of disturbing their play. After a time I thought I would see if I could make friends with them, so placing my hand down on the floor I chirped to them.

"They seemed to have discovered me for the first time, but were not frightened in the least, and they ran to my hand, up my arm, over my shoulders, down my back, and before I could get them off from me they were in my hair, digging with their sharp little claws into my scalp.

"I sprang to my feet and ran my hands through my hair frantically.

"They ran down to the floor and quickly disappeared. Almost in an instant they were back again, bringing with them a dozen or more companions.

"Some were white, like themselves, others were red, some were striped like a zebra, and on close inspection I found that every color one could imagine was represented.

"Some had long ears like a rabbit, and no tails, others had drooping ears like a hound, and very long tails. A few were gorgeously arrayed with small blankets, bedecked with beads, and spangled with glittering gold stars.

"Some of them walked upright on their hind legs and carried little walking sticks of odd design. Others walked on their front feet and held their tails erect in the air, presenting much the appearance of a toy church steeple. Some stood erect on the tips of their tails and whirled round like a top. After a while they all began a giddy whirling motion.

"While they were in this act, in sprang a band of huge black rats, and began a vigorous warfare with my tiny intruders, causing them to scamper in every direction and vanish from sight. The rats then began a rough play, almost a rough-and-tumble fight. Occasionally one would come close up to me and turn up its red serpent-like eyes and bark
Alcoholic Hallucination.

at me. I heard a slight noise in the direction of the door, and looking up saw two large black cats sitting up in the open transom and carefully adjusting their hind legs. In an instant they sprang with loud growls in the midst of the rats, and hurled them in the air till they all lay on the floor dead or kicking or breathing their last.

"Then each cat seized a rat and sprang out through the transom, quickly returning for another and another till they had cleared the room, much to my relief."

"Then they returned, and after walking about seated themselves in the middle of the floor. Then in sprang a savage looking bull-dog, and giving a fierce bark, which brought me to my feet in terror, he seized one of the cats and shaking it ferociously threw it at my feet. He seized the other and bounded out of the room, followed by the wounded cat he had first encountered.

"I heard them fighting and growling in the hall for a moment, and all was still."

We do not recall having seen any explanation of the reason why animals enter so largely into the composition of the primary illusions of alcohol. These illusions a little interrogation of the patient will usually substantiate as present. A patient, only the other day, declared how he saw a rhinoceros, several huge elephants, and strange-looking reptiles browsing in the yard.

Auditory hallucination, such a frequent concomitant of all delusional insanity, is very perfectly developed among alcoholics. It may assume all forms, from simple auditory illusion to verbal auditory hallucination. The following case extracted from our records will illustrate the imperative character of this form of hallucination:

"Mr. G. W., a lawyer from Canada, was a man of recognized ability and eminence. His practice was principally jury practice, and his imagination was the faculty he most depended on to give a semblance of reason to ambiguous circumstances. As he himself said, in his efforts before the jury, his imagination was his best used faculty. As a result
of highly differentiated conviviality, Mr. W. began to mix his drinks in novel and insidious combinations; he tried mixtures of beer and champagne, but finally agreed that the union of champagne and whisky best fulfilled the functions of an intoxicant by affording the maximum of stimulation with the minimum of functional inconvenience. His wife, observing symptoms of mental aberration, removed him to this city, where he became thoroughly hallucinated. His primary hallucination was somewhat after the following nature:

"Satan and the Almighty were engaged in that perpetual spiritual feud for which they have become celebrated. The devil, with characteristic inventiveness, had conceived a scheme whereby he was enabled to suspend at will the action of gravity, and after setting fire to the moon intended to precipitate it upon the earth and so annihilate the human race. On the lunar surface there was but one inflammable point; and to reach this one thing was essential — the mystic chair. The mystic chair was on earth and possessed the property of permitting any one standing on it to reach any desired height. The Almighty, speaking to G. W., said: 'Bring me the mystic chair.' Mr. W. was only restrained from searching for the chair by main force."

"Throughout an extended period of Mr. W.'s detention he held frequent conversations with the Deity. He got on intimate terms, and always addressed him as 'My Lord.' His illusions were precise, extending to the accentuation of words and the cadence of sentences. He would hold conversations like this: 'Have I been unjust, my Lord?' 'Did you say unjust, my Lord?' 'Did you say unjust or ungrateful, my Lord?' 'Oh; unjust, my Lord; no, I have never been unjust, but I have been ungrateful.'"

The varieties of auditory hallucination are of course endless, and the experience of every physician will supply many examples.

The least common among the illusions of alcohol are the hallucinations of taste and smell. In this the correspond-
ence between alcoholism and insanity is again maintained. The rarity of these illusions is to be expected, the sense of smell in the human organism at least being reduced to rudimentary importance. The mental associations clustering round the sense of smell are very strong — stronger than any other impressions received from without — but they are limited in range. What is gained in intensity and immediateness of reflex is therefore lost in the paucity of association whose revivability is possible by olfactory excitation. An odor establishes few relations in thought and feeling, but those few are immediate and homogeneous, no simple sense impression being capable of so vividly renewing the force of a former excitation as an olfactory one. From this lack of memory images it follows that nothing is so evanescent as the memory of an odor. The poet who wandering through the streets of Köln discerned seventy-two distinct stinks and several well-defined smells must have possessed the olfactory apparatus of a lower organism. Any one who has visited that fragrant city will, on analyzing his olfactory reminiscences, find them to be anything but "sweetly varied."

It is dubious if hallucinations of taste and smell should be comprised under Baillarger’s classification of psychosensorial hallucination. Sensation is apparently not a factor in the formation of such hallucination — the imagination does not wait upon it, but initiates its appearance — and the resulting hallucination is psychical. The hallucinations of taste, for instance, are usually connected with ideas of poisoning, and it is in these the hallucination in the main consists, not in any perversion of sensibility. The hallucinations of smell are also frequently the accidental points of some systematized hallucination. A patient imbued with the dread of hell naturally becomes susceptible to the fumes of sulphur.

The following case records the only occasion we have encountered this form of hallucination with alcoholics. It will be noticed that sulphur was smelt, and the hallucination...
probably originated in the moral defects of the patient, leading him to a foretaste of punishment:

"I. G. was a saloon-keeper, having the characteristic plethora of an habitual soak, who after continued excesses in the enjoyment of Grosse Pointe whisky was attacked by delirium tremens. His primary hallucinations were mainly auditory and visual, but he later exhibited those involving the sense of smell. He spent most of his time groping around the room, plugging every key-hole and cranny with paper, his reason being that a green-eyed and red-skinned demon on the outside of the door was insufflating a fine dust through every available aperture. This dust he said resembled iron-filings. Later the patient exhibited paroxysms of suffocation, which he affirmed due to the sulphurous stench of the dust."

This case seemed a favorable one for making a few tests bearing upon the much-questioned identity of the senses of taste and smell. Here was a disorder affecting the olfactory judgment in its peripheral or central mechanism, and an opportunity was presented of testing the patient's accuracy in the interpretation of gustatory impressions. The patient was blindfolded and the anterior nares plugged with absorbent cotton. Small pieces of meat were given him and he was told to name the different foods. The beef and ham he recognized as such, chicken he called beef, and veal, chicken. Beef tea he could only designate as soup. Port wine he discriminated correctly. Sherry wine he called Catawba, and whisky was promptly recognized as an old familiar friend. Similar experiments on others gave an aggregate result little differing from this one—conclusions were therefore negative.

Before passing from the consideration of sensorial hallucination, a word should be said on the snake hallucination. Disorders of this kind are associated in the popular imagination with excesses in the use of alcohol. "Seeing snakes" is in reality not a common experience. The two or three cases we have seen convince us, however, there is some basis
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for esteeming this one of the occasional retributions of excessive zeal in devotion to Bacchus.

A gentleman, a lawyer from Pennsylvania, a highly-educated and cultured man, recently came under our care for alcoholic mania. He went through thrilling experiences of an auditory and visual kind—attempted to jump out of the window to keep an appointment with the Deity at the City Hall (this being before the days of boodle charges in the city of Detroit), and believed himself sentenced to one hundred years in hell for every moment he was late. This patient wrote an account of his experiences, which assumed the form of a coherent and systematized hallucination. To answer for his offenses he was summoned before the high court of Bacchus, taken a horrible journey down a dark, slimy, murky river, and confronted by a judge, himself a gruesome monster, and a grand jury of reptiles whose evil countenances would by actual contrast have imparted beauty to the smiles of the saurians. Extensive quotation cannot be made from this document, but illustrative of the vivid and insistent character of this form of hallucination, we give, in his own words, the sentence and penalty imposed by this terrific tribunal:

"The sentence of the court is that you be conveyed by the sheriff to a den of deadly fiery serpents of every degree of size, of strength, of venom; with every cast of tooth and fang; with every varying capacity of sting and bite—there to remain (in open view of a craft of safety moored on the shores of the river, which boat you are at perfect liberty to reach, and cross to the other side, if in your feeble strength you are so presumptuous as to attempt it) until the flesh be stripped from your bones, and your bones disjointed and heaped in unsightly masses. All to await the further orders of the court.

"Mr. Sheriff, you will take the prisoner in charge and see that the sentence of the court is executed.

"He opened a door exposing to view a broad low-roofed, brilliantly-lighted passageway cut in the darkness leading
down to the dark river. At its moorings where the murky tide met the finlands of the midnight swamp lay a lifeboat manned by a single stalwart oarsman.

"The track to the water's edge was paved with angry hissing serpents. Huge monsters met each other and linked together in ugly arches across the pathway. Great ugly looking heads protruded from the dark walls, and with open fanglike mouth and arched necks cast quick fiery glances at me.

"The boatman beckoned to me and consulting his watch, shouted 'four and twenty hours will the boat yet tarry.'

"The sheriff produced a bottle of brandy, and, measuring out a small quantum, handed it to me saying, 'Drink this and pass to your torture.' I drank it and raising myself up and nerving my arm, I struck him a blow in his hideous face with all my force. He fell to the floor and the bottle dropped from his hand. I seized it and, quickly draining its contents, sprang in among the hissing serpents.

"They leaped at me and entwined themselves around my legs and arms. They environed my body and tore and lacerated my flesh. I tore them from me and flung them into the darkness. Seizing a large heavy one, I pulled off its head, and used its body for a weapon. As I would spring towards them, they would retreat, but others would grasp me from behind. I would turn and stamp and crush those in the rear, only to find them closing in upon me in front. Thus I fought them with every muscle strained to the utmost tension.

"Wounded and bleeding I passed down beyond the halfway mark; two-thirds of the distance had been reached. I was growing faint from loss of blood; my over-taxed muscles were growing weak and feeble. I paused for a moment to breathe when the boatman shouted, 'Courage! courage! you have three hours yet.'

"I renewed my struggle with desperate effort; grinding my assailants under feet, beating them away from my track, tearing them in pieces with my hands, and tossing them high in the darkness.
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"I had almost reached the water's edge. 'Quick! quick!' came from the boatman. I had only one more monster between me and safety. I seized it; it threw its heavy coil around me. I unwound it; and, throwing it to the earth, stamped upon its head. 'Quick! quick!' shouted the boatman. The reptile raised its head again. I caught it in my hands. 'Too late! too late!' said the boatman; and, as I flung the serpent behind me, the boat moved off from the land.'

The snake hallucination is difficult to explain. Disturbances in the peripheral organs of vision seem hardly competent to account for such aggravated symptoms, although there are facts suggesting the plausibility of such an explanation. A patient in a room, where the pattern of the wall paper or the carpet abounds in geometrical figures and circles, is apt to find these endowed with gyroratory movement, and as a result may come to imagine snakes about him. But the usual causes of this hallucination seem central in origin and due to pre-existing imaginative impulse. Why should this impulse assume the snake form? May not the explanation lie in the facts of nascent consciousness? We know that stimuli cannot be co-ordinated without some ganglion through which they are brought into relation. In effecting this co-ordination, the ganglion must necessarily be subject to the influences of each stimulus and must undergo a succession of changes. This action and its reaction implying perpetual experiences of resemblances and differences constitutes, according to psychologists, the raw material of consciousness. Therefore, as a corollary of this process, Herbert Spencer asserts that as "consciousness is developed, some kind of instinct becomes nascent." That there is a nascent instinctive dread of the serpent in man and monkey is obvious. There is every reason for it. The early history of our race abounds with record and tradition of that internecine strife between man and the serpent. We find the serpent permeating all his mythology, a chief feature of his legends, inscribed on his monuments, engraved on his symbols, and worshiped as his God.
Even before this period the dread of the serpent may have been implanted in our human neuroplasm. Dr. A. E. Brown recently made some experiments in the Philadelphia Zoological Gardens, and found that monkeys, who, born and reared within the gardens, had never seen a reptile, yet exhibited great fear and curiosity when a snake was placed in their cage. An alligator or turtle caused no surprise whatever. Other animals, like the ox and the hog, were either perfectly indifferent or manifested no fear of the snake. These experiments, which were repeated in many ways, could lead him to but one conclusion — "that the fear of the serpent became an instinct in some far distant progenitor of man by reason of his long exposure to death in a horrible form from the bite, and that it has been handed down through diverging line of descent which find their expression to-day in Homo and Pithecus." What we know of the facts of hereditary transmission encourage the belief that under exceptional circumstances latent ancestral experiences can be revivified. As an example, we may mention the fact of the speech function in certain pathological conditions reverting to the primary stages of language, the patient designating objects by simple onomatopoeia. From those far distant days when our common arboreal ancestor climbed the tree to escape the serpent's fang, and yet found no safety from pursuit, or from those later days when primitive man erected his dwellings in the midst of lakes that he might, among other things, avoid the gliding treachery of the serpent, — from those days naught divides us but the long lapse of unnumbered years and the acquisition and possession of a sublime reason. What, therefore, more likely, that when that reason lies prostrate and exhausted at the feet of sensual excess, that man's consciousness deprived of higher inhibitions should revert once more to that epoch when the common progenitor of Homo and Pithecus lived in perpetual awe, and labored in continual warfare with our old enemy — the serpent.

The innumerable forms under which the hallucinations termed psychical are manifested with alcoholics preclude
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The description here, in anything but general terms. In these cases the imagination seems to ransack the remote recesses of experience for the materials of its fabrications. Every imaginable delirious combination is possible. According to Magnan, the hallucinations of topers are “especially characterized by their mobility and their horrid nature.” In the more chronic forms of alcoholism we rarely find the hilarious illusions which accompany many forms of acute mania. The patient is pursued and followed. His acts of violence are attempts to free himself from tormentors. He is cognizant of conspiracies to murder him in sleep. He learns of plots against himself and family, and busies himself in the construction of counterplots. He is a participant in all kinds of catastrophes. Foremost among these hallucinations are those in which the Deity, particularly in his character of a judge or avenger, dominates the imagination of the patient. The devil also intrudes upon his reveries, and intimates the proximity of that Inferno to which the devotee of Bacchus feels himself already condemned.

The following record of a recent case may be given to illustrate these forms of mental derangement:

J. K. was a well-known, a justly-renowned inebriate of this city. His visits were always diverting in consequence of the amplitude and variety of his hallucinatory experiences. He usually exhibited three distinct stages of hallucination. First, one of maudlin sentimentality, during which his countenance would crystallize into a perpetual grin, and to those around him he would adopt the languishing manner of an enured lover. During the second stage he would be morose and gloomy, and his hallucinations would be of a terrible character. His wife and children would be killed before his eyes in a railroad disaster, or would meet some equally untoward fate by inundation, explosion, fire, or other calamity. In the third stage he would be extremely violent, and have to be forcibly controlled. Up to this period Mr. K’s hallucinations seemed purely psychical; they usually concerned others more than himself, were circumstantial,
persistent, and hypnagogic. His violence was usually the outcome of imagined personal persecution, although on the last occasion he was treated he was forcibly restrained from throwing himself out of a window, to which act he was impelled by the persistent determination of five young ladies to disrobe in his bedroom."

The Salpêtrière School have recently described a form of hallucination they term "psycho-motor hallucination." If we accept the theory that hallucinations are due to centrally initiated irritation of the cortical sensory centers, there seems to be no reason why an analogous process may not take place in the motor regions of the cortex, and the resulting hallucination will be a motor projection. The psycho-motor hallucination has as yet only been described in its connection with the speech function. The idea is, as we know, a result of the association of memory images stored in certain common centers of perception, as the auditory, the visual, and so forth. The word, which is the symbol of the idea, is composed of auditory and visual images, and also images of the expressive acts, the articulo-motor and graphe-motor images. Either of these four images is of itself incapable of reviving the idea of an object, unless a higher cerebral act associates it with the different sensory images of that object. But imagine the motor centers independently energized, say those presiding over the articulo-motor mechanism; the patient then articulates without initiation by the active ideational centers, and as a result where this speech motion is thus projected in consequence of related associations synchronously vivified, the patient perceives his own voice, as we do in dreams, and, attributing the speech to external voices, becomes hallucinated. It will be observed this is an entirely different phenomenon to auditory hallucination and the hearing of external voices, for the impulse may not be projected as an articulation, but simply as an articulatory motion; so also, is it different from that form of disorder called echolalia, in which the insane hear their thought plainly formulated in their own ear,—this process only involving the sensory speech centers.
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We have never heard of this form of hallucination being described except as a phenomenon of insanity, and had it not been for the interesting examples lately recorded by M. Seglas, of the Salpêtrière, and the differential points his luminous ideas have so clearly established, the following case would have been passed by as one of verbal auditory hallucination:

"Dr. T. was a physician practicing in the northern part of this State. When a boy he had fallen and fractured his skull, and was subject to paroxysmal headaches. He was a man of refined tastes and quiet studious habits. He contracted the habit of whisky-drinking to allay the cephalalgia. It was periodic, and between times his habits were so exceptional as to divert all suspicion from alcoholic propensities. When he came for treatment, Dr. T. was suffering from all kinds of visual hallucinations. Men, women, children, satyrs, harpies, devils, imps, and all the heroes of mythological authority paraded around his bed, making minatory grimaces. On the second day he began to hear voices within him. An emissary of Satan took up his residence 'just below the liver,' and conversed with him. A blister was applied over the site indicated, but the devil was not of the kind that comes out by counter irritation. Sometimes the internal voice would speak by his mouth and response would be made in a different tone of voice. The patient was perpetually speaking to himself, but close examination and the frequent repetition of the above noted phenomena, revealed that, as compared with echolalia, the sequence of phenomena was reversed so that this case was actually one of psycho-motor hallucination."

Co-ordinated psycho-motor activity offers an explanation of many conditions hitherto interpreted on the basis of sensory disturbance. Duplication of personality, a not uncommon form of hallucination, is more intelligible as a dichotomy between the intelligence and the motor phenomena of speech than as a derangement of relations in sensory sequences. The delirium known as "low-muttering" oc-
curring, as it does, in typhoid conditions—in conditions where excessive and active mental action is unexpected, might be due to toxic irritation of the motor centers.

In one important feature hallucination, and especially alcoholic hallucination, bears a striking resemblance to certain phenomena of hypnotism. M. Ballet, in a recent number of *Le Progrès Medical*, described a patient in whom the power of revivifying representative images was pathologically increased. The vaguest sight or sound suggestion sufficed to awaken definite images. The patient was in a condition of conscious hallucination. M. Ballet regards ethylism as an important etiological factor in his case. In cases of alcoholic hallucination the patient will readily “represent” on the suggestion of another. These cases seem to lie somewhere between dementia, where the power to represent is obviously diminished, and hypnotic conditions, where the representative consciousness is actualized at the suggestion of another.

The principles for the treatment of alcoholic hallucination resolve themselves into those regulating the general management of inebriety. In some forms of visual hallucination the patient seems calmer if blindfolded or placed in a dark room, but in hallucinations so persistent as to be hypnagogic these measures are of little use. To immerse the feet frequently in hot water sometimes seems to have a subduing influence in acute maniacal conditions,—but how little derivative action can do for these troubles was demonstrated by the case of a patient who came under our care for delirium tremens, and who, before we removed his property, managed to secrete a small penknife under the mattress of the bed. With this he subsequently cut the facial artery and bled himself, *ad deliquum animi*. Nevertheless, his hallucinations persisted. That delirium tremens is in any way dependent upon cerebral congestion seems highly improbable. Strychnine is undoubtedly useful in stimulating general inhibitory function. Hyoscyamus and its derivatives we regard the most valuable hypnotic, especially in conditions approaching acute mania.
THE TREATMENT OF INEBRIETY.*

BY N. ROEB BRADNER, M.D., PHILADELPHIA, PA.

It has been said that "nothing succeeds like success," and it is especially well for those who are engaged in the service of our cause that it is so. Otherwise deviation from the routine of to-day, every invention, or advance in science or the arts, would be frowned upon, and the best efforts of our most enlightened, enterprising scholars retarded, and too often made impossible of success. The title of this essay, the very name of the association under whose auspices we are to-night assembled in the honored halls of the New York Academy of Medicine, has not escaped the sneers of men prominent even in the medical profession. An English author on mental aberration has seen fit to employ characters of the Italian alphabet to designate, in derision, this association and its object of curing inebriety. Now, the first American to write upon diseases of the mind, said "experience has exhausted herself in abortive efforts to form a system of principles that shall lead to general success in the treatment of diseases of the mind," and "these diseases can be brought under the dominion of medicine only by just theories of their seats and proximate causes." At that very time, i.e., nearly a hundred years ago, we read of madness of all kinds occurring in Java, brought on by the intermittent use of opium, and that the poor, when infected with it, were put to death, but the rich, who were able to purchase the service of female nurses, generally recovered.

What volumes would have been written, and at our command today, if this subject of inebriety and its treatment had been grasped and handled then, as it has been by

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*Read at April Meeting of Association for the Study and Cure of Inebriety.

†Dr. Benjamin Rush.
this association for the past two decades. Had our membership consisted of timorous men, or those who will only make an honest journey over a smooth road, neither inebriety nor insanity would even yet be regarded otherwise than an unavoidable curse, or a self-inflicted unfitness for society. For it is certainly true, that some of the greatest masters of the subject of insanity are, or have been, members of this association; besides which, the two diseases are so nearly allied, both in etiology and necessary treatment, that scarcely any discovery can be made to elucidate, or alleviate the one, that does not have a corresponding salutary influence over the other. Insanity was the first to be recognized as a disease, and, in the natural course of events, more advance has been made in its treatment; but, although it does not even yet seem to be generally accepted, it is, beyond all doubt, true, that what has been done for the insane must be done for the inebriate. Are we told but little has yet been done towards our promised treatment of inebriety? As compared with what has been done for insanity, we answer: Count the physicians who are wearing our harness—who labor, or even believe in, the utility of our undertaking! Then count and compare with them the number of physicians who are employed in the treatment of insanity, to say nothing of the large number of grand, well-equipped hospitals, built and supported at public expense, for the exclusive care and treatment of the insane! Is it to be marveled at, that more is known of insanity and its treatment, and can reasoning creatures doubt, that with the same facilities, and an equivalent corps of professional workers, the successful treatment of inebriety would be as well demonstrated and universally acknowledged? I therefore think that the first successful step in the treatment of inebriety is to secure physicians, who, through experience as well as study, are familiar with the disease. How we are to provide such physicians will be considered further on. Next, having first recognized inebriety as a disease, we must seek to bring it under the dominion of medicine by just theories of its seat and proximate cause.
Within the past few months every physician in the city of Philadelphia, beside many elsewhere, have received from a committee appointed for the purpose, an invitation to subscribe for a fitting monument to be erected to the memory of the late Dr. Benjamin Rush of that city, as the pioneer great physician of the great new world, the United States. Who is there to depreciate the greatness of that great man? None! And yet, how few of his cotemporaries then believed in his humane advanced idea of insanity? Until that time insanity had not uniformly been regarded as a disease, but rather the manifestation of an evil spirit; and, the remedy that had chiefly been applied was the whip, and similar means of punishment. Even Dr. Rush, in his early and excellent inquiries and observations on the diseases of the mind," had not yet learned that such treatment was wholly unnecessary.

In one of the great daily papers published in Philadelphia, I recently read the following editorial: "A movement is on foot in this city looking to the establishment of an institution to be known as the Rush Hospital, and to be devoted to the study, cure, and treatment of consumption, and its allied diseases. It is proposed to secure a building in the city for temporary use, and then, when a sufficient endowment shall have been obtained, to erect the permanent institution a short distance from the city and supply it with every equipment that will aid research and investigation, and give the patients systematic and intelligent care." Now do you ask why I invite your attention to a subject that seems to cause degression from that which we are considering? It is because the scheme coincides exactly with what I have long been and am still earnestly hoping to see undertaken for the cause of inebriety. If, in the above newspaper article, we substitute the single word inebriety in place of consumption, it would cause to be advocated one of the most needed institutions we now want the want of, and one that I cannot doubt will sooner or later be established in each large city. Just think of the progress in the study of inebriety that
would follow the establishment of such an institution in the midst of a populous city, where every street, and sometimes every house in a street, contains an inebriate without treatment or care, indeed, almost without God, and without hope in the world. If such a hospital should be established in the vicinity of medical colleges, and the college provided with a teacher learned and experienced in the subject of inebriety, who would give his pupils the clinical instruction regarding the disease that could be so well acquired in such an institution, our previous question of when and how we are to secure certain physicians would be already answered. There is now no proper provision for the treatment, care, or even restraint of inebriates in our proud city of Philadelphia, and if any city of our whole nation is properly and adequately equipped in this respect I do not know it. It is a very common thing for our society to be startled by the overt act of some inebriate, very likely a member of some well-to-do, respectable, refined family. They are no more fit nor safe to be at large than those with acute mania, and must be restrained, but how? Our only present provision is to treat them as insane and take them to a lunatic asylum, or as criminals, and commit them to prison. These courses are both unjust and equally unavailing. The State laws very properly prohibit the detention of a sane person in a lunatic asylum, and although the necessary certificate of insanity can generally be secured at the critical time, it will not serve to hold the patient beyond a few days, i.e., until the severity of the paroxysm is over. Indeed, it is highly improper, and very unjust, both to the inebriate himself and the insane patient, that they should be amalgamated, as it were, with each other. The next, and only alternative, is to treat the disease as a crime and send the patient to prison. I will not offend the ears of this association by even discussing the propriety of this measure, which is cruel, barbarous, and a disgrace to modern republican government.

Let us have hospitals for our inebriate! Let us teach our medical students the importance and the means of battling
with that disease, then in a few years we will have a faculty of physicians prepared to do for inebriety what has been done for insanity. In the consideration of this subject I have been impressed with the relative aspect of professional treatment of these two diseases, presenting, as it seems to me, a condition of affairs not only important per se, but strongly argumentative of the correctness of the views herein advanced. To-day our nation needs public hospitals for the treatment of inebriety, institutions supported by the commonwealth, so as to provide for the great number of poor inebriates, or those who are unable to provide private treatment. The larger portion of this unhappy class cannot be saved any other way, and for us to permit their destruction is not much improvement on the system of the Japanese who killed them outright. On the other hand, our country, abounding in great public asylums for the insane, and which are restoring many to reason, now needs greater efforts and more promising facilities for the cure of insanity, such as might be secured either in private hospitals, or even in the private practice of physicians especially educated and prepared for that purpose. In other words, the growth of the study of inebriety has now about reached that of insanity, as it was a century ago, while insanity in its great march now demands still greater and more provision than we can yet even ask for inebriety. In conclusion, I beg to repeat a suggestion made on a previous occasion, and in which I have great confidence. It is that greater pains be taken to secure both physicians and nurses for both the insane and the inebriate. In brief, I suggest the employment of nurses and attendants in hospitals and asylums from medical students who have to earn their way into the profession, and of whom there is an adequate number.

The employment of such persons would have the double advantage of securing the services of educated, proper persons as attendants, and also prepare the future physician with practical information and experience, fitting his future calling.
By the term Alcoholic Trance we shall refer to a condition induced by the use of alcoholic liquors in those of neurotic diathesis, that results in a lapse of memory regarding time, place, and circumstances; lasting from a few hours to a week or more, in which the individual may act naturally to all his friends, yet awake from that condition with absolutely no memory whatever of his previous conduct.

There is but little recorded in medical literature relating to the subject of this paper. Not but the condition of alcoholic trance exists commonly enough, but owing to its peculiar character is often ignored by physicians and courts, and considered a lame excuse rather than an honest statement of the unfortunate victim. A dean of a well-known medical college, after hearing a gentleman give his history, suddenly broke in with, "What is the use of your lying to me?". The gentleman stopped in his recital and changed physicians, with diminished faith in the erudition of the doubter to whom he had honestly recited his case hoping for help.

Without a knowledge of the possibilities of the condition, doubt can easily exist. With a knowledge of the condition, mistakes may be avoided.

But a few days ago, a young man of intemperate habits was hanged in Columbus, Ohio, for killing an old lady whom he had loved for the many acts of kindness she had shown him. He was arrested and tried, and so overwhelming was the evidence of his guilt that he was sentenced. He, however, stoutly adhered to his statement that he knew nothing whatever of the act, but said if he was guilty he should be

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Alcoholic Trance.

punished for the crime. It is more than likely that this was a case of alcoholic trance, yet the fact of its being such was not brought up during the trial of his case.

It is probable that any sympathetic disturbance of the cerebral function will modify the power of memory to a marked degree under proper conditions. These we have seen occur from any sudden emotion, physical or mental fatigue, traumatism, epilepsy, aphasia, states of anaemia, and the mental changes incident to old age. Also, we have noticed that there may be strong tendencies to lapse of memory regularly occurring under certain conditions. The following two cases will illustrate the possibilities in this form of trance:

Case 1.—"Pursuant to your request, although somewhat reverse, I will relate my experience with alcoholic liquors.

"My first drunk occurred while I was attending an academy. I drank with other students until they were all drunk. I, myself, had felt no effects from the liquor until after they had all left the room, perhaps an hour later. I dropped as if I had been shot: I knew nothing until thirty-six hours later. During this time, I am told that I went to my boarding place, took my meals, and acted much the same as at other times, with the exception that I would not attend school. But that thirty-six hours is, and always has been a complete blank.

"After this I did not drink any liquor until I was twenty-five years old, at the time being in the business of a commercial traveler. At this time I commenced suddenly to drink. I drank to forget, and drank continuously for a period of two years; averaging, I should say, from a pint to a quart per day of whisky. At the first I did not become really intoxicated, but towards the last much more frequently. However, I could never discern that I was becoming intoxicated and, I always attended to business same as I had previously done when I did not drink. I could never discover any mental effect of the liquor until suddenly I would pass into a state which would sometimes last one, two, or several days,
at the end of which time I would suddenly come to my senses and find myself differently situated than when I last remembered. During these times I would still attend to business, and, as I am told, no one could discover that I was intoxicated.

"At one time I was standing at the bar, drinking what we call 'Stone-walls,' with two of my customers. I had been drinking the same as usual right along. I remember raising the glass to my lips; I have no recollection or knowledge of events that occurred for the following week, when one morning I woke in a town one hundred and seventy-five miles distant from the place where I had taken that drink. Of course, having had previous experiences of like character, I knew what had transpired. I stepped up to the landlord and asked him how long I had been there. He said: 'Two days.' During those two days, he told me, I had visited neighboring towns with a team, in his company, in a radius of twenty miles, and had transacted my usual business. I referred to my sales-books, and found that I had visited all my customers along that line of one hundred and seventy-five miles; that I had sold them goods. My order-book stubs showed that I had sent the orders to the house. But being fearful that all was not right, I wrote the house for the daily reports which I had sent. Upon receipt of these I found they were all in correct form. I wrote letters to the customers whom I sold goods; in every instance the business transacted proved to be correct. I wrote to the hotels where I had been accustomed to stop; in every instance but one, I had paid my bill, and all was satisfactory. None of these people, I found on my next trip, were able to note anything unusual in my actions or business methods; yet the fact remains, that during an entire week, from the time of taking that drink until I woke, as it were, from a dream, one hundred and seventy-five miles distant, I had been utterly unconscious of all that transpired. It is to me to this day, and always has been, a complete blank. I only know of what occurred, from my books, and the reports of those whom I met.
"Another time, during one of these attacks, I visited a clothier, whom I well knew, in a certain city, and ordered a suit of clothes. Of course, coming to myself at a later time I knew nothing of having ordered any clothes. But on my next visit to this city, I was greeted by the clothier, on the street, in not very flattering terms. He wished to know when I wanted that suit of clothes, greatly to my astonishment. I said: 'What suit of clothes?' He became angry, and said that I had ordered a suit at such and such a time. I told him I had no recollection of ordering any clothes; I did not believe that I had done so; if I had, I must have been drunk. He said that I ordered the clothes, and that I was not drunk, unless I was drunk then. I went to his store with him. He showed me the order in his book. From certain peculiarities in the cut and make of the clothes, as well as from the style of the goods selected, I was satisfied I had given the order. Of course, I took the clothes, something to my embarrassment. They had been ordered during one of these periods.

"I might name a great many other incidents that have transpired; this will suffice. But I have never been able to learn of my having done anything during these times different than I would have done at any other time. Yet it is a queer experience, and many people are loath to believe the statements I make in relation to it; nevertheless they are true."

Case 2.---H.'s father had been insane, recovered, and had been active in his professional life. H., though nervous, had been a hard student in college, had graduated with credit in law, with no particular fear of following his father's example in becoming insane. A few years ago while in Chicago, H. took to drinking, and his friends suddenly lost sight of him. His description was given in the "Associated" Press, but he could not be found. For ten days his friends were worried, when a letter reached them from him, dated at New Orleans, saying he was there and without money. On his return home he gave the following account of his experience:
From the time he was drinking in Chicago he had no recollection of any intervening event until he found himself in a strange city with no familiar object by which he could tell his whereabouts. In mechanically searching his pockets, he found a key with a tag bearing the name of an unknown hotel. Taking that for a clue, he found his way to the hotel, and there again everything was strange to him, although he had registered there a week previously, and those connected with the house had noted nothing strange about his manner, saying that he had conducted himself like any gentleman of leisure, and had not drank to attract attention.

Concluding that he was in no condition to care for himself, he started North, as soon as he received money, and placed himself in an asylum. He gained steadily in physical strength upon a generous diet of milk and appropriate medicine, and resumed work with a determination to let liquor alone; the possibility of another trance opening up too great a field for him to risk himself again.

Prognosis: the patient should be cautioned that the trance state may return if he resumes drinking. To avoid it is to let liquor alone.

Treatment: This consists in giving the patient hot milk, beef-tea and bovineine, and such remedies as the general condition of the patient seems to require.

The Pacific Medical Journal quotes from a Norwegian health journal to the effect that alcoholic drinking has declined in Christiania, and ether drinking rapidly increased. Potato and barley brandy have fallen in demand, and the importation of ether from London doubled. The use of ether seems to be more fascinating to the Norwegian drinkers, and all classes are trying it, and evidently it will be a famous drink if not checked in the near future. It has been used for some years, but only recently has it come into any prominence. The supposition that this form of drink was confined to Ireland is a mistake.
Etiology of Alcoholic Inebriety.

Etiology of Alcoholic Inebriety.*

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

The causes of alcoholic inebriety may be divided into predisposing and exciting; and the latter into two forms, direct and indirect. Inebriety from either of these latter subdivisions may be comprehended under one term, “acquired” inebriety — in contradistinction to those forms of inebriety directly traceable to heredity. This term “acquired” we shall apply to the form of inebriety due to “accidental” causes.

In the majority of cases inebriety is not voluntarily acquired in the same sense that a person deliberately and as a matter of choice “makes himself an inebriate,” so to speak; we use the term acquired, therefore, as we would apply it to other diseased conditions, not necessarily by it use implying a moral delinquency.” The predisposing cause of inebriety is latent and has to be called out by some exciting cause, either direct or indirect, usually of a slighter nature than would develop an “acquired inebriety.”

Heredity is the great underlying or predisposing cause of alcoholic inebriety, in the same sense that heredity is the predisposing cause to many diseased conditions — as insanity, phthisis, gout, etc., constituting a diathesis or tendency, to special diseases. We can with perfect propriety use the term “inebriate diathesis.” We can trace “the pedigree of disease,” as Jonathan Hutchinson calls it, in inebriety as in other forms of disease. Dr. Elam affirms that the offspring of the drunkard will inherit either the original vice or some of its countless protean forms. Plutarch, in his essay on

*Read before the American Association for the Study and Cure of Inebriety, April 11, 1864.
"Delays of Divine Justice," asserts this fact; likewise Aristotle and Plato.

Dr. Kerr regards maternal inebriety as the chief hereditary cause of inebriety. Statistics show that female inebriates are much more common in Great Britain than with us—in Wales convicted inebriate females to convicted inebriate males stood as three to one, while in the upper classes of English society it is well known that inebriety among females is greater than in America. My own observations trace the hereditary cause in the majority of our cases to an inebriate father.

_Heredid croisé_, or cross heredity, has been noticed in inherited inebriety—that is, inebriate mothers gave rise to inebriate sons; inebriate fathers to inebriate daughters. Giron states that the hunters have a proverb, "chienne et chien—chienne et chien"—the mother's qualities in the son, the father's in the daughter. Buffon recognizes that fact, also; personally I have not any observations to give on this point.

Atavism has been observed; that is, where the inebriate tendency or diathesis escaped the second generation and appeared in the third—the grandparents being the transgressors. We notice this fact in other diseases, as consumption, etc.

This is the sequence that is established should an inebriate mother conceive:

1. The fetus may die _in utero_. Miscarriage is a common condition in chronic alcoholism in pregnant women.

2. Should the fetus survive, pass to full term, and a living child be delivered, it may be an idiot or congenital imbecile.

3. Escaping from these conditions, and manifesting a fair amount of intelligence, the child, at or about puberty or earlier, may develop one of the various neuroses—chorea, paralysis, epilepsy, etc.

4. Passing from youth to manhood without any of these manifestations, then suddenly, oftentimes from slight ex-
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citing causes, inebriety, or insanity, stand out in bold relief, and the hand of fate — shall we call it? — draws the curtain on a life that has struggled from birth with an "inebriate diathesis."

Surely no class of persons in this wide world have a more marked claim on our aid and sympathy than these "miserables." Impotent to help themselves; lacking entirely that necessary self-restraint and control that belong to a healthy, normal constitution. The so-called moderate drinker — we define such a one as a person who drinks habitually every day, so as to keep himself moderately stimulated, and his blood and fluids moderately alcoholized, but is never drunk, never loses his self-control, and is eminently respectable in the general sense of that term. Such a man we assert may be the originator of a long line of inebriates, insane or neurotic individuals. It is a common impression that the bloated drunkard and the debauche alone gave being to such a progeny; yet so potent, so far-reaching are the effects of alcohol if continuously used with so-called moderation, that who shall say in what quantity it may be used safely, habitually, so as not to affect cell growth in our own organism, and dwarf and degenerate it tenfold in the being whom we may beget, the modified cell in our own organism being much more modified in our progeny.

Dr. Baer, of Berlin, says: "The extremely delicately-organized, very sensitive and easily-destroyed construction of the nerve and ganglion cells presupposes for the normal physiological function of this structure the completest integrity of this apparatus, not only anatomically, but also physio-chemically. Every, even the smallest, inroad on the nutritive and formative processes produces here a reaction of incomparably graver significance and weightier results than on any bodily tissue."

Dr. Baer refers to the brain particularly, for upon the brain and nervous system alcohol produces its most marked (probably functional) changes, and slight changes in cerebral or nerve tissue mean a great deal more than similar changes
in other tissues or organs. We do not feel that we are making an extravagant statement when we say that these slight cerebral and nerve changes may occur in the progeny of so-called moderate habitual users of alcoholic liquors. If so, here is the "initial lesion," the starting point of the long line of inebriates and insane with which this world is cursed.

"Total abstinence" is the safest remedy for this evil, and until it is universally practiced the production of idiots, imbeciles, insane, and neurotic individuals will not cease. But, it may be asserted that the so-called moderate habitual user of alcoholic liquors will not be answerable for "this train of consequences" if he does not exceed his "physiological quantity." Will any one state what is that safe or "physiological quantity"? We shall certainly lay this wafi of hereditary inebriety, insanity, and kindred evils at the door of the so-called moderate habitual user of alcoholic liquors.

But, it may be added, there are cerebral changes produced by causes other than alcoholic. Very well, eliminate from the etiology of cerebral disease one of the most potent of these causes—the habitual use of alcohol in any quantity. Not only inebriety or insanity in ancestry, but all hereditary diseases that tend to weaken the nervous system or give rise to a so-called "congenital neurasthenia" are the fertile soil from which inebriety may spring. How many persons born with "a tendency to diseased cravings and paralyzed control," as Dr. Clouston aptly styles it, cannot resist the ordinary shocks of life, readily yield to the seductive influence of some narcotic, alcohol, opium, chloral, cocaine, and become veritable narco-maniacs! What a birthright!

The question naturally arises, must all born with such a diathesis succumb eventually to inebriety or insanity in some form? We are not prepared fully to answer this question. There are in every community those who are aware of their being possessors of this unfortunate tendency. There are also those who inherit a consumptive diathesis. Instances are on record in which those having a consumptive diathesis have, by selecting their environments, as to climate, occu-
pation and habits of life, successfully warded off the inroads of special disease. May it not be that a person who inherits the inebriate diathesis may also escape the usual results of the same in his own person by observing certain rules, regulations, and habits of life? Children born of parents who have not yet become inebriates escape, while children born after parents have become inebriates inherit the inebriate tendency. Children who inherit the mental or physical traits of either inebriate parent are apt to inherit the inebriate tendency, while other children in the same family escape it.

Moral causes are written down as the chief prevalent causes of insanity proper, second only, in productiveness, to alcoholism. How often, as we have stated, do these congenital neurasthenics, these unfortunate born with a diathesis either inebriate or insane, yield to grief, strong mental emotions, loss of friends or estate, and become either inebriates or insane, when such causes would have produced neither result in a healthy, nervous organization. There are other causes, to which we think the term accidental might also be properly applied, and where we generally use the term "acquired inebriety," with which predisposing causes have nothing to do, and where we might with propriety say: "Neither did this man sin nor his parents." Whether inherited or acquired, inebriety is produced by certain exciting causes which may act directly or indirectly upon the nervous system.

Direct causes are those that operate directly upon the cerebro-spinal axis, more especially the cerebrum, viz., sun-stroke, head injuries, including concussion and fractures of the skull, cerebral syphilis, and brain tumors.

Moral causes producing more or less mental shock act through the different nerves on the great nerve centers, leaving behind them a profound cerebral disturbance that has its outward manifestation insanity, or inebriety, or some other form of narcomania. Other causes act indirectly by peripheral irritation through the afferent nerves on the central nervous system. Such are painful ulcers, dys-
menorrhoea, urethral stricture, chronic neuralgias, chronic painful diseases of any nature; taenia solium has been known to cause inebriety, when relieved of the cause the patient recovered.

Any cachexia that debilitates the nervous system, or that may result in neurotic changes, must be classed among the causes of "acquired inebriety". Chronic malarial poisoning, syphilis, etc., are among these.

Neurasthenia, or nerve exhaustion from under-feeding and over-work, especially if combined with mental anxiety, is a fertile source of inebriety or insanity. Moral causes produce this condition usually before plunging the patient into one or the other of these conditions. Certain employments, by their unsanitary surroundings, may produce the tendencies that lead to inebriety. The explanation for the reason that any condition producing unrest, insomnia, pain, mental worry, or mental and physical exhaustion, causing the subject of these conditions to turn to alcohol for relief from exhaustion, insomnia, or pain is found in the fact that alcohol is a stimulant, a hypnotic, an anaesthetic, a triple capacity; hence the neurasthenic from any cause flies to it for relief; the victim of dyspepsia and mal-assimilation, for faintness and sinking sensations, etc.

The one who cannot sleep finds, especially if the cause of insomnia is mental worry, that alcohol is to him a true hypnotic. As an anaesthetic, alcohol is very pronounced, and in degree will relieve pain as much as opium, chloroform, or ether. The older surgeons recognize this fact, and before the days of modern anaesthesia alcohol was used for this purpose. The laity have found out long since this peculiar quality of alcohol, and many victims of pain have sought relief in its anaesthetic effects.

The great lesson that all those who attempt to cure the inebriate is that his inebriety has a cause, that the inebriety itself is only a symptom of a nascent condition — as some one has said "neuralgia is the cry of a diseased nerve," so inebriety is the cry of a diseased nervous system, produced
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by causes acting directly or indirectly upon it. "Tolle causam," the motto of every practitioner in dealing with all forms of disease, should also be the motto of every specialist on inebriety. A careful analysis of the cases of inebriety presented to us would show that there are many cases directly traceable to causes or diseased conditions that can be removed, and upon which the inebriety depends. It is the duty of every specialist on inebriety, every physician who would deal successfully with such cases, to trace out and eradicate the cause of the disorder. We cannot remove the cause in all cases; we cannot eradicate hereditary tendencies or certain lesions of tissue resulting from disease or injury; but, in many instances, we can relieve the patient of a painful or exhausting disease and thus cure his inebriety or other form of narcomania.

It is daily becoming more impossible to ignore or be indifferent to the medical questions concerning inebriety. Disease, injury, and crime, the direct result of inebriety, are not satisfactorily explained from any moral standpoint. The public turn to medical men, and they are unable to explain, except in some vague half-vice and half-disease theory.

At the meeting of the American Medical Association at Washington in May, four papers on inebriety were read by Drs. Quinby, Searcy, Morris, and Chenery. Also four papers on morphinism by Drs. Lett, Mattison, Watson, and Burkart.

An English paper reports the records of murders of women by inebriated husbands, since January 1, 1889, to January 1, 1891, to be three thousand and four. These statistics were taken from the press of the United Kingdom.
SOME NOTES ON INEBRIETY.*

BY W. S. WATSON, M.D., MATTEAWAN, N. Y.

The effects upon the human body as a consequence of the long-continued or excessive use of alcohol has been proved by experience of various observers. Since we are a society for the study and cure of inebriety, it is but fitting that some general observations should be offered: Are we justified in expecting that the habitual use of alcoholic liquors, sufficiently prolonged, will ultimately be attended in a large proportion of cases with serious consequences to the nervous system, and morbid conditions engendered? That certain morbid conditions or lesions are actually and almost uniformly found in persons advanced in life who have used alcoholic liquors even in moderate allowances, there is little room for doubt.

Dr. W. B. Carpenter, of the University of London, finds many conditions that are undisputably primarily caused by the action of alcoholic liquors. Not only are there to be found physical lesions, but the mental ones are marked. "Alcoholism is a term applied to pathological processes, and attendant symptoms caused by the excessive ingestion of alcoholic liquors, and are very different if a large quantity is consumed at once or at short intervals, or if small quantities are taken habitually; hence there are subdivisions called acute and chronic alcoholism. In the acute form belong the catarrhal condition of the alimentary mucous membrane, rapid coma, delirium tremens, and acute insanity. In the chronic class are prolapsed congestions, fatty connective tissue, and nerve degeneration. A habitual inebriate is one who makes constant use of alcoholic stimulants and is thoroughly saturated with liquor. The mind of such an individual is unquestionably diseased, though it may not be apparent

* Read at the April meeting of the Association for the Study and Cure of Inebriety.
except upon close investigation; close investigation will show deterioration of the mental equilibrium of some if not all of the faculties; there is to me no fact better established than of inebriety, as well as other mental conditions, being hereditarily transmitted; almost any one of twenty or more years' experience can cite numerous instances showing the liability of transmission to offspring of a peculiar mental disposition; and not unfrequently what was merely a habit in the parent is an uncontrollable desire in the child. It is not always true that the parent transmits the identical habit or actual love for liquor, but there is transmitted a great variety of morbid, weak, mental conditions, a lack of will power, etc.

The paralyzing influences of alcohol are upon the intellectual faculties largely, and are seen in the loss of memory, impaired judgment, dulness of observation. A don't care disposition gets hold. The moral faculties suffer no less than the intellectual; alcohol, alike with opium, seems to paralyze all that is high and noble; sense of right and wrong, of duty and responsibility are destroyed, the lower passions and propensities hold sway. Any general practitioner of medicine is able to call to mind many instances of the degrading influence, the terrible results of inebriety.

Such instance of mental and physical wrecks are familiar. Few persons, save those who have expressly inquired into the subject, have any idea of the extent of the social evils resulting from inebriety. All medical men know with what difficulty we get control of inflammatory diseases of the encephalon as cerebritis, meningitis in alcoholic cases; encephalitis not unfrequently follow a long debauch. "Structural changes" require a longer period for development, as epilepsy, apoplexy, and paralysis. That the habitual use of alcoholic liquors has a tendency to produce certain diseases of the liver will not be questioned by any one who stops to consider the mode of introduction into the system, and influence on the condition of the blood; the blood which returns from the gastric veins charged with alcohol is immediately transmitted through the liver, and acts as a powerful stimulant, stimulating it to increased activity, which can
only last for a time, when the reverse must follow, and bring about functional inactivity, spasm or congestion.

Since alcoholic stimulants do increase for a time functional activity and a determination of blood to the kidneys take place as a result of alcohol in the blood, consequently these organs are excited to augmented action, perhaps for the purpose of removal of the alcohol from the current of the circulation, we may with reason expect inflammatory attacks of these organs and should also expect that the long-continued excesses would produce a state of chronic irritation and inflammation, with the consequent structural alterations, granular degeneration, etc. I believe that quite a large percent. of cases of chronic Bright's disease are traceable to alcoholic excesses. In support of such conclusion, of course these cases that are not traceable to such excesses, for it is conceded that alcoholic abuses are especially prevalent among those of the lower walks of life—Bright's disease is peculiar to no sex or station—while this is true, there are others that are peculiar to those of the higher class, as the opium disease, which has even a greater, if possible, paralyzing effect. The primary effect of opium is equally misleading to that of alcohol, a small and occasional dose produces apparently no bad results; there may be a slight increase of reflex excitability, and alleviation of pain, if there was any, but let the opiate be continued for a few weeks, when the habituate will feel weak and depressed without the daily excitant, from day to day, depressing symptoms gradually increases, nervous sensibility is daily becoming more and more paralyzed; finally, the whole system is saturated; nutrition fails; diminished absorption of food follows; the individual becomes emaciated, his tissues are shrunken, with every evidence of a failure of absorption. The failure of the absorptions no doubt is due to the catarrhal condition of the stomach and intestinal track. The catarrhal condition of the stomach produced by the long-continued use of opium is not dissimilar to that of alcohol (such effect, may be stated, is not peculiar to opium or its salts alone but is produced, I believe, by chloral as well), diminished excitability of the sensory nerves is everywhere found in confirmed opium or alcohol cases; hence, both are vaso-motor.
The Heredity of Inebriety.

THE HEREDITY OF INEBRIETY.*

BY NORMAN KERR, M.D., F.L.S., LONDON, ENG.

President English Society for the Study of Inebriety; Chairman British Medical Association Inebriates' Legislation Committee; Consulting Physician Dalrymple Home for the Treatment of Inebriety.

INTRODUCTORY.

With heartfelt pleasure I respond to an invitation from my esteemed friend, Dr. T. D. Crothers, to send a paper on the relation of Heredity to Inebriety. It is always to me a high honor to be privileged to aid, however feebly, in the great work of the American Society for the Study and Cure of Inebriety, inaugurated twenty years ago by its present distinguished president, Dr. Joseph Parrish, whose friendship I have the happiness to enjoy. In England we thoroughly appreciate the unequalled services of Dr. Crothers, especially as editor of the most valuable Quarterly Journal of Inebriety and as secretary of the American Society for the past sixteen years. In their scientific study of the disease of inebriety the whole civilized world owes a deep debt of gratitude to these gentlemen, to my friend, Dr. T. L. Wright, Drs. Mason, Hughes, and many other well-known members of the medical profession in America.

Intoxication is often looked upon as but the product of a moral declension, a sin which the sinner willfully commits, from which he can easily abstain if he pleases. That this is not always the fact is clearly demonstrated by a study of the family history of inebriates.

In the following observations the general term "inebriety" may be understood to cover patients suffering from all forms of the disease, whether the intoxicant indulged in has been

*Read at April meeting of Association for the Study and Cure of Inebriety.
alcohol, opium, morphine, chloral, chloroform, ether, cocaine, or any other anaesthetic narcotic:

**Family History of 152 Inebriates.**

From the Dalrymple Home for the Treatment of Inebriety, at Rickmansworth in Hertfordshire, England (an institution, with a disinterested proprietary, for the special scientific treatment of this disease), 152 patients have been discharged; 61 of these inebriate gentlemen had a family history of drunkenness.

**Family History of 600 Inebriates.**

There is before me a record of 600 cases which had been treated for inebriety at Fort Hamilton Home, Brooklyn, New York. Of these, 265 had one or more relatives addicted to intoxication.

**Family History of 1,500 Inebriates.**

In my own private practice as a physician I have had fully 1,500 inebriates at one time or other under my professional care. Of these fifteen hundred I have been able to trace a family history of intoxication in 746 cases.

**Inebriate Heredity in Nearly Half the Cases.**

In this total of 2,252 inebriates there has thus been, in the families of not far from one-half of the whole number, the occurrence of the drunken habit in the person of one or more individuals.

This is, I am persuaded, much short of the truth; for this, among other reasons, that the friends of this class of patients are usually very reticent on the "family failing," and are apt to keep back not a little information as to the alcoholic excesses of their family connections.

**Insane Heredity a Cause of Inebriety.**

In the American experience fully 6 per cent. of the inebriates had a family history of insanity. In the English experience the proportion was 8 per cent.
The Heredity of Inebriety.

Parental Inebriate Inheritance.

From the American records there was a family history of an intemperate father or mother, or both, in 189 of the six hundred cases, and from the English records in nearly one-fifth of the cases.

Inebriate Atavism.

In America one or both of the grandparents were addicted to alcoholic excess in over two per cent. of the cases. In England the ratio was nearly 5 per cent.

Other Diseases and Facial Types Inherited.

Certain features of the human face are transmitted from one generation to another, and are perpetuated in the descendants. Look, for example, at the Jewish cast of countenance. In the same way certain traits of character are stamped upon various races of men. So, likewise, certain diseases, such as gout and consumption, descend, like a family heirloom, through succeeding generations.

The Disease of Inebriety Transmitted.

As with gout or phthisis, so with inebriety. By inebriety I mean, not drunkenness, but the tendency to drunkenness—not the act of intoxication, but a strong, impetuous, overpowering impulse to, or crave for, intoxication. If not successfully resisted, this tendency increases in intensity and grows in strength. Even when successfully resisted, the diseased tendency is often still alive, though slumbering, all through life, ready, at a moment's notice, to break out in a fierce, blaze on the slightest provocation. Many persons of the highest character, strictest integrity, and noblest purpose, though abstainers from all intoxicating liquors, have, simply from having been born with an innate tendency to narcotic excess, to struggle while they live to preserve themselves from drink and drunkenness. This is but one form of the inheritance of what I have ventured to call "narcomania," a mania for intoxication by any or every kind of narcotic,

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whether alcohol, opium, chlorodyne, chloral, chloroform, ether, or any similar intoxicating agent.

**Inebriate Heredity Mediate or Immediate.**

This perilous inheritance may be immediate, i.e., direct from father or mother, or from both parents. As we have seen, this is the prevailing mode of transmission. "Drunken parents beget drunken children," was a well-known axiom of ancient philosophers, which is increasingly true at this day.

This inheritance may also be mediate, i.e., from a grandfather or a grandmother, or some other relative further off than the parents. Inebriety, like gout, sometimes skips a generation.

**Inebriate Heredity Similar or Transformed.**

A drunken parent may have a family, each individual of which has a different heredity. Just as an intemperate mother sometimes gives birth, through her intemperance, to an insane child, so an insane mother may, through her insanity, gives birth to a child weighted with an inborn and powerful tendency to drunkenness.

I have known several family histories like the following, in which the alcoholic inheritance was changed into various other forms of brain and nerve disease: The mother and father were both drunkards. One child was an idiot, the second an epileptic, the third an inebriate, the fourth insane, the fifth eccentric, the sixth hysterical. Dr. Howe, of Massachusetts, in his report on idiocy in that State, records that 145 out of 300 idiot children had either father or mother drunken. In these examples the alcoholic inheritance was transformed into idiocy.

**Some Cannot Drink Moderately.**

There are many other interesting and instructive circumstances connected with the heredity of inebriety; but I have said enough to arouse attention to the importance of a serious consideration of this phase of intemperance. There are
many of our fellow-men and women who can abstain and can
drink to excess, but cannot drink in "moderation." The in-
herited tendency to excess in narcotics is so powerful that such
persons must either be abstainers or drunkards. In abstinence
alone lies their sobriety.

OUR DUTY TO THE LEGATEES OF INEBRIETY.

As there are many inebriates who are absolutely power-
less to stop short of intoxication if they once so much as
taste their hereditary bane,—and as these weighted ones
are in peril from our social customs and from the oppor-
tunities for procuring their inexorable foe, which so abound
all around them,—it is the duty of all good citizens to set
their weaker (weaker through no fault of their own) brethren
a safe example, to make it easy for them to keep sober by
purifying our social life from dangerous intoxicants, and by
removing the masterful and fascinating temptations forced
upon the community by our existing unrighteous legisla-
tion.

It is also our duty to provide genuine hospitals for the
institute, as well as for those able to pay, for the scientific
treatment of the subjects of this subtle and transmissible
disease, and to so reform our criminal jurisprudence as to
secure the medical care of diseased inebriate offenders in-
stead of their punishments as felons. Our motto should be
"Cure," not "Punishment."

A bill to set apart a ward for chronic inebriates in the
state hospitals of Wisconsin passed the legislature, and was
vetoed by the governor. A similar bill lately passed the
legislature of North Carolina, and has become a law.

Dr. Horner of Marshall, Va., offered a resolution to
organize a section on benevolence in the American Medical
Association, the object of which will be to provide a fund
for the widows and orphans of physicians.
A NEW "BACILLI."*

BY WILLIS A. BARNES, ESQ.

The medico-scientists of the old world and the new have in these modern times clearly demonstrated that there is existent at all times and at almost all places, various diseases of special kinds, and known by special names, and that these diseases are the effect of a certain well-defined cause.

To the various causes the prefix "Bacilli," this, that, or the other, has been given.

It has also been discovered that the development of the disease awaits only a favorable condition of the human being or lower animal to enable the "Bacilli" to demonstrate its most potent power.

With the discovery of the "Bacilli" we also have a description of its species and their peculiar shape, complexion, and habits, and in almost all we recognize a creature somewhat of the snake shape, having a head and tail, or what might properly answer for them.

We who are here to-night considering alcoholism in the light of a disease, may, no doubt, be more or less surprised if it should be suggested that there can be such an entity as a "Bacilli alcoholi;" nevertheless, I am prepared to assert that such is the fact.

My investigations have gone to the extent of isolating this "Bacilli" and producing a "culture" which both in man and the lower animals produces the well-known condition denominated alcoholism.

To this "Bacilli" I have ventured to give the name Bacilli Satanico Majestero.

I have not adopted this nomenclature unadvisedly or

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*This paper is supposed to have been read at a meeting of "The American Association for the Study and Cure of Inebriety."
A New "Bacilli."

without careful consideration of certain peculiarities of the bacillus family generally. I have said that science has discovered that "Bacilli" await only favorable conditions for the development of their peculiar influence.

They go about, as it were, seeking whom they may devour, and upon the most flimsy pretense or invitation enter in and begin their ministration of destruction. This feature, I am enabled to say through my careful investigation, is also peculiar to the Bacilli Satanicus Majestero. Strange as it may appear, the record of this peculiarity may be found in a very old compendium, which treats of the sanitation of the human being from a moral, mental, and physical standpoint, and there I find a description which fits the "Bacilli," to which I have called your attention, and it is in this language: "He goeth about like a roaring lion seeking whom he may devour." I also find that not unlike the "Bacilli" generally, this Bacilli Satanicus Majestero is in the snake-like form to which I have referred, also having a head and tail, with this difference however, that this "Bacilli's" tail is bifurcated at its terminus. I may also say that this Bacilli Satanicus Majestero may be recognized by the human eye, the nose, and the tongue, and under the microscope it appears not unlike a drop of pure crystal water.

The ravages and death-dealing influences of the disease, known as alcoholism, is well known to all students of sociology and scientific medicine, but it now remains for science to discover (as it must with regard to several other of the "Bacilli" family) the potent power which will absolutely abort the destructive influences or cure the disease which is produced by the Bacilli Satanicus Majestero.

I may, however, say that investigations have gone to the extent of proving that unlike the "Bacilli" of some well-known diseases the Bacilli Satanicus Majestero cannot be destroyed in the human body by cutaneous injection or other mode of introduction of sterilized Bacilli Satanicus Majestero, on the contrary I find that the disease is very positively promoted by such treatment, and that death is likely to follow.
Naturally the question will be asked, Has any progress been made towards the discovery of a destroyer of this *Bacilli Satanico Majestro*?

Adopting the tone of the distinguished *Berlin scientist*, it may be said that experiments have been made, and are now being made, with this object in view, but the science of the treatment has not progressed with such perfection of result as to justify at this time any extensive description.

It may, however, be stated that the new treatment comprehends largely the administration of true tonics in the form of nutrients, and the isolation of the patient within an environment known to be absolutely free from the presence of the *Bacilli Satanico Majestro*.

In chronic inebrity, disease of the brain may destroy all apparent consciousness of pain, and keep in abeyance the outward and appreciable manifestations of the important indications of organic mischief. Extensive disease of the stomach, lungs, kidneys, bowels, uterus, and heart have been known to have progressed to a fearful extent without any obvious recognizable indication of the existence of such affections. The most essential preliminary matters for inquiry relating to the treatment of inebrity have relation to the age, temperament, previous occupation, and condition in life of the patient. It will be necessary to ascertain the character and duration of the attack; to ascertain whether it has resulted from moral or physical causes; if of sudden, insidious, or slow growth; whether it has an hereditary action, or is the effect of a mental shock or of mechanical injury; whether it is the first attack, and if not, in what features it differs from previous paroxysms. It will also be our duty to inquire whether it is complicated with epilepsy, insanity, suicidal or homicidal impulses.
INEBRIETY NOT A DISEASE.

What is disease? Any accepted dictionary will define the term sufficiently for our purpose. On reference to my "Imperial" I find this interpretation: "Any state of a living body in which the natural functions of the organs are interrupted or disturbed, either by defective or preternatural action, without a disruption of parts by violence, which is called a wound." Assuming that this is technical enough in its terms to meet a reasonable demand, as far as any brief definition may be and retain clearness, we are warranted in considering anything in the conduct or habit of a person that produces a disturbance or interruption of the natural functions as causative of disease. The domain of causes is very large, and it is altogether unnecessary for the purposes of argument to go into an extended citation of them. Everything with which man has to do may be made accessory to his physical injury, and therefore lead to disease in some form. What, when employed in moderation, will contribute to his strength and vigor, may in excess become productive of serious functional disturbance, with resultant organic break-down, even to death. The physician has frequent occasion to warn against "too much of a good thing," and in his sphere as a healer he has occasion to know, often in a most striking manner, that a substance employed for a benign purpose may badly aggravate his patient's suffering, or lead to the development of new and discouraging symptoms.

Our grandfathers deemed our remedy of the highest importance, and which in nearly all instances was made either a constituent of their prescriptions, or associated with the treatment. As a tonic, as a stimulant, as a narcotic, as a food, as a sedative or placebo, the bottle of brandy or strong
wine, was to be seen on the table in the sick room, and upon it the nurse was expected to make frequent calls for dosage during the day. With our remembrance of the opinion laid down in the old medical authorities—Anstie, Carpenter, Cullen, Hunter, etc., this respect for alcoholic compounds was a reasonable characteristic of the practice of fifty years ago. But to-day, in all the glare of physiological and chemical research, for a man to stand up and advocate a similar procedure would necessarily relegate him to the dark ages of medical ignorance, or condemn him for willful indifference to scientific demonstrations.

It is understood by the physician that in dealing with the articles listed on his posological table he is dealing with poisons for the most part, with the warnings of such observers as Lewin, Ringer, Rossbach, Nothnagel, Tanner, Lloyd, in mind; he knows that it is always necessary to be watchful in consideration of his dose quantities, for in spite of every precaution he will sometimes have untoward effects that may give him occasion to sign a certificate for the use of the undertaker. A teaspoonful of magnesium citrate, simple as it appears, administered at the wrong time may produce a convulsion and break down a feeble heart. A tenth of a grain of morphia given in the critical stage of capillary bronchitis, with the best of intentions for the suffering patient, may cure him of his pain forever. With a long list of articles pronounced toxic we find alcohol, with a multitude of qualifications that certainly stamp it as one of the most insidious of poisons.

One of the old English writers on materia medica—Dr. Anthony Todd Thompson—an advocate of its use in moderate quantity in low fevers, etc., says of the habitual use of diluted alcohol: "By degrees the mucous membrane of the stomach, and even the other coats of that viscus, suffering under repeated attacks of inflammation, undergo changes of structure, and indurations supervene which occasionally degenerate into cancer of the pylorus, or inflammation of the liver, palsy, dropsy, epilepsy, and many other bodily ailments
overpower the vital energy of the habit. The vessels of the portal system are compressed by a preternatural contraction of the fibres, the result of which is impeded circulation and ascites. A similar morbid condition is also frequently induced in the kidney which becomes granular, and secretes albuminous urine. Both diseases terminate fatally.

Thus for medical authority fifty years ago. What says therapeutics to-day with reference to the same ethylic compound? Quoting the eminent B. W. Richardson: “But even in respect to the medicinal use of alcohol you cannot be too careful, you cannot be too exact, you cannot be too watchful, you cannot be too industrious. You are bound to ascertain from day to day, from hour to hour, that your practice is sure, and to determine how far you can correct it by reducing the employment of the drug to the smallest possible amount.” This is emphatic language. Belladonna, arsenic, morphia, aconite, hyoscyamine, rhus, trinitrin, are very dangerous products of the laboratory, but of them no such language is found in the books. Another respectable authority, Dr. R. L. Bailey, said on a public occasion: “Instead of being a valuable adjunct of the medicine shelf, alcohol is one of the most prolific sources of disease. The effects upon the lungs, stomach, heart, liver, brain, and kidneys are well known, and tens of thousands of cases of disease of these organs are primarily produced by its use.”

With such extensive disturbances of the vital economy as I have noted, there must be associated conspicuous disturbances of the mind. Indeed, we know that the mental action is affected in a double way from at least two causes of organic disturbance—(1) the altered blood content by which less than the normal quantum of nutrition is supplied to the cerebro-spinal system; and (2) the direct actions of the alcohol as a toxic agent upon the brain centers, with its consequences of inco-ordination, so characteristic in the expression of the inebriate that the children in our street recognize the unfortunate victim of the bottle at sight. The pathol-
Alcoholic Insanity.

Medical authorities commonly divide alcoholic insanity into status inebriosum and alcoholism—acute and chronic.

The action of alcoholics is not considered insanity either by the medical or legal profession, until its habitual or period use has caused more or less permanent modification of the brain cells, manifested by characteristic mental phenomena. In this condition, though the microscope may fail to reveal any pathological changes, the continued mental observation is considered sufficient evidence of their presence, due to defective cell nutrition—the condition often remaining after the drink habit is abandoned.
Abstractions and Reviews.

This permanent observation is noticed first in deranged normal action, deranged power of self-control, disregard of duty and of the rights of others, and is followed by defective mentality and muscular co-ordination. The only difference between the symptoms and those of a transient drunk is their permanence.

The spirit may be immortal, and when loosed from the body its action may be independent of matter. Of this the physician knows nothing. He only knows that while united, mind acts through matter, and that its action is dependent upon the condition of the instrument through which it gathers, correlates, and evolves thought; that whatever injures the functions or structure of that portion of the brain through which mentality is effected, is manifest in deranged and irresponsible mental action; that while traumatism and permanent pathological changes produce directed mental and moral action, a large number of drugs produce the same results, and that though the deranged action may be transient, lasting only during the therapeutic action of the drug, the insanity is as positive and real as though dependent upon permanent and demonstrable pathological expressions.

Thus we find alcoholics, when taken in excessive quantities, producing a temporary insanity in every respect parallel with that permanent insanity consequent upon their habitual use. In all alcoholics, H is greatly in excess of O, and wherever in unstable combinations this excess exists, the H demands, at whatever cost, O. When such a combination enters the circulation it deoxidizes the various tissues with which it comes in contact, deranging their functional action and leaving an excess of C, thereby producing an anaesthesia that ranges from slight paresis to complete insensibility and coma, and loss of mental and muscular co-ordination, manifest in the erroneous deduction from impressions made upon the senses and the staggering gait of the drunken man, varying with individual idiosyncrasy. When this condition obtains, whether produced by alcoholics or other agencies, whether lasting for a moment or a lifetime, should the
individual be held responsible for his utterances or his acts? Is not the transitory insanity as pronounced while it exists as if permanent, and the individual as powerless to arrive at correct conclusions from given premises and as irresponsible as though the victim of chronic inebriism or mania-a-potu? Why, then, the medical and legal distinction? — Editorial in Kansas Medical Journal.

The Thirty-Third Annual Report of the Washingtonian Home at Boston, Mass. is before us. This is the oldest inebriate asylum in the world, and its veteran superintendent, Dr. Day, has had the longest service and the largest experience of any person living. Three hundred and eighty-three have been under treatment during the year, sixty-four of whom had delirium tremens. Dr. Day presents a long and very interesting report, in which he discusses the antiquity of inebriety. The following is a closing extract: we advise all our readers to send for a copy of the report:

"We cannot come to any other conclusion when we individualize upon the subject, than that every habitual drunkard should be regarded as a monomaniac, and that he should be treated as an insane man both in law and in fact, according to the humane and enlightened principles which prevail at this day in the department of medical ethics and jurisprudence. Let him receive nothing but kindness and sympathy properly manifested. He does not want to be pitied. Nothing will excite and disgust such men as it will to tell them you pity them. He will often put in a plea of extenuation, and allege that he 'cannot help it,' that he has made the effort again and again; that he has sincerely, honestly, and faithfully tried to abandon this destructive habit, but he 'cannot help it.' And he tells you the truth; nor need we envy the head or heart of him who doubts it. In the exercise of every mental power he now possesses, with all that is left to him of moral agency and volition, it is true that he cannot. Instead of denying or doubting the truth that he
cannot help it, we are to believe and acknowledge that it is even so; and now we will convince him that we understand his case, and intend to do him justice, and propose to help him to do what he cannot do for himself. Such, in brief, is the essential principle, without the details, of the treatment at the Washington Home.

WHAT SHALL BE DONE WITH THE INEBRIATE?

This question continues to attract the attention of students of sociology, and of recent years has acquired new interest from the consideration which it is receiving from other classes than those which formerly gave thought to its solution. It is still an open question as to whether the medical profession has contributed its share to this study and utilized as it should have done the great influence of which it is capable. The earlier agitation of the subject of drunkenness and the care of the inebriate was so much under the dominance of the fanatic and the sentimentalist that this fact still influences largely the medical profession to look upon the whole matter as possessing nothing belonging to the profession of medicine, being altogether one of morals. The fact is, that when rightly understood, the proper care of the inebriate and the abolition of inebriety can only be intelligently and successfully accomplished by medical skill. These questions require for their solution a knowledge of physiology and pathology, as well as of the laws of heredity and the true relationship of morals to physical structure.

To understand aright the subject of inebriety and the influence of the excessive use of alcohol upon the human organism it is necessary to have a clear conception of the scope and limitations of this influence. The prevalence of the use of alcohol by the human race through all ages and among all nationalities has given foundation for the widespread belief that all human beings are alike susceptible to its influence, and in like degree in danger of becoming its victims. More careful investigation and a more intelligent
analysis of data do not substantiate this belief however. More modern and more scientific application of physiological laws goes to prove that, as concerns the influence of alcohol on the human system and the formation of a demand for its excessive consumption, individuals may be divided into three classes.

The first of these, comprising by far the larger number of the social units, is composed of those persons so constructed anatomically, and with tissues of such physiological habits and tendencies, that no demand for the excessive or injurious consumption of alcohol can ever arise. Such persons, no matter what their environments or their education, cannot become inebriates. We say cannot, advisedly, for in such persons it is not so much a question of volition as one of the limitations of physical structure.

The second class, a comparatively small number of the sum total of the population, is composed of those who are structurally so deficient, with such feeble resistance to impressions, and such weakened inhibition, that, practically, no matter what their environment, or what their education, they will inevitably and as a necessary sequence of their organization, fall victims to its destructive influence.

The third class, a relatively larger number than that last considered, but after all but a small part of the entire population, comprises those whose structural potentialities are such that their subjugation to this influence and the development of an organic want for the stimulating effects of alcohol will depend entirely upon the kind of environment and education to which they may be subjected.

If these statements be founded on fact, the necessity for an intelligent study of the subject of inebriety by all physicians becomes apparent. The physical deficiencies, limitations, and potentialities of every individual should engage their attention to the end that the proper course may be pursued toward each, and at least an intelligent and approximately correct opinion given as to his future course.

To which class does a given individual belong, and how can his proper location be determined?
The first class will require no attention. The second is that which will most frequently demand it. Their helplessness must be constantly supplemented by the strength of their fellows, and the best interests of society demand first, their protection and restraint, and second, a speedy and effectual limitation to a further propagation of their kind. The third class is that which justifies and demands the efficient regulation of the traffic in alcohol as a beverage, and the interposition of sufficient safeguards against their inherent potentialities to prevent their destruction. In those instances in which this has been deficient or ineffectual, the rights of society and their own best interests demand careful scientific treatment and effectual restraint, to the end that they may be restored to healthy independence and resistive power.

— *Editorial in Lancet-Clinic, by Dr. Richardson.*

**TREATMENT OF INEBRIATES.**

At a meeting of the town council at Aberdeen, Scotland, a resolution was passed "requesting the Lord Provost's Committee to consider the question, and report as to the practicability of introducing some scheme of a reformatory and curative nature for the control and treatment of habitual drunkards." On this Dean of Guild Macdonald argued that there was no reduction of drunkenness with a reduction of licenses. His cure for the evil was to stop the demand. Drunkenness was a disease, and as such it was not punishment, but treatment of a reformatory and curative nature, that was needed. Let them deal with the inebriate as they had dealt with the maniac. The disease of inebriety resembling, as it did, the disease of insanity, it was as much the duty of the Christian and the statesman to establish homes for the treatment of inebriates as they acknowledged it to be their duty to sustain asylums for the care of the insane. The protection of the inebriate from himself, his friends, and the community would also be more effectual if confined for a period in a home where the physical and mental system
would be carefully looked after and properly treated. Medical science had revealed the existence of a class of inebriates who were the subjects of disease as clearly defined as were neuralgia and nervous debility. The Glasgow Town Council a few weeks ago appointed a committee to investigate this subject. The Aberdeen superintendent of police suggested a plan of treatment of the inebriates to put them into a reformatory that would be self-supporting. In the Highlands of Scotland there were thousands of acres of land that could be cultivated. Could not that land be reclaimed and made productive? There let there be tweed mills, and they could utilize the water power for the production of electricity. There also they would have the inebriate far removed from the "madding crowd," from the "busy haunts of men."


This work comprises nearly seven hundred pages, well printed in good, clear type. The matter varies widely in accuracy, quality, and quantity. The article on alcoholic legislation in the different states would make a most valuable monograph of itself. This alone gives the work unusual interest. The biographical sketches of persons who have been prominent in the temperance work are apparently thrown in to fill up. Dr. Richardson's article seems to have been written for the same purpose. The papers on the Republican, Democratic, and Prohibition parties are of very doubtful value, and unsafe authorities to trust. Why scraps of old sermons, special pleadings, and statements that never had any basis of truth should appear in such a work is a wonder. As a cyclopedia of prohibition it is commendable; but as a temperance cyclopedia it is open to severe criticism,
and is clearly the work of a novice, even down to the index, which seems, like other parts, merely thrown together.

Notwithstanding the faults, which are many and unaccountable in a work of this kind from such an eminent publishing house, there is much to commend. Its value as a grouping of literature not to be found in any other form will be welcomed. Beyond this it will mark an era in the growth of public sentiment, pointing out an advance that is not suspected by many persons who are not close observers of the signs of the times.

As a foundation for a more accurate and thorough grouping of the literature in this field this work will have its place in the history of temperance advance.

CHILDREN OF INEBRIATES.

Dr. Grenier in a Paris medical journal gives the result of 188 observations of individuals whose parents were subject to inebriety. Among some of the facts found from this study are the following. The morbid influence of the parent on the child is greatest when conception takes place at the time when one or the other of the parents are intoxicated. The children of inebriates have a decided propensity to similar excesses, and over one-half of the cases noted by the author came from inebriate ancestors. The majority of children from this parentage suffer from convulsions in infancy. Epilepsy is a neurosis that we may consider almost characteristic of inebriety in the parents; when, it is not directly inherited itself, it is a sign of general neuropathic heredity. From their mental condition the children of inebriates are more liable to become insane, and they always furnish an enormous contingent to the ranks of the insane. Every form of insanity is observed among them. Alcoholic insanity is far more frequent in these descendants than among others. A general intellectual and physical degeneration always follows. — Journal of Insanity.

This little volume of nearly two hundred pages is a very clear philosophical discussion of organic disorders, emotional disorders, disorders of the intellect, and dissolution of personality. Personality is defined as the highest form of psychic individuality, also that the higher forms of individuality must have proceeded from the lower by way of aggregation and coalescence, and that individuality at its highest degree in man is the accumulation and condensation in the cortical layer of the brain of elementary consciousness, that were autonomous and dispersed at their origin. Consciousness is a physiological state, and a phenomenon. The discussion of the various disorders which affect the personality of individuals are of the greatest interest to the specialist. Some of the obscure symptoms noted among inebriates are clearly outlined in this study. The chapters on disorders of the intellect and dissolution of personality are invaluable, and we commend this book to all our readers as the most satisfactory and suggestive study along this new line of physiological psychology that has appeared.


Dr. Carus has grouped a large number of short papers on philosophy and ethics in such a clear and concise form as to be attractive to all readers. It is particularly valuable as a short summary of the chief lines of modern philosophic thought, which busy readers must read in brief, if at all. All the topics are stated with great candor and frankness, and in a broad scientific spirit.
"JOE BROWN," DOCTOR, ON ALCOHOLISM, ITS CAUSE AND CURE. E. SCOTT, PUBLISHER, 134 W. 23d St., New York.

A very readable book; interesting and instructive; full of incidents bearing on the subject. Should be promptly read by all interested in the Temperance cause, or presented to their friends who are liable to become victims to "Alcoholism." Price 50 cents; sent by mail on receipt of price.

The Unrestricted Evil of Prostitution, by A. F. Currier, M.D., is a pamphlet of twenty pages, just published for general circulation. It was prepared for the Hygienic Section of the New York Academy of Medicine, and is an able, thoughtful discussion, from the scientific and historic points of view, of the general subject of prostitution, the evil and the remedy. It merits a wide circulation. Price by mail ten cents. Address, The Philanthropist, P. O. Box 2554, New York.

The Homiletic Review for July opens with an admirable article, from the pen of Prof. J. O. Murray of Princeton, concerning Culture in its Relation to Preaching. The Present Status of the Divorce Question is treated by the Rev. Samuel W. Dike, LL.D., whose well-known acquaintance with the subject gives his article an authoritative value. Dr. C. B. Hulbert writes of the Biblical Tests Applied to Recent Claims. An article entitled Exegesis in the Pulpit, written by Dr. Howard Crosby shortly before his death, demands familiarity on the preacher's part with the original languages of Scripture, and an exaltation of the Word above everything else in the pulpit. Dr. J. Spencer Kennard closes the Review Section with a readable and suggestive article on Action and Acting.

The Popular Science Monthly illustrates the evolution of all culture and science in each issue. It brings clearer and ever-widening views of the march of science from the pens of the pioneers at work on the front lines. It has no competitors and stands alone in science.

The Soul of Man, noted in our last issue, by Dr. Paul Carus, is a rare work of lofty physiological psychology. To the medical man it is very stirring and suggestive, rousing up new thoughts and new ranges of facts, very helpful to all readers.
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ANNIVERSARY MEETINGS.

The twentieth anniversary of our association has been celebrated by a series of meetings in the hall of the New York Academy of Medicine, of more than usual interest.

The difficulty of holding monthly meetings, where the members were scattered all over the country, was happily overcome, although it was found impossible to present any connected study of inebriety. The different phases of the subject had to be taken with regard to the available speakers who would come. The first evening was devoted to the relations of alcoholic and opium inebriety to life insurance. Some new facts were brought out, and old ones restated with greater clearness. The second evening the pathology of inebriety was presented, and the action of alcohol on the blood and tissue shown in lantern slides. A synopsis of the Mason prize essay was given and discussed. The papers and discussions which followed carried the subject on in advance of any previous efforts, and suggested some new fields of investigation. In the third meeting the therapeutic value of alcohol was presented, and several very interesting problems came up, which were treated with scientific candor and frankness. The fourth meeting was devoted to the etiology of inebriety, and a number of excellent résumés of the facts known were given. The fifth meeting closed the series in some excellent papers on the heredity and treatment of inebriety.

Scientifically these meetings exceeded all expectations, and created surprise among the older members to find the warm endorsement and ready acceptance of facts and conclusions that were sharply opposed up to a very recent date. While the audiences were small, and many of them came
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from curiosity, it was evident that a new and growing interest had begun which needed but little cultivation to enlist a large circle of enthusiastic students.

These meetings made clear the fact that many physicians are yet in doubt as to the place of alcohol in medicine, and hence are unprepared to accept the facts of disease. The theory of vice and possible disease in extreme stages still exists and is a most unfortunate implication that its advocate is not an original worker or thinker, but prefers to accept the views of others rather than make observations for himself. To the older members of the association, who have been students in this field, these meetings gave voice and expression to many phases of the subject that are coming up in private practice, and are agitating the public mind, which are strictly problems of science, and not questions of ethics.

The value and importance of our association never appeared so clearly, and the field of scientific work never seemed more inviting for the harvest. While these meetings have not attracted much attention they have been the initial point of a great movement in the near future, and our association is to be congratulated on beginning the new quarter of a century in this auspicious way.

RECOGNITION OF DISEASE IN INEBRIETY.

The Voice publishes the answers to a series of inquiries addressed to the officers of twenty-one leading railroad companies in this country. A leading company discharged a number of men for signing a petition of saloon-keepers for a renewal of license. The Voice made inquiries of all the leading companies as to what the rules and practice were concerning employes who were moderate or excessive spirit drinkers. The answers were, uniformly, that such persons were discharged as unfit for any duty, and as always unreliable and untrustworthy. One company asserted that any use of spirits was likely to render the man abnormal, and unfit him for responsible work. Also, "the man who drinks
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is no more responsible for getting drunk than one who exposes himself to malaria is for having a chill."

One company asserts that barroom frequehters will not be employed, and any employe found about barrooms will be discharged. All companies unite in the statement that only rigid abstainers can be trusted in railroad service. They also express a strong conviction that this rule applies to all other branches of business. This is a direct recognition of the disease of inebriety, and the incompetency of all persons, both moderate and excessive users of spirits, to act normally and rationally. Railroad companies have no theories, but are governed altogether by experience and common sense facts. From this point of view all use of spirits renders the victim more or less incompetent for healthy muscle or brain work. The victim is sick, debilitated, and cannot be trusted, and will always fail to act along healthy, rational lines. This fact of disease we have urged for years; now railroad and other companies who employ men, and study their capacities, come to the same conclusion from a practical point of view.

The Voice is unconsciously doing grand service in bringing out the facts, which have another meaning than to show the value of total abstinence, or the need of prohibition. It confirms the fact of disease of the victim, and shows that the use of spirits is a symptom, as well as a cause, and incompetency, unfitness, and progressive degeneration is always present. When the disease of inebriety is recognized there will be no hesitation or doubt, and our duty will be obvious and above all question.

A gentleman was most profoundly excited in witnessing the narrow escape of a steamer from crushing into an iceberg in the summer of 1884. For years after, when relating the circumstances, he manifested much excitement. In 1890, he came under treatment, suffering from alcoholic delirium. He imagined that the walls of the room were towering masses of ice, ready to crash down on him, and
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shouted frantically to back the ship. These ice masses or icebergs advanced and receded suddenly or slowly, and appeared to threaten him on all sides, leaving only a narrow passageway through which he barely escaped. He would jump to one side as these icebergs would fall, and break to pieces in great noise at his feet. A sense of joy would be manifest in prayers and exclamations of thankfulness. Then new dangers would reappear, and he would shout out warnings and tell the captain of the size of the berg and its proximity, and be in agony until the danger passed. This delirium slowly gave way, but for days after he would spring up and call out that bergs were near; then recover and say it was all a dream.

SCIENTIFIC TREATMENT OF INEBRIETY.

The treatment of inebriates is invested with much mystery and superstition in the minds of the common people. Every few months the old superstition is revived and goes the rounds of the press, that in certain asylums inebriates are surfeited with spirits; everything that is eaten or drunk is mixed with spirits, until at last the spirit taste is destroyed, never to return again. The only basis for this was an experiment made in Bonn, Germany, in 1863. Three inebriates were confined in a house and treated this way, by mutual consent. Two had delirium tremens, of which one died within a week. The other lived two months and died from paralysis. The third became insane, and was sent to an asylum. The experimenter was sentenced to prison for life. No man with any practical knowledge would ever take the risk of such an experiment. No such method was ever attempted seriously, for the reason that nothing could be more certainly fatal to both the patient and the experimenter.

Another delusion is also common, that some medicines may be given, which will destroy the craving for spirits; or some kinds of food will have the same effect. All the
numerous quack specific remedies for inebriety are based on this. Practically all these remedies are narcotics in disguise, and merely change the drink craze from the narcotic of alcohol, to some similar drug. Opium is the most common, because it is cheap, and can be disguised. Fusil oil is another very common ingredient of alcoholic specifics. Cocaine is also greatly used. It is safe to say that all these specific remedies for the cure of inebriety are not only worthless, but literally more dangerous than the alcohol itself. One of the shrewdest of these quack methods (sold for ten dollars under the ban of secrecy) was a solemn oath not to use spirits for six months, to be signed in blood, which was furnished by the victim, and a pledge to submit to the most horrid tortures, if he violated this oath, together with dark hints of how the advertiser could find out his failure to keep it, and how the punishment would follow. No medicines were given, simply an appeal to the fears and imagination. Strangely, this method has the strong endorsement of many persons who claim to have been fully cured by it.

Another less scrupulous schemer advertises a sure cure for inebriety to be sent for five dollars in advance. In return the victim gets a plain card on which is printed, “Stop drinking, and mind your own business.” Over a dozen specific medicines are advertised for the cure of inebriety, all of which are base swindles, and yet they flourish and fatten on the superstition and credulity of the poor victims, who are looking for help. If the friends of the inebriate would exercise common sense, and observe closely the history and conduct of such cases, very different impressions would appear. When the inebriate and his friends become alarmed, and begin to look about for help, the case has always reached an advanced stage and become chronic. To this there are very few exceptions. A man who has been intoxicated many times, or one whose steady drinking has so far impaired his power of control that he cannot stop practically, no matter how strong he may appear otherwise, is an advanced case. All mild methods and remedies are useless.
A man just beginning to use spirits may sign the pledge, and be helped by prayer permanently, but later, when the continued use of spirits has impaired his higher brain power, and made him more or less incompetent to realize his condition or to appreciate the relations which he sustains to the world and his friends, such means are largely powerless. They are not to be ignored, but are to be used experimentally with other methods.

All inebriates are brain and nerve exhausted cases of necessity. Alcohol has in all cases perverted and damaged the nerve processes and functions, and debility and exhaustion with lowered vitality is always present. Such cases require positive, tangible, physical remedies. Appeals to the mind and spirituality of the man are addressed to defective and damaged powers of the brain. He must be taken out of his old surroundings, he must have new environment, new conditions, that can be regulated and anticipated by others. No matter what his life has been, he must have a change of all his conditions of life and living. This can be had most perfectly in an institution. Here he can be free from the contagion of spirits, the drugs can be kept away, and he can be protected from gratifying every morbid impulse to procure it. The diet and regularity of living can be enforced, and all the conditions of physical vigor and training can be put in force. The man must be trained back to sobriety, not driven back, or coaxed, or pledged, or converted, but taken back step by step along the line of natural laws of growth and development. His body and brain must be trained and developed, as far as possible, to abstain from narcotics of every kind, of which alcohol is the most dangerous. He is sick, palsied, worn out prematurely, and needs nerve and brain rest. The failure to live a temperate life is the evidence of this. This training process has for its first object the physical development—the improvement of nutrition by regular diet of the best character; the building up of the brain by medicines, rest, change, and diversion; the repair of the organs of the body by exercise and baths.
The higher brain power soon feels the new life and vigor from this process, and responds to the prayer and pledge, and the efforts to live a more rational existence. Many poor victims from all circles of life have never been in training along these lines of physical and mental development. For the first time they realize the power of correct living, correct, healthy surroundings, the need of brain rest and brain culture along paths they have not known before. The worn-out money-seeker dies, leaving a fortune and a family of low vitality, unable to bear the strains and drains of a busy life. Unconsciously his children turn to alcohol and opium for relief, and soon become helpless victims. The asylum, with its quiet, steady applications of nature’s forces addressed to all parts of the human body, is the only hope for the future. There is no “short cut” or by-path to a healthy temperate life. No specific remedy that will remove the tearing-down process of alcohol. No will-power that can restore the lost vigor or damaged brain centers of control. To stop the use of spirits is only one step; to repair the conditions for which alcohol is unconsciously taken is another equally important. It is not only a question of original causes, but is one of present conditions. The inebriate has a compound and comminuted fracture that requires the application of splints and bandages, and every condition for restoration along the lines of nature’s laws. The scientific treatment of inebriety is simply the application of every means known to science, experience, and common sense; to remove the patient to the safest surroundings; to repair the injuries done to body and brain, and build up the man so as to prevent future failure. This can only be done effectively in literal training hospitals, where the physical comes first, then the mental and spiritual. It is no implication that the exclusively moral means urged by many good people are not valuable, but science teaches that their value depends on the conditions and time in which they are used. The appeal, pledge, or prayer does not reach the starving man; but give him food to build him up, and these means are valuable. The inebriate is starved in a
most literal sense, and needs relief and physical help first. All scientific asylums and hospitals where inebriates are treated are based on this fact: Removal of the spirits and repair of the brain and nervous system gives the most certain possibility of cure and restoration. Experience shows that a certain increasing number of inebriates are permanently cured in these places every year. Unfortunately for asylums, nearly all these curable cases disappear from view, and never refer afterwards to the benefit received from such places. Public sentiment makes it necessary for many persons to conceal this part of their life. On the other hand, the incurable who has not received any permanent good, takes pains to condemn the asylum and its work, and is a standing monument of his own failure. The very few asylums now in operation are only the advance guard of a new era in the cure and treatment of these cases. There are many reasons for believing that not far away in the future every town and city in the country will have hospitals for this class, the same as for the insane at present.

WHAT ARE SOME OF THE PATHOLOGICAL FACTS OR INFERENCES ON WHICH INEBRIETY MAY BE CALLED A DISEASE?

The exact study of inebriety has not advanced beyond its etiology, and yet a large number of facts outlining both the pathology and psychology are coming into view with increasing prominence. A grouping of some of these facts will show the direction which this study has taken.

Like insanity, inebriety is found to be a symptom produced by many morbid conditions, which may come from disordered states of the brain and nervous system, or from the effects of external conditions acting on the brain and nervous system. Etiologically a large per cent. have a traceable causation, and are divided into symptomological groups or classes based on the causes. Thus heredity is a very prominent cause, and periodicity is a common symptom.
The period anterior to the drink symptom is marked by the uniform operation of distinct causes, both predisposing and exciting. In some cases these causes are very clear; in others obscure; but the indications of physical changes and conditions that will appear from future and more accurate studies are unmistakable.

The known action of alcohol on the heart and brain circulation gives only a faint conception of the injury produced on the brain and nervous system. Take the common fact of over-excitation of the brain from continuous or occasional use of alcohol. The heart's action is increased from ten to twenty beats per minute, followed by reaction, and an equal slowing up of the pulse rate. Hyperaemia, vasomotor paralysis, interference of nutrition of the cells, retention of the products of metabolism, is the result beyond all question. This over-excitation of the brain from the unknown action of chemical substances is far more serious and complicated than psychical and emotional over-excitation. In the latter insomnia, mania, melancholia, and various forms of brain disease follow. In the former all these stages or symptoms of brain injury may be condensed in a brief time, as seen in the mania, melancholia, and dementia of intoxication. These symptoms, always characteristic of profound disturbance of brain action, are reproduced in degree in all cases of inebriety. The result is, always, impaired nutrition, disturbed functional control, and in all probability a series of sub-inflammatory processes and abnormal deposits. To this may be added an unstable, defective brain, from heredity, from disease, and injury. In such a condition the effects of alcohol or other narcotics are beyond all present knowledge. The over-excitation from these chemical substances (in the highest degrees of health known) is very marked, and creates a morbid impulse to continue their use, even when the effects cause pain and misery. In persons of defective brains and feeble control the action of these chemical agents must be more serious in their effects. Clinically, this is confirmed by the precipitation and impulsive insane use of spirits, in
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many cases. Beyond the strain on the heart and brain from abnormal activity, unknown chemical products are formed, and the eliminative processes and degenerations of cell and nerve action are changed, and the complexity of the pathological facts extend far beyond all present conceptions. The periodicity of the drink impulse, and the continuous use, either in excess or moderation, point to a distinct pathology that awaits future study.

The use of alcohol in any degree is attended with danger and unknown chemical and pathological changes, which may be created or precipitated into activity by this agent. The certainty of disease, and disease processes following, is far more positive than any possibility of nature’s restoring and readjusting the derangement, from this chemical over-excitation.

BROOKLYN HOME FOR HABITUES.

An opium hospital with the above name is started in Brooklyn, N. Y. A temporary building has been opened until a permanent one is erected. The plans are completed and the ground will be broken for the hospital within a few weeks. The following quotation from the circular explains the work: "The location is peculiarly adapted for the purpose in view, as all the advantages of the city, such as gas, water, and electric light, are combined with the delightful air and rural surroundings of the country. The home is designed for the treatment of such cases of morphinism, chloralism, and cocaism as present a reasonable chance of recovery. No patient will be accepted who does not agree to remain a sufficient length of time to effect a cure, and no case is taken where the patient is a sufferer from organic disease which necessitates the use of narcotics. The habitual use of narcotics, hypodermically as well as internally, especially morphine and cocaine, is rapidly increasing, and an institution of this kind is much needed for the relief of the many victims of the drugs which are slowly but surely sapping their vitality. No
real cure can be effected in such instances unless the patient desires it and only those who are doing their utmost to free themselves from the terrible disease are admitted to the new home.

"The majority of this class of patients are professional men, who have commenced the use of the drug to bring sleep to the over-worked brains. Others resort to narcotics to allay the pain caused by neuralgia or some local affection, which must first be cured before the disease produced by the drug can be attacked. While these diseases are treated in general hospitals, inebriates' homes, insane asylums, and private sanitariums, there is no institution in the world, so far as is known, except the Brooklyn Home for Habitues, which is exclusively devoted to this purpose. The home is a quiet, charming retreat, with no suggestion of a hospital, and has all the conveniences and luxuries of a well-appointed private residence, as well as an excellent medical service."

The well known specialist, Dr. J. B. Mattison, will be the superintendent in charge. His long experience and national reputation will make an assured success of the hospital from the beginning. An endowment of sixty thousand dollars is called for to provide some free beds for the worthy poor who are unfortunate victims. The Board of Directors consists of the Rev. Dr. Cuthbert Hall, the Rev. R. R. Meredith, J. O. Wilson, and the Rev. Charles H. Hall, Drs. Alexander J. C. Skene, Arthur Mathewson, John A. McCorkle, and Lewis S. Pilcher, and General C. T. Christensen, of this city, and Drs. T. Gaillard Thomas, Edward G. Jameway, Allan McLane Hamilton, and George F. Shrady, and Charles R. Miller, the Hon. Amos G. Hull, and J. N. Hallock, of New York.
Clinical Notes and Comments.

The following extract from a lecture by Dr. Day at the Washingtonian Home on Dipsonania and Cenomania will be read with interest:

"Is there satisfactory proof of the existence of a disease characterized by distinctive symptoms or diagnoses, indicative of its nature, and distinguished from all others, called dipsonania or cenomania? If so, can it be cured?" were the questions asked in the beginning of the lecture, and in substance answered as follows:

"So important are these inquiries in their moral bearings that any physician venturing an opinion on them assumes a great responsibility. Nevertheless, I give an unhesitating affirmative answer to both questions.

"The term dipsonania is applied to certain writers on diseases of the mind to a peculiar form of insanity. The term is intended to designate that impulse towards the use of intoxicating liquors, which is known to rise suddenly in some persons at periods remote from each other; in contrast to that craving which in others is gradually established through the influence of habit, and which continues with unbroken and undisturbed regularity.

"The former are called periodical, and the latter constant drinkers.

"The impulse of the first has been considered a malady from the beginning; and I am forced to believe that the cravings of the latter are as much so.

"There are many exciting causes of intemperance besides constitutional predisposition and hereditary taint, some of which I will specify in the order in which I have traced them.

"Let it be understood that there are some men who are constitutionally protected against excessive drinking — men
whose natural disposition holds their appetite in constant check. They are moderate in everything.

"Show me a man of lively and excitable disposition, with a vigorous imagination and generous impulse, who is fond of society and fashionable amusement, is the life of the social circle, can tell a good story and raise a laugh by his gayeties and gravities, and I will show you a man who, with all his manliness and pride of character and culture, is most liable to fall into the snares of intemperance.

"Second, an original constitutional nervous excitability predisposes to excessive indulgence. The operation of this cause was very apparent during the late civil war.

"Third, it is well known to those who have studied the subject that there is a tendency in some occupations to create a desire for stimulants. Among these most liable are tailors, hatters, printers, shoemakers, bookbinders, jewelers, and most others whose occupations are sedentary.

"Fourth, cold and damp are also incentives to intemperance. The stomach is a quick, though short-sighted guide, and when the atmosphere is wet and chill, it issues orders for carbon, of which distilled liquors afford the largest supply.

"The owner of the stomach gratifies its longings, but does not reflect that, though the demand may be measurably proper at the outset, indulgence will rapidly turn it into a constant craving for stimulants when the necessity for them no longer exists.

"Fifth, there are unhealthy habits which are sure incentives to intemperance, such as over-working the brain, studying at unreasonable hours, and neglecting proper exercise, irregular meals, unpalatable food, in fact, any style of living that throws the system out of sorts.

"Sixth, any strong desire ungratified will do it, as will disturbed domestic relations, and numerous other causes which need not be mentioned.

"The most common enemy the human system has to encounter is alcohol in its various forms."
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"It would seem that the study of the art of hygiene would stay the progress of the enemy.

"The only solution of this strange phenomena is that man has as yet but little knowledge of the laws of life, that while knowledge has increased, the art of knowing ourselves, which is the most important of all, has not kept pace with other branches of human progress.

"Taking the word hygiene in its largest sense, it signifies rules for perfect culture of the body and mind. If our knowledge was exact, and our means of application adequate, we should see the human being in his perfect beauty."

THE INFLUENCE OF TOBACCO ON GASTRIC DIGESTION AND ACIDITY OF THE URINE.

DR. J. YDAN-POUCHKINE reports a number of experiments which he has made in this connection on seven healthy individuals who were not habituated to tobacco-smoking, and his results are reported in the Bulletin Général de Thérapie.

He first examined the effects of tobacco on the gastric juice and the motility of the stomach and on degree of absorption and on the acidity of the urine. For three days the author examined the gastric juice and motility of the stomach, noting the degree of motion of the stomach by salol, according to the process of Ewald, and the rapidity of absorption with the iodide of potassium, according to the method of Zweifel, during a second period of three days each, in which the individual smoked, respectively, twenty-five cigarettes daily. For three days after this period the author continued the examination of their gastric juice in order to determine the after-effects of the tobacco. His conclusions are embraced in the following statements:

1. Tobacco increases the quantity of gastric juice, but diminishes its acidity.

2. The quantity of free hydrochloric acid of the gastric juice is diminished under the influence of tobacco.
3. Proportionately to the decrease of the amount of hydrochloric acid there is an equal diminution of the digestive power of the gastric juice.

4. Tobacco likewise slows the action of the gastric ferments.

5. These modifications in the gastric juice produced by tobacco last for a period of several days.

6. As regards the motility of the stomach and its power of absorption, tobacco is stated to produce an increase of these functions.

7. Tobacco has no influence on the acidity of the urine.

The following extract from a letter from Dr. T. L. Wright, of Bellefontaine, Ohio, is very suggestive:

"By the way, did it ever occur to you how tricky the public (manipulated by irresponsible and unprincipled politicians) has become with respect to alcoholic offenses against law and morality? The first step is to eliminate the saloon man from all part in the matter. This is done by simply requiring him to deposit money in advance to make good all the expenses that may arise from the shortcomings of drunkenness. This deposit is called license. It is expected and designed to meet the pecuniary obligations incurred in providing jails, poorhouses, lunatic asylums, etc., for the drunkard and his victims. This lets out the seller; and the public virtually engages to assume his responsibilities and to defend his rights in the continuance of his business.

"You will observe, in this transaction, no notice is taken of preserving the rights of society to a peaceful and quiet existence; no care is provided for the preservation of domestic happiness and welfare; no thought is given to the subject of the rights and feelings of children — their rights, namely, of a fair and equitable chance, both through precept and example, to become, as they grow into maturity, reputable men and women — in short, good citizens. The public totally ignores these vital points, and simply says, 'Pay my expenses
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and I will defend you in your calling, and the drunkard and his children may live and die in their misery without a single thought from me.'

"It is easy to say that the people are to blame in this matter. But in point of fact no legal blame can be fixed upon them. The people in this country are sovereign. It is a maxim of law that the ‘king can do no wrong.’ He reigns by the grace of God; and as to the people in their sovereign capacity why, vox populi vox Dei. It is true, in kingly countries the bad advisers of the king have their heads chopped off; but in this country the infamous politicians go free. The final result is, that the unhappy drunkard is held to a sole accountability for the crimes of alcohol, while those who thrive upon his woes (including the public) go unquestioned and unpunished.

"Of course all this is wrong; and wrong, however covered up, will disclose itself. The consequence is that we have the annual, biennial, and quadrennial political hurrahs, lies, and hypocritical pretenses amongst the baser politicians, all designed to throw dust in the eyes of the people until the pending election has passed off. Sometimes it is ‘a party within a party,’—as though a fragment of a party could accomplish anything useful on a measure which of necessity requires the whole force of the whole party. Another time it is an imported and paid movement to adjust physical deformities—as of the brain and nervous system—by moral and religious appliances solely. Again it is the united and predetermined assertions of politicians and their organs that meagery is a crime, and any man can abstain who cares to do so; and again it takes the form of the assertion that, although alcoholism is a disease, it is curable very readily and quickly, and safely; and whoever refuses this treatment has himself to blame—we, the public, being guiltless," etc., etc.

In 1886 $700,000,000 was spent for spirits. The amount of wages paid to working men that year was $947,000,000 and the liquor bill absorbed two-thirds of it.
ALCOHOL AND LIFE INSURANCE.

In a recent lecture at Bombay on this topic by Dr. Alexander, he remarked as follows: "Life assurance was essentially a modern institution, the first English company having started in 1714. In the absence of reliable data for calculating the average mortality, the probable duration, and the expectation of life, the rates were very high. The first English life tables were Dr. Price's, called the Northampton Table; then about forty years later, the Carlisle Tables were drawn up by Mr. Milne. Since that time many other tables had been issued, giving exact information upon the preceding points for the general population, as well as for special professions and trades. The income of assurance societies must not merely suffice to discharge all claims as they arose, but secure a margin of profit; hence, it was their interest to ascertain all possible risks and provide accordingly. From their vast experience and exact information he asked for an answer to two questions of special concern to temperance workers: Did intemperance damage life? If so, could this damage be fairly estimated? Not to be tedious, he would select two men, Sir E. H. Sieveking and Dr. Pollock, both recognized authorities on this question. The former, in his manual upon the subject, laid down the general rule "that the habitual spirit-drinker, especially one who is found to take alcoholic drinks early in the day, ought to be declined altogether." The latter advised the rejection of a proposer whose daily habit it was to take stimulants three or four times in the twelve hours, and refused to give any place in life assurance to the dram drinker, the occasional drunkard, the man who had violent outbreaks of drunkenness at long intervals. The soundness of these opinions was founded on a wide experience, and on such statistics as Mr. Nelson's, who showed that from sixteen upwards the relative mortality of intemperate persons was more than three times higher than the general community; from twenty-one to thirty, more than five times; from thirty to fifty, more than four times.
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The returns for deaths really due to alcohol were not satisfactory, as the custom was rather to refer such deaths (not altogether incorrectly) to the local disease immediately preceding death. The records of disease bore ample testimony to the enhanced liability to nervous, digestive, and hepatic troubles among the intemperate. Abstainers had not yet received proper recognition for the undoubted superior value of their lives as proved by vital statistics. This arose, no doubt, partly from three causes,—the absence of data establishing the exact degree of superiority, the absence of any guarantee for lifelong abstinence, and the experience of reformed drunkards, whose lives might have sustained permanent damage already. But due recognition of the advantages of abstinence was only a question of time. The experience and practice of life assurance societies was decidedly adverse to the intemperate. On the second question a few typical cases would suffice. Nelson's tables showed how far the expectation of life or its probable duration was lowered by intemperance. Thus, for an intemperate person of twenty the expectation of life fell from over forty-four years to fifteen or sixteen. It was doubtful if any first-class office would accept such a risk on any terms whatever. Take another case of an intemperate man at thirty, whose expectation fell from over thirty-six to about fourteen years. Such a life, if accepted, would necessitate very high rating. According to Dr. Bristowe's tables, an addition of about thirty years would be required. The damage to the constitution might be expressed relatively to other diseases by comparing it with cases where a similar addition had been insisted on. The nearest actual parallels taken from the records of different offices were those of persons who had incipient phthisis or one who had recovered from a previous attack of insanity. Take the case of an intemperate man of forty. He had reduced his expectation from about twenty-nine to less than twelve years. The addition required by Bristowe's tables was about twenty-five years. Pollock's tables placed this man in the same category with those who had serious heart
disease, or emphysematous lungs with complications. He concluded his remarks with the following quotation from Pollock: "A man with an injured valve in his heart, or a portion of his lung diseased, may outlive all calculations; but an habitual drinker to excess never."—Temperance Record.

THE AMERICAN DRINK BILL.

An interesting table was published in the August 16 issue of Mido's Criterion, a Chicago liquor paper. It is assumed that the figures are correct and official, though Commissioner Mason refused to furnish them to The Voice until the complete report of the Internal Revenue Department is published, some time next December.

The increase shown in the consumption of distilled and fermented liquors speaks eloquently for the rum victories last year. The estimate of $1,100,000,000 as the drink bill of the United States for 1889 will have to be increased to $1,200,000,000 for 1890. The 7,666,494 gallons increase in distilled spirits withdrawn for consumption, when reduced from the strength required by law (50 per cent. alcohol) to the ordinary retail strength (40 per cent. alcohol), make 9,199,793 gallons, which, retailed at $6 a gallon, would cost consumers $55,198,758. Then the 2,442,091 barrels increase of fermented liquors on which tax was paid, retailed at $20 a barrel, would amount to $48,841,820. That is, the people of the United States paid $104,040,613 more for liquor—omitting from consideration domestic wines and imported wines and liquors—for the fiscal year ended June 30, 1890, than the preceding fiscal year ended June 30, 1889.

An interesting fact with reference to the theory of taxing a harmful article out of existence, is that the only really harmless article in the list, oleomargarine, is the only article showing a decrease, while every harmful article shows a vigorous increase.
REPORT OF THE HOMEWOOD RETREAT, GUELPH.

BY DR. LETT, SUPT.

The Retreat has supplied a want in the province which is evidenced by the fact that, although it has been in operation only a few years, and its capacity is limited, a large number of afflicted have availed themselves of it, and the results of treatment have been highly satisfactory. Before the building was completed or ready for occupation, so many urgent applications for the care and treatment of inebriates were pressed upon the promoters that it was found necessary to admit this class of disease as well as those mentally afflicted, therefore special legislation was obtained whereby this could be accomplished and the proper control of the patient effected. Over one hundred and fifty inebriates, comprising those addicted to alcohol, opium, chloral, cocaine, and other drugs have had the advantages of the care and treatment to be obtained only in such an institution. The gratifying results obtained in these cases have more than demonstrated the utility of a haven of this nature, where patients can obtain the necessary rest, seclusion, and treatment. Many cures have been effected, nearly all have been much benefited, a few proved incurable or incapable of deriving any benefit.

In my annual report for 1888, I dilated somewhat upon the subject of "alcoholic inebriety," and emphasized the fact of its being a disease, requiring treatment based upon the same principles which govern medical men in the treatment of other diseases. Further experience only confirms the statements made at that time: it has nothing to retract, much to add. Alcohol, however, is only one of the many forms of inebriety with which we come in contact; the sensitive, unstable, and overworked nervous system with which so many of the community are afflicted, calls out continually for some stimulant, sedative, or anodyne to set it at rest,
give it ease, or spur it on to the fulfillment of its daily task.
For this purpose all sorts of drugs are resorted to, among
the more prominent of which are opium, chloral, and coca-
ine. All of these cause the formation of "a habit"—more
properly speaking a disease—though these by no means
complete the list, which is almost inexhaustible. Numerous
as were the drugs used for these purposes sometime ago,
they have increased in an alarming rate of late years. Mod-
er chemistry, which is daily developing and placing on the
market new products of much value in the armamentum of
the general practitioner, by such products is putting in the
hands of the general public drugs which, being potent for
good are also potent for evil, pleasant to take, relieving pain,
care, anxiety, and sleeplessness.
These modern remedies, alluring and insidious as they
are, quietly but surely make veritable slaves of their unfortu-
nate victims, weaving shackles around them, holding them
as it were in a vise, in which they can neither go forward
nor yet retreat, and from which by their own unaided efforts
they can never extricate themselves. The only hope left is
death, to end a miserable existence; and when this does not
come soon enough, suicide terminates the suffering. How
cruel does this seem; and yet it is not more cruel than the
unskillful efforts of well-meaning people, amateur doctors, or
family physicians who undertake the management and treat-
ment of these cases. The popular idea is acted on that this
narcotic inebriety is only a vice, which the patient can at
once abandon if he only wishes to do so, and this is also the
opinion of at least ninety per cent of the medical men of
this province who are not themselves victims of drugs.
Such ideas as to the nature and treatment of these maladies
have been enunciated in the public press, as the following
quotation from one of the leading Toronto dailies testifies.
In speaking of the morphia habit, it says: "When the habit
is once fairly formed the only hope is in absolute and imme-
diate abstinence. But how is this to be accomplished?
Let any one read De Quincey and think of something more
difficult and more horrible still. Nothing but regular physi-
cal restraint will do."
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At the time the above appeared, I entered an earnest protest in the same journal against the barbarous treatment thus advocated. The person who penned these lines knew not whereof he wrote. Bad as he portrays the suffering to be, he can have no conception of the reality, otherwise he would not advise any one to set out on such a perilous journey. He has fallen into the popular error prevalent not only among the laity, but I am sorry to say, entertained and put into practice by many physicians,—“that total and immediate abstinence is the only hope.” What a “slough of despond” is here? What utter loss of hope does this present to the mind of each and every opium taker? God help the unfortunate victim who is submitted to this “rack and thumb screw” line of treatment. It is cruel, inhuman, dangerous, unscientific, and unnecessary.

The only rational and humane plan of treating the opium habit is to rebuild the broken-down nervous system and at the same time gradually, yes, very gradually, withdraw the drug. The latter is best accomplished by taking a little from each dose, perhaps not more than the one-hundredth of a grain at a time; this must be done evenly and methodically, otherwise failure and suffering are inevitable. As the trained musician will tune his violin to concert pitch without difficulty, while the bungler will snap a string at half the strain, so it is in the management of these cases.

Under such a course at least seventy per cent. of opium habituées who are free from serious organic disease, can be safely and painlessly cured, but time is required to attain this end, and, ceteris paribus within certain limits, the more time that can be spent over it the less discomfiture will there be experienced.

Such was the protest I published nearly three years ago. The line of treatment herein outlined is that followed out in the Homewood Retreat. It is grateful and reassuring to the patients, imbues them with fresh hope, makes life worth living with something to look forward to, and is satisfactory in the ultimate result.

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REPORT OF CASES OF ALCOHOLISM.

Dr. Latimer reported that since he had assumed medical charge of the Baltimore city jail, he had treated during the period from April 11 to December 31, 1890, 958 cases of alcoholism, of which 40 suffered from acute excitement or mania à potu. The average duration of the mania in each case was 48 hours. All of these patients were admitted drunk; and most of them had had previous attacks of delirium tremens. Many of them were also addicted to the use of chloral and opium in addition to alcoholics. Nearly all of the total number had tremor, pains in the head and muscles, loss of appetite and frequently vomiting. The 40 who had mania were usually noisy. As to treatment, he would say that no stimulants were given in any case. The uniform prescription was 30 grs. of bromide of potassium every two hours in maniacal cases, and every three or four hours in other cases. In cases of noisy mania one-fourth grain of morphia sulphate was occasionally given hypodermically at bedtime. There were no fatal cases. All recovered. Not only were stimulants withheld, but the food was imperfectly adapted to their needs.

In view of these facts he was disposed to think that alcoholism was not due to a suspension of stimulants nor to the indisposition to take stimulants. Further, he did not regard the administration of stimulants as necessary to treatment. On the contrary, he was of the opinion that many cases of delirium tremens had a fatal issue in consequence of the administration of stimulants.

Dr. Hurd said: "It has always been a matter of regret to alienists that a more careful distinction was not drawn by physicians between mania à potu and delirium tremens.

"In mania à potu, we have an attack of insanity due to the direct influence of the alcoholic indulgence upon the brain, producing a well-defined maniacal excitement.

"In delirium tremens, we have rather a disorder of the nervous system. In the latter instance, the disturbance seems to be due largely to the fact that the stomach becomes
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disordered; the patient is unable to take the accustomed amount of the alcoholic beverage into his system, and the nervous system feels the effect of its withdrawal; and tremblings, hallucinations of vision, and other nervous disturbances follow.

"In mania à potu, we have a simple maniacal excitement, due to alcoholic indulgence, a mental disturbance which differs in no respect from any other simple psychosis.

"If the distinctive characteristics of these two forms of nervous disease be borne in mind, their treatment will be indicated.

"In mania à potu, the patient should receive the same treatment as for any other form of maniacal excitement.

"In delirium tremens treatment should be addressed more to quieting the disturbance of the nervous system and preventing a patient doing himself or others harm, until the system becomes accustomed to the withdrawal of the alcoholic drink. Hence, in delirium tremens, the use of bromide of potassium to quiet the nervous disturbance and sustaining doses of some heart tonic, are especially beneficial."

Dr. Finney said: "Dr. Latimer's paper recalls to my mind a group of four or five cases occurring during my term of service as resident surgeon in the Massachusetts General Hospital, in which the symptoms of delirium tremens were not observed until several days after the patients had entered the wards. All were brought in intoxicated, and suffering from severe injuries. These cases, if I remember rightly, all pursued a more or less chronic course, the delirium lasting for some weeks, and was at times violent. The bromides and chloral were given in large doses without any very appreciable effect. Various other drugs were tried with a like result. Marked improvement was observed after the hypodermic administration of the sulphate of strychnine, and the tincture of nux vomica by the mouth, up to the physiological limit. The good effects of this treatment were noticeable after a day or two. All of the cases recovered, I believe, except one, which had other complications."
AMERICAN MEDICAL TEMPERANCE ASSOCIATION.

This association was organized at Washington, May 7, 1891, in pursuance to a call by Dr. N. S. Davis of Chicago, Ill., inviting all persons interested to meet and confer on the need of such an association. Sixty-one physicians were enrolled as original members, and a constitution and by-laws adopted, a board of officers elected, and thus a new medical organization was auspiciously started.

The purpose and object of this new society is outlined in the following statement offered by Dr. Davis:

"The object of this association is to advance the practice of total abstinence in and through the medical profession, and to promote investigation as to the action of alcohol in health and disease, and it aims at being a bond of union among medical abstainers scattered all over our country. It admits as members regular medical practitioners who are practical abstainers from all alcoholic liquors as beverages. Members are not required to sign any pledge, but if such for any reason cease to become total abstainers it is expected that they will withdraw from the association. The liberty of members to prescribe alcohol is entirely uncontrolled."

From this it will be apparent that the central purpose of this society is to study and investigate the action of alcohol as both a beverage and medicine. The only qualification required is to be a regular medical practitioner and total abstainer from alcohol as a beverage. It will be apparent that the last qualification is more or less a scientific necessity for good work in this field. It is assumed rightly that all physicians interested in this problem of alcohol should approach it from the scientific side alone, unbiased by any personal considerations of custom or habit, political or religious belief, with no object other than to ascertain the facts concerning alcohol, irrespective of all possible conclusions. This is the spirit and purpose of the association.
In England a similar association composed of members of the British Medical Society has been in existence many years. Their regular meeting occurs at the same time with the British Medical Association, and the value and usefulness of their work is recognized in all scientific circles. In this country a society called the Association for the Study and Cure of Inebriety has been in existence for twenty years. It is composed largely of specialists and persons engaged in treating inebriety as a disease. While it has done grand work, and built up a very suggestive literature through its Journal of Inebriety, it has not taken up the popular medical discussion of alcohol, which this new society proposes to do. These two societies will be closely allied in both work and purpose. One will have for its object the grouping and harmonizing the diverse theories of physicians concerning alcohol and its action, and the other the study of the inebriate and his maladies.

The Medical Temperance Association in the former work will be most heartily welcomed by all scientific men. The alcoholic problem has reached such proportions, and has become a subject of such intense interest in all political, social, and religious circles, as to demand scientific study.

Medical men in every community are called upon to determine the facts concerning alcohol, and the necessity for medical study and agreement concerning the general truths are apparent to every one. For this purpose the Medical Temperance Association invite the co-operation and aid of every physician, not for the propagation of any theory, but for the gathering and grouping of facts concerning the action of alcohol.

The association is entirely independent of any other object except the purely scientific question of alcohol. The executive committee has power to hold meetings in any part of the country where the medical interest seems to demand it. The regular annual meeting will be held at the same place and time of the American Medical Association.
Papers and discussions will be presented at this time. While this association is the culmination of an idea long entertained by Dr. Davis, and held until medical sentiment would fully sustain it, it is apparent that it is an expression of medical advance, of the scientific spirit of the times, that would rise above the theories and precedents of the past for the facts concerning alcohol.

This association appeals to every physician, not as propagandists, but as scientists, for facts and clinical experience. It appeals to them as the only competent authority to determine the alcoholic problem. It appeals to the physician to guide and direct public sentiment, and to make this association the great central power for the study and propagation of the facts and laws relating to alcohol, and its use and abuse.

The following are the officers elected for the first year:
N. S. Davis, M.D., President, Chicago, Ill.
For Vice-Presidents, I. N. Quimby, M.D., Jersey City, N. J.; J. B. Whiting, M.D., Janesville, Wis.; F. E. Yor- kum, M.D., Shreveport, La.; J. Taft, M.D., Cincinnati, Ohio.
Secretary, T. D. Crothers, M.D., Hartford, Conn.
Treasurer, G. W. Webster, M.D., Chicago, Ill.
For by-laws and constitution, and application for membership, address the Secretary, at Hartford, Conn.

In 1890 there had been an increased expenditure for alcohol of thirty-six millions over 1889. One-half of this was for beer, one-third for spirits, one-ninth for wine. The amount spent was seventeen dollars to each one of the population.

Idleness is the foster mother of drunkenness; industry is the bulwark of temperance. Let the mind of the penitent inebriate be kept occupied by attention to regular work, and the task of reformation will be shorn of half its difficulty.
COMMENTS OF ENGLISH JOURNALS ON LEGISLATION FOR HABITUAL DRUNKARDS.

Referring to Lord Herschell’s motion in the House of Lords for an inquiry into this subject, the British Medical Journal (June 13) says: “This inquiry cannot but do good. Our existing procedure is as injurious to the prisoner as it is inoperative in the cure or the prevention of intoxication. The brief detentions in prison under an abstinent régime practically only enable the narcomaniacal offender to pull himself together again, after the capacity for further intoxication has for the moment been lost. In this way the power to indulge in excess is regained, and the inebriate is confirmed in his fatal habit. Our present judicial system is, therefore, a great training school of inebriety. To these considerations there ought to be added the difficult problem of inebriate criminal responsibility, which has led to such remarkably contradictory verdicts and sentences, even in trials involving the highest penalty of the law. Of recent years there has been, by all engaged in the administration of justice, an increasing recognition of the diseased condition of many individuals accused of offenses committed either during or soon after an inebriate outbreak; and the frank acknowledgment of such a morbid state would be the key to a satisfactory solution of this intricate and important problem. Medical testimony has lately been strongly supported by discharged prisoners’ aid societies, magistrates, and philanthropists interested in the reformation of criminals. We may, therefore, hope that the objections to the compulsory detention of habitual drunkards, which have hitherto in both houses of Parliament proved insurmountable, may, as the result of the forthcoming inquiry, be removed, and that such an amendment of the Inebriates Acts may be enacted as will render our legislation effectual in the cure of diseased inebriates, as well as in the reformation of inebriate criminals and in the marked diminution of inebriety.”

The Medical Press says: “Lord Herschell, who clo-
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Quently depicted the utter breakdown of the present system, was unfortunately not provided with any practical suggestions for an alternative method of dealing with inebriates. The remedy, however, so far as a remedy can be hoped for, is not difficult to find. It is to provide that, after a certain number of convictions for inebriety within a given period of time, the accused to be dealt with as suffering from a malady calling for special and appropriate treatment; in other words, that an order for sequestration follow (say) the third conviction within six months. The patient (for he or she ought to be viewed as such) would then be relegated to a special house of detention, or confined in wards set apart for the purpose in our large asylums for a specified period. It would be too much to hope that even this treatment will effect a cure in all cases, but, failing to make useful citizens, we shall at any rate prevent their being troublesome members of society.

The Hospital Gazette says: "The want of success which has, so far, attended all legislative attempts to cope with the evils of chronic inebriety has rendered the subject obnoxious even to those who view with pitiing sympathy the fate of the myriad victims to the alcohol habit. The fact is, that hitherto legislation has been on altogether wrong lines. It is as unreasonable to punish inveterate drunkards by repeated imprisonment as it was to chain lunatics in filthy dungeons. We have lived to appreciate the folly and the cruelty of one, and we may ultimately learn to apprehend the inefficiency of the other. By and by public opinion will rally to the view that chronic intemperance is a malady calling for restraining rather than repressive treatment, and when that salutary change has come to pass the legislator will be authorized to substitute the 'home' for the prison. Surely, if it be admissible to send a person to prison a dozen times in one year for repeated infractions of the law against drunkenness, it cannot be harsh to place the prisoner under suitable treatment for that period after the first three convictions." — Temperance Record.
ALCOHOLISM IN THE PROFESSION.

From time to time circumstances remind us that the disease of inebriety is not confined to the non-professional classes, and sad instances of its ravages occur even among those who have attained to the more serene altitudes of the profession, after the usual period of anxious expectation and waiting. It would seem that this period of restless inactivity conduces to indulgence in stimulants, if only to drown care and to enable the unoccupied energies to await the advent of better times. Unfortunately, when the long desired promotion arrives, the habit cannot always be thrown off, and the result is, sooner or later, a general break-down, culminating in death, sometimes by the pneumonia which picks off the physically déclassé, sometimes due to self-destruction, the result of melancholia. Medical men have peculiar facilities for voluntarily shuffling off this mortal coil without exciting attention, some charitable friend being usually at hand to draw the shroud of oblivion over the departed in the shape of a certificate of death, hence we hear little of these cases, except over the post-prandial cigar. Among general practitioners the same indulgence obtains as a relief to the worry and strain of practice, but we are glad to think that the number of its victims tends to decrease as temperance therapeutics advance. Medical men addicted to this habit are a source of danger to the community as well as to themselves, for they are apt to authorize the indiscriminate and injudicious use of alcohol among their patients. Alcohol, it has been observed, marks the limit of the practitioner's resources, and the public are gradually getting to see that when hard pressed for a remedy, then brandy or some other variety of alcohol is resorted to. Few men would wish to be judged by this scale, but it is this feeling, doubtless, that has favored the reaction against the routine use of alcohol that characterizes present-day therapeutics.—Medical Press.
The prognosis is unfavorable when inebriety is associated with organic disease of the heart or lungs, or when great impairment of mind, associated with paralysis, is present. Prolonged hot baths are of the utmost service in the treatment of inebriety. Among the therapeutic effects of these baths I would mention a diminution of the circulation and respiration, relaxation of the skin, alleviation of thirst, the introduction of a good deal of water into the system, an abundant discharge of limpid urine, a tendency to sleep, and a state of repose. It is most useful in acute and chronic inebriety. Milk heated almost to boiling is very valuable. It allays irritability of the stomach and craving for stimuli, and two glasses at night have a very sedative effect. If there are decided signs of cerebral congestion the occasional application of a leech behind the ear is good practice. If symptoms of softening of the brain appear they will often yield to the persevering use of the preparations of iron, phosphorus, zinc, and strychnia, with generous living. — Mann.

Dipsomania or periodical inebriety is characterized by abnormal nervous excitability, conjoined with cerebral exhaustion, and the two indications which are urgent are, primarily, for increased rapidity and effectiveness as regards the process of nerve nutrition, and secondarily, to secure freedom from excitement, and diminution of nerve activity, and thereby to check the waste of nerve structure and of power. These indications we can fulfill by the judicious use of electricity and nerve tonics more certainly than by any other means, there being no other such combined sedative, restorative, and refreshant to the central nervous system. To give the brain the direct nutriment it needs in inebriety I have before stated can be accomplished by rest, cod liver oil, phosphorus, the phosphates, etc.

Primarily in the treatment we have shattered constitutions, and broken-down nervous systems to deal with. We have a
disease eminently marked by weakening of the will-power, and seclusion from society, rest, judicious restraint, and enforced abstinence from all alcohol stimuli are cardinal points of treatment. I always let patients, applying to me for treatment, distinctly understand that a permanent recovery depends largely on allowing sufficient time for restoration of nerve-power, mental tone, and physical vigor, and I think, in most cases, six months is the least time necessary for a complete recuperation of the will-power. Dipsomania is a disease that requires the most perfect discipline, both moral and physical, if we expect a cure. Periodical insanities are notably difficult to cure so that there is no chance of a relapse, but we may reasonably expect an ultimate cure if there is no structural change in the brain which has resulted from the course of inebriety.

Dr. Mattison in a recent paper remarks: “Until recent years it has been largely held that the use of opium, while often giving rise to well-marked, and, sometimes, grave functional disorder, it did not, like alcohol, cause organic disease. Of late, however, there has been a growing opinion that in a fairly large proportion of cases, its habitual use, especially in the form of morphia administered subcutaneously, will induce structural kidney change. In a recent paper by the writer,—‘The Renal Status of Opium Habitués,’ read before the Philadelphia County Medical Society, October 22d—opinions pro and con were given, and, while it still may be deemed an open question, he has a very decided conviction that these changes occur. Granting this to be true, we have only one lesion as compared with several from alcohol, and as regards hereditary entailment there is almost no comparison whatever. The trend of all this in its bearing on the status of ex-alcohol or ex-opium takers, as touching the greater risk in assuring, is at once obvious, and, getting the attention its importance deserves, the ex-opium habitué can present a claim for life
insurance backed by scientific pathological proof that, in our opinion, does, and should, entitle him to earlier and larger consideration. What about the probation period? The large risk of re-addiction is within the first year; the largest before the seventh month. After a twelve-month the danger decreases, and granting a healthy status along all lines—brain as well as brawn—we think the risk after three years is small. Of course, the non-risk is more ample, if the applicant be less than forty years old, if the addiction has been short, if physical rather than psychical factors stood in genetic relation, and if this physical factor were functional, that is to say, for instance, neuralgia, and not due to immovable growth or syphilitic poison, as against pain or insomnia—twin breeders of opium-taking—caused by structural change. If the facts and logic we have offered be sound, these conclusions seem warranted. Three years' entire abstinence from opium, after not more than five years' addiction, all other conditions being favorable, entitle an applicant to insurance. There is no legal obstacle to a policy so conditioned as to assure both insurer and insured."

The eminent Dr. Morris of Baltimore has for over a quarter of a century urged that inebriates were diseased, and should be treated as such. At a recent meeting of the medical society of that city, he suggested a plan of cure for the thousands of the drunkards called "bummers," who are committed and recommitted yearly to the city jail, and said that a sanitarium in which labor would be the principal element of reform and rehabilitation should be established for the care of these unfortunates, and that he thought the city should apply to the general government either for the gift or the purchase for a small sum of Fort Carroll, which would answer admirably for the purposes needed.

"Fort Carroll," the Doctor said, "is a perfectly useless piece of property, and has been for years an expense and care
to the government. It would be necessary, in addition to this, for the city to purchase a few hundred acres of land in conjunction with the fort for a truck farm, which could be worked profitably for the patients. It would require but a few armed guards to prevent escapes, as is now the case at the House of Correction at Bridewell. Those ‘patients’ not engaged on the farm or other out-door work could be employed in mechanical industries that would not interfere or come into competition with the labor of honest mechanics outside of the ‘sanitarium.’

“This plan, however,” says Dr. Morris, “would be utterly useless unless it were coupled with the indeterminate sentence law,—a law which works so admirably in some of the States, notably in New York and Ohio. The indeterminate sentence law is not at all known and understood by our people. It is a probationary system, which provides for the discharge of the inmate as soon as he is fitted to go back to the community; in a word, when he is healed, cured, and of this the managers of the sanitarium or reformatory are to be the judges. When the man is committed by the court, he is not sentenced for any given time. He may remain one week, one month, one year, or even for life, if, in the judgment of the managers of the reformatory, he is still a ‘leper.’ A highly useful and beneficent feature in the indeterminate law is that of probation. If a person sentenced shows decided proofs of reformation, he is allowed to go out into the community on trial, being only required to report himself at stated times. Should he relapse, he is again committed, sent back to the reformatory without trial or expense to the city, inasmuch as he never had been discharged. The great necessity for this change in our criminal management will be apparent when we reflect that out of the 11,740 commitments last year to the city jail of Baltimore, 8,782 were committed for drunkenness and disorderly conduct. More than one-fourth of this number were habitual offenders, and spent from three to nine months of every year in the prison.”
Dr. Quimby in a recent lecture said: "For over thirty years I have been in a position where, as a medical man, I could constantly observe the action or modus operandi of alcoholic stimulants upon the human body in health and in disease, and I do most solemnly affirm my belief that it is susceptible of demonstration that one-half, or one-third, at least, of all the diseases that afflict the human family are due directly or indirectly to the habit of the imbibition of alcoholic stimulants. I am sustained in this opinion by all unprejudiced medical men who have investigated the facts in reference to the relation that alcohol has to disease. The following clear conclusions were maintained, as representing the facts beyond question by scientists of to-day: 1st. Alcoholic drinks are not true stimulants, but narcotic irritants. Alcohol is not assimilated, nor is it tissue-making, therefore it is not food. 2d That alcoholic irritants (stimulants) do not aid digestion, are never useful adjuncts to the food of persons in health, and seldom to persons in disease. 3d. As a remedy it is only occasionally useful, and its place can readily be filled by other medicines quite as effective, or more so, with none of its dangers. 4th. It should never be used by nursing mothers. 5th. It should never be used, either in health or disease, by those who were once addicted to its use and had reformed, or by those who have a hereditary tendency or predisposition to its use. 6th. It should never be used by minors, or given to children, except in rare cases, and then not without medical advice. 7th. It neither preserves the health nor prevents disease. 8th. The effect of alcohol upon the parents is transmitted to the offspring. 9th. Men will do mentally and physically more labor and endure more hardships and exposures in all the departments of life without, than with, the aid of alcohol."

The New Model Anatomical Manikin, published by Fowler & Wells Co. of New York city, is a half-size manikin with over a hundred views of the body. For natural color-
Clinical Notes and Comments.

ing and clearness of detail it is very valuable, and presents to the physician a perfect map of the anatomy of the body, that is as indispensable as any medical journal or text-book. Accompanying this is a well-printed volume of two hundred pages, called a Compend of Anatomy and Physiology, giving a clear description of all the parts of the body illustrated by the manikin. Together this is the most complete method of studying the body outside the dissecting-room that has been presented.

In England the increased consumption of spirits has risen over nine per cent. over last year's figures. In Scotland and Ireland seven and a half per cent. The ideal temperance workers are discouraged, and despite all their efforts the demand for spirits grows steadily.

Dr. Peabody says over 200,000 persons are dealing in beer and spirits. Over 1,000,000 persons are employed by these dealers. They contribute nothing to the wealth of the country. They withdraw so many persons from being producers.

The secretary of the State Board of Health of Iowa announces that he is convinced that habitual drunkenness constitutes palpable evidence of incompetencies, as the law reads, and therefore an inebriate physician should be deprived of his certificate entitling him to practice in that state.

A new law went into effect in Boston July 1st, regulating the punishment of inebriates. Persons arrested for intoxication could be released by the police captain the next morning, if it proves to be the first offense, and by signing a paper to that effect. Should he make a false statement, he
Clinical Notes and Comments.

is liable to arrest by warrant, and be tried for drunkenness. If he is an old offender he is tried and sentenced from one month to one year, and is not fined. These sentences may be remitted and he go out on probation. The police captain and magistrate are required to verify or disprove his statements as far as possible before final sentence, and all fines are abolished. Each case must serve a sentence in some public institution, as the magistrate may think best.

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Vol. XIII.—46
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