

or straining of the mother becomes the chief propelling force (Schröder).

Hence, if we wish to diminish the propelling power during the passage of the head through the pelvis, we may often with advantage give remedies which will act between the pains to diminish their frequency, such as opium, chloral, etc., yet without very much affecting their force. Chloroform, given only during pains, diminishes their force without much affecting their frequency. Later, when the abdominal muscles are the prime forces, we may regulate the advance of the head by controlling them.

The prevalent practice of accelerating the progress of labor until the head greatly distends the perineum, and then using counter-pressure to keep the vulva from being lacerated, is to deliberately injure the pelvic floor, and then court rupture of the uterus.

Perhaps the best means of securing a normally slow advance of the head is to preserve the pouch of membranes. This may be done by keeping the patient quiet, discouraging all violent bearing down efforts, making but few digital examinations between, and none at all during pains.

Artificial dilatation of the vulval and vaginal orifices has been advocated by Ernest Trestrail (1875), Mossman (1880), Alex. Duke (1883), and Alfred Carr (1883). Latterly, Professor Leon Dumas has developed a very efficient method of digital dilatation of these orifices, and has practiced it with gratifying results (*Montpellier Medical*, August, 1883,—"Dilatation Præ-fœtale de la Vulve"). In my own practice I utilize the pouch of membranes for this purpose also. The vulval and vaginal orifices, being relaxed and everted, are, in most normal cases, less resisting to the pouch than was the os uteri. After being dilated by the pouch, they allow of the rapid passage of the head, thus shortening, and greatly lessening, the usual anguish of the last moments of labor; and reversing the fashionable mode of hurrying up the second stage to save pain, and then checking the advancing head at the final period of severest suffering.

A comparison of figures 3 and 4 will show that when the bag of waters persists, the perineal rings are better prepared for the delivery of the head while the forehead is still on the sacrum, than they are after the chin has passed the coccyx, in those cases where the membranes have been ruptured at the end of the first stage. Besides this, the head has a third less distance to travel during the second stage until born, and thus takes a third less time at a given rate of advance.

In thus advocating a bringing down of the fourchette, I only seek for an imitation, in all cases, of the mechanism that sometimes occurs in young primiparæ, and often in multiparæ, where the vulval and vaginal outlets are normally, and therefore greatly, relaxed; and where neither pouch presents nor fingers interfere. There is much less work either for the pouch, if left alone, or the fingers, if *properly* used, than is generally supposed. But that little work is often of prime importance.

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A PLEA IN BEHALF OF A NAVAL HOSPITAL FOR INEBRIATES.¹

BY FREDERICK HORNER, M.D.,
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In this paper it is proposed to discuss: *First*, the history and origin of hospitals for inebriates; *Secondly*, the presentation of facts to prove that inebriety is a disease; *Thirdly*, the value and results of institutional treatment; and *Fourthly*, the present necessity of a special hospital for the treatment of inebriates of the Navy.

First.—Dr. T. D. Crothers, in a paper read before the London Branch of the British Medical Association, states that "the earliest organized effort in modern times to prevent inebriety was a temperance society which began in New York State in 1828." I may add that two years previously, in 1826, a like organization was started in Boston. The object of these societies was to aid others in pledging themselves to abstain from the use of all intoxicants, and to help each other to carry out this resolution. The Washington societies began in 1840; this movement was greatly promoted by the labors of Father Mathew, an Irish prelate, by Mr. Gough, and Neal Dow, who gave to us the Maine liquor law. Subsequently friends and Sons of Temperance carried on this great work, and since the late civil war the Gospel Temperance and Good Templar societies, perfecting the system which at present embraces the social, moral and religious elements of man's nature. The need is for these classes fully to comprehend the fact that inebriety is a true disease—a widespread epidemic—and to be successfully treated comes within the domain of preventive medicine, and to be relieved and cured must be submitted to the treatment of special and fully enlightened physicians. In the exhaustive address of Dr. Crothers, he adds that "the first period, the rational or scientific epoch, began in 1790, when Dr. Rush, a distinguished physician of Philadelphia, urged that inebriety was a disease and should be studied as such; a physiological and not a moral condition. In Europe this theory was taken up and made the subject of several papers which have become historical."

In 1852, Dr. I. Edward Turner projected the first asylum for the medical care and treatment of inebriates. A new era dawned when the labors of this great philanthropist culminated in the opening of the New York State Hospital. During its brief existence of fourteen years 2,344 inebriates were treated. This enterprise attracted the attention of the world, and clearly demonstrated the disease of inebriety and its curability. In 1859 a similar hospital was begun in Boston, now known as the famous Washingtonian Home, with Dr. Albert Day as Superintendent. During the twenty-five years of its existence almost 8,000 patients have been cared for, "some of whom are now heard from, now honored citizens and performing well the duties of life." During fifteen years the Binghamton Asylum received 7,000 patients for treatment, and from the study of over 2,000 cases five years after the period of treatment in the asy-

¹ Read before the Naval Medical Society.

lum, sixty-two per centum were found to be temperate and sober. There are thirty asylums for the treatment of inebriates in America. Some of them are small and empirical in their theories, and many of them are broadly scientific in plans and appliances; one of the largest is for women, and when completed will contain 300 rooms. The late Dr. J. Marion Sims was President of this institution, which is located in Connecticut. All of these asylums, remarks Dr. Crothers in the Report from which these details are quoted, "suffer from want of legal aid to restrain fully such cases, though everywhere these asylums are building up public sentiment in the direction of physical means and methods of treatment. The first effort to study the facts as they appeared from a scientific inquiry began in 1870 in the organization of the American Association for the Cure of Inebriates. This Association is composed of physicians who accept the general principle that inebriety is a disease, and is curable as other diseases are. To this end asylums are essential, or special quarantine stations where the victim can be housed and receive exact physical care, until the causes are removed and the patient restored—the victim himself being held responsible, like the small-pox patient, to use every means for recovering."

Legal enactments in Europe and in this country have been passed, giving full control over the inebriate—the most advanced of which are in the State of Connecticut and in New South Wales. Of the thirty asylums in the United States established during the past quarter of a century, twenty-six survive. The necessity of hospital treatment for inebriety is thus established beyond all question. Public sentiment is enlightened, and under the inspiration of a Christian civilization over a thousand temperance coffee and lodging rooms and Sailors' Homes where no liquor is sold have been opened in this country. By these efforts, they recognize the value of physical aid, the necessity of food and rest in order to restore the diseased will. The Women's Christian Union maintains most of these places. In these Homes, the value of a single day's restraint, with good food and quiet rest, is seen in the help to overcome the diseased appetite. They are literally the first efforts of the masses to treat inebriety by rational means, and the beginning of a great movement to establish hospitals for all.

Secondly: the presentation of facts to prove that inebriety is a disease.—The writings of the ancient Greeks and Romans sustain this proposition. Herodotus wrote that "drunkenness showed that both the body and soul were sick, and had destroyed many kings and noble people." The Greeks enacted laws forbidding women to use wine. In the writings of the thirteenth century drunkenness and madness were mentioned as synonymous terms. In 1747 Condillac, a French author, declared that the State should recognize and provide means for its treatment, "since the impulse to drink was, like insanity, an affection of the brain." In 1790, Dr. Benjamin Rush sustained this theory by a long train of reasoning. He divided the disease into acute and chronic forms, giving many

of the causes, among which heredity was prominent, and urged that special measures be taken in the treatment, and in a hospital for the purpose. In 1802, Dr. Cabanis, of Paris, wrote "that inebriety, like insanity, was a distinct form of mental disorder needing medical care," an opinion sustained also by Prof. Platner, of Leipzig, who claimed that the insane impulse of the drunkard ought to be studied by the light of science. Esquirol, in 1818, described a condition of the nervous system in which inebriety was sure to follow.

To two eminent American physicians, Albert Day and T. D. Crothers, may be awarded the credit of establishing beyond all questioning the facts to prove that inebriety is a disease. In a paper, "Inebriety and its Cure," read by Dr. Day before the Suffolk District Society, he says: Dipso-mania is a term applied to a peculiar form of insanity, designating that uncontrollable impulse towards the use of intoxicating liquors which is felt by some persons at certain periods, and contradistinguished from the craving thirst of the daily moderate drinker. *Alcoholism* is the name of all diseases in any way found to be due to the use of alcohol, and applies to the collective symptoms of a disordered condition of the mental, moral and sensory functions of the nervous system; these symptoms, according to Dr. Magnus Huss, of Stockholm, in his work on "Alcoholism," may assume a chronic form, and without being immediately connected with any organic manifestations of the central or peripheric portions of the nervous system which may be detected during life or discovered after death by ocular inspection. Dr. Crothers claims that "all the symptoms of inebriety are incidental to the toxic effects of alcohol, marked by psychical and pathological changes, and the inability of the patient to cease the use of spirits is because of the nerve degeneration which has occurred; then follow functional and organic disturbances. From hereditary causes there may be also further proofs of a defective organism; that inebriety is an inherited disease can be clearly proved. The poorer classes, from lack of suitable nutriment, resort to stimulants, while the more wealthy from continuous excess develop nutrient degenerations. The over mental work and sedentary habits of literary men of unstable mental organization, disordered emotional faculties and unbalanced nutritive functions, constituting the inebriate diathesis, sometimes prove to be causes affecting injuriously the offspring and predisposing to inebriety. The organic degenerations are marked by anæmia, neuralgia, and a sudden insane impulse for intoxicants.

As inebriety comes on by degrees, the physical condition of the victims of the disease is of great significance. The shock arising from injury of the brain or spinal cord by a blow or fall, *coup de soleil*, railroad accident, from the effects of lightning, or reverse of circumstances followed by neurasthenia and ill-health, if treated with alcohol, may develop the symptoms of acute and even chronic inebriety. The religious revivalist, the disappointed student, and the business man who fails, are examples of the classes of mankind who become victims of this disease—a

disease traceable often to conditions of exhaustion of the brain. Dyspepsia, which disturbs the nutritive functions of the body, is a predisposing cause, and induces a condition happily designated by that profound expounder of this subject, Dr. Crothers, "psychical traumatism," in which the brain and nervous system have lost some power of restoration by which their integrity is preserved, and take on conditions favorable to the development of inebriety. At first alcohol is used for its sedative property; second, to relieve the pain of neuralgia or gastralgia. Hence the world-wide resort to "bitters," so lauded by empirics.

Among the predisposing causes may be cited bad influences in the early training of the young. Like many other diseases, it is more prevalent at certain periods of life—that of puberty is full of danger. It appears, according to Dr. Mason's statistics of 250 cases, most frequently in ages from 15 to 25 and from 30 to 35 years. The craving or desire for spirits is periodical with some individuals. A seaman, Noah-like, thus suffers when his cruise or voyage ends; this class sometimes lose all consciousness of right and wrong and have no control over the actions of the mind or body, and become insane or criminal. Firemen and night workers soon become inebriates. Dr. Day, in his Report of the Washingtonian Home, 1884, says "the inebriated man appears to act the part of one deranged in intellect, body and mind alike suffer, and a hideous list of nervous failings prey upon his shattered frame and prove fatal in the end." He adds that "the public must look to the medical profession for proofs that inebriety is a disease and is largely the outcome of physical injury. It begets various forms of insanity, transmits to progeny a defective brain and an ever-present anæsthesia, wherein the coördinating structures are impaired in substance or in function by the intervention of hyperplasia, excessive cell formation of the interstitial tissue, the unoccupied spaces between the molecules. A brain so injured ministers to moral incapacity, ending in a morally depraved character. Criminals by birth, though they may never drink, they are thieves and perjurers; and, alas, it may be asserted that the whole race of man now, with few exceptions, by the drinking habit and the abuse of the liquor traffic, is tainted with alcoholic disease from which come poverty, disease, crime, and the most burdensome taxation. Inebriety is a foul disease, more destructive to human life than all other diseases combined, enslaving mankind in bondage second only to what Satan achieved for Adam's race in Eden." Dr. Frederick C. Shattuck says "the high mortality of acute pneumonia in the intemperate is no new observation, but the facts would seem to show that alcoholic excess is not only an important factor in determining the issue of this disease, but that it is often of itself the actual cause of it. Thus it is that pneumonia owning this origin is at all ages the most fatal form of the disease known to us."

Professor Christison, of Edinburgh, declares: "I recognize certain diseases which originate in the vice of drunkenness alone, which are delirium tremens, cirrhosis of the liver, many cases of Bright's disease of the kidneys, and the dipsomania of insane drunk-

eness, and also other diseases in regard to which excess in intoxicants acts as a powerful predisposing cause, such as gout, gravel, aneurism, apoplexy, epilepsy, cystitis, erysipelas, spreading cellular inflammation, tendencies of wounds and sores to gangrene, and inability to resist the diseases at large." In examples of epidemic continued fevers he had known but a single case of an intemperate man of 40 and upwards to recover. Four-fifths of his cases of Bright's disease were produced by alcohol. All practicing physicians who have treated epidemic cholera or yellow fever know that the maximum mortality occurs to the intemperate classes of society.

Dr. C. Murchison, the author of an excellent treatise on "Continued Fevers in Great Britain," says: "A single act of intoxication or debauch predisposes to typhus," adding that there is no greater error than to imagine that a liberal allowance of alcoholic stimulants fortifies the system against contagious diseases. In Dr. Murchison's "Lectures on Functional Diseases of the Liver" before the Royal College of Physicians in London, it is asserted that the prevalence of beer and spirit drinking and consequent liver clogging accounts for the widespread use of countless forms of patent medicines. These are all of a purgative character, and give temporary relief to the overwrought liver, but help to shorten life.

Dr. Norman Kerr, in the discussion of diseases due to the abuse of alcohol, states that probably sixty per centum of the cases of erysipelas were occasioned by it. The use of beer produces a species of degeneration of all the organism—fatty deposits, diminished circulation, congestion of the viscera and local inflammation of both the liver and kidneys. Intellectually sometimes a stupor amounting to paralysis, and arrest of the reason, changing all the higher faculties into mere animalism, selfish and sluggish, varied only by paroxysms of anger that are brutal. Its constant use gives the body no recuperation, but steadily lowers the vital forces. It has been remarked that the most dangerous class of ruffians in our large cities are beer drinkers. Hence the conclusion that inebriety leads to criminal acts is undoubtedly true.

Dr. B. W. Richardson said before the Edinburgh Society of Arts: "Alcohol, instead of raising, lowers the temperature of the body. After a drunken stupor it takes three days to restore the natural warmth. The development of fat from its use is simply due to structural degeneration of the vital organs. Hence alcohol is not in a proper sense a food. It accelerates the action of the heart from 100,000 to 125,000, followed by a proportionate weakness. The heart becomes enlarged and its valves disordered, and the brain, by the increased flow of blood to it, is rendered for the time more active and is succeeded by greater feebleness, which demands the repetition of the stimulus. Among the effects of deterioration in those who drink moderately are various neuralgic pains, the worst form of indigestion, and wakefulness. At a later stage of drunkenness, not a single organ of the body escapes disorganization of its vital structure, though heredity or other conditions may cause a seeming concentra-

tion on a particular organ—the liver, the kidney, the lungs, the heart, brain or spinal cord.” This author concludes that if any form of alcohol do really for the moment cheer the weary and impart a flush of transient pleasure to one who craves for mirth, its influence, an infinitesimal advantage, is obtained by the side often of an infinity of evil for which there is no compensation, if a cure. The proofs thus furnished by the writings of the most eminent medical authorities, that inebriety is a disease, and also productive of other diseases, may be summed up in the utterances of Dr. Joseph Parish, that it cannot be denied that, 1, it is a disease, and with specific symptoms; 2, there is a condition of the nervous system with which some men are born that predisposes them to alcoholic indulgence. Hence the inebriate must be treated as other diseased human beings, and not ostracized by society and branded as a criminal, and be driven an outcast beyond the pale of human sympathy. In his behalf the laws of hygiene must be taught in their highest sense, and a curative and humane treatment be adopted.

These opinions are also ably maintained by Dr. Albert Day, who declares that “the inheritance of inebriety follows the same laws as other nervous diseases, a predisposing cause being a civilization at the present day demanding a great expenditure of nerve force and brain work, while among the exciting causes are alcohol, opiates and chloral, which, by acting in a secondary manner upon a low nerve power, produce the diseased condition known as dipsomania. The disease never exhibits itself till alcohol has been consumed, resulting in the poison of the blood and the arrest of the healthy operation of the nervous system. It attacks the higher faculties, dethrones the reason, retrogrades its victim to a level with the brute, and in its chronic form is indicative of mania-a-potu, epilepsy and insanity. If cholera and other plagues have slain their thousands, inebriety annually destroys its ten thousands. The whole subject embraced within this division of my topic comes within the domain of *preventive medicine* as clearly as any single one of the zymotic diseases, and so soon as the medical profession will direct their attention to its recognition, prevention and cure, will mankind be freed from the most dire scourge which can afflict the human race.

Thirdly: The value and results of institutional treatment.—On this part of my subject I regard the testimony of Dr. Albert Day as furnishing an unanswerable argument in favor of the value and success of institutional treatment, as tried during the past twenty-eight years at the Washingtonian Home. Dr. Day, in his Report for 1885, says that one of the earliest results of hospital treatment was the discovery that inebriety is a disease rather than a vice proceeding from the creation of an artificial appetite, and it never exhibits itself until alcohol has been consumed. Dr. Day has treated over 10,000 cases, and by statistics demonstrates that asylums, properly conducted, are an actual saving to the State in dollars and cents. The instances of relapses have been less than is generally supposed. This method has at least proved

to be the best yet discovered to ensure a complete and permanent cure for reforming the evil. The victim is thereby withdrawn from associations of temptation, is received with kindness, and having first expelled the evil within him, is reawakened to self-respect, and after a time is restored to the community with a sound mind in a sound body, and becomes again an active worker in the great human hive—useful to himself and a source of happiness to his friends. This eminent physician and philanthropist adds that in the treatment of his patients he aims to promote in them true virtue, total abstinence and true piety, to stimulate their own exertions for a better knowledge of God and His laws, and for a determined self control. In this era of practical atheism and morbid materialism among a certain class of physicians, the sentiment expressive of faith in God and His word which Dr. Day commends to his patients is deserving of praise, since the true physician has ever to remember that he is only the honored instrument of a superior power in relieving maladies of the body or mind; and, after all, it is only “God who healeth our diseases.” It can readily be proved that all attempts to treat successfully and to cure inebriety in civil practice or on board ship have failed. While due prominence has already been given in this paper to the treatment of the inebriate in an asylum, and full concession made to the wisdom of those who have advocated institutional treatment and yet deny that there is any vice connected with the disease, which is called inebriety, we are instructed to the contrary plainly by the teachings of the Bible. This sacred book declares that drunkenness is a sin so offensive to the Deity that by Hebrew law the victim was stoned to death, and under the new testament, or Gospel, dispensation, such an offender will at death be deprived of the joys of Heaven. Hence, as Christian physicians bearing the mantle of the great Physician who alone delegates to us the wisdom and force to heal the drunkard's bodily ailment, we can, also, present to his heart and conscience the consolations of the Christian religion. Thereby we strive to lift him to a higher life and remind him of the solemn warning which the Bible conveys, that “no drunkard shall enter the kingdom of heaven.”

Fourthly: The present necessity of a Special Hospital for the treatment of inebriates of the Navy.—In a late letter received from Dr. Albert Day, he says: “It seems to me fortunate that you are to present the subject of institutional treatment for the unfortunate victims of inebriety in our Army and Navy. A large number of men have come under my care during the past thirty years, and in all respects from inebriety they are the best and most intelligent in the service. Should the Government establish such an institution we should hear less of insubordination, disgraceful conduct and self-destruction. Under proper asylum treatment a large percentage of these men could be saved to the service and their families.” He adds: “I have been engaged in this work nearly thirty years and I am approaching the end. I can truly say that I am more

satisfied with the results of my life's labor than I at the first anticipated. But the work has been a success. I often meet persons rescued from the most degraded form of intemperance; they are now worthy and honored citizens, who can date their cure back to twenty or more years."

It required three quarters of a century before naval authorities established a hospital for the insane of the public service. The suggestion first made by that great philanthropist, Miss Dix, was successfully carried into effect in 1858 by Dr. Charles H. Nichols. There can be no question from the facts presented in this paper, that for nearly thirty years the experiment of hospitals for inebriates in nearly every State in the Union has been successfully demonstrated in this country as well as in Europe. The Naval Surgeon should, in the practice of *preventive medicine*, be convinced that the disease inebriety, occurring in the line of duty to officers or seamen, should have the benefit of special treatment in a hospital instituted for this special disease. The Annual Report of the Surgeon-General of the Navy notices a certain number of cases of acute and chronic alcoholism, and of delirium tremens, say one-fifth, rightly included under the head of "Poisons," as occurring in the various squadrons at home and abroad, at the navy yards and in naval hospitals. Among this number there must be cases discharged uncured. In the North Atlantic Squadron, under the head of "Poisons," which includes acute alcoholism, *rubus venatum*, *colica pictorum*, etc., the ratio per 1000 of this class is set down in the Report as 10. In the European Squadron, under the head of "Poisons," 17 per 1000 is the number given; 13 admitted, 12 discharged and 1 invalided. The Report concerning the sanitary condition of the various hospitals also furnishes examples of acute and chronic alcoholism and ebrietas; 31 cases admitted, 30 discharged, and 1 invalided. Such facts are suggestive that, whatever precautions may be adopted by the medical staff of the Navy to eliminate inebriety from the public service, the experiment has failed. The attempt at treatment on board ship, as in civil practice, has also failed, but not so has institutional treatment.

Already the naval surgeon has won an advanced position in the departments of sanitary science and of preventive medicine; indeed, he is fully qualified to discharge all professional duties as a surgeon and physician according to all the light which medical and surgical science has reflected upon the human mind. Hence the query, will he not be derelict to fail to apply the most enlightened medical and institutional treatment to an inebriate on board ship, as well as in a special hospital, rather than to furnish testimony before a court of inquiry or a court martial as a witness, thereby ensuring the summary disgrace or expulsion from the public service for drunkenness of an efficient officer or a valuable seaman? The latter cruel and, in many instances, unjust method was practiced prior to 1859, though it can not be sanctioned at present. In one case, of which the writer was cognizant, the greatest wrong was inflicted upon a talented and efficient naval officer, whose valuable services saved a sloop-of-war,

with her crew, from shipwreck. His exposure to a tropical sun, in an open boat, to discover a safe channel for the escape of the vessel, was of course the occasion of great mental strain. On returning to the United States subsequently, can there be any surprise that this officer in an evil hour was tempted to acts of intemperance? And yet the decision of a court martial convicted him of drunkenness, and sent him into the world a disgraced and ruined man.

Finally, the suggestion may be ventured that, at least, one of the various Naval Hospitals now appropriated for the treatment of the sick and wounded might be judiciously set apart for the special care, relief and cure of the unfortunate victims of inebriety of the American Naval Service.

A NEW CLOTHING CASE FOR THE SOLDIER.

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The science of medicine has for its purpose not only the cure of disease, but, infinitely more important, the prevention of sickness and of suffering. Students of the medical profession—and, as long as we are faithful to our calling, we who are known as medical doctors must also be students—investigate matters pertaining to prevention and cure in every direction. To one the ability is given to contribute books of instruction; to another records for reference; to others instruments for operative surgery, instruments for diagnosis, appliances for deformities, apparatus for the relief of the injured, appliances to protect against deadly pestilence, and the simpler articles to aid in general hygiene. There are many workers, and much material offered for inspection which must prove worthless and useless. From the great gathering of the efforts of thousands some things prove of value and are accepted and are permitted to do useful and honorable service. All cannot be utilized. Some things must be rejected, but the faithful worker brings his offering to the profession and patiently waits the verdict of his peers and of his seniors.

The experience which was won by the dreadful War of the Rebellion in this country has had its good effects all over the world. The lessons learned by our medical officers and sanitarians have been made use of in every war since, and the valuable records are stored ready for future instruction. The study of military hygiene is of the utmost importance. The preservation of the health of the soldier, with a view to increasing his effectiveness and diminish the causes which weaken, injure and invalid him, are worthy of the most careful study, investigation and experiment. The poetical and romantic in uniform and ceremony must fall before the searching analysis of the practical question. All that relates to the soldier, his food, clothing, camp, arms, recreations, duties, physical condition, morality, all these and many more must interest those who have the soldier's real and lasting welfare at heart. The soldier, to be effective as a fighting man, must be able to go on the