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Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXVII.

TORONTO, OCTOBER, 1906.

No. 4.

Original Articles.

PRESIDENT'S ADDRESS.*

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I thank you first of all for the honor of the office which I have been called upon to fill. The thought of such a thing never came to me in dreams by day or visions of the night, and, if it had taken shape, it would have flitted from the mind as one scanned through the vista of years the long roll of men of high repute who had sat in this chair. One could not but feel that the success of the Montreal meeting was warrant for this venture. I must avow at the outset that any credit for such success as may attend the second visit of the British Medical Association to Canada—and the prospects are bright—must rest largely upon those who have freely given most valuable help in various ways. One need hardly add that it has been indeed a labor of love to bring from their posts of duty and busy round in the old homeland the select and elect of our profession. We greet and welcome you, not only for your own sakes as men whose names are already household words, or doubtless soon will be, but as worthy sons of worthy sires. For if Bacon, Shakespeare, Newton, Faraday, Kelvin, Clerk, Maxwell, J. J. Thomson, and other lights of literature, science, and philosophy in the British firmament were blotted out, there would only be

*Delivered at the seventy-fourth annual meeting of the British Medical Association.

a partial eclipse, for would not Hunter, Harvey, Sydenham, Jenner, Simpson and Lister present a resplendent galaxy?

Our gathering to-day is in a sense—limited it may be—a cosmopolitan one. International comity has always prevailed in our profession. Disease knows no distinction of country or race, and is the common lot of humanity. In the face of a ubiquitous foe it is natural that mankind should be as a unit in defence, and that the confraternity of the healing art should be undivided. The recognition of English talent and experience on the part of the late Emperor of Germany, and by the British Sovereign in the case of that master of the science and art of bacteriology, Koch, and the action of the United States in calling to its counsels British experts in tropical medicine upon the threatened invasion of yellow fever—these are graceful and forcible proofs in point. And we are glad, in obedience to the unwritten code and by means of this gathering, to cement the tie that already binds the great Anglo-Saxon people and those of the land of professional culture and erudition, France and Germany. Our *confreres* from the United States delight to honor the names of Physick and Rush, Wood and Warren, Biglow and Bowditch, Alonzo Clark, Flint, Weir Mitchell and others; and yet I am sure they are not one whit behind the Briton of Britons here to-day in their respect for the great men of the British school, from Harvey to Lister, who have laid the world under tribute. We in turn delight to honor Laennec, Bichat, Corvisart, Trousseau, Charcot, Pasteur, Langenbeck, Virchow, Billroth and Koch.

The Association, which has just met on this occasion for the second time in its history outside of Great Britain and Ireland, was founded in 1832 in Worcester, and had a membership of 140. It was reorganized in 1856, and took its present name. It has now a membership of 20,000, grouped in many divisions and branches in the old country, and in various parts of Greater Britain. We have with us an honored member from Egypt and one from New Zealand.

The *Journal*, which is published under the aegis of the Association, takes rank as a leading exponent of the thought and researches of the profession and the practice of the healing art. It forms a strong bond of union amongst its members, who rightly value it as a depository of knowledge and a most useful medium for the exchange of opinion and the discussion of live topics that concern the profession and the public. The Editor may well felicitate himself upon the weight of its influence in moulding public opinion, and in safeguarding the in-

terests of the profession. Those who recall the crusades of the anti-vaccinationists and anti-vivisections will agree that the *Journal* is at once a faithful sentinel and a doughty champion.

It would be interesting, did time permit, to trace the growth of this great organization from its early days to its present commanding position. But I must at least call attention to an incident of the first meeting, which explains much of the valuable work done in these years. Steps were taken to secure special studies on anatomy and the chemistry of the animal fluids. The researches on these subjects reported the next year were the first of a long series made under the auspices of the Association, which so far has given of its funds about \$70,000 to meet in part the expense involved. This feature of the Association's work forms a bright chapter in her history, and is in marked contrast to the apathy and lack of support of the Government, whose attitude in this regard has often to so many seemed unintelligible. Nothing seems more certain than that money spent in such a cause yields a thousandfold return or more.

THOUGHTS ON A DECADE IN MEDICINE.

The last decade is more than ten years. We are the heirs of the ages, and though the dead past may and should be buried, the living past with its germs of truth, its seed of thought is in these latter days bearing fruit quietly, it may be, but as surely as the dawn is wont to creep on into day.

The falling of the apple set in motion a train of thought in Newton's mind which led to gravitation, but it was as if just then his mental eye had been lit up by a ray which had speed for ages from the source of light. Many years were surely compressed into the decennium in which Lister and Pasteur, Koch, Metchnikoff and Behring, with genius and untiring energy in quest of truth, solved their mighty problems and gave the world such talismanic words as antiseptis, asepsis, immunity and serumtherapy.

The work of Pasteur, Lister, Koch and others proved not only a vast boon to man and beast, but a grand object lesson to mankind, and recent years have seen the result in princely gifts in the interests of science and humanity. Scientific medicine cannot fail to profit largely, for medicine as a science does not stand alone; it rests upon biology, physiology, chemistry, physics, psychology, etc.; and the various laboratories that now exist, or are to be in the near future, mark the dawn of even a brighter era, let us hope, than the brilliant epoch of the last

ten or twenty years. There is yet much to be done ere the millennium comes. True, nursing has become a fine art; diphtheria has been largely robbed of its terrors, and, though rampant, is curable; the mortality of typhoid has been reduced one-half; but the fatality of cancer has steadily increased; the white plague stalks through the land, and the death-rate of infants, owing mostly to intestinal troubles, is still very high, and not on the decrease. Indeed, without being pessimistic, one might almost surmise with what surprise old Hippocrates would rise and rub his eyes as he inquired, "What! is there any sickness left, and can you not cure every one yet?" One thing this hoary sage would, perhaps, not know—the masses of mankind require to be protected against themselves. One almost feels as if the hands had gone back on the dial of the world's progress when one recalls that at Jenner's centenary the city where his method of vaccination had come into vogue was in the throes of an epidemic of smallpox due to the ignoring of his great discovery. Public opinion, of course, stands for what men think, or others think of them, and there is yet ample scope for State medicine to ply its persuasive powers until men think aright about matters which affect the well-being of the community, and the presumed welfare of the individual shall not stand against the weal of the masses. Unfortunately, none are so blind as those who will not see. This is too often the crux; and it would seem that in the matter of vaccination people deliberately close their eyes to the plain force of facts, and cherish the delusion, "Better bear the ills we have than fly to others that we know not of." Compulsory vaccination seems to many a harsh and doubtful expedient, but what it has done in Germany it can do the world over; and the dictates of wise prudence and the lessons of ample experience show conclusively that it should be enforced. Here a true paternalism of the State with the active support of the profession should override so-called conscientious scruples. Done under the rules of asepsis, as it always should be, and with the use of pure vaccine, now always to be had, the risk is practically *nil*.

The work of the past decade has given the profession itself some new ideas in regard to the mechanical and the chemical processes of digestion. New laboratory methods by Cannon of Harvard and Pawlow of St. Petersburg have cleared up some moot points. That the stomach is a receptacle and a sort of churn is old news, but that the first part is a mere receptacle, and the other a kind of "mill," which is perforce the more common seat of mischief, requiring surgical treatment, may not be.

Time has but served to emphasize what has now been shown by research the value of thorough mastication and the avoidance of mental states which would divert nervous energy, and interfere with digestion by cutting off the "appetite" juices, as shown by Pawlow's studies.

A notable work embodying the basis of a change of faith and a new practice is that by Chittenden, of Yale, on "Physiological Economy in Nutrition," giving the results of the most exact and elaborate studies. Too much food not only means loss of vitality in the disposal of it, but entails a positive risk from the resulting poisons (toxins) ere these products of metabolism are finally got rid of. Chittenden has shown that one-half or one-third of the nitrogenous (protein) food ordinarily taken suffices, and, of course, with the minimal tax upon liver, kidneys and digestive tract. This economy is, therefore, a real and not a fictitious thing, at once wise and provident. Much of the joy of living depends upon a good digestion, and in these days of wear and tear and carking care the less of useless work to be done because of faulty diet the more of energy to spare for life's duties. Chittenden urges the importance of a fuller knowledge of dietary standards which, as he points out, are "altogether too high." It has been shown by Lauder Brunton, Minkowski, Vaughan, Novy, and others that various nitrogenous waste products, the results of proteid katabolism, as creatin, creatinin, xanthin, adenin, etc., in fact, the various leucomaines, ptomaines, etc., are toxic in their effects. And then as to uric acid, of which we hear so much, whatever its genesis—endogenous, exogenous, or synthetic—or its actual role in the economy, it is safe to say there will be the less formed and requiring excretion the less proteid or nitrogenous food is taken. And though we cannot deny that rheumatism, at least the acute, is due to the agency of a special microbe with its specific toxin, doubtless the congenial soil for its operation may be greatly reduced as just indicated. In this day there should be some boon for the legions of rheumatic subjects, which they are denied. Not so deadly as the white plague, rheumatism causes much more pain and misery in the world than tuberculosis. The question of nutrition concerns all mankind. The right food for infants and adolescents is of more moment than for adults, and the wise physician will not forget that the young are apt to err in ignorance or be sinned against, while older folk are wont to transgress, in spite of light. It will be well when the teachings of the laboratory and college

halls have become common property. They will be then more plain living and high thinking and less repining on the part of the masses on account of their enforced moderation. Whether we will or no, people will try to meet their own need as to food and physic in what they think is the best way. It is the prerogative duty of the profession to show that Nature's laws, rightly interpreted and adopted, are the only safe guide to good living—not men's whims, fads, and fickle appetites or ingrained habits; and that much of the money that goes for patent foods, as well as the millions spent on patent medicines (so-called), are, as a rule, misspent. Thirty-five per cent. of all deaths are under five years. A large proportion of the infants and other very young folk who die would be saved if properly fed. Proper food and hygiene are the hope of future generations. There is a great field for missionary work by the profession.

The furnishing of clean pure milk to communities is one of the greatest boons to humanity of recent years. Pediatric societies in the United States have done good service in this regard through the agency of certificates, and the example is a good one. There are many infants' foods, and, let us hope, not a few of these good ones, but there are some which are not; so-called meat extracts, for example, have little nutritive value. And the need of care is shown by the warning of Sir Thomas Barlow given in 1894, that "condensed milk or even sterilized milk is not an efficient substitute for the natural food of the infant, and that infantile scurvy may be caused by their sole use." And animals have been found to rapidly die when fed on a mixture of all the supposed constituents of milk. There is an "unknown quantity" even here.

The past decade has been marked by an increase in the debt medicine owes to physiology and physiological chemistry, and by a sense of the growing importance of the latter, which, on account of its recognized status and value, is now made a subject of study in the course of medicine. The bio-chemistry of the cell and its nucleus goes on apace, and many of the proteids can now be prepared in a purely crystalline form, showing the great complexity of the living protoplasmic molecule. I may be pardoned for saying that it would be strange indeed if the rightful relation of physiology and physiological chemistry to medicine were ignored, when the head of the department had done pioneer work of high order in this line. As Prof. Newell Martin, of honored memory, long ago pointed out, "three great advances in medical thought were due to researches in

physiology and biology, that (a) disease is the result of a change in the structure of one or more material constituents of the body leading to normal action; (b) the establishing of the cell doctrine, that each one of us is made up of millions of little living units"—each cell with its own properties and processes in health and disease—the basis of the epoch-making "cellular pathology" of Virchow; and (c) the germ theory as to the causation of an important group of diseases. To the last we owe already antiseptic surgery and the development of bacteriology and its practical bearing." He adds that "though inflammation is the commonest and one of the longest-studied pathological states, we really knew nothing about it before the experimental researches of Lister, Virchow, and Cohnheim, and that all we really know about fever is built on similar researches of Claude Bernard." The value of physiology to medicine is shown in another light by a remark of Ludwig: "It is remarkable that a great proportion of all the physiological work of Great Britain has been done by men who have become successful hospital physicians and surgeons." We have proof that this very proper sequence has been kept up, in the person of one who is with us to-day and who had gained well-earned repute by his researches in physiology ere he had won his spurs as one of the leading surgeons of the day, respected on both sides of the Atlantic, Sir Victor Horsley. Professor Osler, to whom the remark quoted was made, is an apt illustration on the other hand, of a physician of the highest repute who first made his mark as a physiologist. So much to point a moral. Twenty years ago the cry was raised that there was too much science and not enough of professional training in the medical course: I doubt if that voices the sentiment to-day. Is there not good ground for the belief that the time spent at science as taught now should prove of peculiar and lasting value, that it gives the medico an abiding zest because he has a training and a grasp which keep him in touch with the scientific side of medicine and put him on a higher plane through life?

So-called empiricism had its day and it is, in fact, not yet over, and no one can deny that with but little more than their five natural senses and the use of their wits, our forefathers in the profession gave the race in their time good service. And none to-day are more ready to pay their tribute than those whose researches and experiments, and whose good fortune it is to have many instruments of precision, give them right to speak with authority. *Pari passu* with the growth of more

exact knowledge of the causes and nature of disease has come, perforce, from the studies which have led to it, more faith in the native powers of the human body and in the value of the aid which can be given by nursing, dieting, etc. Perhaps this is why one who is the peer of any in the science of medicine should stay his hand when he comes to the art thereof and tell us that "the advanced school of the present values a few well-tried medicines and certain of quality and action as highly as ever; and, again, the modern treatment of disease relies very greatly on the old so-called 'natural' methods, diet and exercise, bathing and massage." It would seem, therefore, that practical medicine in so far as drugs are used has not quite kept pace with the knowledge of the causes and processes of disease. *Per contra*, serums are drugs, and one of them alone, the diphtheria antitoxin, has wrought a magic not seen since the days of the Great Healer himself. But to get the best results later studies have shown the importance of early resort to it, for it is only the free toxins that can be reached. It is now found also that much larger doses should be used; they are much more effective and are innocuous, and not age but severity should regulate the dose.

That pneumonia is always a septicemia and its specific microbe always present in the blood, gives the clue to its prevalence and high mortality, greater indeed than of yore, doubtless owing to the large and increasing percentage of dwellers in cities and towns. A protective and curative serum or "vaccine," as in the case of diphtheria or typhoid, is the hoped-for remedy. The discovery of a specific microbe in cerebro-spinal meningitis, which now and again becomes epidemic and creates havoc, and of the mode of entrance of the infection by the nose and throat, and of the trial of repeated lumbar punctures and injections of diphtheria antitoxin, with uncertain results, are features of interest in this serious malady, which, by the way, is not at all as fatal as some suppose. The occurrence of two great wars recently has given added interest to the study of the causes and course of treatment of the various diseases, especially typhoid fever, which have prevailed amongst troops in former campaigns. In the Spanish war typhoid became epidemic in camps in both Northern and Southern States. "Infected water was not an important factor in the spread of typhoid fever in the national encampments of 1898," and, again, flies were unquestionably carriers of infection—a fact of primary importance owing to some features of camp-life.

Bacilluria has been cut short by urotropin.

A variety of fever, paratyphoid, has been separated from the small group of typhoid infections simply because of the presence of a specific bacillus (not the Eberth), for, clinically, the two are identical. Here we find another example of the role of bacteriology in fixing the identity of disease.

Of very great interest bacteriologically, and of far-reaching import therapeutically, is the discovery by Wright and Douglass of the substances in the blood fluids called opsonins, which prepare the microbes for ingestion, and digestion by the leucocytes (phagocytes), and that the serum acts upon the microbes, that is, is bacteriotrophic, and not upon the leucocytes, bactericidal. By an ingenious comparative test Sir A. E. Wright gets what he terms the "opsonic index," and by the "vaccine," which is prepared from cultures of the typhoid bacilli sterilized by heating for ten or fifteen minutes at 60° C., and which is injected internally, secures at least a modified immunity, which may persist for at least two years. This method has been tried on a large scale on British troops in India and South Africa, and after a careful study of the results has been commended by the Secretary of State for War. As Trudeau says, "Sir A. E. Wright has made a brilliant contribution to our knowledge of the mechanism of artificial immunization, and a striking attempt at the practical application of exact laboratory methods to the treatment of disease."

A most interesting if not fascinating chapter in the history of modern medicine is that of the role of protozoal parasites of the blood as the cause of specific fevers; and to the members of the Association now enlisted in the Schools of Tropical Medicine of Liverpool and London is the credit largely due for the very important and most valuable results already accruing.

Major Ronald Ross's discovery that malaria is conveyed by mosquitoes, which act as an intermediate host, has not only led to successful measures to practically eradicate malaria with its attendant evils, but has given the clue to the cause of yellow fever and its treatment, etc. The first positive proof that the *Stegomyia* was the carrier of the infecting agent of yellow fever was given when Carroll, in July, 1900, offered himself for a test experiment with a self-sacrifice worthy of all praise. He had a very narrow escape, but Lazear, of the American Commission, and Myers, of Liverpool, lost their lives. That the labors and sad deaths of these heroic men were not in vain is amply attested by the remarkable vigor and success with which

the recent plague was stamped out, and the exemption secured by Havana and other pest centres.

Preventive medicine as the result of this decade's work alone gives sure promise of saving lives and sparing more misery than could universal peace. Indeed, to give effect to its benign

It is clear gain in any department of knowledge carefully sway is worthy the highest ambition of the greatest statesmen. to collect the facts or data and correctly group them. This requires a philosophic insight which dips far beneath the surface and searches out the origin and hidden relations of things.

Here one must congratulate Professor Adami upon the framework of his devising in which rests a system that "is an ingenious combination of the strictly embryological and histogenetic principles of classification." Each term employed implies not only the general histological characters of the tumor but also its origin from the germinal lays.

Adami sums up the state of our knowledge in regard to the all-important subject of inflammation:

1. In addition to the well-known role of leucocytes in ingestion and digestion of bacteria (Metchnikoff) there are substances which prepare the leucocytes for their work—for example, opsonins (Wright). Bacteria may also undergo destruction without phagocytosis. Here the bacteriolytic substance (cytase) acts upon the death and breaking up of cells that are potentially phagocytic. It, however, cannot act without the intervention of a second intermediary body (fixateur) present in the medium.

2. Certain leucocytes secrete and discharge substances which, if not directly bacteriolytic, are preparatory and essential for the destruction of the bacteria. In all organic enzyme action for the development of the complete cycle at least three factors are requisite. Enzyme action may arise in a series of different chemical compositions.

Since our meeting in 1897 bacteriologists have added to the list of microbic diseases, and it now stands (a) Diseases due to animal parasites, namely, malaria, yellow fever, relapsing fever, trypanosomiasis, and "Texas" fever. (b) Those due to various bacteria—typhoid, tuberculosis, tetanus, plague, cholera, elephantiasis, leprosy, anthrax and pus infection.

SURGERY.

Cast-iron rules in medicine and surgery, save as to a few cardinal principles, are not in order, and, therefore, one of the questions of surgery, and it is often *the* question, namely, when

to operate, still remains a moot point for the family physician and the surgeon. Some years ago at the Congress in Washington the physicians took the aggressive in regard to appendicitis, while the surgeons rather favored caution. Now, one might say, the attitude is reversed. More than ever, possibly, is it held that the surgeon must be much more than a surgeon. Manual deftness, operative dexterity *per se*, should be no passport to fame. The processes of disease and the effects of injuries often need most careful study and a deep insight into the relation of things ere action be taken. Some years ago the elder Chiene of Edinburgh, as guest of the American surgeons, struck the keynote of modern surgery, in one of its aspects, when he told us that his clinical laboratory was the first essential in his armamentarium. Surgeons are now studying the blood and counting the white corpuscles to get the clue they require, and also test the fluid taken from around the spinal cord similarly (lumbar puncture).

Putnam, of Boston, holds that the surgery of the brain and spinal cord at least should be done preferably, if not only, by men who are well versed in physiology as it is now known.

Not to weary you with details, surgery is now invading, if possible, more vital spots, as, for example, the heart. Indeed, our respected friend, Sir Victor, gets down very close to the medulla oblongata; but, then, he is a physiologist.

The x-ray, owing to improved mechanism and increased experience in the use of it, reveals with fair certainty the early stage of aneurysm, tuberculosis of the lungs, and atheroma of even small vessels. It also gives clearer light in regard to internal organs generally, as the very instructive and beautiful demonstrations of Dr. Cummings in the Museum give proof. In treatment it is taking fresh ground as the handmaid to medicine and surgery, and as a substitute for the knife in certain cases.

Gentlemen, your visit finds us at an important if not critical stage in the "making" of a nation; and we need hardly assure you that the profession will do its full share in this regard, as the academic training and knowledge of men and things on its part well qualify it to do.

I am proud to be able to say to those who visit us that in no part of the world are the best traditions of medicine and surgery held in higher esteem than by the profession of Canada; and in no part is there less tendency to bow down to false gods. We are facing problems, some of which you have solved. Our aim here is to raise the standard of the profession still higher.

Unfortunately, the Roddick Bill embodying the principle of Dominion registration did not carry. The efforts of Dr. Roddick in this behalf have made his name a household word in the profession. Let us hope that ere long the Act will be in force, so that the credential thus obtained will be a passport to all the Provinces of this great Dominion.

As in the cross-section of some mighty tree Nature has writ indelibly in annular rings the history of its early growth, be it of two or three thousand years, so that one can read as on an open page the infallible record reaching back through cycles of years—in the same way we can trace the growth of a tiny seedling in the dim past to the great growing tree of medical knowledge of our own day, whose leaves are indeed for the healing of the nations. What matters it if it be not yet quite symmetrical, and show signs of vigorous growth at some past epoch and of a dormant state at others? If we can see scars which show that the hand of the faithful pruner at this stage or that in its growth did not spare the tree but showed a purpose in the pruning, sap and vitality thus seemingly lost only giving strength and better fruitage to the other portions—if we can see that from time to time, and much of late, branches of other sort grafted into the essence of its life, it is even now a thing of beauty which will not only live and grow, but be a joy for ever.—*Brit. Med. Journal.*

A MINISTRY OF PUBLIC HEALTH.

BY H. G. BUSHNELL, M.D.

Stephen Nalle Memorial, Brighton, England.

My object in introducing the subject of a Ministry of Public Health is to seek your views on the practical need and value of such a department, and of its power to safeguard and improve public health. You are aware that the medical world has expressed itself in favor of such a creation with no uncertain voice at large meetings at Bradford, Brussels, Paris, Exeter, Swansea (British Medical Association), and elsewhere. This means that the scientific and social problems of preventive medicine are such, both from their special nature, their magnitude and their importance to the community as to call for a separate health department with an expert minister of cabinet rank at its head.

There is, however, no sign of a translation of our wishes immediately or in the near future into practical effect. This is so despite the fact that no substantial argument has been brought forward at the discussions on the subject at the British Medical Association or elsewhere, to dispute the validity of the step.

However old and commonplace the saying may be, it is a fundamental and bed-rock truth that health is happiness, and is the surest and soundest estimate of a nation's prosperity.

The question of expense is the most usual one which one has to meet. It is seen to be easily answered when such an organization is considered as an insurance against disease, that is to say, one by which disease will be prevented. So you realize the cost of supporting wage-earners incapacitated by sickness would be enormously reduced by a very small decrease in the prevalence of communicable diseases. But it is unnecessary to dwell upon the problems that would confront such a department. They are well known to you, and as disease never ceases in its attacks, and, indeed, is continuously changing its mode, clearly it should be met by an organization with an expert chief at its head, who has full powers and capacity to use his forces.

There is every reason that the State should efficiently equip itself in this respect just as the State deals with education and defence by a development of existing methods. History bears

out that the right leader in such a case would do more, by a wise advocacy of public health policy, in one year than is possible under other circumstances in a dozen. In the Dominion, New Zealand, United States of America, Austria, and in other countries the medical profession has recently emphasized these views and called for a solution such as I have described. Just as I have not detailed the most interesting problems and the proper procedures to meet them which confront us, so I propose to merely give an outline of a health department's constitution.

First and all-important is the expert minister of cabinet rank, who would have at his disposal an advisory council of representatives of the civil, naval and military services, of education, of agriculture and veterinary medicine. Their functions would be initiating, collating, recording and advising on all public health measures.

Then there would be a Public Health Board or Committee who would administer or superintend the administration of the public health services, including hospitals of all kinds, sanitary works, vaccination, pathological and public health laboratories, etc. This would consist of the Minister of Public Health, representatives of the various health services, of pathology (including laboratories, necropsies, etc.), of engineering (works), of law and poor law, of registration of births, deaths and marriages, parliamentary and financial affairs. At the disposition of such a Board would be a principal inspector and inspectors who may be committed to a public health policy, and who represent public health services (civil, executive and local).

Such a powerful national Health Board can only be evolved by a strong party or group in Parliament, medical and lay, who are committed to a public health policy, and who represent public opinion as well as lead it.

What practical steps can you take to forward such an end? One would be to obtain by your influence the recognition of the subject as an "official" one in congresses of hygiene or medicine, which would ensure its regular future consideration by our profession, until more active steps were taken, such as the formation of an International Committee to promote a health policy in all countries.

Clinical Department.

Phlegmonous Cholecystitis. G. A. WRIGHT, M.B. OXON., F.R.C.S.
ENG., Professor of Systematic Surgery, Victoria University of Manchester; Surgeon to the Royal Infirmary, Manchester, in *The Lancet*.

Phlegmonous cholecystitis may be defined as a severe form of acute inflammation of the gall-bladder going on to suppuration in the wall of the gall-bladder or even to local or general gangrene. Robson tells us that this—the “acute progressive empyema” of Courvoisier—was first described by Potain in 1882, but it will be found that Wilks and Moxon mention that acute idiopathic inflammation “with formation of pus in the wall or great infiltration of it with lymph or ulceration have been met with in fever and in cholera.” Robson relates some cases in his book and another in his Hunterian lectures (1904) in which the condition was due to gall-stones impacted in the lower part of the common duct. Suppuration of the pancreatic ducts also occurred and the patient died on the fourteenth day. It is, however, admittedly rare and but little mention of it will be found in most of the large text-books, though Rolleston gives a full account of it. The fact that three cases of it have come under my observation in the last few years shows that it is not so rare as to be negligible. It is, moreover, practically certainly fatal from peritonitis with or without perforation or from toxemia unless it is recognized and dealt with. Even after operation the mortality is exceedingly high.

Phlegmonous cholecystitis is somewhat difficult of diagnosis and liable to be mistaken for acute intestinal obstruction, acute pancreatitis, and acute appendicitis. In a case published by Hotchkiss and in one of my own the mischief was thought to be appendicular before operation. In Lane's case acute obstruction of the large intestine was diagnosed, and indeed existed, as the result of pressure from effused lymph. In a case of Roswell Park a diagnosis of appendicitis was also made, but acute suppurative cholecystitis with gall-stones was found. This case recovered after operation. D. A. K. Steele relates a case which was treated by incision and died suddenly from pulmonary embolism on the eighth day and another in which a fecal abscess formed with subsequent discharge of gall-stones through the

operation wound. Sheild, in 1895, records a case of perforation, possibly from typhoid fever, and quotes Murchison on the subject. Richardson relates and comments upon nine cases of varying degrees of severity, only one or perhaps two being actually gangrenous. In the Transactions of the Philadelphia Academy of Medicine for May, 1904, G. Davis mentions a case of gangrene associated with calculus. A pericystic abscess existed and in spite of cholecystectomy the patient, a man, aged 70 years, became delirious and died after some weeks. Gibson reported a case to the New York Surgical Society of discharge of a sloughing gall-bladder, probably a result of calculous cholecystitis. Lilienthal mentions eight cases of gangrene out of 42 cholecystectomies in his own practice; seven were calculous. All the patients recovered. It does not appear, however, that all were of the fulminating type.

Many cases of perforation of the gall-bladder due to, or associated with, typhoid fever, and in some instances with calculi also, are to be found on record, but in most the clinical picture is different from that of the acute gangrenous or phlegmonous or fulminating cholecystitis—whichever title may be preferred—which we are now considering. However, typhoid fever and gall-stones must be considered as the most common causes of the disease. Typhus fever, malaria, sepsis after operation, and puerperal fever are other assigned causes. Probably irritation of the gall-bladder by calculi, with resulting secondary infection by the bacillus coli with or without other organisms, is the most common sequence. One of my cases apparently shows that chronic pancreatitis may be a cause of this as it is of other gall-bladder troubles.

The symptoms of phlegmonous cholecystitis are somewhat as follows. The onset is usually but not always sudden. There are pain and tenderness in the gall-bladder area and there is usually vomiting. Distension and rigidity are present and more marked on the right side. Constipation is the rule. Toxic symptoms with prostration are usually most severe. A failing pulse, with delirium, dry tongue, twitching, suppression of urine, urticaria, rigors, and rapid emaciation may all be present with other complications also. Jaundice is variable and does not always appear. Fever is usually, though it is said not always, present—it may be ague-like in character. It may or may not be possible to feel the gall-bladder. When the peritoneal cavity is opened a coating of lymph may cover the exterior of the gall-bladder and adjacent parts, or a cavity may be broken into of which the boundaries are doubtful; or, on the

other hand, the gall-bladder may be quite distinct even though gangrenous in places. The gall-bladder, whether large or not, may be green or purple or black in varying patches. The contents may be bile or bile and pus with blood in uncertain proportions and may be thin or so viscid as not to escape from a large needle puncture. Finally, calculi may or may not be present either singly or in large numbers.

In any case where there is a suspicion of phlegmonous cholecystitis an immediate operation is no doubt demanded. The exposed gall-bladder should be incised, emptied of calculi or bile, and drained, or if it is gangrenous and the patient is not too feeble it should be removed (cholecystectomy). The surrounding area will need cleaning and draining if it is infected.

The chief dangers of the condition are: Death from general toxemia or peritonitis with or without perforation. A certain proportion, however, recover. Other complications are parotitis (as in one of my cases), suppression of urine, and cholangitis, as well as the other troubles that may accompany any severe inflammatory condition. Bacteria of several kinds were found in one of my cases but apparently no organisms other than those usually present in acute inflammations in connection with the alimentary tract. The diplococcus in one of my cases was of doubtful nature. The diplococcus pneumoniæ has been found as in one of Richardson's cases.

A brief account of my three patients is appended:

CASE 1.—On Feb. 20th, 1897, I saw, with Mr. G. Byrne, of Chorlton, a man, aged 31, who had been suddenly attacked with pain in the right iliac area while he was at business. He, however, went about until the 19th, when he was seized with violent pain and sickness. Delirium with a temperature of 101 deg. F. and marked iliac swelling were then observed by Mr. Byrne. On the following day his temperature was 100.5 deg. There was a well-marked hard mass in the right iliac region reaching nearly to the umbilicus. The swelling was fairly well defined and in its centre was a softened spot near McBurney's point. He was flushed and sweating. He had never had a previous attack of the like nature. Believing the condition to be one of acute appendicitis I opened the abdomen. A quantity of yellowish serum escaped and the tissues were rather edematous. In the right iliac fossa there was nothing wrong, but on feeling further the gall-bladder, enormously distended and as hard as a solid mass, was felt reaching down to the umbilicus. The great thickness of the abdominal wall and the depth of the gall-bladder prevented us from bringing it up to the surface. It

was black in appearance and looked as if it were gangrenous. About ten ounces of black bile were drawn off and the gall-bladder was fixed by sutures and incised. Ten gall-stones of the size of maize escaped and within the next two months 342 more calculi came away, leaving at that time a small sinus with slight bilious discharge. Altogether 402 calculi were discharged and in May, 1898, the patient was in good health, except that he said he could still feel "stones rubbing together" and the scar was somewhat yielding.

Possibly a more radical operation would have given more complete and rapid good results, but the patient's condition and the circumstances of the operation were not favorable for a prolonged manipulation.

CASE 2.—In July, 1902, I saw, with Dr. A. J. Jefferson, of Rochdale, a man, aged 68 years, who had been ill for a week. He improved somewhat with rest, but three days later had severe pain with swelling in the right hypochondrium. His temperature was 103 F., and there was slight jaundice. He had not vomited. After a dose of morphine he seemed better. When I first saw him the temperature had fallen to 100 deg., his pulse was 115, but his tongue was dry and brown and there was obvious distension of the gall-bladder. The abdomen was opened and the gall-bladder was found to be greatly distended and surrounded by recent adhesions. In places it was on the verge of gangrene and contained brownish fetid bile and five or six gall-stones of the size of peas. The bladder was opened and stitched into the wound.

Dr. Jefferson informed me that the patient went on fairly well at first but died about five days later from collapse. In this instance also the man was much too ill and broken down to bear any such operation as cholecystectomy, which would no doubt have been desirable. We do not know the exact cause of the subsequent fatal collapse, but it is likely that perforation may have occurred.

CASE 3.—On May 22nd, 1906, a man, aged 52 years, an ex-soldier and commissionaire, was admitted to my ward at the Royal Infirmary. He had served in India and had had malaria but neither typhoid fever nor dysentery. Six years ago he had a slight attack of supposed appendicitis, but was ill only for about a week. Since then he had been well, except for dyspepsia, until May 13th. On this day he was seen by Mr. J. T. Smith, of Chorlton Road, for abdominal pains and sickness. On the 12th he had very severe epigastric pain with a rigor. There were jaundice, local tenderness over the gall-bladder, and rigid-

ity; the temperature was 99.2 deg. F., the motions were loose and pale, and the urine was high-colored. The temperature continued high, but he was otherwise better until the 15th, when he had another rigor. Delirium and suppression of urine followed and, though a temporary improvement occurred during the next two days, he again became delirious, with a quickening pulse and a temperature of 102 deg., and on the 21st there was again suppression of urine.

On May 22nd the patient was admitted to the Royal Infirmary. On admission he was seen to be very feeble and thin, with moderately deep jaundice. He was delirious and had subsultus tendinum. The abdomen was somewhat distended and rigid and a swelling could be obviously felt in the region of the gall-bladder. The tongue was dry and the whole condition was suggestive of profound toxemia. On the same afternoon the abdomen was opened and the presenting gall-bladder was incised after failure of an attempt to draw off the contents through a syringe. About three ounces of dark green bile too viscid to flow through the needle escaped. The walls of the gall-bladder were thick, soft, colored with various patches of green and purple, and apparently gangrenous. No calculus was found either in the bladder or ducts, nor could any cause of obstruction be felt. The liver was enlarged and greyish in color. Though the man bore the operation fairly well it was not thought wise to excise the gall-bladder, and it was, therefore, fixed in position and drained. Its walls were friable and tore easily. On the 23rd he was still delirious and twitching. A good deal of bile had escaped. He had swelling of the left parotid gland which was enlarged to the size of a small orange and evidently very tender. The fever was less. The urine was free from albumin, but still contained bile. On the 26th the jaundice was less marked, and all the symptoms had improved, but on the 27th parotitis appeared on the right side, and on the next day a slight purulent discharge from the left ear and patches of softening in the left parotid were found. Incisions were made in the left gland. Phenate of soda mouth-wash had been used since the first appearance of parotitis, but the mouth was persistently dry. On the 30th urticaria was noticed all over the body; otherwise he was much in the same condition. The pus from the parotid was found to contain numerous staphylococci and the bile contained staphylococci, bacilli coli, and some large diplococci. The patient went on without any marked improvement until June 8th, when hiccough and vomiting came on and he died on the 10th.

At the post-mortem examination the liver showed dilatation and inflammation of the ducts (cholangitis); no gall-stones were present. The head of the pancreas was enlarged and was the seat of chronic inflammation. Possibly the inflammation of the pancreas may have caused the obstruction or have been the result of extension of inflammation from the gall-bladder, probably the former, since the process was chronic and its appearance at first suggested the presence of growth.

Though it is not possible to draw any hard-and-fast line between the milder forms of acute cholecystitis and this fulminating or gangrenous variety, there appears to be sufficient ground for a clinical distinction as there is in inflammation of the appendix. I am not aware of any observations as to the occurrence of gangrene of the gall-bladder as a result of localized obstruction to its main blood-vessels, though it is not unlikely that this might occasionally occur, and Robson alludes to it. Probably many other cases have been met with and, perhaps, recorded, for the disease is a striking and terribly fatal one, though Murphy says that all of his cases (he does not say how many) operated on before the third day recovered.

The present paper formed the basis of a clinical lecture and the record of the third case is from notes mainly taken by my house surgeon, Mr. R. E. Ferguson, and one of my dressers, Miss Alice Obendorfer. For the bacteriological report I am indebted to Dr. E. B. Leech.

IF there is repeated vomiting and the patient shows some evidences of collapse, after a laparotomy, especially after operations in the gastric region, examine for separation of the wound and prolapse of the abdominal contents.—*American Journal of Surgery.*

THE early reappearance of fluid after tapping a hydrocele does not necessarily mean that the operation has been a failure. It may be but an inflammatory reaction, subsiding spontaneously or under the application of unguentum iodi.—*American Journal of Surgery.*

AN ointment of beta-naphthol, 10; sulphur, 45; lard, 24; and green soap, enough to make 100 parts, is useful in removing gunpowder not too deeply situated in the skin. It must be employed cautiously, however, to avoid a destructive dermatitis.—*American Journal of Surgery.*

Therapeutics.

The Use of the Pessary.

You will see, in the listing of this symposium, an application of the old saying: "The first shall be last, and the last shall be first," for although the use of the pessary is the last method mentioned on the list, it is the first to be used by practitioners all over the land. This is not my opinion alone, but one that is shared by others, both in this country and abroad. H. Macnaughton Jones (*British Medical Journal*, 1904, No. 5, p. 97) states that "In general practice treatment by pessary is probably more resorted to than is any other therapeutical step in the conduct of a gynecological case." A. M. Leonard (*Medical Age*, 1904, p. 281) adduces testimony to show that pessaries are generally recognized as valuable to the gynecologist, quoting Mann as follows: "Without pessaries I should not know what to do for a considerable number of cases that come to my office, and I should have to give up gynecology, although I might continue to do laparotomies." Hirst (*Text-book of Diseases of Women*) remarks: "There has been a reaction against the indiscriminate use of pessaries that has gone too far. No one can successfully manage a number of cases of retroversion, no one can retain a considerable proportion of his cases, who has not mastered the art of supporting the uterus in this manner." F. H. Davenport, of Boston, thinks "This dislike and distrust of the pessary has been carried too far."

These quotations indicate the trend of mind in men who are meeting and dealing with these cases constantly, and constitute a perfectly logical resultant due to the fact that the pessary has secured successful results in a large proportion of cases when it has been judiciously used, Davenport estimating this proportion to be 50 per cent. It should be borne in mind that this does not refer to all cases of displacement, but to that class only from which all contraindications are eliminated. The great outcry against the pessary has been caused by faulty judgment in its use. There are many cases where one should never even think of using a pessary, but the fitness or unfitness of any given case can only be determined through experience. This is recognized by those who have endeavored to master the subject, and their opinions have been frequently expressed. At a meeting of the German Gynecological Society held in Halle a few

years ago, Fritsch declared that he considered it easier to perform a laparotomy than to apply a well fitting pessary, and zealously advocated the treatment by pessaries. He had spent ten years in learning and considered it the most difficult subject in the whole of gynecology.

The discussion of this subject might be carried to an indefinite extent if it should include all the various pessaries devised; therefore, when I speak of the instrument it will be understood that I refer only to the Smith-Hodge type. I consider it the most valuable form for ordinary cases.

The different opinions held by members of the profession as to the value of the pessary are based upon the varied results in its use, which are good, indifferent, or bad. If these results were invariably indifferent, or bad, its career would soon terminate. That it has done so, that the result is sometimes good, is a proof of its value when properly used. The same disagreement exists concerning operative measures, as shown in the diversity of operations devised for the correction of uterine displacements and extends to the subject of the mode of action of the pessary, prominent men in gynecological societies differing radically in their conception of the *modus operandi*. Again, the men who are constantly operating have not that store of patience that this minor work demands, nor do they come in contact with so large a proportion of correctible cases, for they have been screened out as they pass through to the hands of the general practitioners, and only the obdurate cases which resist tampons, pessaries, hot douches and laxatives reach their field of vision. There is nothing remarkable in their antipessary attitude. Many of them, also, have forgotten the number of women they benefited years ago, when the peritoneum was sacred, and Alexander's operation, hysteropexy and all of their kind were not even the figments of a dream.

Function of the Smith-Hodge Pessary.—As explained to me by Dr. Albert H. Smith and patent to every one, his modification of the Hodge instrument consists, first, in shortening the lower bar, thus bringing the lateral bars in converging lines to conform with the inverted pyramidal confines of the vagina, thereby lessening the chances of its extrusion from the body; and, secondly, curving the lower portion downward to carry it away from the urethra. Given a properly selected case and instruments, the function of the pessary is to push the posterior vaginal fornix upward and backward, and in so doing carry the cervix with it. It does not touch the uterus. As the uterus is pivoted upon a transverse axis (the broad ligament)

from a point one inch or more below the fundus, to a point a little above the vaginal portion, the natural result of carrying the cervix backward is to rotate the uterus upon this axis, and sweep the fundus forward. The object in view being to carry the cervix as far back as possible, the Thomas modification (increasing the anteroposterior diameter of the upper bar to distribute the pressure over a greater area of membrane) does not seem desirable, as it tends to defeat this object, for, although it takes the posterior vaginal wall back to the desired position, the thickened bar prevents the cervix following it to the best advantage, and it is the position of the cervix alone that counts.

Indications for the Use of the Pessary.—A. In all cases of uncomplicated retroversion when the uterus can be brought forward, especially in young women and in cases of recent origin, as after a fall or severe and undue muscular exertion. This result is sometimes accomplished at the first meeting; more frequently it is not secured until after several careful, well guided attempts have been made. At times the fundus is readily dislodged, but stubbornly refuses to reach anywhere near where it is desired to go, due to adhesions, post-inflammatory deformities of the peritoneum, perfect coaptation of posterior uterine and anterior seated peritoneal investments and imperfect technics.

The most common causes are adhesions and peritoneal contractions, but one must not forget that absolute coaptation of rectal and uterine peritoneum may be so perfect as to prevent their separation; in other words, they are held together by atmospheric pressure. This fact I verified ten years ago at an operation in a case of retroversion that I had treated with tampons and pessary. The instrument gave relief, and the patient insisted upon its use, during which time the fundus came partly forward, but dropped promptly back when it was removed. When the abdomen was opened, the separation of the fundus from its bed was accompanied by a faint suction sound, but not a sign of an adhesion was present, nor was there contracting deformity of any kind, the fundus being brought forward without difficulty. The explanation was found in the condition of the rectum. That tube was very distensible and relaxed as were the peritoneum and subperitoneal connective tissue resisting it. When efforts were made at reduction, even in the knee chest position, the rectal wall would follow the uterine wall in its forward movement, so closely, that at no time did it allow an intestinal coil to intervene, a *sine qua non* to success.

B. Temporary use before or after operation. Not every case of retroversion is in proper condition for operation when first seen. Apart from those presenting symptoms of endometritis requiring a preliminary curettage or other treatment, we meet with others of subinvolution with an antevertible uterus, in which the pessary is of unquestionable value in retaining the organ forward, while proper treatment is applied to reduce its size and weight. Neglect in utilizing it for this purpose has led to total failure. Recently I examined a patient operated upon by one of the ablest gynecologists of this city, where a big, heavy uterus had torn loose from its attachment to the abdominal wall, and was lying in the hollow of the sacrum, after a hysteropexy of a few months before. A pessary should have been used in this case either before the operation or after, and perhaps both. In 350 hysteropexies done at the Kensington Hospital, Noble reports a relapse of 5 per cent. or 17 cases. If the same result follows will other operators consider the benefits a pessary would have conferred if successfully used in every case? If circumstances will not permit preparatory treatment, the supporting assistance of a pessary after an operation upon a large, heavy uterus is a measure of the most consistent character.

Among conditions other than subinvolution calling for this procedure may be mentioned chronic cystitis. After a hysteropexy and while the fundus is firmly held against the abdominal wall, the cervix may swing forward pressing the bladder against the pubic bone, causing great distress. This occurred in one of my own cases, and was relieved by the use of the instrument, which was worn for several months, at the end of which time successful treatment of the cystitis permitted its permanent removal.

After Childbirth, in Cases Predisposed or Predisposing to Retroversion.—If there is any time in uterine life when retroversion is most amenable to treatment, it should be during the puerperium, when advantage may be taken of the wonderful work of involution to guide this physiological process to a successful termination.

The judicious use of a pessary at this time, in cases which have been previously retroverted, or in which examination reveals that it is just beginning to occur, cannot fail to merit the approbation of thoughtful gynecologists. The proper post-partum period for instituting this treatment will depend upon the various lesions which the tissues may have sustained during parturition, but in the majority of cases from the seventh to the

fourteenth day will be sufficiently early. At a recent meeting of the Section in Obstetrics and Gynecology of the New York Academy of Medicine, this use of the pessary was unanimously agreed upon by all who spoke upon the subject.

Without enlarging at all upon the matter at this time, I wish to mention the value of the pessary in the cure of sterility. My attention was called to the fact many years ago, by Dr. Joseph Price, whose large experience and keen observation well fitted him to deduce correct conclusions.

When should Its Use be Forbidden?—There are many contraindications to its use, some of minor quality, such as vulvar lesions (venereal sores, inflammation of Bartholin's glands), vaginitis, acute cystitis, and others, which the practitioner will instinctively recognize; others not so obvious should be taken into consideration. A very remote one, but still one to be remembered, is the predisposition to cancer. Neugebauer, Jr., found that out of 255 cases injured by the use of the pessary, eight had cancer, apparently caused by irritation of that instrument.

When, through laceration or relaxation, the retaining power of the vagina is lost, a pessary is useless. A conical vagina, narrowing rapidly to the insertion of the cervix; senile changes, rendering the mucous membrane smooth, inelastic and triable; the condition of the parts after amputation of the cervix; laceration of the cervix, especially if bilateral—all constitute prohibitory factors to the use of a pessary. Tumors of the uterus are included in this list, but their significance would vary with their size, character and position.

Opinions differ concerning its use in retroflexion, but, personally, I am strongly opposed to it as its action is to decidedly increase the lesion.

Probably the worst results—the most painful and deplorable—follow the injudicious use of the pessary in adherent retroversions, and in tubal and ovarian inflammatory conditions, acute or otherwise, or in cases of simple prolapsed ovary, and peritonitis at any stage.

Not the least, among the contraindications, is the lack of special training and knowledge on the part of the practitioner, necessary in utilizing the instrument to the best advantage. This has been recognized for years. As far back as 1863 McClintock (*Diseases of Women*, p. 63) says: "The employment of pessaries for supporting the uterus *in situ* has been strongly condemned by some authors of deservedly high reputation. But most of the objections which have been brought against them

are founded on their abuse." Marion Sims (*Clinical Notes on Uterine Surgery*), remarks: "Each individual case must be especially studied, and that its complication and peculiarities must be investigated, understood and regarded, if we will cherish the hope to be able to treat them certainly and successfully." Emmet thinks: "This subject is one of the most important and least understood. The practitioner to become an expert in fitting a pessary, that it may do no harm, must have a decided mechanical talent, and that the full benefit may be derived from the use of the instrument he must be able to appreciate slight shades of indifference, which would be entirely overlooked by others." Skene believes that, "No one who is destitute of some knowledge and skill in mechanics will ever succeed in the treatment of displacements of the uterus by means of mechanical support."

I have selected these opinions chiefly from the writings of men who were unacquainted with our modern operations, mainly because, not having the advantages we now possess, they studied this, their chief method of treatment, more closely, and developed their skill to the greatest extent.

In order to form some estimate of the frequency which retroversion is met with, I present a computation of 1,300 cases, 1,000 from my clinic at the Polyclinic Hospital, and 300 from notes in private practice. In the 1,000 hospital cases, retroversion was present in 165, 16.5 per cent. The hospital notes were so meagre that no conclusions could be deduced from them. In 300 private cases it occurred in fifty-seven or 19 per cent. A careful examination of the histories of the latter group gives this result:

	Cases.	Per Cent.
Pessary used ; reported cured	21	36
Pessary not used ; reported cured	4	7
Pessary used ; reported not cured	7	12
Passed from observation	23	40
Remaining under treatment	2	3

The 43 per cent. of reported cures in this table closely approximate the 50 per cent. of Davenport.

And now I am about to make a statement that may seem heretical, but I am impelled to do it because I think it is the truth. While I believe retroversion one of the most frequent causes of suffering in women, I am being more and more convinced that it is *not necessarily pathological*. I know that many cases exist which give rise to no symptoms whatever. I have

watched the progress of patients treated with pessaries and tampons, where the displacement was as great as at the beginning, yet the symptoms had been so entirely eradicated that the patients have refused further treatment, and have positively declared themselves well. I have met these same patients years afterward, and I have found them well and happy, having had no treatment in the meantime. The statistics I have made, though very meagre, show that nearly one woman in every five under treatment has a retroverted uterus, yet a number of these cases become symptomatically well, with and without the use of a pessary and but very few out of the whole number ever really require an operation.

The sufferings induced in those cases which have become pathological are through involvement of the 3rd or 4th sacral nerve for the direct, and the inferior hypogastric and ovarian plexuses of the sympathetic for the remote symptoms, and are probably, at first, due to venous engorgement, as the veins of the uterus are unusually large. This hyperemia may exist for a long time without giving rise to symptoms, and it is only when a certain point of engorgement is reached that they appear, and fluctuation to one or other side of this line will make for comfort or the reverse, this being greatly influenced by capillary and venous changes and involvement of adjacent organs.

If I find, as I have found, retroversion absolutely without symptoms, I let it alone and do not tell the woman. It is far better for her not to know of it. If symptoms, direct or reflex, are present, and for relief of which the patient has applied to me, I recognize that the boundary line has been crossed and adopt my measures to meet the case. If tampons will suffice, well and good; if a pessary can be applied and give relief, it is used promptly. If after a reasonable trial all minor measures are unsuccessful, I explain matters clearly to the patient, advising an operation, and, if she consents, I operate as promptly as I use the pessary.

In conclusion: Whatever opinions may be held by the opponents of the pessary, it is an established fact that too large a proportion of cases treated with it secure a symptomatic or positive cure to allow an unprejudiced mind, possessed of these data, to doubt that the pessary has its own proper place in the armamentarium of the gynecologist and holds a field of usefulness and even importance in the treatment of retrodisplacements of the uterus.—*H. A. Slocum, M.D., in N.Y.M.J.*

Society Reports--Notes of Interest.

BRITISH MEDICAL ASSOCIATION, TORONTO MEETING, NOTES.

The British Medical Association was organized in 1832 under the name of "The Provincial Medical and Surgical Association." It had then fifty members. It was reorganized in 1856 and its present membership approaches 20,000. It has sixty-eight branches.

Henry Davy, M.D., M.B., F.R.C.P., London, physician, Devon and Exeter Hospital, is the President-elect of the British Medical Association, which will convene in 1907 in Exeter, England.

Delegates were present to the British Medical Association meeting in Toronto from India, Australia, South Africa, New Zealand and Tasmania; one delegate travelled 10,000 miles.

It is said that the paper, "Insanity of Inebriety," by Dr. T. D. Crothers, of Hartford, Conn., U.S.A., was the most widely quoted paper of the Association. It was abstracted and digested in the leading dailies of this country, as well as in many of foreign lands.

It was prominently brought out that alcohol does not now hold the place it once did as a therapeutic agent, as was pointed out by Sir Victor Horsley, Professor Sims Woodhead and Dr. Murdock Cameron, Professor of Midwifery in Glasgow University.

Dr. C. B. Rama Rao, India, was happy in pure, cool, white duck, whilst others sweltered under gold and crimson robes during the opening ceremonies and at the special convocation. He was an earnest champion of vegetarianism. This gentleman is forty-four years of age, and has practiced twenty-four years and has never eaten meat.

Sir James Grant, Ottawa, physician to a long line of Governors-General, considers that people eat too much, but does not think that one could subsist in our rigorous climate on vegetables.

That which was most talked of was the souvenir booklet. Many fine things have been said of this production in many of our exchanges. It certainly represents the Canadian printing art in a high state of perfection. The Printing and Publishing Committee stepped high all the time. The Methodist Book Room did the work. A banquet to the Committee seems to be in order.

At the special convocation the following received the honorary degree of Doctor of Law: Dr. W. J. Mayo, Rochester, Minn., President of the American Medical Association; Dr. Louis Lopicque, Paris; Professor, Dr. L. Aschoff, Freiburg, Germany; Dr. T. Clifford Allbutt, Cambridge; Dr. A. H. Free-land Barbour, Edinburgh; Sir Thomas Barlow, M.D., London; Sir James Barr, M.D., Liverpool; Sir William Broadbent, M.D., London; Dr. Henry William Langley Brown, West Bromwich; Mr. George Cooper Franklin, F.R.C.S., Leicester; Dr. W. D. Halliburton, London; Sir Victor Horsley, F.R.C.S., London; Dr. Donald McAlister, Cambridge, and Sir William Julius Mickle, London.

The Exhibit Committee presented an excellent exhibition. Amongst those who had splendid exhibitions were Parke, Davis & Co., Glyco-Thymoline, Henry K. Wampole & Co., Fairchild Bros. & Foster, Denver Chemical Company with Antiphlogistine, R. L. Gibson (Toronto), J. B. Lippincott Company, J. A. Carveth & Company with Saunders' books; Globe Manufacturing Company (Battle Creek), H. & T. Kirby Company (London, England), Robinson's Patent Barley, Clark & Roberts Company (Indianapolis), Mellin's Food Company, C. J. Hewlett & Son, J. F. Hartz & Co., Chandler, Ingram & Bell (Toronto), Burnham Soluble Iodine Co., E. B. Meyrowitz (New York); the Allen & Hanbury's Company, through their agent, Mr. Lloyd Wood (Toronto); Lambert Pharmacal Company, through the same agent; F. A. Davis Company, Medical books; Burroughes, Wellcome & Co. (London); the Bausch & Lomb Company, Duncan, Flockhart & Company, through their agent, Mr. R. L. Gibson (Toronto); The Apollinaris Company, Apenta, etc.; Kress & Owen Company (New York), New York Pharmacal Association, Palisade Manufacturing Company, Mr. Gibson (Toronto), The Arlington Chemical Company (same agent), Horlick's Malted Milk, The Chas. H. Phillips Company (New York), Walter Baker & Company, Ferris & Company (Bristol), Mr. Gibson; Armour & Co. (Chicago and Toronto), Lea Brothers & Company (Philadelphia), Benger's Food Company, and many others.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enrol themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only \$2.50 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

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Dominion Medical Monthly

And Ontario Medical Journal

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Published on the 15th of each month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley St., Toronto, Canada.

VOL. XXVII.

TORONTO, OCTOBER, 1906.

No. 4.

COMMENT FROM MONTH TO MONTH.

Dr. R. F. Ruttan, Professor of Chemistry in the Medical Faculty of McGill University, had the honor of delivering the opening lecture of the seventy-fifth session, the session of 1906-1907. His address was partly historical and partly progressive. The latter, owing to the continued rush into medical student life, needs notice. He instanced two methods to bring about what he termed educational equilibrium between the laboratories and clinics; in other words, deploring the shortness of the present medical course and the fact that too much time was taken up with the elementary subjects. For matriculation he would exact a degree in arts, with a special training in those scientific subjects relating to medicine. Then he would extend the four-year course to one of five years, and make it so in fact

and not in name. We believe that Dr. Ruttan advocates the right course, and those having the fixing of the standards should consider same accordingly. It is quite patent to everybody that the profession of medicine is congested; that young men, mere boys fresh from the collegiate institutes and high schools, are rushing pell-mell into medicine, believing it offers a means for securing an easy and comfortable livelihood, to say nothing of even being hallucinated with the idea that money can also be made in the profession. There has been in late years a falling-off in the aspirants of teaching, law and theology, and the consequence is that all sorts and conditions of men are rushing into medicine. Either the standard is low, the cost of procuring a degree in medicine low, or examiners, whole-souled and warm-hearted, are falling far short of their duty. And it is particularly in the interests of the young aspirants to the medical degree themselves that attention should be directed. While a few seem contented and prosperous in medicine, there are a great many, the majority we believe, who are making their living by additional means to the practice of medicine. The impression is abroad that the doctors are a speculating class, and in this way, perhaps, some of them do, as others do in different walks of life, make something for a "rainy day." The fact remains that the opportunities in medicine are greatly over-rated, and that they may be discounted at least 100 per cent. The law of the profession compels its devotees to sit still and wait, a process which is certainly unfitted for many young men with push, vigor and enterprise. The same amount of money and time involved in securing the degree of doctor of medicine, backed up by the energy and hustle of youth, would in present day commercial life, land most of these young men, in two decades at any rate, in positions of ease, if not in affluence of a moderate degree. Medical faculties should do something to stem the tide.

Montreal, the first city of the Dominion, as it should, has been the first to set the example of a systematic medical school

inspection. In that city there are 175 schools, with a school population of 150,000 souls. A feeble attempt was made at it last year, when some eight inspectors did some work. Recently forty medical practitioners were appointed by the City Council, and as an appropriation of \$3,000 had some time ago been set apart for the work, it was decided to give the matter a three months' trial. This will allow of each practitioner receiving \$25 per month for his work. This amount, of course, is inadequate, if a proper inspection is to be made every day or every other day, but it is on a line with all other payments to physicians for their services in the cause of the public interests. Medical inspection of schools, as all know, has been in practice in many large United States cities for some years, and we are told that it has been satisfactory. One inspector in Montreal, in his first report, gives some splendid reasons for the procedure. They may here be quoted: "Thirty-three pupils out of a class of sixty-six attacked by measles, as the result of one pupil suffering from measles attending that class; schools suffused by stenches from civic dump heaps; 15 per cent. of pupils at one school suffering from defective eyesight; 15 per cent. of the pupils at another school suffering from tumors, which are disclosed by a simple examination at first sight, and which are the cause of serious throat troubles. These tumors predispose the pupils to diphtheria, and reveal their presence by eruptions on the face; a school in a basement, where the light is defective, the air bad and the humidity permanent; a school beneath the basement of a church; temporary accommodation fixed up at one school to deceive the medical inspector; forty pupils crowded into one class-room, where the cubic contents of air barely suffice for fifteen; large numbers of pupils showing signs of tuberculosis and insufficient nutrition." If there is any class in any community which should be protected it is certainly those who are easily susceptible to disease. If there is any class which should receive attention at the hands of humanitarians and sanitarians it is the young. Their lives should be made for them all that is good, all that is pure and all that is holy. We can thank God we have not in this country the horrible monster

of child labor as it exists in certain States of the Union to the south of us. Let us then make, where we can, for all that is good and sweet in the lives of these little ones, even to the extent of keeping them where we can from the ravages of all sorts and conditions of disease and ill-health.

Editorial Note.

Merck's Annual Report on 1905, an impartial review of the year's progress in the practical branches of therapeutics and allied subjects, is received. Copies will be sent free of charge to Doctors and Chemists on application to E. Merck, Darmstadt.

Science Notes.

A Case of Alleged Reasoning in a Dog.

Wilhelm Ament, in *Arch. f. d. ges. Psychol.*, relates an anecdote concerning the behavior of a dog, a two-year-old "Zwergpinscher." According to Ament, the dog was accustomed to sit on a chair in front of a window overlooking neighboring houses and yards. One cold day the window was so thickly coated with frost that the dog could not enjoy his customary view. Confronted with this situation, the dog proceeded to lick the frost until a round area about the size of a plate had been cleared away with some difficulty. The dog then took up the more natural canine occupation of watching the cats in the adjoining yard. Several times during the winter the window was similarly cleaned for the same purpose.

Ament, being a psychologist, endeavors to explain this interesting bit of natural history. In very dignified and involved German he concludes that by means of the experience of wiping with its snout, the dog hit upon the licking away of at first the softened layers of ice, and later of the more solidly frozen ones. That the dog straightway hit upon the method of licking Ament does not consider surprising when we remember how often during the day a dog licks himself, everybody, and everything. Ament believes that, all things considered, we seem to have here the correlation of the series of experiences of ideas partly different from one another (wiping with the snout, licking with the tongue), partly analogous (licking away of other things and the licking away of frost on the window) with an end in view (namely, looking through the window).—*Scientific American*.

Nerve Impulses and their Propagation.

In a paper on the propagation of nerve impulse, published in the *American Journal of Physiology*, W. Sutherland gives it as his opinion that the electrical properties of nerves have received much attention, and the present hypotheses of nerve impulse propagation, though seemingly purely mechanical, are

in reality to be regarded as electrical also. For though he refers the "conductivity" of nerve to the rigidity of its substance, he has previously given electrical explanations of cohesion and rigidity. Two lines of thought lead to a conception of the possible importance of rigidity in the phenomena of nerve and muscle. In the first place it is known that a jelly offers but little more resistance to the passage of a small ion than does pure water at the same temperature, despite the enormous difference in the large-scale viscosities of the two media. This proves that in a jelly the molecules of the gelatine form a mesh dividing the jelly into compartments with network walls which confine the molecules of water in batches. The cellular structure gives to the jelly its rigidity, yet the meshes are so open that an ion urged forward by electric force has little difficulty in passing from one compartment to another, and encounters most of its resistance in passing through the batches of water molecules. Thus the jelly has rigidity on the molar scale, and fluidity on the molecular. Just as an ion moves through the jelly almost independently of the presence of the network, there ought to be phenomena of the jelly confined to the network as regards cause and effect. How would it be possible to propagate disturbance through a jelly without appreciably affecting its contained water, as a diver signals by his rope to the man in charge of the air pump? It seemed to Mr. Sutherland that muscular contraction and nerve conductivity might be physiological answers to this query. The second line of thought regards the slowness of the propagation of nerve impulse as probably connected with the small rigidity of the soft tissues in the animal body.—*Scientific American*.

Seasickness and Equilibration of the Eyes.

Many people have no doubt noticed, when travelling by sea, that the motion of the ship could be *seen* very distinctly, even when there were no hanging lamps, draperies, or fixed points, such as the horizon or clouds, within range of sight.

Some may think that seeing the motion in this way is due to the imagination receiving its suggestions from the motion of the internal organs, and especially the stomach, for I am here supposing the body to be held perfectly rigid.

From observations which I have recently made it seems evi-

dent to me that the cause for seeing the motion is entirely different.

In the first place, you can always see the motion a fraction of a second before you begin to feel it. In the second place, you cannot see a perfectly horizontal motion or a gentle vertical (heaving) motion. In the third place, watching a fixed point close to you, such as a pattern on a carpet, when the ship is pitching and rolling, is far more tiring to the eye-sight than when the ship is motionless or running perfectly steadily. All this points to the appearance being due to a true relative motion of the eyes to the ship.

The eyes are suspended in their muscular settings, much in the same way as are ships' compasses in their binnacles. The eyes are, furthermore, perfectly balanced, so as to make their muscular displacements as little tiring as possible. In their normal position, the pull of gravity is exerted vertically through their centers, and the muscular mechanism is compensated for gravity.

Any angular change of position will displace the eyes just as it displaces the stomach, excepting that the eyes, being a great deal more sensitively suspended, will register the displacements more quickly. It is not, however, the motion of the eyes which strains the eyesight, but the act of resisting this motion.

If, with your eyes shut, you attempt to fix the mental representation of a point, which a moment previously you were watching with eyes wide open, you will find that, after one or two motions of the ship, the bodily feeling will precede any visual sensation which your imagination can conjure up. The imaginary point is no longer fixed, but follows the eyes as they let themselves go to the motions of the ship. No strain of the eyesight is caused by a muscular resistance, and the displacements, while felt, can no longer be seen.—*Alfred Sang in Nature.*

Poisonous Eggs.

All substances are poisonous when they are injected in a certain quantity into the circulatory system of an animal. The weight of the substance injected as compared with that per pound of the animal forms what is called its toxicological value. Numerous experiments have been made with a large number of substances especially by Prof. Bouchard, according to Cosmos,

who has studied the toxicological value of the physiological media; but up to recent times no one had investigated the toxic value of eggs. This has now been done, however, by M. Loisel, who has experimented upon the eggs of the common hen, the duck, and the turtle.

M. Loisel's mode of operation is as follows: He takes the powdered yolk of a duck's egg, for example, treats it with a 20 per cent. solution of salt, and injects into the veins of a rabbit until the animal dies. In order to kill a rabbit, it takes about 55 grains of the substance per pound of animal, say 180 grains for a rabbit of an average weight of $2\frac{1}{4}$ pounds. If an experiment be made with the same substance by injecting it into the general cavity, the toxicological value diminishes and the quantity required is from 375 to 450 grains.

The yolk of the hen's egg is less poisonous, and that of the turtle more so than that of the duck. The albumen of the egg also is poisonous, the toxicity increasing from the hen to the turtle. If we desire to know the cause of the toxicity, we must seek it in the chemical composition of eggs. These are composed of the yolk and the white. The white represents typical albumen soluble in distilled water, and coagulable by heat. The yolk contains a special substance, ovovitelline, which is insoluble in water, soluble in dilute saline solutions, and associated with organic phosphorated compounds, called lecithines, and cyanic ferruginous compounds called hematogens, at the expense of which is formed the hemoglobine of the blood of the young chicken.

It is to nervine, a substance allied to the lecithines, and the toxic power of which is very great and which exists in extremely small quantity in the yolk, that is due the toxicity of eggs, as also to toxalbumens (bodies as yet little known), which are highly poisonous. According to M. Loisel, all the toxic substances of eggs act upon the central nervous system.

What is of consequence for us is not the toxicological value of eggs from an experimental viewpoint, but the toxic value of eggs ingested by the natural tracts, the cause of the putrefaction of eggs, and the physiological phenomena to which putrefied eggs can give rise.

Eggs, even when very fresh, give rise to severe cases of poisoning, although this depends on individual susceptibility, and according to M. Linosier, is more apt to occur in dyspeptics. The quantity ingested may be exceedingly minute, and the toxic symptoms may exhibit themselves even in a young child.

Mention is made of a fourteen-months-old child, who, in consequence of the absorption of an egg, had a nettle-rash eruption, and, two weeks afterward, a second eruption caused by a cream that had been given to it.

Such phenomena generally exhibit themselves by the appearance of urticaria. The substance that produces this, and is called ovotoxine, is analogous to those that cause similar effects and are met with in strawberries, mussels and sea fish, which give rise to accidents known by the name of botulism. We know that some individuals are very sensitive to the action of these substances.

There is here also a receptivity of the individual, and, as a consequence of these phenomena, eggs cannot be employed in cases in which there is a lesion of the digestive apparatus at some points of its passage, especially in typhoid fever, in which the intestine offers a wide surface of denudation into which the various toxines of the eggs might infiltrate. In all such complaints, we should prefer milk sterilized and boiled, and as free as possible from all toxines and microbes.

Along with the ingestion of normal eggs we may mention that of poisonous ones, of which neither the taste nor odor gives any hint as to their toxicity. This phenomenon is due principally to microbes that have entered the egg at the time of its formation, that is to say, into the very ovary of the duck and hen.

A remark apart must be made in regard to the toxicity of the eggs of the duck. This fowl as a general thing lives amid somewhat dirty environments, and it is possible for a considerable quantity of organic matter in decomposition to enter their organs and infect them. The egg in forming becomes contaminated with these substances rich in microbes, and thereby becomes toxic.

It is to eggs thus contaminated that may be attributed those toxic phenomena sometimes exhibited by creams. These latter, in fact, are not submitted to a very high temperature during their manufacture, while a temperature of at least 60 deg. C. would be required to destroy the pathogenic microbes of the egg. This is not compatible with culinary processes. From this point of view, since non-fecundated eggs are less toxic than fecundated ones, it is important to reject the latter as food for children and invalids. Finally, a third way in which eggs may become toxic after they are laid, is by the penetration of microbes through the porous shell. These microbes have been

studied by Zordenkofer, who divides them into two groups. The first group, which gives rise to a putrefaction which results in the production of sulphureted hydrogen, is the most common alteration. Ten species of this group have been described under the name of *Bacillus oogenes hydrosulfurens*.

The second group gives rise to a slightly different putrefaction, the odor of which recalls that of human excrement. This putrefaction, which is much more rare, is produced by a bacterium called *Bacillus oogenes fluorescens*. All these organisms need air for their development. It is, therefore, necessary to keep eggs from contact therewith by varnishing the shell or coating it with vaseline or milk of lime.

The use of decayed eggs is extremely dangerous. Dr. Cameron has called attention to a case of poisoning that happened in a convent at Limerick, Ireland, in 1895, after a meal at which had been served a cream in which a bad egg had been used. Seventy-four women who partook of the meal were poisoned, and four of them died.

An endeavor has been made in this article to recapitulate the causes of the poisoning of eggs and the damages to the system that may be caused by eating them. But it must be said that poisoning by eggs is of relatively rare occurrence, and that that produced by spoiled ones is exceptional.—*Scientific American*.

When we remark that in the manufacture of cocaine it is the percentage value of the alkaloid which determines the value of the raw material, we can see the necessity for the planter of finding a method of drying by which he will lose the least amount. In two series of experiments made by M. de Jong, of France, upon two products having different origins, he obtained the percentages of 1.49 to 2.77, or, in mean, 1.52 to 2.75 and 2.05 to 2.91. The fresh leaf furnishes the greatest amount of alkaloid, or from 2.72 to 2.91 per cent. When dried over lime, the leaf loses cocaine, and the value falls to 2.55 per cent. Drying in the sun is found to give values from 2.38 to 2.50 per cent., while drying at a heat of 40 deg. C. gives 2.28 per cent. A heat of 60 to 75 deg. affords 2.16 per cent. of cocaine. By drying in the shade for four days and then for over an hour in the sun, we find from 2.05 to 2.18 per cent. The method of drying in the sun after immersion in boiling water gives 1.50 per cent. From this we find that it is not an advantage to dry the

leaf over quick-lime in practice. If sun-drying is to be advised, we must remark that the leaves should not be allowed to become overheated. It is not a good plan to let the leaves dry up naturally in the shade but they should be dried as quickly as possible. By the use of hot water we dissolve out some of the alkaloid. The best yield of cocaine is afforded from the fresh leaf.—*Scientific American*.

An important scheme has been decided upon for the study of tropical diseases, by the Indian Government. At the present time there are scattered over various parts of the country five centres, where the process of research is carried out upon a small scale. These institutions are the outcome of private enterprise, and work independently. Owing to their limited resources, the work they accomplish, while valuable, is necessarily somewhat small in scope. The Indian Government has now arranged to consolidate these various institutions, to enlarge their field of operations, to found additional laboratories in other parts of the country where investigation on the spot is urgently required, and to control their operations from one central institution. The latter is to be located at Kasauli, a small hill station in close proximity to Simla, from which point it can be easily reached and the institute supervised by the central medical and sanitary authorities of the Indian Government. The situation is well adapted for the work, the temperature being moderate, while scattered among the surroundings hills are numerous sanatoria, each of which possesses a large hospital. There is a Pasteur institute already in operation, but this will be merged with the new building, and the present administrator of the Pasteur institute, who has carried out much important and valuable work, will be the first director. The new laboratory will carry out original researches, and prepare and investigate curative sera for tropical diseases indigenous to this country and other similar climes, and the training of scientific workers. The existing scattered institutes will continue their present operations, original research in particular being stimulated. This new arrangement will prove of great value for all investigators of different countries of tropical diseases, since they will be encouraged to avail themselves of the institutions in India for carrying out on-the-spot investigations.—*Scientific American*.

News Items.

WINNIPEG is to have a City Home for Convalescents.

DR. CHARLES A. RITCHIE, Winnipeg, has gone abroad for a year.

FORTY doctors have been appointed medical school inspectors in Montreal.

DR. GAVILLER has been appointed medical health officer of Grand Valley.

DR. SHIRLEY MCMURTRY, of Montreal, has gone to Japan for two years.

DR. J. K. M. GORDON has returned to Ripley and will resume his practice there.

DR. MINERVA M. GREENAWAY, of Toronto, died in St. Michael's Hospital recently.

DR. CASSIDY has disposed of his practice in Drayton, and is moving to Toronto Junction.

DR. S. H. WESTMAN has returned to Toronto after three years' abroad and resumed practice.

DR. BREFFNEY O'REILLY has returned to Toronto and has commenced practice on College Street.

DR. GEO. W. BADGEROW, formerly of Toronto, has located in London, England, in nose and throat work.

DR. PERRY G. GOLDSMITH, formerly of Belleville, is now specializing in Toronto in nose, throat and ear.

DR. W. W. BOYCE, Belleville, Ont., has recently been appointed physician to the Institute for the Blind in that city.

THE number of patients treated in the Winnipeg General Hospital during the week ending September 15th was 360.

DR. H. M. CHURCH, Montreal, was recently tendered a banquet by the anatomical staff of McGill, before his marriage.

DR. GEORGE MCINTOSH, Macdonald's Corners, Ont., a graduate of Queen's two years ago, is dead of typhoid fever.

DR. GERIN-LAJOIE, who for many years was a practitioner in Montreal, has been named a surgeon-major in the French army.

DR. WILL MELDRUM has accepted a partnership in a good medical practice at New Durham, and a host of Ayr friends join in wishing him every success.

DR. WATT, of the William Head quarantine station, in British Columbia, has been east with Dr. Montizambert inspecting the Lazaretto at Tracadie, N.B.

CANADIANS will regret to learn that Dr. James Stewart, Professor of Medicine in McGill University, is dead by a stroke of paralysis a short time ago.

DR. H. A. STEWART, of Saskatoon, has been offered the appointment of neuropathologist and lecturer in pathology in the Indiana State Hospital at Indianapolis.

A SYNDICATE of eastern medical men and a prominent medical practitioner of Winnipeg have purchased 14,000 acres on Manitoba Lake for a consumption sanatorium.

OF 319 samples of milk taken from all over the Dominion, and analyzed by the Dominion analyst at Ottawa, forty-five samples were adulterated and eighty-five were doubtful.

DR. J. L. ROBINSON, Montreal, has been appointed Medical Superintendent of Vancouver General Hospital.

DR. ROLLINS, formerly of Exeter, is now located at Raymond, Alberta, having removed there from Prince Albert.

ADDITIONS will be made to the Montreal General Hospital. Eighteen thousand dollars has been paid for 18,000 square feet of land, and the cost of the building will be about \$15,000.

DR. EASTWOOD, of Claremont, died somewhat suddenly in that town lately. The deceased was an old and widely known medical man throughout the southern part of the county and in Uxbridge.

DR. T. K. HOLMES, Chatham, Ont., narrowly escaped death from drowning a short time ago. Returning at night from a call, he stepped off a bridge, but luckily caught on a pier, until help arrived.

DR. S. J. BOYD, who has recently returned from the Old Country, has taken Dr. Dean's practice in Richmond Hill. Dr. and Mrs. Dean are removing to Toronto. Their residence will be at Kew Beach.

DR. J. MACWILLIAM has disposed of his practice and property in Thamesford to Dr. W. F. Babb, who has been his assistant for some time past. During the twenty-five years that Dr. MacWilliam has practiced he has been most successful, and has become one of the leading physicians of Oxford county, and deep regret is felt at his departure from the village. As a business man he was in the front rank, ever ambitious and ever ready to lend his assistance in every good work and cause for the welfare of the residents of the village and the entire community. We trust that continued success will attend his efforts wherever he may be. Dr. and Mrs. MacWilliam and family intend moving to their new home at London, and they carry with them the best wishes of a host of friends.

BRITISH COLUMBIA has now on hand \$22,500 for a consumption sanatorium. The Lieutenant-Governor has given \$10,000; the Provincial Government, \$5,000, and the C.P.R., \$5,000. One hundred thousand dollars is required.

THE session for 1906-1907 began in the Medical Department of Toronto University on the 3rd inst. Sir Alemroth E. Wright, M.D., F.R.S., London, England, delivered the opening lecture, his subject being "Inoculation with Bacterial Vaccines." There is a freshman class of 179.

DR. CHARLES MONOD, Paris, France, has been visiting in Montreal, and has been the guest of Dr. E. P. Lachapelle. Amongst others who entertained him were Sir William H. Hingston, Justice Mathieu and the Medical Faculty of Laval University, the latter at the Lafontaine Club.

TORONTO MEDICAL SOCIETY.—The opening meeting took place in New Medical Building, Thursday, October 4th, 1906. The programme was: President's address, Dr. Rudolf. "Factors in Coagulability of the Blood and Their Practical Significance," Sir A. E. Wright, M.D. (Dub.), F.R.S., etc., of London, Eng.

WE regret to have to announce the death of Dr. J. M. Lefevre, of Vancouver, which took place in that city after an illness of eight days. The doctor was fifty-three years of age and had practiced in Vancouver since 1886. He was manager of the British Columbia Telephone Company and chief surgeon to the Canadian Pacific Railway western lines.

THE per capita consumption in Canada of alcoholic liquors and tobacco during the year ending June 30th, 1906, was as follows: Gallons, spirit, .927; beer, 15.660; wine, .698; tobacco, pounds, 2.991. This is a decrease in spirits and an increase in beer, wine and tobacco compared with previous years. The duties paid were at the following per capita rate: Spirits, \$1,939; beer, \$2.46; wine, \$0.54; tobacco, \$1,135.

THE Ontario Government has appointed the following Health Board: Drs. Charles Sheard, Toronto; M. I. Beeman, Newburgh; J. W. S. McCullough, Alliston; Chas. B. Coughlin, Peterboro'; Wm. J. Robinson, Guelph; Wm. R. Hall, Chatham. Dr. Sheard is to be chairman and Dr. Chas. Hodgetts will continue to act as secretary.

DR. GEO. L. MCKINNON has decided to commence the practice of medicine in Hillsburg. Dr. McKinnon is an Orangeville boy, and graduated from Toronto University last spring. His father, the late Dr. A. H. McKinnon, practised in Hillsburg some years ago.

SIR JAMES AND LADY BARR, Sir Thomas and Lady Barlow and son, were the guests of Dr. Allan Adams at luncheon during the recent visit of the British Medical Association to the Consumptive Sanitoria at Gravenhurst. Dr. Barlow, after a thorough inspection of the "Free Hospital for Consumptives," personally congratulated Dr. Adams on the excellent institution over which he is acting physician in charge.

Publishers' Department

SEVERE BURN FROM VAGINAL DOUCHE.

By C. LAMBERT, M.D., NEW YORK CITY.

The case I present I consider of special significance, emphasizing, as it does, the danger attendant upon the use of toxic and irritating solutions, especially in thoughtless and careless hands, and also demonstrating the value of a solution of a non-toxic and non-irritant nature, such as has been brought to a state of perfection in Glyco-Thymoline.

I was hurriedly called to see Mrs. M., aged 22, whom I found suffering from a most severe burn involving the vaginal mucous membrane, the epithelium of which was completely denuded, while the perineum and adjacent parts had also suffered quite a loss of epidermis. The destructive process in the vaginal tract extended through the superficial fascia and was quite painful. She had, it seems, obtained a curbstone prescription from a medical acquaintance whom she met on the street a few days previous. Her mind, however, became confused and the proportions as were directed, *i.e.*, one dram to two quarts of water, were just the reverse of what she did use, *i.e.*, two drams to one quart of water, resulting when applied as stated above.

I at once administered a vaginal douche composed of two ounces of Glyco-Thymoline to two pints of tepid water, after which I applied a layer of cotton or loose tampon saturated with pure Glyco-Thymoline within the vagina, and a dressing of the same was applied to the perineum, etc. The tampon I did not renew until forty-one hours later. A call out of the city, at which I was detained, prevented me from removing it at the end of twenty-four hours as I had intended to do, and it was with no little misgiving that I hastened to give it my attention. It was, however, only another exhibition of one of Glyco-Thymoline's most valuable properties, as the cotton was as sweet and clean as regards all odor, etc., as when applied, and since then I have frequently assured myself that the preventing of decomposition of the discharges is a most valuable attribute of Glyco-

Thymoline. The same dressing, vaginal and otherwise, was repeated at this visit, and at the next I found such decided improvement, the tissues in so healthy a state, that I merely ordered a continuance of the vaginal douche twice a day of Glyco-Thymoline, one ounce to one pint of water, which treatment at the end of another week effected a cure.

I CAN speak in the highest terms of Resinol Soap. It is a superior head wash—just the thing for shampooing, as it cleanses the scalp thoroughly without injury. It is also the best Soap to use in cases of real Eczema. In fact, it is the best Soap for all toilet purposes.—Luigi G. Doane, M.D., Brooklyn, N.Y.

TONGALINE represents a complicated prescription and some of its ingredients are very expensive, but all have been most carefully selected, are fresh and pure, and are so skillfully combined by the most improved processes, that the full therapeutic strength of each drug is secured, giving one of those happy and fortunate pharmaceutical products which has made Tongaline a standard remedial agent for twenty-five years. It would be utterly impossible for any such results to be obtained by hastily compounding an extemporaneous prescription even if all of the ingredients were of the finest and purest, which is not apt to be the case. As much depends upon the manner in which the ingredients of Tongaline are compounded as upon the character of these drugs, and years of experimentation have taught its proprietors the most successful method of putting these ingredients together. In almost every instance where the expected results have not been secured from the use of Tongaline, it has been found that the genuine preparation was not dispensed. The wonderful success of Tongaline has naturally encouraged many imitations possessing little, if any, intrinsic merits. Every physician should therefore protect himself and his patients from worthless substitutes by prescribing Tongaline in original packages, or take care that his prescriptions are dispensed by honest and reliable druggists.

DR. W. H. BARNETT, of Huffins, Texas, in the *Alkaloidal Clinic* for November, 1904, says: I am satisfied that echthol, a combination of echinacea and thuja, will prevent the sting of

bees from hurting him. Let him take dram doses every hour for three hours before he commences to work with them. The reason for the faith that is in me is this: They used to hurt me. Last summer I was taking it for a skin disease, and while under its influence I was stung by a wasp on the face and neck. When stung I started to the house to get something to stop the pain and swelling that I expected to suffer with, but instead of the pain and swelling, as heretofore when stung, there was no more of either than a mosquito or gnat would have caused.

I FIND Resinol Ointment the best preparation on the market for Pruritus, and use it with very satisfactory results for itching piles.—H. C. Card, M.D., Hartford, Conn.

HALF-COOKED STARCHES A CAUSE OF INDIGESTION.—Digestive disturbances are due more frequently to failure of digesting carbohydrates than other food products. Raw starch is particularly indigestible, the heat of cooking being necessary to break up the granules and to perform the first three of the five steps of starch digestion, after which the normal digestive juices will complete the work. The method of cooking is very important as most cases of amylaceous dyspepsia are due to eating improperly cooked starches. Here is best seen the beneficial results of the extended steam cooking through which Egg-O-See is put, the free action of the diastase ferment and the baking at high temperature. Toast is considered more digestible than bread as it is baked *en masse* and then dry cooked in slices. *Each flake of Egg-O-Sec, thin as fine paper, is toasted to a crisp and delicate brown.* These dry flakes are so readily affected by the ptyalin that the final transformation of starch into grape sugar in the intestines is so easily accomplished as to cause no distress to the patient who finds it impossible to eat bread and other cereal foods which are not only difficult of digestion but cause painful fermentation. Egg-O-See is so easily digested that it is of special service to the dyspeptic, to those convalescing from acute diseases, in pregnancy where nausea and vomiting are easily induced by food, and in other forms of gastric neuroses.

Doctor, if you have not eaten Egg-O-See a sample package will be sent free on application to the Egg-O-See Cereal Co., Quincy, Ill.

WE regard your Resinol Soap and Ointment as wonderfully efficient in the cure of dandruff. I prescribed them for a sufferer from this disease who had been badly affected for many years. Only two applications daily for a period of three weeks cleansed the scalp completely, and no evidence of recurrence is apparent.—James Bradley, M.D., Ames, Iowa.

LIQUID MEDICINES VS. PILLS, TABLETS AND GRANULES.—Despite the pernicious activity of manufacturers of ready made pills and tablets in flooding the market with all possible substitutes for tinctures, fluid extracts and solutions, it has been amply demonstrated that these solid forms of medicine cannot compare in efficiency or in usefulness with the equivalent preparations given in liquid form.—*Jour. of Amer. Med. Assn.*,—June 23, 1906.

FOR twenty-five years Tongaline in its various forms has been endorsed by thousands of physicians for many diseases, such as rheumatism, neuralgia, grippe, gout, nervous headache, sciatica, lumbago, malaria, dengue, tonsillitis, heavy colds, indefinite pains, growing pains and excess of uric acid. "The purest form of salicylic acid is obtained from the oil of gaultheria. That made from carbolic acid has so many objectionable features that its usefulness is largely counteracted, and in fact it is surpassed in value by other agents. It disturbs the stomach, depresses the heart and may injure the kidneys. It is liable to cause headache and vertigo." Extract from an address delivered before the York County, Pa., Medical Society, June, 1905, by John V. Shoemaker, M.D., LL.D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine in the Medico-Chirurgical College of Philadelphia. All the salicylic acid in Tongaline is made from the purest natural oil of wintergreen, hence in prescribing Tongaline, physicians can always rely on giving their patients the gaultheria salicylic acid, provided the genuine Tongaline is dispensed.

My wife has been a sufferer with chronic Eczema for the past twelve years. It first appeared on one side of her face and gradually extended over her body. I tried every remedy that I could find recommended in medical literature and by eminent authorities without any permanent results, but with about two months' treatment with Resinol Ointment I have obtained an effectual cure.—W. R. Hinkle, M.D., Holland, Arkansas.
