

THE
CANADIAN JOURNAL
OF
MEDICINE AND SURGERY

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF
MEDICINE AND SURGERY

J. J. CASSIDY, M.D., EDITOR.

VOL. XI.
JANUARY TO JUNE, 1902

BUSINESS MANAGER
W. A. YOUNG, M.D., L.R.G.P.LOND.
145 COLLEGE ST., TORONTO, CAN.

1902

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VOL. XI.

TORONTO, JANUARY, 1902.

NO. 1.

Original Contributions.

NATIONAL PHYSICAL DEVELOPMENT.*

BY J. N. HUTCHISON, M.D., WINNIPEG.

PLATO hundreds of years ago asked the question, "Is there anything better in a State than that both women and men be rendered the very best?" Truly there is not.

In every age there have been those who have nobly given their genius to the solution of the great problem of the evolution of the human race, morally, physically and mentally.

To the medical profession belongs particularly the guardianship of the physical and mental development of the race; and it becomes us to study the history of the past that we may shape our course for the future, and, perchance, thus be able to solve the problems that have so far baffled all races and all ages.

I propose, in the first place, to enquire into a few of the most important causes which have produced, and are producing, an alarming degeneracy in a large part of the population; causes which can be removed to a large extent. For the present I leave aside the law of heredity, which is always present and always acting.

To produce a strong race, physically and mentally, we must have healthy mothers. To have healthy mothers, we must have healthy girls born, and then see that they are prepared for this paramount and God-given power of reproduction. And right here I wish to sound a loud note of warning as to the damage being done, especially to our girls, by our present system of education.

* Read at meeting of Canadian Medical Association, Winnipeg, September 1st, 1901.

In the past the sole aim of modern education has seemed to consist in an attempt to develop the mind at the expense of the body. Happily we are waking up to this error, and our system of education is being moulded to provide for physical education as well as mental.

But even yet there is room for improvement, in curtailing the number of subjects taught our children, and in lessening the amount of home study. The strain of modern civilization imperatively demands this.

One writer has said of this evil: "We impart to the child by heredity and example an ambition to know everything, or if he does not happen to have that ambition, we proceed to hammer everything into him. We reach out eagerly to grasp and incorporate all the affairs of the universe into our course of instruction. The burden is too heavy, and just as surely as effect follows cause in natural law, so surely is our generation of children being weakened and unbalanced, and a still weaker generation will follow. Our great public school system, designed to bless the nation, will become a national curse. As with individuals, so with races in the struggle for predominance, the weakest will go to the wall."

The advent of the school-going age presents many serious problems. It is contended by many authorities that children are sent to school at too early an age, and compelled to do an amount of mental labor incompatible with the healthy growth of their physical organization. With regard to this it may be stated dogmatically at the outset that as far as children under twelve years of age are concerned the danger of brain overwork has been unduly exalted, for, with a very few exceptions, their natural inattention and playfulness are their safeguards. After twelve years of age the question of brain overwork really begins to assume proportions worthy of serious consideration, for it is then what we may term the fancy work of education begins. They are then subjected to a process of mental gymnastics sufficiently arduous to strain the powers of an adult, to say nothing of children who are approaching that very important physical crisis—puberty.

In this connection I wish to refer particularly to the matter as it affects our girls who are to become them others of the race. Those grievous maladies, leucorrhœa, amenorrhœa, ovaritis and prolapse, etc., which torture a woman's earthly existence, while indirectly affected by food, clothing and exercise, are really directly affected very seriously by our present method of education, which makes no allowance and virtually ignores the establishment of the catamenia.

This periodical movement, which characterizes and influences woman's structure for more than half her terrestrial life, and which in theirebb and flow sway every fibre and thrill every nerve

of her body a dozen times a year, are intended to be fountains of power, and not hindrances to her.

Woman, in the interests of the race, is dowered with a set of organs peculiar to herself, whose complexity, delicacy, sympathies and force are among the marvels of creation. If properly nurtured and cared for they become a source of strength and power, while if neglected and mismanaged they retaliate on their possessor with weakness and disease. The growth of this peculiar and marvellous apparatus, in the perfect development of which humanity has such a large interest, occurs during the few years of a girl's educational life. No such an extraordinary task as this is imposed on the male.

The importance of having our methods of education recognize this peculiar demand for growth, and for making due allowance for the healthy development of these vital organs, and for the establishment of their periodical function, cannot be overestimated. Who has not seen instances where this special mechanism we are speaking of remained in an undeveloped condition? The young lady may have graduated from school or college with the highest honors and amidst the plaudits of her admirers, but with a woman's curse—weak and undeveloped organs of generation.

Later on they marry, and are either sterile or suffer all the untold agonies which so often confront the physician. Hence I claim there can be no greater demand on our educational system than that of making provision for the catamenial week, for the process of evolution and for the perfection of the reproductive system. From the ages of thirteen to eighteen, inclusive, opportunity must be periodically allowed for the accomplishment of this task. Both muscular and mental work must be remitted in full or in part to yield sufficient force for the work, for if the reproductive machinery is not manufactured at this period it will never be. If we are to have healthy mothers we must take into account the sexual education as well as the mental.

Every young girl should have three or four days free from school labor each month, or at least a very great relaxation of mental and physical labor, for a careless management of this function is apt to be followed by the most serious consequences. The more completely our system of education ignores this very important matter the larger will be the number of these pathological cases among its graduates.

Dr. Clark in his admirable work says that "the number of these graduates who have been permanently disabled to a greater or less extent by these causes is so great as to excite the greatest alarm, and to demand the serious attention of the community. If these causes should continue for the next half century, and

increase in the same ratio as they have for the last fifty years, it requires no prophet to foretell that the wives who are to be the mothers must be drawn from transatlantic homes;" and yet our much-vaunted system of education takes no cognizance and makes no allowance or provision for this great function, but day in and day out requires the full pound of flesh, and in the end gives us graduates whose brains can manipulate Latin, Chemistry, Philosophy, French, German and the whole extraordinary catalogue with acrobatic skill, while it demonstrates that it is possible in some cases to divest a woman of her chief feminine function, and in others to produce grave and even fatal diseases of the brain and nervous system, and again in others to engender torturing derangements and imperfections of the reproductive apparatus that embitter a lifetime.

I would then advocate most earnestly intermittence, periodicity of exercise and rest; work three-quarters of each month and remission, if not total abstinence, the other fourth, with physiological interchange of the erect and reclining postures, and thus care for the reproductive system, which is the cradle of the race, and in this way assist very materially in producing the highest type of womanhood.

I am also a strong advocate of provision being made in our educational system whereby duly qualified physicians shall give periodical lectures to boys and girls above the age of twelve (in separate classes) on the subject of Sex: its meaning, its importance, its proper development, and the many dangers which beset it, instead of at present allowing our children to go blindly forward absolutely ignorant of its great importance or its great dangers.

There is no question but that in both sexes the psychological effect of puberty often outweighs the physical, especially in boys. It is a period when mental aberrations are not uncommon. The root of the evil lies largely in the mawkish sentimentality and artificial modesty which possesses a large percentage of parents, and prevents them from explaining to their children the mental as well as the physical significance of the changes which they are destined to undergo at this period. The result is, in the case of the girl, that the establishment of the catamenia often comes as a mental shock, which may prove the last straw in nervous breakdown for which her studies have already paved the way. With the boy the result is different, and frequently far more disastrous, for, finding himself in possession of a newly awakened instinct, he is often led into habits which may mean little less than absolute mental and physical ruin. The primary factor of moment is the implantation of the morbid fear, and unless this is quickly eradicated the complete nervous undoing of its victim is in time.

effected by misguided advisers, or by the criminal insinuations of a great band of designing quacks, to whose shame be it said a large section of our daily press opens its doors freely, allowing them to flood the country with their villainous publications, robbing their many victims of their hard-earned money, and, far worse still, implanting this morbid fear of mental and physical destruction, and assiduously fanning the flame to a white heat, till they become easy victims of their selfish greed. Now what is the remedy? The primary responsibility rests with the parents, but to judge by the prosperity of the very lowest and most offensive sort of charlatans, and from the number of persons who, under the scourge of the most pitiable mental anguish induced by these vultures, seek the advice of reputable physicians, it would seem that parents entirely neglect their duty.

As the press is well paid for the use of its columns, we can hardly expect it to come to the rescue, though the pages of our most respectable secular papers are often a disgrace to journalism, defaced as they are by these debasing advertisements.

Now, the only remedy to my mind, and the key to the situation, is the teaching of a practical morality by a sexual education in our schools, such as I have indicated before. If our youth were educated thus they would be warned of the danger of self-pollution and the equally great or greater danger of venereal disease, the result being a practical morality, which would have a great tendency to stamp out these terrible diseases of vice, which are sapping the vitals of our national life.

Another great cause of so much physical weakness, I am convinced, is the eager demand and the very free use of the many patent nostrums which are so vigorously pushed to the front by those who, though posing as philanthropists, are in reality leeches of society. Take, for example, the many catarrh cures, most of which contain cocaine, and thus give temporary relief, and so create a great demand, whereas in the end the result is permanent injury. These quacks, aided as they are by the daily press, are thus able to reap a rich reward with their many cure-alls, which cure when you are sick, and must be taken when you are well to prevent sickness. I wish to declare most emphatically that so much nostrum taking is one of the curses of the day.

It is cause for congratulation that public sentiment is becoming thoroughly aroused as to the danger of that terrible malady, tuberculosis, and that vigorous measures are being adopted to stamp out this destroyer of so many of our stalwart sons and daughters. There is much to be done yet, especially in the way of prevention by a forced quarantine or separation of those afflicted from those who are healthy. Why should our consumptives any more than those afflicted with smallpox be allowed to roam at large, spreading the disease in all directions?

Another great destroyer of our people is the terrible evil of intemperance, which directly slays its thousands, and indirectly other thousands by laying the foundations of disease, such as cirrhosis of the kidneys, liver, etc. The medical profession has been slow in the past in placing itself on record against this great evil, which is one of the national curses. How many hundreds of deaths are reported under the charitable cloak of typhoid fever, pneumonia, nephritis, peripheral neuritis, etc., whereas these were only exciting causes, the real cause of death being a system already heavily mortgaged by the continuous use of alcohol.

Now, having considered some of the main causes of degeneracy in the race, the question arises as to what shall be done with those who are already degenerate—the insane, the weak-minded, the consumptive, the syphilitic, and the alcoholic, for that we have such in increasing numbers is evident from statistics herewith submitted, and there is no doubt that they are to-day the greatest danger to the body politic.

Let us study the vital statistics of the two great nations of the North American continent.

In the United States there were:

Year.	Population.	Insane.	Idiots.	Total.
1870	38,558,371	37,432	24,527	61,959
1880	59,155,783	91,959	76,895	168,854
1890	62,622,250	106,485	95,609	202,094

showing a marked increase in the number of insane and idiots, relatively much greater than the increase in population. No census of the insane and idiots was allowed by Congress in 1900.

In Canada, using only the four Provinces originally in the Confederation, we have:

Year.	Population.	No. of Insane.
1871	3,485,761
1891	4,374,515

showing an increase in twenty years of 34 per cent. in insane and 25 per cent. in population. As the census returns for 1901 were not available, we can give no estimate for the last decade. The Dominion has never taken a census of idiots.

Taking the Province of Ontario alone, while no census returns are given, we have the following statement of the asylums and the number of inmates:

Year.	Population.	No. of Asylums.	Insane.	Idiots.	Total.
1871	1,620,851	3	1,246	120	1,366
1881	1,923,228	5	2,416	234	2,650
1891	2,114,321	6	3,468	420	3,888
1901	2,400,000*	7	4,500	652	5,152

*Approximate.

Increase in population in thirty years, 50 per cent.; increase in insane and idiots in confinement, 277 per cent.

Of course these figures do not show a positive increase, as many of them have been in private homes formerly instead of in asylums, yet it is very strong presumptive evidence of a very material and alarming increase in this class of defectives. Then when we consider that epileptics far outnumber the insane and idiots combined, and that of the death rate about one in seven or more is from tubercle in some form, while every village contributes its share of alcoholics, and that the most highly civilized (?) communities are those where Venus, and subsequently Mercury, are most eagerly worshipped, we surely have a condition of affairs demanding the most serious consideration. If the increase of the degenerates was not in greater ratio than that of population the situation would not be so alarming, and we might in time hope to find relief through the "survival of the fittest," but the alarming fact stares us in the face that the increase of this class is out of all proportion to the increase in population.

Now, what shall be done with these unfortunates who are neither mentally nor physically qualified for the duties of life? The ancients in many cases deprived them of existence, but in our age of civilization we must acknowledge the right of the degenerate to existence, though there are some who might feel inclined to deprive them of this, claiming that this right has been forfeited by his mental, moral or physical decay. But we must all agree that the degenerate has no right, either natural or acquired, moral or legal, to produce a posterity cursed with his affliction to be a danger and a burden to your posterity and to mine; and we can never hope to stay the ever-widening tide until it is controlled through heredity itself, by denying to the defective the right to propagate his tainted species. And it is we who are the guardians of the health of the people who must see that this great law of self-preservation is put into force.

The great fountains feeding this stream of degeneracy are alcoholism, syphilis, tuberculosis, epilepsy and insanity, and to a certain degree gonorrhoea. While no one will claim that alcoholism is transmissible, a feeble resisting power of both mind and body is transmitted.

Elam, a writer of authority, says: "The most startling problem connected with intemperance is that not only does it affect the health, morals and intelligence of its votaries, but unfortunately it descends to the children, who inherit that fatal tendency and craving for the very beverage that has poisoned their being from its very commencement."

Morrell, another writer, says: "I have never known a patient permanently cured of his propensity to drink whose tendencies

were derived from the hereditary predisposition given him by his parents."

Moreover, the dipsomaniac not only tends to produce a drunken posterity, but a criminal one also.

What of syphilis? Every one has been witnesses of the horrible effects it produces. The syphilitic begets epileptic, paralytic, neurasthenic and idiotic progeny. We insist that the confirmed syphilitic has forfeited all his marital prerogatives, and should not be allowed to bring into the world beings who can only be a source of anguish to themselves and an expense to the State.

Of tuberculosis we are all familiar, and yet our laws make no provision for either segregation or prevention of marriage. A real decrease in this disease will take place when these people realize that they should not, and the State insists that they shall not, marry.

While gonorrhoea does not exert any special hereditary influence, it is a very vital force in the production of many cases of life-long invalidism, and hundreds of innocent wives are to-day suffering from one or more of that long list of female complaints which are the curse of the present day, owing to the husband having been afflicted with this loathsome disease at the time of marriage, perhaps not in an acute or visible form, but with sufficient virility to be communicated. Gynecologists know that a large percentage of their work is the result of gonorrhoeal infection, and, this being the case, I ask, Are such men and women fit to become the heads of families and the parents of children?

There is no agreement as to what degree of mental weakness constitutes insanity, and, while there is not much danger of marriage being contracted by the acutely or chronically insane, yet the most complete census fails to return as insane a number of persons who would be considered so by experts. These milder cases are the dangerous ones. Not being reported insane, they are free to marry others alike mentally defective, or to commit any other overt act that they may choose, although we know well that they are tainted through heredity, and that an acute attack of mania may break out at any moment. There can be no greater crime to posterity than to allow this class to propagate itself.

The diseases named are those that have made the nearest approach to total defiance of medical skill. They are diseases whose victims refuse to permit any abrogation of what they deem their rights.

The tuberculitic is notoriously prolific in offspring, and the syphilitic scorns the idea of sexual restraint. The diseases under discussion are those that render men unfit to discharge the duties of good citizenship, and that now morally, and should legally,

debar the sufferer from the crime of transmitting his curse to his descendants.

The only rational solution of the problem is to deny the right of marriage to these defectives. If their disease be curable, they have no right to remain a source of danger to mankind, and if they are incurable, they have no right to perpetuate their infamy or weakness. This is in accordance with justice to the tax-payer, who is already burdened with unreasonable expense in the maintenance of this class. It is in accordance with good statesmanship, which seeks to shield the Commonwealth from elements prejudicial to her welfare. It is in accordance with the spirit of medicine, which for ever strives to lessen and ameliorate the pains and diseases of suffering humanity. It is, in fact, *self-defence*. Nor is precept wanting. The State of Texas prohibits the marriage of epileptics; Massachusetts, syphilitics, epileptics and alcoholics. France and Germany have each done something along this line, and I have here a bill recently passed by the State of Minnesota prohibiting the marriage of epileptics, imbeciles, feeble-minded and insane.

Is it not time that our own Dominion should take some step forward on this question? Every honest practitioner's heart has often ached as he has been a silent helpless witness to this fiendish crime against humanity. We have seen good, pure, healthy women crippled for life in both body and mind to satiate the passions of defectives, and to produce in turn helpless babes to be forever a curse to themselves and to their families and to the State. Can we, to whom has been intrusted the high honor and responsibility of the people's health, afford to be silent longer, and thus to participate in this insult to humanity, this blot on our civilization, this peril to our nation?

NOTE.—The writer is indebted to Drs. Clark and Courtney, of Boston, and Dr. Russel, of Midway, Pennsylvania, who have written on different phases of this question.

**ADDRESS TO GRADUATING CLASS OF THE TRAINING
SCHOOL FOR NURSES, TORONTO GENERAL
HOSPITAL.**

BY A. PRIMROSE, M.B., C.M. (EDIN.), M.R.C.S. (ENG.),
Professor of Anatomy and Associate-Professor of Clinical
Surgery in the University of Toronto, etc.

*Mr. Chairman, Members of the Graduating Class, Ladies and
Gentlemen:*

It has been my privilege to deliver a series of lectures annually to the nurses of the Training School for the past twelve years, but no such responsible duty as that which devolves upon me to-night has hitherto fallen to my lot. In delivering an address to the graduating class, and before an audience of this character, it would appear appropriate to indicate in some fashion the duties a qualified nurse owes to the community, and in turn the obligation of the public to the members of the nursing profession.

The process of evolution which is ever active in life, is an interesting study in connection with the development of the modern trained nurse. It has been stated that "nursing is as old as the human species," but nursing as a distinct profession is wholly a thing of modern development. Mrs. Fry, who was at the head of the Protestant Nursing Sisters in London in 1840, is spoken of as the founder of nursing. She was the head of the first nursing institute. In the middle ages and at an earlier date nursing was done as part of a religious duty solely by the members of religious communities. The remarkable advances which were made in scientific medicine about the middle of the last century demanded something more than the crude material which was then obtainable among the nursing class. It was about this time that Charles Dickens wrote his graphic picture of the nurse of his time. We are all familiar with the characters of "Sairey Gamp" and "Betsy Prigg." These were mere time servers, and exercised few of the qualities of kindness and sympathy in dealing with the sick which are characteristic of the nurse of to-day. "She put soap in my mouth," said the unfortunate patient, feebly. "Couldn't you keep it shut, then?" retorted Mrs. Prigg. "Who do you think's to wash one feater and miss another, and wear one's eyes out with all manner of fine work of that description, for half a crown a day! If you want to be tittivated you must pay accordin'!" The patient was kept in holy terror of his nurse, who ruled him with a rod of iron. Dickens' writings awakened a public remonstrance and created such a universal sentiment of resentment that a new

order of things was soon ushered in; thus we find that Florence Nightingale, with a band of trained nurses, was sent out with great enthusiasm to tend the sick and dying and minister to the sufferings of the soldiers and sailors during the Russian war. When this band of workers reached the Crimea there were 2,300 patients in the hospital at Scutari. The beds were, it is said, "foul with every kind of vileness." "The mattresses were strewn two-deep in the corridors, the wards were rank with fever and cholera and the odor of undressed wounds." "The army of sick and dying was increased after Inkerman to 5,000." What a field for active work, and if you ask for a record of the result you find it stated in cold statistics; after the advent of these trained nurses the death-rate was reduced from 42 to 2 per cent.

Compare the state of affairs which Florence Nightingale found at the Crimea with the conditions obtaining lately in South Africa, and you have a graphic picture of the complete revolution which has occurred in the methods of caring for the sick in war, all this being the result of the advent of the skilled nurse upon the battle-field. For example, Mr. Frederick Treves describes the invaluable services of four lady nurses after the battle of Colenso: "The nurses were at it all Friday night and all Saturday, they had no sleep, and the splendid work they did is beyond any praise. How they managed to keep about I don't know. . . . Better nurses and more devoted women I never met. They worked night and day, and their work was the very best." Words of that character coming from the lips of a well-known surgeon belonging to the active staff of a hospital possessing one of the largest training-schools in London, mean a great deal. They mean that the sufferers enjoyed all the benefits to be derived from skilled nursing, and this in turn meant avoidance of much unnecessary suffering and the saving of many lives.

In England, the Sisterhoods at first afforded opportunity for definite religious work in hospitals among the sick. This class was succeeded by a large number who, by stress of circumstance, were forced to earn their bread, and found a suitable field for honest work in nursing the sick; then, too, a class of well-to-do women, who sought relief from the monotony of idleness, tried nursing, with the hope that the variety and excitement of a nurse's training might give some purpose to their life. With this last class nursing thus became a sort of fashionable pastime.

It was in the early sixties that an imperative demand was made for better nursing. This first of all arose from the fact that the public insisted on something better than the "Sairey Gamp" type. A second factor in this demand was the necessity for training, recognized as essential from the standpoint of the nurse herself, but perhaps the most powerful factor in creating a demand for a

thoroughly trained and skilful nurse came from the medical profession, and skilled nursing became a necessary feature in the modern advance of scientific medicine. In England, the first school of training for nurses seems to have been that formed in connection with St. Thomas' Hospital. This was known as the "Nightingale School of Training," and was founded as a national act of gratitude for the services rendered by the woman who had saved the lives of so many British soldiers and sailors. In 1862 University College Hospital was placed in charge of the "Community of All Saints." In America, reform was instituted in the nursing of the sick in hospital some years later. Thus the Bellevue Training School for Nurses in the Bellevue Hospital, New York, was established in 1873, and other schools soon followed.

It is difficult to over-estimate the boon to a community of the existence in their midst of an army of well-trained nurses. To a very large extent they are the instructors of the people concerning many essential facts, the recognition of which is necessary for the prevention of disease. Many sanitary and hygienic rules are well taught by the trained nurse. She should become an apostle of sound information on these subjects. Correct ideas are propagated by her concerning the questions of food, clothing, and matters of personal hygiene. It is not necessary nowadays to demonstrate the comfort afforded in a household by the presence of a trained nurse in serious illness. This is fully recognized by all, and the value of such services to the public is a priceless one. Speaking for the medical profession, one admits frankly that one feels very dependent upon the services of a competent nurse in cases of severe illness, and on the other hand a medical man is severely handicapped if he, by chance, places confidence in a nurse, during the conduct of a critical case, who is found to be incompetent and badly trained.

It is, of course, obvious to all that the nurse should in no way usurp the functions of the physician. Unfortunately nurses have from time to time essayed to do so with most disastrous results, and one may emphatically state that there is no greater danger in a serious case of illness than may arise from the attempt of the nurse to divide responsibility with the medical attendant. It may seem incredible, but it is true, that in some instances a nurse has been known to assume complete responsibility and undertake to override or ignore the orders received from the physician. There can be no two opinions about this matter. The physician is responsible for the conduct of the case, and the nurse is there to carry out his instructions. In an article published not long since in *The Nineteenth Century*, the writer (under the title "Nurses a la Mode") makes the assertion that the nurse is quite ready to assume the role of the doctor. This, of course, is a very hasty

generalization as applied to the whole nursing community and is based upon the circumstance that in rare instances a conceited young woman may scoff at the medical attendant, characterizing him, perhaps, as being behind the age. She then airs her technicalities in the hearing of the unlearned with perhaps the result of making her employers believe that she is a competent judge of such matters. This condition of affairs is no doubt occasionally due to faulty training, the nurse has had too much instruction in scientific theory and has not confined her attention sufficiently to the more practical part of the nurse's training. There should be no uncertainty on the part of the nurse as to her attitude towards the medical profession; no code of ethics need be written to point out her duty here, because common sense dictates the prudent course, and common sense should guide her. Among nurses, however, as among other classes of the community, there are occasionally those who make themselves look very ridiculous. Under the heading of "The Irrepressible Nurse," appears an article in a recent number of the *British Medical Journal*, describing the following incident: A doctor was employed by a gentleman to attend his wife, who was ill. The following morning he received a letter from the husband stating that he had just secured a nurse who would only undertake the case in conjunction with her own doctor. The man went on to say that he had no alternative, but graciously added: "If on any future occasion I require medical advice, I shall be pleased to have your services." The attitude of a nurse thus "touting" for a doctor is, to say the least of it, most unseemly.

An article which appeared recently in a well-known English periodical may be characterized as a most unfair attack on the nursing profession, but it attracted considerable attention because it came from the pen of a well-known writer, and her premises were correct. The fallacious part of her argument, however, was that her conclusions were generalizations from particular and fortunately rare instances. She painted the nursing profession as mainly composed of a certain type of individual, whilst the individuals whom she described are only to be found in very exceptional cases, the ranks of the profession being filled, as a fact, with noble women whose lives are dedicated to earnest and conscientious work among the sick and suffering. The nurse was depicted in the article in question as having no respect for privacy, silence, obedience, or discipline; she exhibits false pride in her relation to the household in which she is employed, and, whilst it is admitted that many have a *bona fide* hope of doing something to help humanity, others are described as pure adventurers. "The pity is," the writer goes on to say, "that whatever the intellectual calibre, the motive, the temper and temperament, the cer-

tificate for all is the same." Nurses are portrayed before the public as careless in not changing their dress when leaving infectious cases, and thus they are held responsible for spreading disease. It is even suggested, as if it were the routine practice of a trained nurse, that they are guilty of shaking sheets from a window which had been taken from the bed of a scarlet fever patient during convalescence, thus distributing infective material which had separated during the process of peeling. The author appears disposed to consider that the modern nurse is arrogant and dictatorial, flippant, flighty and frivolous, that she is over-trained and underbred, an intriguante of the first water, a matrimonial adventuress, and an expensive luxury of doubtful utility. The picture is, of course, a most unfair one, and yet perhaps it is wise that such things should be written. It suggests the fact that in the nursing profession, as in the medical, there exist individual instances of those who cast discredit upon a noble calling, and no stone should be left unturned to protect the community and to rid the profession of such unworthy members. "Some years ago a nurse was supposed to be a ministering angel; Mrs. Gamp being dead, her successor was said to be a flawless being, of skill and unselfishness all compact. Now she is described as vain, frivolous, self-seeking, etc." Nurses are, however, not so degraded or demoralized. The training of the modern nurse tends to produce and does produce a very different individual. Let us see what is required of her. Her evolution has thus been described by a head nurse: "In order to become a nurse a woman must be, first, at least 21 or 23 years of age before she can be admitted into a hospital for training. She must produce proofs of unimpeachable character, and in most instances also of some social position. Very probably she may be required to pay fees of a smaller or larger amount; at any rate during the term of her training she will be paid a salary which no self-respecting housemaid would accept. After being selected, perhaps, out of some forty or fifty applicants, she will be admitted a probationer. She will then be required to rise about six in the morning, to live on particularly simple fare, to stand or walk about the wards for ten or eleven hours a day, to do much laborious work, which is commonly described as 'menial,' to lift heavy and helpless patients, to perform many offices which are often most repugnant, to witness scenes of suffering and sorrow which are most depressing, to be entrusted with the execution of medical instructions generally requiring technical knowledge and extreme carefulness, and with other responsibilities often involving the life and death of a fellow creature; to do all this and much more which it is unnecessary to particularize under rigid discipline and oversight, day after day, week after week, and year after year, with at most

three weeks' intermission in every twelve months." We must admit that a woman who can complete three years of such arduous, bodily and mental labor must possess not only a sense of devotion to duty in a degree uncommon among most women, but also moral qualities of an unusually high order. Such women endowed with the qualities of tenderness, faithfulness and devotion to duty, possessing the knowledge and skill which has been acquired after an efficient course of practical training in their chosen profession, play an important part in our modern civilization. The charge of unfaithfulness is therefore adequately refuted, and we recognize that the ranks of the profession are filled with women who too often have been required to demonstrate their willingness to sacrifice their lives and health in the hospital or sick-room, who do noble work among the poor, "who think no trouble, toil or fatigue too great if it will ease the pain or add to the comfort of those they tend, who give up every personal comfort for the sake of their work and endeavor as far as they can to do their duty."

The experiences of a nurse, or that of a physician, are supposed by the uninitiated to produce a certain callousness, an indifference to suffering, but this is quite an erroneous view to take. The author of "Rab and His Friends" thus writes an apology for medical students in their eagerness to see an operation, and it applies equally well to the experiences of a nurse. "Don't think them heartless, they are neither better nor worse than you or I; they get over their professional horrors and into their proper work—and in them pity, as an emotion, ending in itself, or at best in tears or a long-drawn breath, lessens, while pity as a motive is quickened and gains power and purpose. It is well for human nature that it should be so."

The training of the nurse is a problem the solution of which is still in process of development. There is doubtless a danger of over-training. The tuition of a nurse must not approximate that of the medical student. It must be remembered that the duties of the medical attendant are very different from those of the nurse. The nurse must, however, be able to act intelligently, she must have a knowledge of the laws of life and health, of the structure of the body, and an outline of anatomy, too, is essential. Her faculties of observation, perception and accurate reasoning must be cultivated. She must work intelligently, and not in a mere mechanical fashion. Then there are those "intangible qualities of womanliness, sympathy, gentleness, tact and refinement," which, with unswerving loyalty to the best traditions of her noble profession, go to make up the ideal attendant in the sick-room.

A writer recently protested against the course taken by the matron of an English hospital, who, addressing some young nurses,

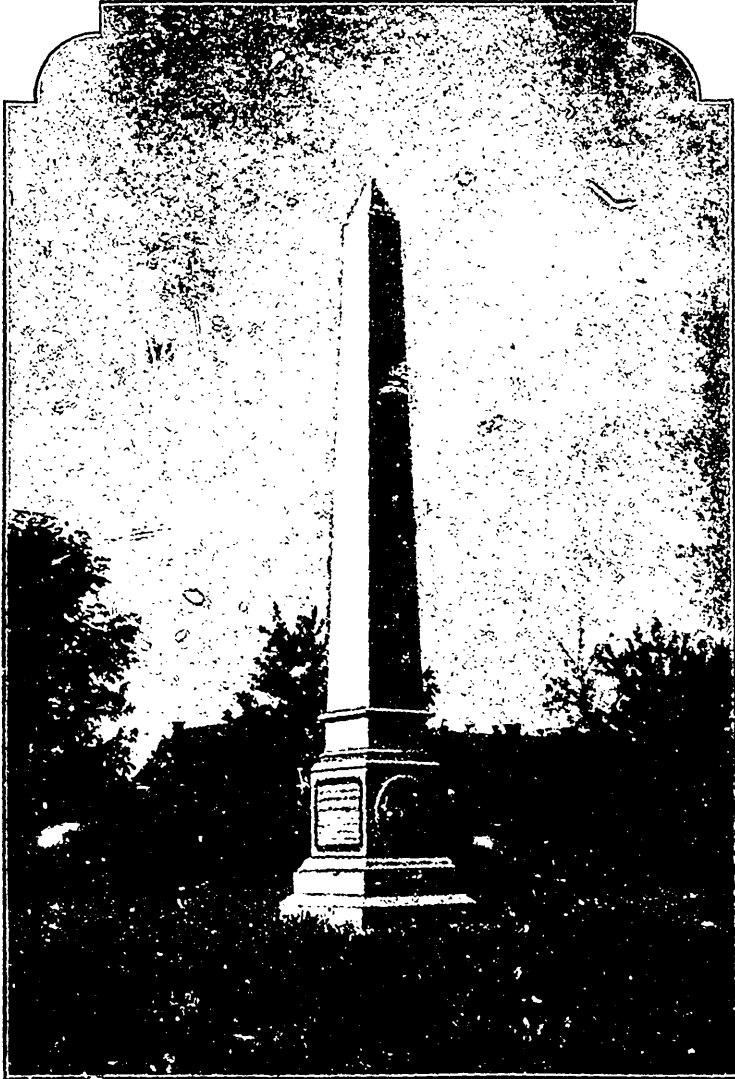
stated that "she considered one of the first duties of a nurse was to make herself look as pretty and charming as possible." That seems to strike a sympathetic chord in the mind of one who has some taste for the beautiful, but one must meekly bow to the judgment of the more mature and sober critic, who suggests that such advice is pernicious and who would rather advise the nurse to be "quiet and modest in demeanor, or to remind them that happiness mostly goes hand in hand with contentment."

The efficiency of the work done in the training school of the Toronto General Hospital is well known. Nurses who have graduated from this institution have encountered little difficulty in finding opportunity for useful work. Not only is this the case in private nursing, but various institutions throughout the country have been officered by graduates from this training school. I am sure the Lady Superintendent is to be warmly congratulated upon the marked success which thus attends her efforts to maintain a high standard of education. The mere fact that since 1885 (*i.e.*, in sixteen years) no less than twenty graduates of this school have been appointed as Lady Superintendents of other hospitals, speaks volumes for the exceptional efficiency of the school. Of the twenty superintendents thus appointed, nine were to positions in hospitals in the United States, and the other eleven in Canada.

If one were asked to indicate the weak point in our present system, one would state that the great trouble at present is lack of organization. This we believe to be a great hindrance to development and progress in the nursing profession. There should undoubtedly be a standard of education and of etiquette governing the members of the nursing class. There should be, too, some control of fees. The problem is one which cannot be discussed off-hand, but which requires some very careful consideration on the part of experts. Some serviceable form of central control after a nurse has passed out from the training school is surely necessary. It is demanded for the protection of the public, the medical profession and for the nurses themselves.

It is now my pleasing duty to congratulate the members of the graduating class upon having successfully terminated their three years of training, on having passed the examinations and having obtained the diploma which signifies that they are fully equipped for their life's work in the profession of nursing the sick. With the nurse, however, as with the true physician or surgeon, the fact that a diploma has been obtained does not mean that one's education has been completed; both nurse and doctor continue to be students, and, in fact, on graduating have just entered upon a wider field of usefulness in which the best of both professions find unlimited opportunity for further study and development, and, by strict attention to duty, become more and more efficient in the service of suffering humanity.

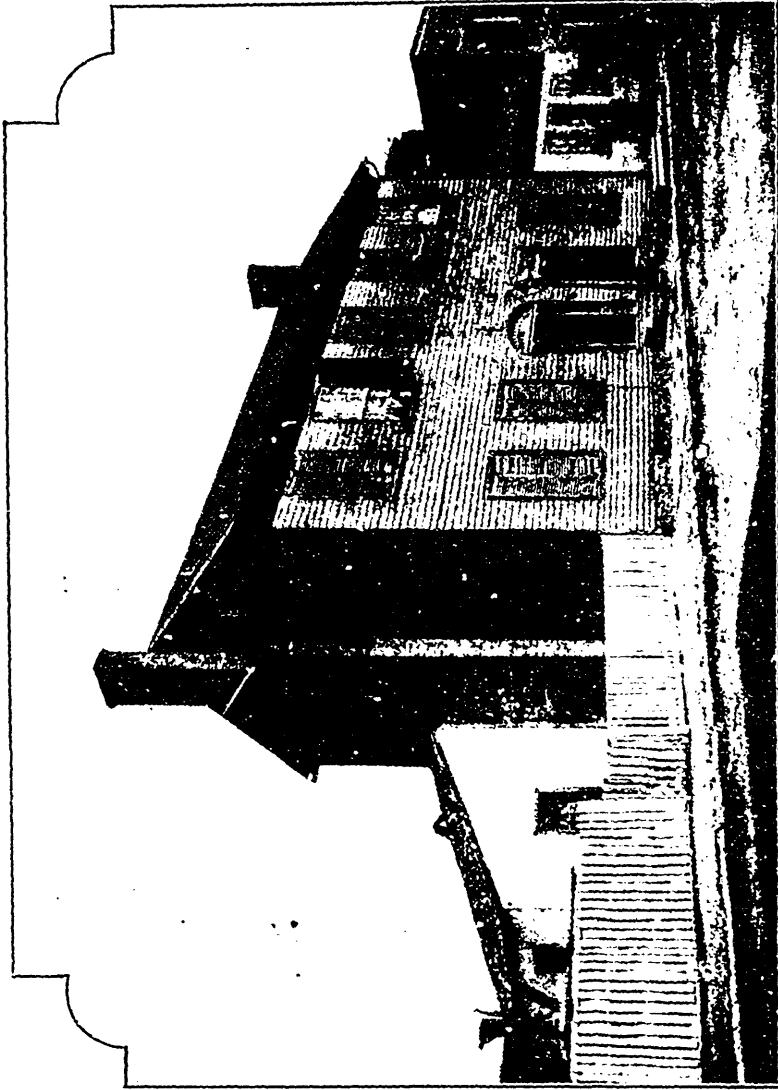
(Loaned by Mr. E. H. Fox, of Danville, Ky.)



THE MONUMENT ERECTED BY THE KENTUCKY STATE MEDICAL SOCIETY
IN 1870, TO THE MEMORY OF DR. McDOWELL,

Who performed, at Danville, Ky., the first ovariectomy on record.

loaned by Mr. E. H. Fox, of Danville, Ky.)




Operating Room, at one time had a skylight

Dr. McDowell's Residence, built by him about 1817.

Office.

There once stood in the yard a little one-room brick building, and tradition says that it was once occupied by James K. Polk, while Speaker of the National House of Representatives, and who journeyed all the way from Nashville, Tenn., to have a stone in the bladder removed by Dr. McDowell. It was successfully done. Polk afterwards became President of the United States.

Pharmacology and 
IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(Eng.) *Therapeutics.*

THE TREATMENT OF SYPHILIS, WITH SPECIAL
REFERENCE TO THE BEST METHOD OF
ADMINISTERING MERCURY.*

BY WINFIELD AYRES, M.D.,

Genito-Urinary Surgeon, Bellevue Hospital, O. D. P., New York; Instructor in Genito-Urinary Diseases in New York University and Bellevue Hospital Medical College; Instructor in Genito-Urinary Diseases in the New York Post-Graduate Hospital, etc.

THE author calls to mind the facts that mercury has been used in the treatment of syphilis for over four hundred years, and there are few physicians to-day who do not use it in some form. Although the method of treatment with mercury is still discussed, he is firmly of the opinion that there is no hope of eradicating the disease unless the full dose is given constantly for something like three years. The treatment should begin just as soon as the diagnosis can be made. There is no ground for supposing that enucleation of the chancre has the effect of aborting the disease. If a positive diagnosis cannot be made from the appearance of the initial lesion, general tonic treatment should be instituted.

In some cases the protiodide controls the symptoms, but in the majority it is of very little use. Experiments with Mercuriol were conducted at Bellevue Hospital, for eight and a half months, with 180 cases. The histories of 95 of these are recorded; the remainder could not be kept under observation, and are therefore passed over. The dosage of the Mercuriol, regulated either by reaching the point of tolerance or control of the disease, varied from one half to six grains. In 64 of the 95 cases the disease was controlled as follows: in two weeks, 8; three weeks, 12; four weeks, 14; five weeks, 6; six weeks, 5; seven weeks, 2; two months, 8; ten weeks, 2; three months, 5; and four months, 1. The remainder are marked thus: decidedly improved, 17: improved, 8; no improvement in two weeks, 3; no improvement in four weeks, 1; and no improvement in three months, 2. The latter were all dispensary patients, and it is uncertain whether they took their medicine regularly.

* Abstract of an original paper by the author in *The Lancet* (London, Eng.), October 19th, 1901.

The writer states that his plan was to increase the dose steadily from one grain until the symptoms were controlled, or until there was a slight tendency on the part of the teeth and gums to become tender. If the symptoms were not controlled before the physiological effect of the Mercuriol made itself felt, small doses of potassium iodide were added, and in every case where the Mercuriol was taken according to directions, with the exceptions noted above, the symptoms were controlled.

In 67 out of the 95 cases tabulated, no other medicine than Mercuriol was given. In 15 out of the remaining 28, the addition of iodide of potassium was found to be sufficient to control the disease, while in 6 others the addition of an iron tonic sufficed for this purpose.

The cases are not reported at length, but a few of the more remarkable results and some cases in which other medicines failed to control the disease are briefly mentioned.

Case 1 had been taking bichloride for one month with very little improvement. Under Mercuriol, three grains maximum dosage, the symptoms were under control in five weeks.

Case 2 had been under biniodide of mercury (one-sixteenth of a grain) and potassium iodide (five grains), which caused iodism. His symptoms were controlled in one month under half a grain of Mercuriol.

In Case 3 unguentum hydrargyri had failed to control the disease. The patient was put on Mercuriol and the dosage pushed up to six grains three times a day. The disease was thoroughly under control in seven weeks.

Case 4 had been on three-eighths of a grain of biniodide of mercury and twenty grains of potassium iodide for two months. The medicine caused nausea and vomiting. Having been put on Mercuriol and the dosage gradually increased to five grains three times a day, the symptoms were controlled in three weeks.

Case 5 had been taking hydrargyrum bichloride (one-twelfth of a grain) three times a day, under which an eruption on his face had faded, but the eruption on his body still persisted. His symptoms disappeared in two weeks under a maximum dose of three grains of Mercuriol three times a day.

Case 6 had been on bichloride of mercury (three-sixteenths of a grain) for three months, in spite of which he had palmar syphilide of an eczematous variety. All appearances of the disease disappeared after he had been one month on Mercuriol, his maximum dose being three grains three times a day.

Case 7 had been taking one-quarter of a grain of Mercuriol and fifteen grains of potassium iodide, with the result that the eruption had decidedly improved, though not to the extent that it should have done. There were thickened red patches on the face, covered with scaly eruptions. The symptoms almost entirely disappeared within three weeks under a maximum dosage of five grains of Mercuriol three times a day and fifteen grains of potassium iodide.

Case 8 had been treated with inunctions of mercury, under which the eruptions disappeared, but the pains in the bones still persisted. He was relieved in three weeks under a maximum dosage of four grains of Mercuriol three times a day.

Case 9 had been taking other forms of mercury for six months. The form which had done him most good was bichloride. Yet one-fifth of a grain did not entirely control the disease. He had been taking that for two months when he was placed on Mercuriol. The dosage in his case was pushed up to six grains three times a day, and at the end of seven weeks all his symptoms had disappeared.

Case 10 had been taking medicine off and on for two years, but his symptoms never disappeared entirely. After being two weeks on Mercuriol (two grains three times a day) with the addition of potassium iodide, all symptoms had disappeared.

Ayres, in conclusion, states that he uses Mercuriol in his private practice to the exclusion of all other drugs. His experience is that he gets better results. He has found no form in which mercury can be given with such good results as in that of Mercuriol.

BETA-EUCAIN ACETATE, A NEW FORM OF EUCAIN.*

BY DR. PAUL COHN.

EVERYONE who has had occasion to experience the beneficent action of cocain has probably also encountered the unpleasant effects which the drug, so absolutely necessary in surgery, more especially in its ophthalmological department, exhibits in individual cases. Leaving its marked poisonousness out of account, I would mention only the mydriasis inseparable from its employment, the by-effect of all others which forces itself upon the attention of the ocular surgeon. Some twelve years after the introduction of cocain into ophthalmological practice, Vinci, in 1896, first recommended Eucain in its place. An exacter experimentation, however, soon showed that the new preparation had some serious drawbacks; and so the very next year Beta-Eucain, an improved form possessing all the advantages of the original preparation without its disadvantages, was prepared. It was put upon the market by the Schering Factory as a hydrochloric acid salt, and has been tried and recommended by numerous authorities. The exceptional cases in which its effects have not been satisfactory are probably such in which it has been employed in too great concentration. We have investigated this aspect of the subject in our own Poliklinik during the past winter, and have found in a series of over 100 eyes in

* From the Poliklinik of Professor Silex, Berlin.

which it was tried that a 2 per cent. watery solution was quite sufficiently strong to give thoroughly satisfactory results.

Very recently the Schering Factory have prepared Eucain in a new form, that of an acetic acid salt. It is superior to the hydrochlorate in that it is very readily soluble in water, even to the extent of 33 per cent. In other respects it behaves exactly like the hydrochloric acid salt; thus the addition of an alkali causes precipitation of the free base, and it can be sterilized by boiling without undergoing decomposition.

In Professor Silex's Poliklinik the new drug was tried upon twenty normal eyes, and upon eighty affected with various pathological conditions. Special attention was paid to the indications for its use in ordinary office practice. It was employed in a 2 per cent. watery solution, after it had been found that stronger concentrations did indeed have more rapid effects, but were followed by undesirable symptoms of conjunctival irritation.

In regard to the action of Acetate of Beta-Eucain upon the normal eye, the testimony of the patients experimented with was contradictory. Some, even a slight majority of the number, stated that there was a little burning after the instillation of the first drop, which, however, never lasted more than half a minute, and could absolutely not be called painful. Others, including the author of this paper himself, found that it caused no burning at all, and that in fact the instillation of a drop of 2 per cent. cocain solution was more disagreeable.

Objectively there occurred in most cases a slight conjunctival hyperemia after the instillation of the first drop; exactly the contrary to the ischemia of the conjunctival vessels caused by cocain; together with a moderate amount of tear secretion. These symptoms disappeared in thirty to forty seconds. After three minutes, during which time three drops had been instilled, the corneal anesthesia was complete; one minute later only the conjunctiva became anesthetic. The anesthesia lasted from ten to fifteen minutes, and then slowly diminished.

There was never any disturbing influence noted upon the pupillary dilatation; which was in great contrast to the cocain mydriasis, which often lasts for hours, and is practically very troublesome. There was no disturbance of accommodation at all. The tension of the bulb always remained unchanged, whereas, as is well known, even a very few drops of cocain cause hypotony of the bulb.

There was never any injury to the corneal epithelium from the Eucain, though it must be remarked that this can be avoided even with cocain if, as is customary in our Poliklinik, the eyes are closed after the instillations, and the lids covered with a moist pledget of sublimate cotton.

Symptoms of general intoxication, such as syncope, vomiting, etc., were never noted, no matter how large a dose of the Acetate of Beta-Eucain was employed.

As regards the pathological cases in which the drug was tried, they were confined to such as belong to what may be called minor surgical ophthalmology, and which are generally treated in the practitioner's office.

In ten cases foreign bodies, most often splinters of iron, were removed from the cornea. After four or five drops the cornea was sufficiently anesthetic to permit of their removal, even when deeply seated. Small traumatic infiltrations left after the removal of a foreign body were curetted out with equal readiness.

Four or five drops were also sufficient to permit of the galvanocaustic treatment with the platinum point of infiltrations, corneal ulcerations, erosions, and pterygia; which latter are treated by this method in our Poliklinik with the best results. This amount sufficed to render the little operations entirely painless; and the same holds true for the tattooing of corneal opacities and leucomas.

The Acetate of Beta-Eucain was just as useful as cocaine in diseases of the lachrymal apparatus; slitting of the canaliculus, the introduction of sounds, the lavage of the duct could be effected without any pain to speak of after the instillation of a couple of drops of the 2 per cent. solution.

A similar small amount was all that was required for the removal with the scissors of several granulation nodules appearing after strabismus operations, some of which were quite large. In similar manner a small broad conjunctival papilloma was ablated.

Ten patients suffering from chalazion were relieved of their trouble without much pain after the instillation of three or four drops of the 2 per cent. solution of Beta-Eucain Acetate by incision from the conjunctival surface, followed by curetting out of the contents of the tumor and the excision of a piece of the tarsus.

The subconjunctival saline injections furnished a further indication for the use of the anesthetic. This process has been employed with good results in our clinic for opacities of the vitreous, choroiditis macularis, ablastic retinae, and old keratitis and corneal opacities. A half to one syringeful of a 4 per cent. solution is injected every fourth or fifth day. After the instillation of three drops of the Beta-Eucain Acetate solution the injection, and more especially the introduction of the canula, could be effected even in children with hardly ever any pain. In forty injections pain of any severity and reddening of the bulb was observed only twice, and these were in eyes that were already moderately injected from chronic inflammation or increase of ocular tension.

We find that the action of the Beta-Eucain Acetate upon all these eyes may be summarized as follows:

Its anesthetic power is equal to that of Beta-Eucain Hydrochlorate and cocain.

Poisonous symptoms of any kind were never observed, even when, for various reasons, it was administered very freely. Nor did it have any deleterious influence on the corneal epithelium.

Disturbances of accommodation or mydriasis were never noticed; nor was there ever any change in the ocular tension.

The very slight disadvantages inherent to the employment of the drug, such as the slight burning and lachrymation shown by most of the patients, and the very moderate conjunctival hyperemia, have no weight at all compared with its good points. In certain cases this last effect is even a useful one, as for example in making the subconjunctival injections, when the dilated conjunctival vessels can be more readily seen, and thus the formation of slowly absorbed, and when considerable very disfiguring, hemorrhages will be avoided.

It is as yet only a matter of theoretical consideration whether the Beta-Eucain Acetate hyperemia may have a favorable effect on various corneal or conjunctival disease processes.

Repeated sterilization by boiling did not alter the qualities of the anesthetic in the slightest.

Finally, it is of interest to the busy practitioner that the price of the Beta-Eucain Acetate is half that of cocain.

Thus Beta-Cocain, both in the form of the hydrochlorate and the acetate, is a good local anesthetic for the practitioner to employ, and should be used instead of cocain, more especially in minor ophthalmological surgery, in much of his office work. It must not be forgotten, however, that the indications for the employment of the Eucain differ slightly from those for cocain. The hyperemia that is occasioned by Beta-Eucain renders it unsuitable for cases in which the tissues of the anterior portion of the bulb are already hyperemic or irritated; but in all others it should be applied in its stead. As we stated in the beginning of this article, solutions stronger than 2 per cent. caused unpleasant irritation, and we did not employ it any more concentrated in the eye. Undoubtedly, however, the ready solubility and non-poisonousness of Beta-Eucain Acetate will lead it to be used in greater strength in other departments of surgery, and in dentistry, where it will be a welcome enrichment of the practitioners' armamentarium. It will probably not be long before these further fields of usefulness will be investigated.

In conclusion I desire to thank my honored chief, Professor Silex, very sincerely for his support and aid in these investigations. —(Translated from *Die Medicinische Woche*, Berlin, September 9th, 1901.)

EXCERPTS FROM THE REMARKS MADE BY DR. ALBERT C. BARNES, OF PHILADELPHIA.*

THE paper of Dr. Reyburn just read merely reiterates the well-known fact that petroleum, when administered internally, is not absorbed from the gastro-intestinal tract, but, as is equally well known, a remedy may have the most pronounced physiological effects purely on account of its mechanical properties. Dr. Robinson, of Philadelphia, states in the *Medical News*, of July 14th, 1900: "In over fifty selected cases where nutrition, digestion and body weight were impaired, and the purest oil administered in one or two-dram doses, four times a day for periods of from three to six months, there was in every instance increase in weight and improvement in health, strength and feeling of well-being. The gain in weight was $5\frac{1}{2}$ to $23\frac{1}{2}$ pounds. There was no other change in living conditions, or medication which might have caused these improvements." These clinical effects have been noted and recorded by a number of other observers. The manner in which petroleum accomplishes these results is shown by the laboratory experiments described in detail by the speaker. It was found that the addition of petroleum to albumen digested by an artificial gastric juice under exactly the same conditions as prevail in the human system, very materially hastened and facilitated the process of digestion; it was more rapid and complete than in the same experiment conducted without petroleum. Furthermore, it was shown experimentally that the mechanical influence of petroleum upon the churning, peristaltic movements of the upper portions of the small intestines favorably influenced the processes of absorption. In view of these experiments, it can be safely concluded that the manner in which petroleum beneficially effects nutrition is by facilitating, expediting and completing the processes of digestion and assimilation of food. Another experiment described by the speaker was that conducted upon a man with marked malnutrition, in which the changes in metabolism were accurately studied for a period of three weeks, by feeding the patient upon a normal diet, and then determining the daily elimination of nitrogen in the urine and feces. It was found that under the influence of petroleum the retention of nitrogenous matter in the system was increased. As is well known, the only method of determining the influence of any agent upon nutrition is by determining the daily body elimination of nitrogen in the urine and feces; if a patient's retention of nitrogen is increased, the most important element of the tissues is conserved, and nutrition is correspondingly improved. Furthermore, the facts that petroleum passes through the intestines

* Read at the second annual meeting of the American Therapeutical Society, held at Washington, D.C., May 8th, 1901.

in its original form, and that it is a solvent of many remedies administered for their antiseptic and astringent influence upon the intestines, indicate a useful field for petroleum as a vehicle. Robinson states (*ibid.*): "I have extensively given from five to ten grains of salol in two drams of this oil, four times a day, and reclaimed the oil from the feces, and found it to contain some salol and its components, phenol and salicylic acid. This proves the carrying of a chemical antiseptic and antiferment through the entire canal." This work has been corroborated by numerous other observers. The speaker stated, in conclusion, that the bulk of experimental and clinical evidence tends to show that petroleum is entitled to a wider field of application in medicine.

NEW TREATMENT OF LEUCORRHEA AND OF GONORRHEAL VAGINITIS.

BY DR. PH. CHAPELLE, PARIS.

YEAST in the treatment of chronic leucorrhœa, and vaginitis due to gonorrhœal infection, has recently been tried with considerable success. Dr. Landau, of Berlin, was the first to apply it locally by injection for troublesome vaginal secretions, and found small quantities produced a rapid and complete arrest of the discharge after a few weeks.

Murer, in France, has used it in the same manner in gonorrhœal discharges from the vagina, and found yeast most effective in suppressing inflammation of the mucous membranes, which regained their normal color rapidly. In the gonorrhœa of men, however, it was not uniformly successful. In leucorrhœa and gonorrhœal vaginitis there occurs a substitution of a morbid fermentation for a non-dangerous yeast fermentation, for the yeast-cells (*saccharomyces cerevisæ*) appear to devour the morbid germs, which set up inflammatory conditions.

Backer, who has made a study of the various ferments, is of the opinion that the natural toxins, however altered, may in the treatment of disease be replaced with advantage by ferments in the living state. He considers good health to be one of normal fermentation, and bad health one of morbid fermentation.

Hence, pure ferments like yeast attract pathogenic germs, allow themselves to be penetrated by them and, once enveloped, destroy them by a true phagocytosis. D'Arsonval and Charrin have also made a series of investigations on the reciprocal action of microbes on vegetable cellular tissues, and it would appear that in the case of yeast, in its struggle with pathogenic germs, it expends its energy as a ferment, acting consequently by reason of its phagocytic properties.

We see, therefore, why the treatment of leucorrhœa and other vaginal discharges with yeast is based on reasonable grounds, and it should, therefore, be tried in obstinate cases, which do not yield to tonics and the usual local treatment.

The application of yeast in this connection is not convenient, owing to its keeping badly, its offensive smell, and the difficulty of obtaining fresh supplies, as well as its inconvenient, frothy nature, which makes it difficult to be retained when injected. This, however, can be overcome by using the pure desiccated form, known as Cerevisine, which may be exhibited in the form of a pessary of cocoa butter filled with Cerevisine, and placed in position on going to bed, or a paste made up with glycerine of starch, and retained with a tampon of absorbent cotton, or again applied by dipping absorbent cotton in a thin paste of Cerevisine and water. The quantity for application is not important, as it is perfectly harmless, but from one to two teaspoonfuls can usually be introduced and retained in the vagina during the night, which will give more cleanly and comfortable results than injections of brewer's yeast during the day.

LECITHINE.

LECITHINE (*λέχιθος*, derived from a Greek word meaning yolk of egg), found in semen, brain matter, nerve tissue, the leucocytes of the blood, the yolk of egg, and many other sources, was first discovered by Goble and studied later by Strecker. Its therapeutical value as an assimilable form of organic phosphorus, has been acknowledged by a number of authorities who have given this subject attention. Chemically, LECITHINE is found to be made up of certain *acid glycerophosphates*, and it is unnecessary to add that the phosphorus of the human organism exists as glycerophosphates.

The first important studies connected with the role of Lecithine in nutrition, are due to Danilewski. In 1897 the "Societe de Biologie de Paris" received on this subject an extremely interesting communication from Charrin. Selensky (a pupil of Danilewski) has been able to show that its action on the red corpuscles is remarkably beneficial. Numerous authorities have since studied the physiological effects of Lecithine, and all agree that it assists nutrition, favors assimilation of nitrogen and phosphorous compounds, so essential to the economy. The conclusions of Desgrez and Ali Zaky, recently published by the "Societe de Biologie," are on the same lines, so also are those of Gilbert and Fournier, who treated a number of phthisical and neurasthenic patients with results showing improvement in appetite, weight, strength and general health.

Lancereaux, Gilbert and Fournier (*Bull. de l'Acad. de Med.*

de Paris) have used Lecithine in the various stages of epuishment occurring in diabetics, with the happiest results, particularly in the more advanced stages, with a daily depreciation of the patient's weight and vitality.

We are therefore justified in concluding that Lecithine is worthy of trial as a means of checking the drain on the vital nutritive physiological functions, caused by pathological conditions.

There is some difficulty in preparing and preserving Lecithine in a pure and active state; this, however, has been overcome by *Vial of Paris*, by diluting it with oil and administering it in capsules, representing one grain each. By these means the disagreeable taste of Lecithine is avoided, and its active properties preserved.

One capsule three times a day, with meals, is the usual adult dose.

M. Serono, of Turin, has also used subcutaneous injections of Lecithine on the human subject.

A DIET OF GROUND ROCK.

THE report of the Connecticut Experiment Station just issued contains (page 165) a somewhat startling arraignment of the alum baking powders with which the country is flooded. Of the fifteen brands analyzed, about every imaginable adulteration was discovered, varying from sulphuric acid (22 per cent.) to ground rock! The latter form of adulteration is characterized by the report as "a particularly reprehensible adulteration, because very likely to prove injurious to health," which may well be believed, considering that it was found in one sample to so large an extent as over 25 per cent. Of this baking powder the report says:

"This preparation contains more than 25 per cent. of a ground rock, insoluble in strong acids and consisting chiefly of silicates of magnesia. Prof. S. L. Penfield, of Yale University, kindly examined this material and found it to be a mixture of pulverized talc and tremolite, a species of hornblende, which is extensively mined in northern New York, perhaps elsewhere, and is much used as a filler in the paper manufacture. The tremolite appears under the microscope in sharp needle-like splinters, which makes it a dangerous admixture in food."

Alum itself is objectionable enough, and it is therefore not surprising that a manufacturer so unscrupulous as to use it would not hesitate also to mix in pulverized rock. This only goes to show the danger of using any of the cheap grades of baking powder. They are put on the market by small concerns who have no reputation to lose and care nothing for the public health. The cream of tartar powders, on the other hand, though costing a little more,

are made by large and responsible firms who have too much at stake, even were they so inclined, to father anything but a chemically pure article.

The family physician may not find it practicable to overhaul the larders of all his patients, but the knowledge he possesses of the dangerous character of alum powders ought to be communicated, particularly in cases where digestive and similar troubles are indicated. There are two or three cream of tartar baking powders whose names have become "household words" and from them the housewife may safely make her selection.

INDEX OF DISEASES WITH THEIR MODERN TREATMENT.

BY G. BJORKMAN, A.M., M.D.

Professor of Physiology, Milwaukee Medical College.

ANOREXIA is a symptom accompanying most of the acute and many of the chronic diseases. In many instances it depends simply on a local disturbance, catarrh, ulcer or cancer of the stomach. It is, therefore, not always advisable to restore the appetite until the stomach is in a condition to perform its mechanical and chemical duties. Here the sound judgment of the physician often is put on trial. If constitutional disturbances cause a loss of appetite, the system should be strengthened by general and proper tonics; exercise, scientific massage or gymnastics are advised and patient should be placed under the very best hygienic conditions.

For anorexia of tuberculosis, chlorosis and cardiac diseases:

Quininae sulph.	0.06 (1 grn.)
Extr. nuc. vom.	0.02 ($\frac{1}{8}$ grn.)
Pulv. rad. rhei.	0.5 (8 grn.)

Dr. tal. dos. No. X.

One powder in a wafer, twice a day (morning and afternoon).

Troch. Protonucleimi No. XXX.

Two to four tablets every three hours. (The tablets may be dissolved in a little milk.)

—Abstract from *Merck's Archives*, November, 1901.

A DRESSING FOR ABDOMINAL WOUNDS.

PROF. R. T. MORRIS, of New York, whose contributions on abdominal surgery have been of so much value, has for many years made extensive use of aristol in the dressing of abdominal wounds. In his lectures on appendicitis he states that he has replaced iodoform by aristol, which is similar in its action, but is preferable "because it adheres to the tissues much more tenaciously, because it seldom

if ever produces any toxic effects, and because it smells better." He believes that while aristol does not act directly as an antiseptic it quickly forms with lymph a thin, protecting coagulum, which is almost impenetrable to bacteria, the free iodine which is given off destroying the existing ptomaines. He considers aristol of the utmost importance in closing tissue planes against infiltration from a wound. Aside from its use as a dressing to the external wound he has found this drug of great service in preventing secondary peritoneal adhesions. Other very prominent surgeons, as, for instance, Professors Tuttle and De Garmo, have been equally strong advocates of aristol in abdominal surgery, and it is of interest to note that it was recently used in the dressing of the late President McKinley's wound (*American Journal of the Medical Sciences*). The special advantages of aristol for the treatment of wounds are its remarkable cicatrizing property, its freedom from irritation, and its analgesic action.

The Treatment of Nasal Catarrh.—Mannon (*Cincinnati Lancet-Clinic*) finds no danger whatever from the use of the nasal douche provided ordinary care is taken and a proper solution is employed. The charge that post-nasal douching is prone to excite inflammation of the middle ear he does not find sustained. All leading specialists employ this method of treatment in the posterior as well as the anterior nares with equally good results. The doctor has had chronic nasal catarrh of many months' duration yield to douching when heroically employed. Listerine, to which a small quantity of bicarbonate of soda has been added, is his main standby. If hemorrhage is a controlling feature, he uses instead a saturated solution of tannic acid to each ounce of which ten grains of carbolic acid has been added. When the tendency to bleed ceases he returns to the listerine solution. Treated in this way the most pronounced cases yield in three or four weeks, and are not prolonged by complications or sequelæ.

By the will of the late Dr. Henri Guilbault, the Metropolitan Hospital and Dispensary of New York, No. 248 East Grand Street, receives \$3,000. This thriving institution was founded in 1885, and includes on its staff several noted New York physicians. Dr. Thomas H. Manley is the senior surgeon and president of the Medical Board.

THE management of *The Rider and Driver*, office 1123 Broadway, New York, has published a most beautiful Horse Show calendar, which they are presenting to every new yearly subscriber to their paper. It is certainly a most beautiful piece of workmanship, and makes a premium which should be secured by all lovers of our noble friend, the horse.

Medical Jurisprudence and
... IN CHARGE OF ...
W. A. YOUNG, M.D. *Toxicology.*

RESPONSIBILITY FOR THE RECENT DEATHS FROM THE
USE OF IMPURE ANTITOXINS AND VACCINE VIRUS.*

BY W. R. INGE DALTON, M.D.,

Professor of Dermatology and Syphilology, New York School of Clinical Medicine; Dermatologist
and Syphilologist, Metropolitan Hospital and West Side and German Dispensaries;
Member of the American Medical Association, etc., etc.

DEPLORABLE as is the loss of life which has occurred in St. Louis from the use of impure antitoxin, and in Camden and elsewhere from tetanus following vaccination, there is something that is infinitely more to be regretted, and gives infinitely more cause for alarm, and that is the distrust which has thus been engendered in vaccination and antidiphtheritic serum, two of the greatest life-saving agencies which medical men have at their command. There is no exaggeration in the statement of the *Journal of the American Medical Association* (November 23rd), that "the deaths in St. Louis sink into positive insignificance compared with the untold thousands of avoidable diphtheria deaths which will inevitably follow unless members of the medical profession demand a guaranteed purity of antitoxin, and are thus enabled to speak with the confidence of definite knowledge and so inspire the anxious parent with their own confidence." And, in regard to smallpox, the evils to be apprehended are even greater. With what ill-concealed delight will not the unfortunate accidents be made use of by the fanatical opponents of vaccination! What unscrupulous use may we not expect to have made of them by charlatans of every kind! In the light of the past history of events connected with vaccination and cognate matters, one shudders to think of the extent to which the cause to medical progress may be thus set back, and of the terrible scourges that may as a consequence be inflicted on mankind.

The situation being thus grave, it is eminently fitting that a society like this should devote some time to its serious consideration, with a view to the ascertainment as far as possible of the

* Read at a meeting of the Medical Jurisprudence Society, held at the New York Academy of Medicine, December 9th, 1901.

exact causes of the different catastrophes, to the end that steps may be taken to prevent the possibility of their repetition.

Upon whom then must the responsibility be placed for these various fatalities? Evidently, upon one of three classes—(1) the manufacturers of antitoxin and vaccine virus, (2) the physicians, (3) the parents or guardians of the unfortunate victims.

In regard to the deaths from tetanus following the use of antitoxin at St. Louis, with which we have first to deal, the coroner's jury has spoken with no uncertain voice. "The presence of tetanus toxin in the diphtheria antitoxin," it says in its verdict "shows negligence upon the part of the Health Department in the preparation of the said diphtheria antitoxin and in the issuance thereof." With the apportionment of blame among the different functionaries of the Board we have nothing to do here. For general purposes it is sufficient to know that the Board itself has been held to have been negligent, and that the finding is abundantly supported by the evidence given in the investigation. Nor was it one careless act alone, or the mistake of a single individual that led to the fatalities. The whole system on which the Board has been in the habit of producing antitoxin seems to have been grossly reckless, and in all respects bad. Perhaps too much has been said by myself and others about the "very careful janitor" who was entrusted with the responsible duty of filling the vials. We might as well censure the poor old workhouse horse "Jim," now fortunately gone to his rest, for the part that he played in supplying the impure antitoxin. The fault all too clearly was not that of subordinates of any kind. It was deeply engrained in the system by which antitoxin was produced by such manifestly inadequate means and with such obviously incompetent help. Does the bacteriologist say that he did the best he could with the means at his command? I have no manner of doubt that he did. But is there any reason why he, as a man of science, should have consented to do it at all under such conditions? Surely he, if any one connected with the municipality, knew the safeguards that have to be adopted, and that are regularly adopted by reputable manufacturing houses, in the production of antitoxin, and if he was acquainted with these safeguards, it follows as a matter of course that he was not ignorant of the fact that they were being neglected in the laboratory of which he had charge, and that he must have been fully alive to the terrible risks which were being run—the chances that were being taken—by reason of this neglect. The Board itself may justly plead ignorance; but it can do so no longer, and neither can other Boards of Health which are engaged in similar dangerous enterprises. They have had a rude awakening by reason of the deaths of these innocent little ones. It is to be hoped they now realize the enormous responsibility which they undertake when they establish plants for the manufacture of their own serums. If they do not, it is evident that the public does, and is prepared henceforth to hold them to a strict accountability.

Were there any reason for Boards of Health engaging in this or other industrial pursuits in competition with regular trade, the fact might be pleaded in mitigation of its shortcomings—though it could never justify such an exaggerated combination of objectionable methods as have been shown to prevail at St. Louis. But, far from there being any reason for Boards of Health engaging in such industries, all considerations of an economical and sociological as well as a scientific character point to the fact that it would be infinitely better for them to confine themselves to their own duties—the inspection and abatement of nuisance, the spread of information that will be of use to a community particularly in the way of enabling it to protect itself from contagious diseases, the testing of drugs and articles of daily consumption, such as milk, and possibly beer and other beverages. They should assist regular physicians in promoting the public health, and call upon the ordinary purveyors of drugs to furnish them with the best available methods of fighting disease. Surely in this way they would serve a higher purpose than by each of them setting up its own poorly equipped laboratory and seeking to compete with manufacturing houses which have millions invested in their plants, and which are compelled by a healthy regard to their own interests to adopt every conceivable precaution to prevent anything but the most perfect goods being sent out under their label.

The St. Louis Board of Health is unfortunate in this respect, that it is the first to have its careless and inefficient methods found out. But it is far from being the only sinner, and I am by no means sure that it is the worst. A peculiarly bad example was set years ago by the Board of Health of New York City, which was not only the first to make its own antitoxin, but makes a business of selling its serum and vaccine virus in open rivalry with regular manufacturers. It has been pleaded that it is only its surplus that is thus disposed of; but inquiries made a year or two ago by a taxpayers' committee disclosed the startling fact that the surplus amounted in quantity and value to four or five times as much as was required for legitimate purposes. Other facts made known at a public hearing at Albany showed that antitoxin of an inferior quality, and pronounced not good enough for use in this city was sold at a reduced price to another Board of Health whose sphere of usefulness is a thousand miles away; and statements were at the same time made as to the condition of the stable where the antitoxin horses of the city are boarded which would be incredible were it not for the high authority on which they were made, and the fact that they were never contradicted.

We now come to the second class of cases, the deaths from tetanus following vaccination. Here we find ourselves confronted by a different set of facts, for in no case so far as I am aware has the virus used been that made by a Board of Health, and I am not sure that in any case the tetanus germs have been traced to the virus. In one instance, that of a child who died at St. John,

N.B., the coroner's jury expressly declared in its verdict that the tetanus was caused by the use of impure vaccine; but in nearly all the other cases the contention has been that the vaccine virus had not and could not possibly have had anything to do with the tetanus from which the children died. Those who assume this position base their conclusions partly on the failure to find tetanus germs in any of the samples of vaccine examined, but more particularly on the fact that the tetanus has usually not developed until three or four weeks after vaccination, which is considerably longer than the period of incubation generally recognized in tetanus. An editorial in *New York Medical Journal* (November 23rd) states the case thus:

"This very lapse of time ought to teach them (the good people of Camden) that the tetanus was indeed 'following vaccination,' but in nowise connected with it. Most of the ills that men suffer from 'follow' vaccination, *longo intervallo*, for vaccination does not purport to protect people against anything but smallpox."

I am afraid, Mr. President, that this will not commend itself to the members of the Medical Jurisprudence Society as showing either sound logic or close reasoning. "Following vaccination, but in nowise connected with it!" Can it be pretended for one moment that the tetanus would have developed if there had been no vaccination? Assuredly not, for a sore of some kind—or at all events an abrasion of the skin—is necessary to afford a portal or way of entrance to the tetanus germs, and it is admitted that that portal was opened by the act of vaccination. Moreover, as has been pointed out, surgical operations of every kind have gone on as usual in the places supposed to be infected with tetanus, and as I have also seen suggested the average number of persons must be presumed to have met with accidental abrasions. Yet nowhere do we hear of lockjaw following these injuries. Only where the sore has been caused by vaccination has the fatal tetanus ensued, and thus, as has been remarked, an unbroken chain of cause and effect is established between the vaccination and the deaths from tetanus. This is not a case of ills following vaccination *longo intervallo*; they have followed it *brevi intervallo*, and are too clearly the consequence of something connected with the act to allow us to rest satisfied with the conclusions so complacently arrived at by the genial editor of one of our foremost medical publications.

Perhaps it is true that the tetanus germs were not conveyed in the vaccine virus, and I certainly hope it is, for one of the great advantages of glycerinated lymph as compared with the human virus formerly in use has always been regarded as this, that it deprived anti-vaccinators of their last vestige of an excuse for saying that infections of one kind and another could be and were thus communicated. But there are various brands of vaccine virus—some of them cheaper than others, some that are tested with the same care, some that produce more apparent signs of having proved effective while in reality they have done nothing towards

rendering the patient immune against smallpox, but have only caused a septic sore. It is incumbent upon us in a case of this kind to inquire into the quality of the vaccine that was used, the manner and particularly the degree of care with which the operation was performed, the character of the sore which developed, and the way in which it was treated.

In the Camden cases the manufacturer and the medical men have co-operated in exonerating themselves, and have thrown all the blame on the parents of the children. Dirt and neglect, in short, are said to have been the sole causes of the disasters, not impure vaccine or faulty technique. Were this so, it would seem, to dispose of the theory advanced by the same people, that there is a plague of tetanus in the air with a selective predilection for sores produced by particular kinds of vaccine virus. Besides it is not the opinion that has been arrived at elsewhere where deaths have occurred from tetanus following vaccination. In Cleveland, where the first cases of the kind occurred, the conclusion arrived at, according to the local *Journal of Medicine*, was that economy had been considered entirely too much in the purchase of vaccine for city use.

"Vaccine," the writer adds, "has been bought at the lowest price, quality being considered only secondarily. Indeed, it is a fact that for the past few months the Health Office has been buying vaccine at a price so low that it is hardly reasonable to expect that the maker could take all the expensive precautions necessary to secure purity of product. The makers of the best vaccine could not without loss, or without reducing the standard of purity, sell their product at the price that the city has been paying. If impure vaccine has been used, therefore, the penny-wise policy of the Health Office is the cause, and the city is entirely responsible for the result. Biologic products cannot be bought and sold under the customs of ordinary commercial competition without grave risk to the ultimate consumer."

I have seen it stated that in a vast majority of cases that have occurred elsewhere the same vaccine virus was used as at Cleveland, and if that can be established I would ask the legal gentlemen present whether it does not furnish a *prima facie* case for a searching inquiry into all the circumstances connected with these numerous fatalities.

Summing up, I would offer the proposition that the lesson we have principally to learn from these catastrophes is the necessity of eliminating commercialism from matters pertaining to the public health. When it is our own ills or those of our own household that we have to deal with, we make it a point to procure the best medicaments and the highest skill that can be obtained consistently with our means. It is false economy—to say nothing of the kind of humanity it is—to deal otherwise with the health of the public. Boards of Health, instead of grasping eagerly at the lowest bids, or trying to make cheap preparations of their own, should first of

all look to the quality of the drugs and prophylactic agents they are called upon to use. Besides this, they should do whatever lies in their power to ensure that none but reliable preparations shall be used within the community of whose health they have charge. They should see particularly to the enforcement of regulations for surrounding with all possible safeguards the manufacture and sale of such articles as antitoxin and vaccine virus. As the *New York Times* (November 18th) says in an excellent editorial:

"The safeguards by which the business of producing virus and serum need to be surrounded are simple enough, but not one of the least of them is safely negligible. It cannot be carried on without immeasurable risk to life and health with worn-out horses or sickly calves, nor in dirty stables or improvised annexes to vermin-infested barns. Healthy animals, perfect plants constructed and managed under expert supervision, and the assurance of pure cultures with entire freedom from pus organisms, are the essential conditions."

In trying to bring about the safeguards indicated, and in discharging the other duties that fall naturally within their province, Boards of Health, it is evident, have a large field of usefulness open before them; it is equally obvious that they cannot discharge any of these duties satisfactorily so long as they engage in the manufacture and sale of antitoxins and vaccine virus, or other medical or prophylactic agents, in competition with regular manufacturers. It is anomalous for a public health official, as for any one else, to seek to be "himself the judge and jury," so long as he may also be "the prisoner at the bar" of public opinion. To be impartial, Boards of Health must get out of business. W. A. Y.

THE MEDICO-LEGAL SOCIETY OF NEW YORK CITY.

AGAIN has Mr. Clark Bell been honored by the Medico-Legal Society of New York by a renomination for the Presidency, which position he has held since 1872, on various occasions thirteen times, and it now seems to be a part of the regular proceedings of this useful and important organization. This, however, is not surprising in view of the eminent attainments and the valuable services rendered by Mr. Bell to the Society, and to the advancement of forensic medicine during the past quarter of a century.

Under his wise management of its affairs the Medico-Legal Society has attained a national and even an international reputation, and its influence is of far-reaching character.

Mr. Bell was, although not a medical man, appointed by the Government of the United States as a delegate to the International Medical Congress of 1900 held at Paris, and was made an honorary Vice-President of its section on legal medicine. He holds similar distinctions in many foreign countries and is an honorary member

of scientific bodies in France, Italy, Belgium, Russia, Germany and Holland, and held a high position in the recent Congress of Criminal Anthropology held at Amsterdam, Holland, last summer.

Mr. Bell, as our readers are aware, is one of the most prominent lawyers of New York, one whose career has been in every way successful and highly creditable. The cases with which he has been identified have been of an important nature and these he has conducted with ability and success. His practice is a large and important one.

The Society is fortunate in being able to command the services of so able and experienced an executive.—*Erech.*

Filters Act as Incubators for Microbes.—Many hotels, office buildings, and other institutions throughout the land, are supplied with mechanical filters which are generally supposed to purify the drinking water used in the respective places, and upon which special stress is laid in all announcements pertaining to them. That most of these filters are actual detriments has been clearly demonstrated by the bacteriologist of the Buffalo Health Department, in a series of examinations covering a period of one month. Samples of water were taken daily from the city reservoir, from ordinary tap, and from taps the water of which had passed through a mechanical filter. This filter was established in the basement of a building for which it was intended to be used, of sufficient capacity to filter all the water required in the building, and connected with the main supply pipe, so that filtration was carried on under continuous pressure. The number of bacteria in the reservoir samples ranged from 180 to 220 per cc., in the ordinary tap water from 160 to 560 per cc., and in the filtered water from 1,180 to 3,600 per cc. This is not surprising; it is astounding! It is a matter to which public attention cannot be too strongly directed. Any filter which will multiply the danger from drinking water seventeen times, while ostensibly minimizing the danger, is worse than the most fatal pestilence, of whose existence the public is aware, and which it can avoid. This filter clarified the water, and that was about all that could be said in its favor, while apparently the number of bacteria increased with the length of time the filter was in use, making it a veritable germ-breeder. Regular tests should be made of all filters, and those found ineffective or detrimental should not only be condemned, but their sale prohibited, on the same principle as that of unsanitary food stuffs. This is a subject in which few people are proficient. Hearing and reading so much about the necessity of water filtration, the average person assumes that any filter answers the purpose, and no one can tell which filter is good or bad except by scientific tests.—*Philadelphia Medical Journal.*



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Proceedings of Societies.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

At the meeting of the Canada Medical Association at Ottawa in 1900, a committee was formed to consider the question of the formation of the above association and to report at the Winnipeg meeting of 1901.

The report of the Committee was adopted by the Association. It was thought desirable that as the major part of the work of organization was to be done the first year, the officers should be selected from some central place to facilitate the business and to lighten the work by saving laborious correspondence.

The following is the report of the Committee:

1. We believe it to be in the interests of the medical profession of Canada that an association should be formed by this body for the protection of such members of the medical profession as may become members of this Association and who may be unjustly prosecuted for malpractice. The object of this Association is to protect the members from prosecution where such action appears to our Counsel and Solicitor, as well as the Committee in charge, to be unjust, harassing or frivolous. Carried.

2. That this Association may be formed under the name and style of the "Canadian Medical Protective Association." Carried.

3. That the objects of the C.M.P.A. shall be (see clause 1). Carried.

4. The officers shall consist of a president, a vice-president, a secretary, a treasurer, and a solicitor. These officers shall hold office for one year. In case of death or removal from Canada of any of the officers the remaining officers shall select from the members in good standing a successor or successors, who shall hold office until the next meeting of the Canadian Medical Protective Association. Carried.

For President, Dr. R. W. Powell, Ottawa; Vice-President, Dr. Camarind, Sherbrooke; Secretary, Dr. F. W. McKinnon, Ottawa; Treasurer, Dr. Jas. A. Grant, jun., Ottawa. Carried.

The Solicitor shall be selected by the executive. Carried.

5. All expenses arising out of such defence shall be paid out of the funds of this Association and the Treasurer shall be empowered to pay out of the treasury of this body such sums as may be required to carry on the defence to a final or proper termination upon receipt of an order signed by the President and Secretary Carried.

6. A sum of two dollars and fifty cents shall be levied annually on each member of this Protective Association. Carried.

7. Every member of the profession in good standing in Canada, excepting as hereinafter provided, shall be eligible for membership in this Association. Anyone desiring to become a member of this Association can do so by sending to the Treasurer the amount of the annual fee, when he shall be enrolled as a member and be entitled to all the protection this Association affords, subject to clause 8. Carried.

8. No physician can become a member of this Association after having a charge made against him for any offence that may be covered by the rules of this body until after his case has been disposed of. If he still remains a registered medical practitioner he may become a member of this Association, but not when action is or may be pending against him. Carried.

9. It shall be the duty of any member of this Association pending the defence of any action by this body to aid the defence in every legitimate manner. Carried.

10. The remuneration for the Secretary may be fixed by this Association from time to time. Carried.

11. Upon an action being brought for malpractice against any member of this Protective Association, it shall be competent for the defendant to communicate the facts to the Secretary who shall thereupon convey the name to the Committee, whereupon such Committee shall submit the case to the Solicitor who shall decide upon the nature of the defence, if any defence is to be made. Carried.

12. It shall be the duty of the Committee to follow the case through any and all courts until a correct judgment shall be obtained, if in the opinion of Counsel such a course would be judicious. In no case shall the Association compromise. Carried.

13. When a member neglects or refuses to pay his annual dues at the proper time he shall cease to be a member of this body and shall forfeit such protection as this Association may afford. As soon as he has paid all arrears he shall be reinstated subject to the provisions of clause 8. Carried.

14. Dues shall be payable on or before the first day of January in each and every year, thirty days' grace being allowed in all cases, after which, if not paid, the defaulter shall cease to be a member of this Association. Carried.

15. A meeting of this Association shall be held annually at the same time and place as the annual meeting of the Canadian Medical Association. At any meeting of this Association not less than (20) twenty members shall constitute a quorum. Carried.

In presenting this report we beg to state that we have thoroughly investigated the Medical Defence Union now formed and in working order, and find that it fulfils in all respects the requirements of our Committee, and as we are given to understand that there are no debts now or impending, nor yet have any en-

tanglements arisen; we therefore recommend that this Protective Association do take over the work of this Union, members now joining, meeting and electing officers and council in accordance with its rules, etc, etc., as we understand that its present officers would feel themselves honored by being supplanted by such eminent gentlemen as are here present. Carried.

It was moved by Dr. J. R. Jones, Winnipeg, seconded by Dr. Russell Thomas, Lennoxville, "That the report be adopted as a whole." Carried.

In accordance with the above resolutions taken from the minutes of the Canadian Medical Association meeting at Winnipeg, in August, 1901, the officers of the Association invite members of the profession in Canada to become members of the "Canadian Medical Protective Association," and remit the fee of \$2.50 to Dr. F. W. McKinnon, Ottawa.

At the meeting of the Canadian Medical Association in Montreal in 1902, the first annual meeting of this C.M.P.A. will be held and the rules and regulations governing the same will then be formed and ratified.

We wish all possible success to the C.M.P.A. and feel that ere long its membership will be most representative.

TRINITY MEDICAL DINNER.

OVER two hundred and fifty students and guests were present at the annual banquet of Trinity Medical College at the Temple Building on December 5th, the function being one of the most successful in the history of the college. For the first time since the dinners were inaugurated no liquors were served. A. H. Anderson, President of the Banquet Committee, occupied the chair, and seated at his right and left were: Lieut.-Col. Denison, Mayor Howland, Dean Geikie, Rev. Mr. McMillan, Dr. Egerton Ryerson, Dr. Teskey, Dr. E. Herbert Adams, Dr. O'Reilly, Dr. Dwyer, Dr. Temple, Dr. Wishart, Dr. Bingham, Dr. Powell, Dr. Davison, Dr. Sheard, Dr. Fenton, Professor Shuttleworth, Dr. Pepler, W. F. Maclean, M.P., Dr. H. B. Anderson, Dr. Garratt, Dr. Gordon, Dr. McMaster, Dr. Lusk.

After the toast of "The King" had been honored, Dr. Sheard proposed "Canada and the Empire," to which Lieut.-Col. Denison replied, advocating an Imperial defence fund by the imposition of a customs duty of 5 or 10 per cent. on foreign imports. Referring to Professor Shortt's idea that England's food supply is safe because it is to the interest of foreigners to have a market for their produce, he said the argument is fallacious and unsafe, and quoted a recent speech by Lord Dufferin to that effect.

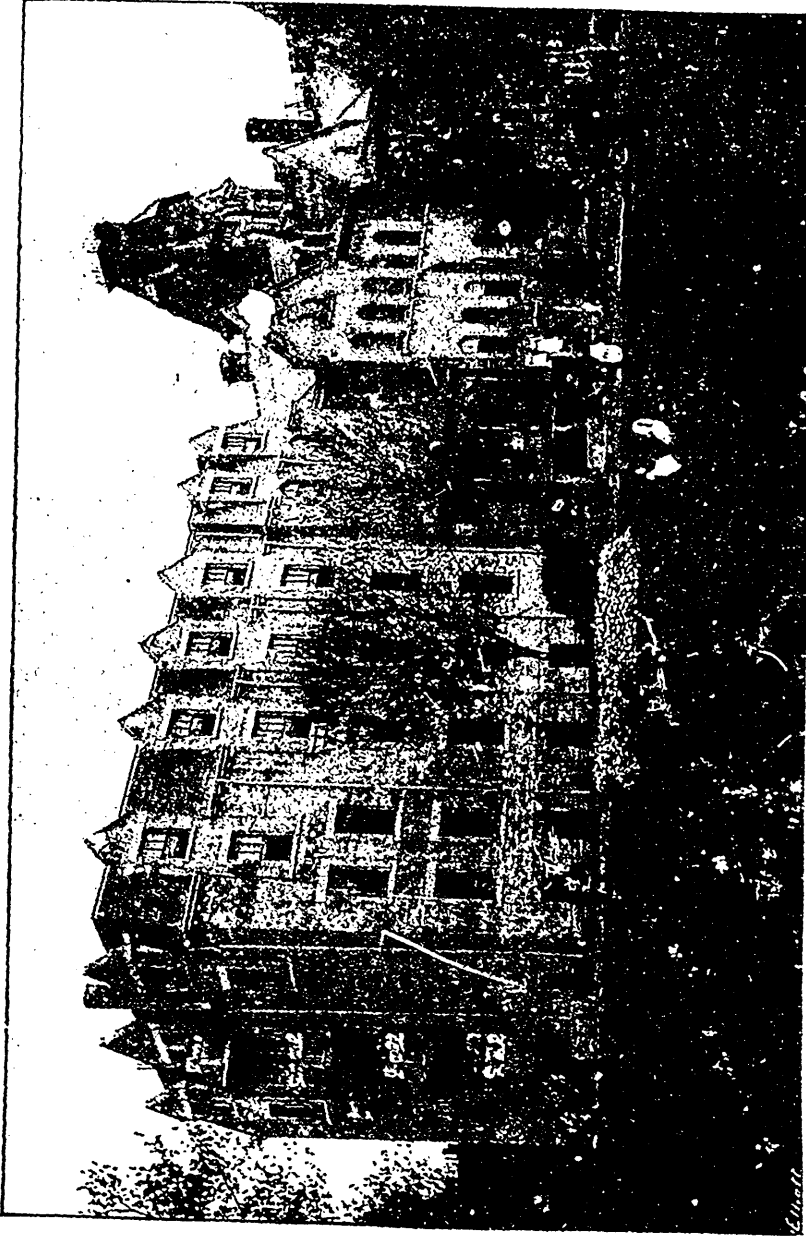
W. F. Maclean also responded, and claimed that the best Imperial ideas came from colonials.

Dean Geikie received an enthusiastic reception when he rose to reply to the toast, "Trinity Medical College and Graduates." He declared that the idea of amalgamation with Toronto was utterly dead, and commented on the action of the Ontario Government in voting public money in aid of Toronto Medical College after the Premier had laid down the principal that medical schools should be independent and self-sustaining.

Other speakers were: Dr. Bingham, Mayor Howland, Rev. Mr. McMillan, Dr. E. H. Adams, Dr. Davidson, Dr. Temple, Dr. Powell, Dr. O'Reilly, Dr. Dwyer, Dr. Nevitt, Dr. Pepler, W. H. Irwin and representatives of other colleges.

One of the prettiest menu cards was that of last night. It was designed, as usual, by a former student, Mr. C. M. Heydon, and will be treasured as an artistic souvenir. The two cartoons, especially, one representing Dr. Sheard prescribing for Miss Toronto and the other dealing with Trinity's dislike to amalgamation, were deservedly admired.

About Lithia Tablets and Carbonated Waters.—"Chemical analysis, writes a noted chemist, "shows that the Commercial Lithia Carbonate is sparingly soluble in water; therefore, we cannot obtain a perfect solution without the addition of an acid. Hence, I find that each brand of Lithia Tablets sent me for analysis contains an excess of acid either citric or tartaric. This, I prove by the tablet effervescence, and the *Red* reaction on blue litmus paper when immersed in the Lithia Tablets solution. *None* of the various Lithia Tablets sent me show *Alkaline* reaction." Says a prominent physician: "The careless habit of drinking *charged* waters or *effervescing* solutions is very prevalent, and, no doubt, a large percentage of modern stomach and kidney troubles are directly traceable thereto. Lithia Tablet solutions should not be taken into the stomach as medicine until a physician has tested and ascertained conditions. When drunk with a view of neutralizing acid conditions, which is the practice, these tablet preparations, even when chemically pure, actually increase the acidity of the system, and they possess neither antitoxin nor eliminating properties." Medical testimony is abundant, showing the ill-effects of Carbonated waters and so-called "Lithia" tablet drinks, but our object is simply to invite attention to the impotency of these unnatural waters to neutralize or expel from the body the excess Uric Acid accumulations which develop into so many forms of disease.



NURSES HOME, TORONTO GENERAL HOSPITAL.

Chesell

The Canadian Journal of Medicine and Surgery

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Editors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. XI.

TORONTO, JANUARY, 1902.

NO. 1.

Editorials.

NEW YEAR'S GREETING.

ONCE more it is a pleasure and a privilege to wish our confreres and subscribers everywhere a very bright and prosperous New Year. In doing so we pledge ourselves to make our medical publication as interesting and readable as it lies within the power of the united energy and enterprise of our staff to accomplish. As we enter upon our eleventh volume we most heartily thank those who have sent us such kindly words of appreciation and congratulation upon what they term our "success," and whether we deserve

all the courtesy we have received or not, we are deeply grateful to the medical profession and our business friends at home and abroad for their continued good-will and generous support.

It seems difficult to map out any one way of conducting a monthly medical publication and adhere strictly to it without a certain dulness or monotony creeping in, and so we occasionally brighten and vary our pages (by using half-tones, etc.), and surely the readers who scan our issues cannot accuse us of giving them dreary reading nor "stereotyping" our matter from month to month. Such old-fashioned methods now are about as profitable to the reader and publisher as the progress of the trustees of a church who every year added the floating debt to the mortgage and thanked God that was paid.

True, at the beginning of each year we have echoed sincerely the gala season's message of "Peace on earth, and good-will to men," though sometimes during the year, in our anxiety to have peace eventually prevail in the medical realm, we may have "caused our good-will to be questioned" as we have approached and "taken a talk at" matters of supreme momentary interest to the profession, for we still hold to the straightforward and aggressive policy of saying what we think fearlessly. While the milestones behind us are some, the many, we trust, are yet to be counted, and with us is still the voice saying—

"Calm's not life's crown, though calm is well."

As 1902 dawns we covet for one and all the good gifts of progression and prosperity, and if our wishes only materialize we may call ourselves with Pat, "powerful prophesicrs." W. A. Y.

THE ADMINISTRATION OF ANESTHETICS.

THE occasional death of a patient from chloroform in the dentist's chair or on the operating table serves to convince people, that, in endeavoring to gain anesthesia, one may attain instead a surcease of all earthly sorrows. To the operating surgeon the safety of his anesthetized patient should be a matter of the first importance, but, in actual practice, the giving of an anesthetic is looked upon as trivial. In hospitals the post of anesthetist is not usually coveted by the house surgeon, particularly if he has a junior assistant; so that, while the surgical acumen and best diagnostic skill of the

visiting staff are lavished on the wound, tumor, dislocation, or what not, the administration of an anesthetic may be confided to an unlicensed or an inexperienced practitioner. Lack of skill and experience on the part of the anesthetist is unfair to the patient, and may lead to a loss of life and a considerable amount of discredit to the medical men attached to an hospital and, in fact, to the whole profession of medicine.

Danger in anesthesia may be due to quite another cause. One has only to read the history of anesthesia and anesthetics to learn, that deaths from anesthesia have been noted in the practice of the leading hospitals of the world, and that no anesthetic or mixture of anesthetics is quite free from danger.

After describing the curious instances in which death occurs in chloroform anesthesia, as a result of over-excitement of the nervous apparatus, Lyman on Artificial Anesthesia and Anesthetics, says: "After all, the great fact remains that, in a very large proportion of cases, death from chloroform, as well as other anesthetics, is the result of a general paralysis of the nervous centres. The functions of respiration and of circulation are so closely connected, that the failure of one necessarily causes the failure of the other. So closely related are the medullary centres, which preside over these functions, and so wide is the diffusion of the anesthetic process, that a degree of tissue poisoning sufficient to poison one centre cannot fail to overwhelm the other. Paralysis of the respiratory centre signifies absolute repose of the muscles of respiration. Paralysis of the circulatory centre merely liberates the heart from all central control. If its own intrinsic motor apparatus be not simultaneously overwhelmed, it may continue for some time to beat, though in a feeble and inefficient way."

The researches of Paul Bert (*Comptes Rendus, Soc. de Biologie, Seance du 26 Fevrier, 1881*) indicate, that whenever a certain relative quantity of any anesthetic has been introduced into the blood, asphyxia will inevitably occur. Lesser degrees of impregnation produce the phenomena of anesthesia alone; but, as soon as a certain degree of saturation is reached, asphyxia appears. . . . For each anesthetic substance the absolute quantity differs, but, in every instance, the relation between the amount necessary for the production of simple anesthesia and the quantity which will cause asphyxia and death is nearly the same—1 : 2.

As to the relative dangers of the prominent anesthetics, it is unnecessary to repeat what every physician knows, viz., that ether

is very much safer than chloroform. The combination of nitrous oxide and ether is well spoken of. By commencing with the inhalation of nitrous oxide, it is thought to avoid the initial excitement, which sometimes follows the beginning of ether inhalation. The time necessary for the production of anesthesia is thus shortened, especially when the patient is made to inhale his own breath, and the quantity of ether that is needful is thus greatly diminished.

As anesthesia is necessary in surgery, the question of its use may be looked at in this way: anesthesia itself involves a certain amount of danger to life; how shall we minimize the danger?

In the first place, we look to the research laboratories for experimental work, showing the dangers of each anesthetic and the best methods of overcoming them. In this connection, it is a pleasing duty to refer to a recent study of chloroform made in the research department of the University of Toronto, by Dr. Rudolf, a notice of which may be found in the editorial notes of this number.

Secondly, in hospital practice the administration of anesthetics should be confided to one or two licensed physicians.

Thirdly, prior to the administration of an anesthetic, these gentlemen should examine the patients to be anesthetized, attention being given to the condition of the kidneys, lungs and heart, and a choice made of the anesthetic, or combination of anesthetics, which promises to cause the least interference with the functions of these organs.

Systematic introduction of this method in all hospitals, or places where anesthesia is frequently used, would lead up to a desirable change in medical instruction. Few, if any, medical colleges in Canada include a course of practical training in the use of anesthetics in the curriculum. If the administration of anesthetics were confided to one or two physicians of a staff, instruction in this particular could be methodically imparted to a graduating class. There is certainly no good reason why this kind of instruction should not be given, as well as training in auscultation and percussion, the introduction of a catheter, or the application of the obstetric forceps.

Personal instruction by a skilled anesthetist would be more useful to graduating men than the reading of a text-book. Skilful observation of the patient, involving study of his physical condition, estimation of his power of resistance to a lethal drug, together with the immediate preparation of the patient, the selection and proper use of an anesthetic can be thoroughly acquired by studying

the precepts and following the practice of a teacher, who has mastered the subject of anesthesia and knows the weak and strong points of each anesthetic.

J. J. C.

COMPARATIVE CONSUMPTION OF ALCOHOLIC BEVERAGES IN DIFFERENT COUNTRIES.

THE Canadian excise returns for the fiscal year ended June 30th, 1901, give an idea of the extent to which alcoholic beverages are used in this country.

The returns show that beer is the most popular of these beverages, the consumption per capita amounting to 4.737 gallons, as against .765 gallon of spirits and .1 gallon of wine. During the year ended June 30th, 1900, the figures were as follows: beer, 4.364 gallons; spirits, .701 gallon; wine, .085 gallon. Taking the last thirty-three years, the average per capita consumption has been: beer, 3.078 gallons; spirits, .983 gallon; wine, .124 gallon.

The per capita consumption of alcoholic beverages in the United States for 1899 was: beer, 13.3 gallons; spirits, 1.10 gallons; wine, .33 gallon. These amounts, both for Canada and America, compare favorably with the relatively large consumption of European countries. Thus, in 1900 the per capita consumption in England was: beer, 31.7 gallons; spirits, 1.12 gallons; wine, .39 gallon. In Germany: beer, 27.5 gallons; spirits, 1.94 gallons; wine, 1.45 gallons. In France: beer, 6.2 gallons; spirits, 2.02 gallons; wine, 25.4 gallons.

Judging by the amounts reported for the United States and countries in Europe, the consumption of alcohol in Canada is small. Possibly owing to a large influx of immigrants from European countries into the United States, the consumption in the latter country is increased by the drinking customs prevalent in Europe. In spite of this possible influence, the consumption of beer in the United States is less than it is in England or Germany. In these three countries, however, beer is the popular beverage. In France the per capita consumption of beer, 6.2 gallons, is small; but that of wine, 25.4 gallons, is remarkable.

One deduction, which can be made from these statistics, is, that in England and Germany beer must be used habitually as a table beverage, just as in France wine is used. In America wine and beer are not habitually used at table. They are used principally

on festive occasions, and a similar dietetic custom prevails in Canada.

The reasons for this change of custom in America and Canada do not appear on the surface. Church influences, temperance societies, instruction through the school and the press help to mitigate the evils of alcoholic addiction in Europe as well as in North America. That ruin follows in the wake of alcoholism is as well known on the one continent as on the other. Neither can America nor Canada claim a better system of public schools than Germany.

Owing to the fact, however, that meat is cheap and abundant in North America, the inhabitants maintain a high degree of vigor, through a meat diet, with but small occasion to resort to the use of intoxicants. There are, doubtless, other reasons to account for this neglect of alcohol among the races living on this continent. Whatever these reasons may be—satisfaction with social, industrial and political conditions, dislike for the feeling of intoxication, self-respect, or a stimulating climate—neither Americans nor Canadians drink as much alcohol as Englishmen, Germans or Frenchmen; and, in the matter of relative abstinence among these nations, Canadians take the lead.

J. J. C.

TETANUS AND VACCINATION.

THAT tetanus may follow a slight wound, even the scratch of a pin or the extraction of a tooth, is well known. "The fact that the bacillus of tetanus is anaërobic explains why tetanus in man is a comparatively rare disease, and also why it is most apt to follow punctured and contused wounds. It may be assumed that an injury, however slight, serves as the portal of entrance for the poison" (Anders). If this bacillus could thrive in oxygen, its wide diffusion in the earth (garden soil in particular), in barnyards, in stables and in street dust would lead to frequent outbreaks of tetanus in wounds of all kinds.

It is not, however, a negligible quantity. Outbreaks of tetanus occur sometimes in vaccinated children. In June, 1901, a fatal case of tetanus after vaccination occurred at Brantford, Ontario. In November, 1901, another fatal case, after vaccination, was reported from St. John, New Brunswick. During the same month several cases of tetanus among vaccinated persons occurred at Camden, New Jersey. Bacteriological examinations of the different makes

of vaccine used at Camden proved that none of them contained tetanus germs. All the cases noted in vaccinated persons occurred in from three to four weeks after vaccination, and as the incubation period of acute tetanus lasts from one to two weeks, while in the chronic form the first symptoms usually appear after the second week (Anders), the tetanus germ could not have been present in the vaccine used, nor was it introduced by the vaccinator. The tetanus germ was widely diffused in Camden at that time, for a case of tetanus from a gun-shot wound developed in a boy, who had not been vaccinated.

Before performing vaccination careful physicians thoroughly cleanse their own hands. The patient's arm having been cleansed with soap and water, followed by the application of alcohol, pure vaccine is applied to the wound, made with a surgically clean scarificator, needle or scalpel. It is safe to say that, if such a wound is afterwards protected from the atmosphere, tetanus germs will not gain access to it.

When public vaccination is done by order of a local board of health, similar precautions should be observed by vaccinators. Protective shields should also be provided by the local health authority for vaccinated persons, until the vaccination wound is healed. When the State undertakes to enforce a surgical procedure in the public interest, it is bound, in equity, if not in law, to see that the necessary work is executed with the least possible injury to the citizen.

J. J. C.

IN THE HOSPITALS IS IT PAY, PAY, PAY?

THE almost perfect equipment and fine executive ability shown by the superintendents of most of our city hospitals and their corps are a credit to progressive surgery and medical skill. The amount of time given by surgeons to performing operations upon poor patients is an added honor to the name of surgery.

But should it not be very clearly understood, alike by the hospital physicians and patients, in all cases whether any remuneration is expected for professional services rendered. Our attention has been called to this matter lately by the decision of a Division Court Judge in a case in point where a misunderstanding occurred in reference to fees, between the operating physician and his "county" patient.

The public seem to cling to the idea that everything about or

connected with a hospital ought to be free. So it should be, and is, to the charity patient for whom the city or county pay at the rate of \$2.80 a week. But from those (public) patients who can pay weekly to the hospital themselves, and also those who constitute and fill the private wards, the attendant physician or surgeon certainly expects a fee.

A suggestion we might be permitted to make to the hospital authorities is, that upon the card at each patient's bedside it be stated on filling it out upon his entrance to the Institution whether he be a "charity" or "private" patient, and the attending physician's name. If "charity," of course no remuneration is expected by the physician; if "private," a schedule of the fees or simply the fee agreed upon should be filled in, causing a distinct and business-like understanding on both sides, and eventually physician and patient alike would appear in a better light to each other and to the community at large.

W. A. Y.

TETANUS AND DIPHTHERIA ANTITOXIN AT ST. LOUIS.

AN urgent demand for diphtheria antitoxin in St. Louis, Missouri, last October induced the city bacteriologist to place untested serum, of his own manufacture, in the hands of some of the physicians of that city. It appears that a horse, bled September 30th, 1901, for antitoxin purposes, had to be killed two days afterwards, October 2nd, for tetanus. Serum, prepared from this horse's blood, was issued to the St. Louis physicians, who thus became instrumental in introducing tetanin into their patients, as well as antitoxin diphtheriæ. Thirteen deaths from tetanus followed the use of this poisonous serum at St. Louis. It is regrettable, that the carelessness here adverted to should shake the almost unanimous testimony of medical experience, in favor of the great utility of antitoxin in the treatment of diphtheria. Many people will naturally object to subjecting their children to the dangers of tetanus, in an endeavor to save them from death through diphtheria. More particularly will this objection arise, when immunizing doses of antitoxin are required for children who are not sick, but who have been exposed to diphtheria. As good sometimes results from evil, it may be that, even in St. Louis, where the facts will be fully known and discussed among the people, no enduring antagonism

will be excited against the use of antitoxin in diphtheria. The catastrophes in that city ought to produce a general and peremptory demand from physicians and the public that antitoxin shall be properly prepared, and shall not be issued, until the necessary tests demonstrating its harmlessness have been made. The chief bacteriologist of a manufacturing house or corporation should be made responsible for the purity of the serum he prepares. If responsibility rests on no person, antitoxin will be regarded with distrust by the public, and physicians treating cases of diphtheria will be debarred from using this admirable specific.

J. J. C.

EDITORIAL NOTES.

The Use of Atropine and Hydrocyanic Acid in Chloroform Poisoning.—In *Physiological Series*, No. 3: *Observations on Blood Pressure*, by R. D. Rudolf (University of Toronto Studies), the author's experience leads him to the following conclusions: "First, the previous use of atropine lessens the tendency to death from chloroform poisoning in dogs. Theoretically, also, one might assume that, from its powerful stimulating effect on the circulation, it would, especially if combined with morphia, tend to lessen the chance of syncope occurring during, but not necessarily due to, chloroform administration. Second, that when, during the administration of chloroform, danger has occurred, either in the form of syncope or of respiratory failure, atropine in moderate doses (say $\frac{1}{100}$ grain) would tend to stimulate both the circulation and the respiration, and hence would be a valuable adjunct to other means of saving life in such emergencies. A high encomium is passed on the life-saving results due to artificial respiration in chloroform asphyxia. Of all the methods tried artificial respiration was found to be the most certain method of restoring animals in which the respiration had been stopped as a result of chloroform poisoning. . . . The method followed was rhythmical compression of the chest. In using this method the air passages must be kept free by keeping the tongue firmly pulled out, and, if necessary, introducing the tip of the index finger into the rima glottidis, by which means the vocal cords are kept apart." References are also made to tracheotomy, rhythmic traction of the tongue (Laborde's method), nitrite of amyl and hydrocyanic acid. Of hydrocyanic acid Dr. Rudolf writes: "In true cases of

chloroform poisoning, when the respiration has stopped or seems likely to do so, it would be well to try the use of a medicinal dose of this powerful drug. It could be given hypodermically or by the mouth, as an adjunct to artificial respiration and other restoratives. . . . the full B. P. dose of 6 minims could be employed with absolute safety, or that of the U. S. P., viz., 15 minims of the dilute acid might be used if necessary." The danger of chloroform may depend on the method of administering that anesthetic. If given in small and continued doses it is not dangerous. The cloth over the patient's face should never be wet with the drug. During last October, at the Paris meeting of the French Surgical Association, Dr. Péraire claimed, that in two thousand general anesthetics by chloroform he had but one death, and the latter could not fairly be attributed to chloroform, for it occurred half an hour after the termination of the operation.

The Study of Medical History.—We notice in the *British Medical Journal* (November 9th, 1901) that the Royal College of Physicians of London has accepted the gift of £2,000 (\$10,000), given by Mrs. FitzPatrick to found a lectureship on the history of medicine. This benefaction is intended to perpetuate the memory of Dr. FitzPatrick, her husband, a distinguished member of the College, who was born at Virginia, in Cavan, Ireland, in the year 1832. The gift seems to have come in good time, as British medical colleges are not equipped with chairs and lectureships for the study of the history of medicine. It appears, that lecturers on the history of medicine have been appointed at several centres in the United States, and particularly good work of this kind is done by the Johns Hopkins Hospital Historical Club, the papers being subsequently published in the *Johns Hopkins Hospital Bulletin*. An *Epitome of the History of Medicine*, by Dr. Roswell Park, Professor of Surgery in the medical department of the University of Buffalo, has been received with favor in America, a second edition having been called for within a year after the appearance of the first edition. In Canada a course of lectures on the history of medicine ought to be instructive to physicians, many of whom have never devoted any attention to this subject.

The Slaughter of the Innocents.—The *British Medical Journal* (November 9th, 1901) protests, and not too soon, against the preventable loss of life noted in the Boer concentration camps in South Africa, where the women and children are massed together instead

of being left on the farms. We quote: "If we assume that all the children in the camps are under five years of age, that is, belong to the ages of the highest normal mortality—which is a highly improbable assumption—it is impossible to regard with complacency the consideration that, if the present condition prevailed for three consecutive years, all the Boer children now in the camps would be annihilated, while it would take twenty years of exposure of children in England to the English conditions of life to produce a similar result." Elsewhere in the same article, the following appears: "It is due to inefficient sanitary control, that a large share of the dysentery and enteric fever in the military camps has occurred, and the statistics give ground for suspecting that similar inefficiency has characterized the control of the concentration camps. . . . The conscience of the public is very properly touched on this subject; the statistics warrant the uneasiness of the public mind, and it may be hoped that prompt measures will be taken in the direction indicated."

The Skirmish Line in Incipient Tuberculosis.—Writing on the above subject in the *Journal of Tuberculosis*, Dr. Tyndale, of Lincoln, Nebraska, emphasizes the necessity of studying the respiratory process: "Seek for the first manifestations of tuberculous invasion in changes of rhythm in breathing, and do not wait for changes of pitch. . . . What does normal respiration call for? An audible inspiration of vesicular quality, a pause, which is only a 'retard,' and a short and inaudible expiration. Well, the pathological changes are the reverse of this. They call for an interrupted rhythm, a broken accent—that which, in the music of the present day is known as 'rag-time.' They may have an interrupted inspiration (as yet without change of pitch or quality), that rhythm which ancient mariners still call 'cog-wheel' respiration; or there may be nothing but a distinct and prolonged pause. Again, we have of old the prolonged and audible expiration. When all three are combined, diagnosis is comparatively easy. It goes without saying, that the percussion-finding gives no clue to the existing condition, save in confirming, by its normality, that no organic changes leading to alterations of pitch or of quality have as yet taken place."

Disinfection of Instruments with Spiritus Saponis Kalinus.
—J. H. Pollak (*Deut. med. Woch.*, No. 35) gives the preference to the spiritus saponis kalinus for disinfecting surgical instruments.

He concludes, that (1) boiling, and especially in soda solution in a closed vessel, is the best means of sterilizing, but that sharp instruments are blunted by the process. (2) Soap spirit is capable of sterilizing sharp-edged instruments in fifteen minutes, without blunting or otherwise affecting them, when infected with ordinary pyogenic organisms. (3) Mechanical rubbing of instruments with soap spirit for thirty seconds is an excellent procedure. The jointed parts of instruments, viz., dental forceps, Reverdin's needle, etc., are not easily cleaned like smooth surfaces. Professor Champignière, of Paris, informed the editor, in 1891, that he secured the thorough disinfection of the Reverdin needle he used by having the jointed parts steeped in chloroform after use, thus dissolving away fatty tissue, which adhered to the instrument and caused infection of wounds.

ITEMS OF INTEREST.

An Innovation in the Drug Business.—A number of prominent retail druggists of Toronto, among whom are W. H. Field, James McKenney, W. H. Gilpin and G. A. McCann, have obtained a charter from the Legislature and have formed a limited liability company, having for its object greater efficiency in supplying medicines. The Gilpin-Field Co., Limited, start with a Central Supply Depot at 359 Spadina Avenue, and six stores throughout the city, and they will add other stores in different localities from time to time. At present the stores include 594 and 675 Spadina Avenue, 326 and 472 College Street, 509 Bloor Street West, and 208 Dundas Street. The Company's aim is to conduct first-class, up-to-date pharmacies on systematic lines. Glancing over their by-laws we notice such regulations as the following: "No substitution or tampering with any recipe or prescription, or knowingly falsifying any medicine or article offered for sale, or supplying any medicine that is known to have deteriorated, allowed in any store operated by this Company. All stores operated by this Company to be under the continuous care of qualified druggists." The plan throughout is commendable, and being in the hands of men who have for many years made their own business succeed, we have no doubt the new venture will prosper. We wish them every success.

Substitution must be Throttled.—There is undoubtedly substitution carried on by some druggists. We say "some" advisedly,

as we believe that the large majority of druggists are honorable men, who would not stoop, for the sake of a few cents more profit, to such low tactics. Physicians should be careful to see to it that, when ordering a particular preparation, their patient gets the genuine article and no other. We heard just recently that there has been an attempt to substitute Hunyadi János water by the use of a name which looks and sounds somewhat like the original. In prescribing this natural aperient water, which for a long time has had the endorsement of the profession, it would be well to specify on the prescription the full name, *Hunyadi János*. The same principle would apply to such preparations as Listerine, Fairchild's pepsin products, Tongaline, and many others, which unscrupulous pharmacists have tried to tamper with. We trust that ere long there will be no such contemptible actions heard of, and that a physician can have the fullest feeling of confidence that his patient will get exactly what is prescribed for him.

Our Colored Supplement.—We are greatly indebted to the firm of H. K. Mulford & Co., of Philadelphia, Pa., for the beautifully executed colored plates which appear in this issue of our journal. We feel certain that everyone will admit that, for delicacy in coloring, beauty of execution, and absolute correctness in even the minutest detail, the illustrations could not be improved upon. The gradual disappearance from day to day of the diphtheritic exudate under the influence of diphtheria antitoxin, is certainly only true to fact, and but illustrates what occurs in the every-day experience of the physician who resorts to the use of what is now looked upon as the *sine qua non* in the treatment of this otherwise terrible disease. The colored reproductions illustrating the "Cycle of Vaccination" and the Mulford Laboratories are also most beautiful. We are glad to have the opportunity of presenting these plates to our readers, as they will appear in no other journal in the Dominion.

A New Smallpox Hospital for Toronto.—A new smallpox hospital has been put up by the City Council of Toronto, on the eastern bank of the river Don, near the city; but is, nevertheless, very well isolated, being situated in the centre of 150 acres of natural park land, and far removed from habitations. The building, which has been constructed at a cost of \$5,000, is a picturesque structure of brick and stone, in the Swiss style of architecture. The ordinary capacity of the hospital is 25 patients; but, if the

necessity should arise, a dozen more could be accommodated in the attic. On the ground floor there are rooms for the doctor and the nurses, a dining-room, kitchen, etc. There are also two rooms for suspects on this floor. One side of the first floor is given over to a general ward, and the other half to two good-sized wards for convalescents, one for men and the other for women.

DR. W. A. YOUNG spent a week in New York City last month.

DR. R. B. NEVITT, of Jarvis Street, has purchased a residence on Bloor Street West and moved into his new quarters recently.

DR. G. E. R. MCCARTNEY, of the class of 1901, Toronto University, has received an appointment as house surgeon at the New York City Hospital.

DRS. T. Cullen and Howard Kelly, of Baltimore, Md., were in Toronto for a day or two in December. They came here to attend the funeral of the late Dr. Lesslie Sweetnam.

WE acknowledge with thanks the loan of the two half-tones in this issue of prominent members of The Medico-Legal Society of the State of New York from Dr. Clark Bell, the able editor of *The Medico-Legal Journal*.

WE are greatly indebted to Mr. Edward H. Fox, photo-engraver, of Danville, Ky., for the use of the half-tones appearing on pages 17 and 18 in this issue. Dr. Dunlap, of that city, was instrumental in securing us this material, and we wish to take this opportunity of thanking him for his kindness herein.

A QUEER RECOMMENDATION.—They have been holding a "Journalists Conference," by which is meant a meeting of newspaper writers, at London, during the course of which the following story was told by one of the feminine delegates, illustrating the ambition which many persons have to see their names in print. She was engaging a servant, an Irish girl, but found that her terms were exceedingly high. "How is it," she asked, "that you want such high wages?" "Shure, ma'am," was the answer, given with a delightful brogue, "my name's been in the papers." "In the papers. What do you mean?" "Shure, I gave evident at an inquist."

Obituary



THE LATE DR. LESSLIE M. SWEETNAM.

It was a great shock to the medical profession in Toronto, as well as elsewhere, when about mid-day on December 11th news reached Toronto that Dr. L. M. Sweetnam had died at Johns Hopkins Hospital in Baltimore Md. Every report as to his condition

had been favorable until a few hours before his death, so that the sad intelligence was at first hardly believed. Dr. Sweetnam was a Christian gentleman, a clever surgeon, and a favorite with all his friends, both professional and otherwise. His death is a sad loss to our profession and his place will be hard to fill.

Dr. Sweetnam was the eldest son of the late Matthew Sweetnam, and was born in Kingston, August 1st, 1859. He was educated at Upper Canada College, and took his medical degree at Toronto University in 1881. He was a member of the College of Physicians and Surgeons of Ontario, M.B. of Toronto University, M.D., C.M. of Victoria University, and also a member of various Canadian medical associations and fraternal societies, a member of the Senate of Victoria University, professor of surgery of Toronto University, and surgeon to the General and St. Michael's hospitals. On October 7th, 1885, he married Margaret Victoria Gooderham, daughter of Mr. C. H. Gooderham. He was also a prominent member of the Metropolitan Methodist Church.

THE DEATH OF SIR WM. MacCORMAC, BART.

ONE of the most notable figures in the world of surgery has been removed by the death of Sir Wm. MacCormac, Bart., President of the Royal College of Surgeons of England, who died at Bath on December 4th, aged 65. Sir William will be remembered by those interested in later imperial events for his connection with the South African war, at the outbreak of which he was sent out in a special capacity to oversee the treatment of the wounded who then had the services of the highest imperial authority on wounds received in war.

Sir William MacCormac was born at Belfast on the 17th of January, 1836. His father, Dr. Henry MacCormac, was a well-known Belfast physician, who wrote much on the necessity of fresh air for patients suffering from phthisis. Wm. MacCormac had a distinguished career at the Queen's University in Ireland, where he graduated M.A., in 1858, and in 1879 received the degree of M.Ch. *honoris causa*. He took the fellowship of the Irish College in 1864, and was admitted *ad eundem* to the F.R.C.S., England, in 1871. On the outbreak of the Franco-Prussian war, Mr. MacCormac at once started for Paris to render assistance to the wounded. From Paris he was passed on to Metz, but after a short stay he

was compelled by the civil authorities to leave that town, in consequence of an order that no foreigners were to be allowed therein. Afterwards he was chief of the Anglo-American Ambulance, and did much good work in rendering surgical aid to the wounded at Sedan and elsewhere. In the Turko-Servian war, he also served with great success, as an ambulance surgeon. Mr. MacCormac published an account of his experiences in the former campaigns in a book, entitled "Notes and Recollections of an Ambulance Surgeon." This was translated into nearly every European language, including Japanese. In 1871 Mr. MacCormac moved from Belfast to London, having been appointed Senior Assistant Surgeon and Lecturer on Practical Surgery at St. Thomas' Hospital; and in 1873 on the retirement of Mr. Le Gros Clark, he was made full surgeon. This office he retained until 1893, when he was appointed Consulting Surgeon. He was also Emeritus Lecturer on Clinical Surgery at St. Thomas'. At the meeting of the International Congress of Medicine in London in 1881, Mr. MacCormac held the responsible position of senior honorary secretary, and for the admirable way in which he carried out the duties of that office, he received the honor of knighthood. Sir William was elected on the council of the college in 1883, and had been examiner since 1887. He filled the office of Vice-President in 1890, and again in 1893. In the last named year he was appointed Bradshaw Lecturer, and chose as his subject, "Sir Astley Cooper and his Surgical Work." In addition to the work above named Sir William has contributed largely to the literature of the profession. Upon the outbreak of the South African war Sir William went to the field of operations and was of incalculable service in giving advice as to the treatment of the wounded in Natal and other places. Like his father, Sir William was an excellent linguist, and his works show a large acquaintance with foreign professional literature. His honors were as follows: Officer of the Legion of Honor, and Commander of the Orders of the Dauborg, the Crown of Italy, the Lacous, the Crown of Prussia, North Star of Sweden, St. Iago of Portugal, Ritter Kreuz of Bavaria, Merit of Spain, and Medjidii; Knighthood, 1881. His principal works are: "Work Under the Red Cross." "Antiseptic Surgery," "Surgical Operations."

The Physician's Library.

BOOK REVIEWS.

A Manual of Medicine. Edited by W. H. ALLCHIN, M.D. (Lond.), F.R.C.P., F.R.S. (Ed.), Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital; Late Examiner in Medicine, University of London, for the Royal College of Physicians of London, and to the Medical Department of the British and Indian Army Medical Services. Vol. III.—Diseases of the Nervous System. New York: The Macmillan Company, 66 Fifth Avenue. London: Macmillan & Co., Limited. Toronto: Tyrrel's Book Store, 8 King Street West. Price, \$2.00. 1901.

This is a neat little volume of 417 pages, including index. There are nine contributors to this volume, including the author. Charles Scott Sherrington, M.D., F.R.S., Holt Professor of Physiology University College, Liverpool, contributes the opening chapter on "The General Anatomy and Physiology of the Nervous System Table of Spinal Segments."

Bertram Abrams, M.B., B.Sc., M.R.C.P., Medical Registrar Westminster Hospital: "The Application of Electricity in Disease of the Nervous System."

James S. Collier, M.D., M.R.C.P., Pathologist to the National Hospital for the Paralysed and Epileptic: "Aphasia and other Speech Defects; Functional Diseases of the Nervous System in part."

Walter Stacy Colman, M.D., F.R.C.P., Assistant Physician to St. Thomas's Hospital and to the Hospital for Sick Children, Great Ormond Street: "Functional Diseases of the Nervous System in part."

Joseph Anderne Ormerod, M.D., F.R.C.P., Assistant Physician to St. Bartholomew's Hospital, and Physician to the National Hospital for the Paralysed and Epileptic: "Diseases of the Spinal Cord; Muscular Dystrophies."

Purvis Stewart, M.A., M.D., M.R.C.P., Assistant Physician to the Westminster Hospital: "Lesions of the Cauda Equina; Acute Ascending Paralysis; Diseases of the Peripheral Nervous System."

James Taylor, M.A., M.D., F.R.C.P., Physician to the National Hospital for the Paralysed and Epileptic; to the North-Eastern Hospital for Children, and to the Royal London Ophthalmic Hospital: "Medical Ophthalmology."

William Aldren Turner, M.D., F.R.C.P., Assistant Physician to

the National Hospital for the Paralyzed and Epileptic; and to King's College Hospital: "The Neurone in Relation to Disease of the Nervous System; Organic Diseases of the Brain and its Membranes."

W. H. Allehin, M.D. (Lond.), F.R.C.P., F.R.S. (Ed.), the Editor: "Headache; Trophoneuroses."

There are twenty-seven illustrations and six colored plates. We are very much pleased with this volume. The various subjects are dealt with in a short, concise and very practical manner.

Anatomy and physiology necessarily occupy a prominent place in the work, and with the illustrations make this difficult part of medical literature more than usually interesting. The specialist in nervous diseases would prefer the more extensive works on this subject, but for the general practitioner, and especially as part of a system of clinical medicine, we think this volume will prove a decided success.

W. J. W.

Nottnagel's Encyclopedia of Practical Medicine: Typhoid and Typhus Fevers. By DR. H. CURSCHMANN, of Leipzig. Edited, with additions, by WILLIAM OSLER, M.D., Professor of the Principles and Practice of Medicine, Johns Hopkins University. Handsome octavo of 646 pages, illustrated, including a number of valuable temperature charts and two full-page colored plates. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net. Canadian agents, J. A. Carveth & Co., Toronto.

It is a well-known fact that the German edition of this Encyclopedia has for long been looked upon as an authority upon many knotty subjects in medicine. In Germany this work is considered to be almost without an equal in medical literature. When we compare that edition with the one now under criticism, we cannot but think that the American one has many distinct advantages, the chapters in the latter being fuller, and containing views naturally more recent than its predecessor, and, therefore, altogether a more useful volume, one distinctly abreast of the times. The chapter on the Treatment of Typhoid we read with keen interest. Referring to the administration of calomel, the author says that Liebermeister believes that treatment with calomel induces a marked mitigation in the intensity of the disease, while Von Ziemssen, going somewhat further, attributes to the remedy an influence in diminishing the intensity of the whole infectious condition, and especially of the local intestinal symptoms. The author goes on to say that, in view of the experience of these two trustworthy writers, he is unwilling to advise against the employment of the method in suitable cases, though he adds that he has been unable to convince himself of its abortive effects, and that it is, therefore, justifiable for the present to assume a doubtful attitude towards this method of treatment. He expresses the same opinion anent the antiseptic method followed by Bouchard. Readers of this

book will find great interest in studying the chapter on Pathology, especially that part dealing with the intestinal lesions caused by the bacillus, and also the chapter on Bacteriological Methods, including the latest work in blood cultures and the presence of bacilli in the urine. The publishers are to be heartily congratulated upon securing the services of so able an editor as Dr. Alfred Stengel.

W. A. Y.

Pathological Technique. A Practical Manual for Workers in Pathological Histology and Bacteriology, including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By FRANK BURR MALLORY, A.M., M.D., Assistant Professor of Pathology, Harvard University Medical School; First Assistant Visiting Pathologist to the Boston City Hospital; Pathologist to the Children's Hospital and to the Carney Hospital; and JAMES HOMER WRIGHT, A.M., M.D., Director of Clinico-Pathological Laboratory of the Massachusetts General Hospital; Instructor in Pathology, Harvard University Medical School. Second edition, revised and enlarged, with 137 illustrations. Philadelphia and London: W. B. Saunders & Company. Canadian agents: J. A. Carveth & Co., Toronto. 1901.

I had the pleasure of reviewing the former edition of this book and I can confidently say that after frequent references in my laboratory work at Trinity Medical College my then favorable criticism was well founded, as the work is still being constantly thumbed by students and post-graduates alike. What was contained in my previous review applies equally to this second edition, and I beg to add that the authors have not let slip a single opportunity to improve their former edition by adding all the newest methods to the present one, thus making it decidedly up-to-date. The chapters on the parasite of actinomycosis and the bacillus of bubonic plague show many changes and additions. The methods adopted by Wright for the cultivation of anaërobic bacteria are new and practical. Finally, the new staining methods for elastic tissue by Wright and connective tissue by Mallory are useful innovations. The number of illustrations have considerably increased. Many of them are fine original photographs, and the work will, I feel sure, maintain the enviable reputation it already holds of being a great aid to the laboratory worker. The publishers, W. B. Saunders & Co., have done excellent work, and the treatise can be obtained from their Canadian agents, J. A. Carveth & Co., Toronto. W. H. P.

The Man from Glengarry: a Tale of the Ottawa. By RALPH CONNOR, author of "The Sky Pilot," and "Black Rock." Toronto: William Briggs. 1901.

Let the critics dispute as to whether our country offers themes suitable for poetry, as to whether Bliss Carmen, Roberts, Lampman and Campbell are true poets, but Ralph Connor and Gilbert Parker—than whom no two writers can be more unlike in theme—

have shown that Canada offers all the materials desired by the novelist.

Whatever the stage setting, Ralph Connor's theme is always the struggle between our carnal passions and our spiritual longings—yet his heroes are never "good little Willies." Connor is a clergyman, 'tis true, but thankful am I that there is yet in him a little of the flesh and the devil, else had I never read of some battles which quickened my pulse and made me breathe deep.

In Connor's sinful youth—if I may judge from the rapturous way in which he describes the lumbermen's fight—he must have been in some "sweet bits of rioting." 'Tis himself, too, that knows a few things about side-stepping and the use of his legs. I fear me the Reverend Ralph Connor was at one time a son of Belial.

As the many miles between Toronto and Winnipeg lie between me and the Reverend Connor I am emboldened to say that I wish the rest of the book was as good as the fights—fights carnal, and no less fights spiritual, which later demand more pluck and more stick-to-it-iveness.

It is a fine mixture of what will live and of the most namby-pamby trash—the best of it inspired by the divine fire, and the worst of it seemingly by the printer's devil's mad shout for copy. And by the same token, that same devil has just shouted to me over the telephone, so why should I throw bricks at Connor? Dear Ralph, take time and do yourself justice for you are not—like me—a monthly.

J. M. M.

An American Text-Book of Pathology. Edited by LUDVIG HEKTOEN, M.D., Professor of Pathology, Rush Medical College, Chicago; and DAVID RIESMAN, M.D., Professor of Clinical Medicine, Philadelphia Polyclinic. Handsome imperial octavo of 1,245 pages, 443 illustrations, 66 of them in colors. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$7.50; sheep or half morocco, \$8.50 net. Canadian agents, J. A. Carveth & Co., Toronto.

This handsome volume is divided into two parts, the first dealing entirely with General Pathology, and the second covering Special Pathology. We were pleased to find that the first twenty pages of the work came from the pen of our esteemed friend and fellow-countryman, Dr. Lewellys F. Barker, who now occupies the position of Professor of Anatomy at Rush Medical College. Dr. Barker contributes here some very bright matter upon Health and Disease, Heredity and Disease, Environment and Disease, Healing and Cure, Immunity, etc. The other departments under the section on General Pathology are: General Morbid Processes, Tumors, Pathogenic Micro-Parasites, Animal Parasites, Intoxicants, the General Pathology of Fever, and Teratology. Under Special Pathology, the different authors take up (1) the blood and the blood-making organs, (2) the circulatory system, (3) nervous system, (4) osseous system, (5) the voluntary muscles, tendons, etc.,

6) the digestive system, (7) the respiratory system, (8) the ductless glands, (9) the urinary organs, (10) the female genital tract, (11) the breast, (12) the skin, (13) the eye, and (14) the ear.

We find amongst the contributors such names as Drs. V. C. Vaughan, L. J. Mitchell, Frank Hugh Montgomery, J. Collins Warren, David Riesman, Jos. McFarland, A. A. Stevens and Jos. Collins, so that it can be easily understood that the literary matter found within the cover-boards is of a highly scientific character. That any man, to be a successful practitioner, must know, and know well, his pathology, is indeed fact. The "American Text-Book of Pathology" will be found to be one of the most reliable works on the subject in print, each chapter having been written by a man well able to do so. The illustrations are very fine, and in themselves make the book almost an atlas.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, other than Drug-Giving, Useful in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College, etc. Vols. III. and IV., *Climatology, Health Resorts, Mineral Springs.* By F. PARKES WEBER, M.A., M.D., F.R.C.P. (Lond.), Physician to the German Hospital, Dalston; Assistant Physician, North London Hospital for Consumption; Author of "The Mineral Waters and Health Resorts of Europe," with the Collaboration for America of GUY HINSDALE, A.M., M.D., Secretary of the American Climatological Association; President of the Pennsylvania Society for the Prevention of Tuberculosis; formerly Lecturer on Medical Climatology in the University of Pennsylvania. In two books: Book I., Principles of Clima-to-therapy, Ocean Voyages, Mediterranean, European and British Health Resorts. Book II., Health Resorts of Africa, Asia, Australasia and America; Special Therapeutics. Illustrated, with maps. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa. Price, eleven volumes, \$22.00 net. Canadian agents: Chandler & Massey, Limited, Toronto and Montreal.

It can truthfully be said that there is too little knowledge prevalent in both Canada and the United States as to the health resorts of the Continent. In this book medical men will find a very complete description of the various health resorts of the United States, with, throughout the work, some very nicely executed maps, which greatly add to the interest evolved by a perusal of the text. The volume will be found of the greatest use for reference as to the climatic conditions of any part of the country to which, it may be, medical men are sending patients. We don't know of any work in print which gives, so much in detail, this information as to the suitability of different parts of our country as health resorts. Its purchase will be money well invested.

A Text-Book of Surgery. By HERMANN TILLMANN, Professor in the University of Leipsic. Translated from the seventh German edition by BENJ. T. TILTON, M.D., and JOHN ROGERS, M.D. Edited by LEWIS A. STRINSON, M.D. Vol. I., The Principles of Surgery and Surgical Pathology. 516 illustrations. D. Appleton & Co., Publishers.

Since the first English edition of this volume in 1894, four new German editions have appeared, and owing to the recent advances made in surgical pathology, it was deemed wise to make a second English translation of the seventh German edition. The volume is divided into three sections, the first dealing with the general principles governing surgical operations; the second, the methods of applying surgical dressings; the third, surgical pathology and therapy. Thus the principles are well covered, so that having become the master of these, the student is competent to apply the principles already learned when he comes to digest the two subsequent volumes, dealing, as they do, with a description of the surgical diseases and injuries of the different regions. The chapter devoted to inflammation is lucid, and merging, as it does, into a description of the various micro-organisms, the anatomical phenomena in the healing of wounds, suppuration, etc., it gives a connected idea to the student of the relation of one process to another. The work has always been a favorite with the writer, for in the various chapters it really goes into detail, and describes in a learned and scientific manner the various descriptions of the principles of surgery and of surgical pathology. The chapter on anesthetics is a good one, and the practitioner will do well to study carefully the newer ideas on the manner of producing anesthesia. The publishers are to be congratulated on bringing out such a creditable book.

F. N. G. S.

Diseases of the Digestive Organs in Infancy and Childhood, with Chapters on the Diet and General Management of Children and Massage in Pediatrics. By LOUIS STARR, M.D., late Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, Consulting Pediatricist to the University Hospital, Philadelphia, etc. Third edition, rewritten and enlarged. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. Canadian agents, Chandler & Massey, Limited, Toronto and Montreal.

It is ten years since the last edition of this work appeared. The whole subject of Pediatrics has been so greatly advanced that the author has thought it advisable to practically rewrite the work. New chapters have been added on Simple Atrophy, Infantile Scurvy, Rickets, Lithemia, Infective Follicular Tonsillitis, Nasopharyngeal Adenoid Hypertrophy, Proctitis and Appendicitis. Extensive changes have also been made in that part devoted to Infant Feeding. That the author does not consider the feeding of bottle-

fed babies an easy matter may be inferred from the expression "great difficulty may be expected." While he is an advocate of "modified milk," he is not so enthusiastic in his praises of laboratory milk. In using the latter he has experienced "very unsatisfactory results"—an experience which accords with that of a few prominent New York men. Instead of giving tables of percentages and amounts for various ages from birth up to a year, we believe that greater good would have resulted to the profession generally if a short, easily understood and quickly worked-out formula had been given. The Westcott formulae are too numerous and complicated to carry in one's head, and to have "to consult a vest-pocket" every time one advises a milk mixture is neither dignified nor commendable.

H. T. M.

Manual of Chemistry. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A text-book specially adapted for students of Medicine, Pharmacy and Dentistry. By W. SIMON, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, in the Maryland College of Pharmacy, and in the Baltimore College of Dental Surgery. Seventh edition, thoroughly revised, with sixty-six illustrations, one colored spectra plate and eight colored plates, representing sixty-four chemical reactions. Philadelphia and New York: Lea Brothers & Co. 1901.

This book is well bound and well illustrated, the colored plates representing the various chemical reactions, are specially useful for laboratory work. As far as possible in a text-book of some six-hundred pages, this new seventh edition presents the more important and latest results in scientific progress in chemistry. Chemical physics and physiological chemistry receive more attention than in previous editions. Besides dealing with those physical conditions of matter having a close relation to chemical phenomena and the principles leading to an understanding of many of the instruments used in chemical operations, such as the spectroscope, polariscope, etc, a colored plate, giving the spectra of a number of substances has been added; and electrolysis and the ionic theory are briefly considered from a modern standpoint. A portion of the book relating to the principal facts of physiological chemistry has been specially prepared, and much new matter added, for the benefit of the medical student in particular.

E. H. A.

The Accessory Sinuses of the Nose, their Surgical Anatomy and the Diagnosis and Treatment of their Inflammatory Affections. By A. LOGAN TURNER, M.D. (Edin.), F.R.C.S. (Edin.), Surgeon for Diseases of the Ear and Throat, Deaconess Hospital, Edinburgh. With forty plates and eighty-one figures. Edinburgh: William Green & Sons. 1901.

Of the causation of the diseases of the nose but little that was positive was known until attention began to be paid to the acces-

sory sinuses. With the advance in knowledge of the anatomy of these cavities and of their pathological conditions, many of the vexed questions of rhinology have been solved, and many of the diseases which puzzled the practitioner, who vainly sought by manifold washings of the nose to put an end to them, have lost their terrors.

These advances have been chronicled chiefly in the files of the medical journals, whence they are gradually finding their way into the text-books. In English there have not, I believe, appeared any monographs on the subject, unless one call such the translation of Greenwald's Nasal Suppuration, or Tilley's Purulent Nasal Discharges. These deal chiefly with the treatment of the disease condition. Dr. Turner has taken a broader ground, realizing that diagnosis and successful treatment must depend on an exact knowledge of the anatomy of these cavities and of the many variations in their shape, size and position. Fully one-half of the book is given up to anatomical detail, a preponderance not unexpected from the son of the veteran anatomist, Sir William Turner. This work will, the reviewer believes, more than repay perusal, and once read will be ever kept at hand for reference. J. M. M.

A Text-Book of Surgery. By Dr. HERMANN TILLMANS, Professor in the University of Leipsic. Translated from the seventh German edition by BENJAMIN T. TILTON, M.D., Instructor in Surgery, Cornell University; and JOHN ROGERS, M.D., Instructor in Surgery, Cornell University. Edited by LEWIS A. STINSON, M.D., Professor of Surgery in Cornell University. Vol. I., The Principles of Surgery and Surgical Pathology, with 516 illustrations. New York: D. Appleton & Co. 1901.

The advances made in surgery during the past few years have been so great that, in order to make a work on The Principles and Practice of Surgery modern and up-to-date, it is absolutely necessary that it be revised every year or two, otherwise it would ere long become useless for reference purposes. Take alone the strides made in bacteriology and surgical pathology during the past decade or less; what changes have occurred, and how different are the views held to-day to what were looked upon as being correct but a short time ago. Dr. Tillmann's Text-Book of Surgery will include three volumes in all, the first devoted to surgical pathology, and bacteriology, tumors, surgical technique, bandaging, and diseases and injuries of special tissues and their treatment. Volumes II. and III., yet to come, will take up the application of the principles as learned in the preceding volume, and "a systematic description of the surgical diseases and injuries of the different regions."

We think it a most wise procedure for authors, especially of

books devoted to surgery, to divide them into two or more volumes, as the principles of surgery should be considered entirely separately from surgical diseases and injuries of special parts. The first forms the groundwork of it all, and a student, to be a successful surgeon, must of necessity master first the principles before undertaking surgical disease. Dr. Tilton is to be congratulated upon the method pursued in his text-book, it being the correct one and the one most appreciated by those who will be his readers. We are glad that Vol. I. is so well illustrated. The colored plates are good, and add a great deal to the inherent value of the book. We bespeak for the second English edition a very hearty reception indeed.

A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. By RICHARD C. CABOT, M.D. With colored plates and engravings. Fourth revised edition. New York: William Wood and Company. 1901.

With each succeeding edition of this excellent treatise on the blood from the pen of Cabot we notice a steady advancement. Of the twelve thousand observations on which it is now based, some three thousand are results of Cabot's own work, the remainder due to the zeal and skill of the physicians of the Massachusetts General Hospital. We find 2,800 observations alone in one thousand cases of typhoid fever, a perfect wealth of statistical data. The most noticeable additions and improvements are found in such diseases as pernicious anemia, the primary anemias, leukemia, typhoid fever, and the animal parasites, in fact, wherever the more recent researches have been made.

The space on serum diagnosis has been abbreviated, as has the table of contents, so that notwithstanding the large amount of new matter, the book is not greatly increased in bulk. The majority of the figures and plates are very accurate. The publishers' department requires no comment from us, as it is known to be always most creditable. The author humbly styles his work a *Guide*, but we should consider it a complete literary composition on the subject of blood examination.

W. H. P.

The Standard Medical Manual: A Hand-Book of Practical Medicine. By ALFRED S. BURDICK, M.D., Junior Professor of Practice of Medicine, Illinois Medical College; Member of the American Medical Association, the Illinois State Medical Society, etc. Pages 921, illustrated. Price, cloth, \$4.00. Chicago: G. P. Engelhard & Co.

This book, the editor modestly remarks in his preface, in spite of its name does not assume or hope to become the "Standard" one on the practice of medicine, but the name is rather due to the author's editorial connection with the *Medical Standard*. From

constantly reviewing the enormous mass of collateral medical literature which has come before him as editor, the author has concentrated in a volume of a little over 900 pages an up-to-date medical manual which can be recommended as a standard publication of great value to both students and medical practitioners. It is an exceedingly practical work, special attention being given to methods of treatment and the most space given to those diseases most common in ordinary medical practice.

E. H. A.

Gonorrhoeal Arthritis: Its Pathology, Symptoms and Treatment
By L. VERNON JONES, M.D. London: H. K. Lewis.

This little book of some fifty-odd pages is a lucid, and yet concise, account of a malady about which a great deal has been written. The author believes firmly that the trouble is due to the entrance of the specific germ, and backs up his argument by citing instances of its having affected various parts to which the blood or lymph stream must undoubtedly have carried the virus. He says that "in mild cases complete repair, with free movement, takes place, but in other cases, unfortunately, the patient is generally left with a stiff joint." The cases he divides into three groups: (1) In which the loss of movement is due to the results of plastic inflammatory exudation *outside* the joint; (2) in which fibrous bands have formed *inside* the joint; (3) those in which ankylosis of bones has occurred. The author sounds a note of warning as to the relief of these stiff joints, in that plenty of time should elapse after the acute symptoms have subsided before any attempt is made to break down adhesions, lest the acute trouble be again set up.

F. N. G. S.

Syphilis: its Diagnosis and Treatment. By WILLIAM S. GOTTHEIL, M.D., Professor of Dermatology and Syphilology, New York School of Clinical Medicine; Dermatologist to the Lebanon and Beth-Israel Hospitals, the Wes.-Side German Dispensary, etc. Profusely illustrated. Pages 216. Price \$1.00 net. Chicago: G. P. Engelhard & Company, 1901.

To any one wishing a clear and concise account of syphilis we can recommend this little book.

After giving a short historical introduction, syphilis is taken up in all its phases—primary, secondary and tertiary—and the lesions found in the different organs in each stage. The illustrations are good, and in every way the work is thoroughly up-to-date.

W. J. W.

The Right of Way. By GILBERT PARKER. Toronto: The Copp, Clark Company, Limited. 1901.

In telling this absorbing tale of Charlie Steele and Another Gilbert Parker begins in a voice of harshness, a tone of mimicry

soon creeps in, then comes what the French so quaintly term tears in the voice, and the story-teller ends in the quiet monotone of sadness. After the book closes over the reader ponders it long, as the characters cling like living things and stay unbidden in the memory. Charlie Steele, the lawyer, conducting a case and his marvellous power over the jury is one of the most fascinating chapters in the fiction of to-day. The beautiful Rosalie, the petty interests and simple lives of the village folk of Chaudiere, the magnificent character of the curé, the solemn Passion Play in the Valley are well worthy of the author's pen. Is there a Canadian who does not rejoice in a glimpse of French Canada, and, as the years go by, eagerly cut the pages of Gilbert Parker's "latest"?

W. A. Y.

Studies of the Internal Anatomy of the Face. By M. H. CRYER, M.D., D.D.S., Professor of Oral Surgery, Department of Dentistry of the University of Pennsylvania. Philadelphia: The S. S. White Dental Mfg. Co. 1901. Price, cloth, \$1.50 net.

From a perusal of Dr. Cryer's book, and also from an inspection of his illustrations, we gather that he is an enthusiastic anatomist, who recommends frequent dissection as the true key to knowledge of the anatomy of the skull and its component bones. He does not believe in typical bones, his experience proving that the more commonly observed form, e.g., the temporal bone, is a variant. This work should be interesting to all students and teachers of anatomy. It is intended to be useful to dentists as a work of reference. The illustrations, 151 in number, being photographs, are decidedly valuable. Several of them exhibiting views of the antrum of Highmore and the nasal chambers should make this work useful to the general surgeon and the rhinologist as well as the dentist.

J. J. C.

Tarry Thou Till I Come: or, Sabbathiel, the Wandering Jew. By GEORGE CROLY. With 20 full-page drawings by T. de Thulstrup. 534 pages. Toronto: William Briggs.

This is a Canadian reprint of a remarkable story. The author, a British clergyman, poet, and novelist, was born in Dublin in 1780, and died in London in 1860. He was a graduate of Trinity College, Dublin, an eloquent preacher and a man of great literary activity. This book has been well spoken of as "a masterpiece of its class." Gen. Lewis Wallace, who writes the introduction, and who has treated the same theme with considerable skill, gives Croly's work a place amongst "the six greatest English novels." For years it has been forgotten and unread, displaced by countless stories of inferior worth. Funk & Wagnalls, in New York, and William Briggs, in Toronto, have done a real service to the public in reprinting Croly's novel in this attractive form, and we can only hope that the venture may meet with the success it merits.

S. P. R.

Essentials of Obstetrics. By CHARLES JEWETT, A.M., M.D., Sc.D., Professor of Obstetrics and Gynecology in the Long Island College Hospital, and Obstetrician to the Hospital, etc., etc. Assisted by HAROLD F. JEWETT, M.D. Illustrated by 80 wood cuts and 5 colored plates. New York and Philadelphia: Lea Brothers & Co. 1901.

The object of this work is to place the essential facts and principles of obstetrics within easy grasp of the student. It is intended as an introduction to the more elaborate treatise, and as a guide in following the didactic and the practical teaching of the college course.

In this little book the author states the important facts of practical obstetrics in simple, plain language. It is mainly intended for students, but the practitioner whose time for reading is limited will find it a handy and reliable book to consult whenever he requires to merely refresh his memory on the salient points relating to obstetrics.

The Medical Record: Visiting List, or Physician's Diary for 1902. New revised edition. New York: William Wood & Co., Medical Publishers.

This list will be found to be particularly well compiled. Some changes have been made since the last edition was published rendering it of greater value to the busy doctor. The list of remedies with the dose of each has been carefully gone over, so that it is not only complete, but entirely up-to-date. The visiting list also contains such information as the estimation of the probable duration of pregnancy, approximate equivalents of temperature, weight, etc., dosage, solutions for subcutaneous injection, treatment of poisoning and other emergencies, artificial respiration, signs of death, hints on the writing of wills, etc. The visiting list itself comprises thirty or more patients a week, with sufficient room for making short notes on the various cases met with. The *Medical Record* list is an exceedingly good one.

The Diagnosis of Nervous and Mental Diseases. By HOWELL T. PERSHING, M.Sc., M.D., Professor of Nervous and Mental Diseases in the University of Denver; Neurologist to St. Luke's Hospital; Consultant in Nervous and Mental Diseases to the Arapahoe County Hospital; Member of the American Neurological Association. Illustrated, 12mo. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. 1901. Price, in cloth, \$1.25 net. Canadian Agents, Chandler & Massey Limited, Toronto.

This book is designed as an aid to diagnosis for those physicians who are not specialists in neurology. In the first part the methods of examination are treated of, and in the second part the salient

symptoms that characterize each of the more important diseases. The aim of the work is to be an adjunct only to treatises on the nervous system, and as such will be found helpful. A. M'P.

Dental Surgery, including Special Anatomy and Pathology. A Manual for Students and Practitioners. By HENRY SEWILL, M.R.C.S., L.D.S. (Eng.); Past President of the Odontological Society of Great Britain. Fourth edition, edited by W. J. ENGLAND, L.D.S. (Eng.), and J. SIFTON SEWILL, L.R.C.P., M.R.C.S., L.D.S. (Eng.). London: Bailliere, Tynndal & Cox, 8 Henrietta Street, Strand, 1901.

Physicians and surgeons are seldom properly educated in the principles of dental pathology and surgery, and this little work should be widely read, not only by the general practitioner as a ready reference book, but by students and graduates devoting themselves entirely to the practice of dental surgery. To the student of dentistry it is specially adapted as a text-book.

E. H. A.

The Cavalier. By GEORGE W. CABLE, Illustrations by Howard Chandler Christy. Toronto: The Copp, Clark Co., Limited.

A tale of the troublous times of '63 in the South, and a beautiful love story entwined. The author was at one time in the Confederate army, and, consequently, his experiences wonderfully help out the details of this interesting and stirring narrative. The character of Ned Ferry (of Ferry's Scouts) is exquisite—a soldier, and every inch a man, a credit to the heart and brain of the man who made and gave him to adorn the pages of this great novel of the South. And for the man, the woman so nobly planned, and the other minor characters grouped around so effectively. Read "The Cavalier," and find a place for it on your book-shelf. It is attractively bound in scarlet and gold, and illustrated by H. C. Christy.

LITERARY NOTE.

WITH the widespread military enthusiasm at present in the land, the medical profession will, no doubt, take a lively interest in the *Journal of the Association of Military Surgeons* of the United States, the initial number of which came floating in on a friendly breeze the other day. The present number has 224 pages of reading matter, and contains a complete report of the proceedings of the recent meeting at St. Paul. For the present the *Journal* will appear quarterly, and all aspirants for army medical service should study carefully its contents.