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# Dominion Medical Monthly

And Ontario Medical Journal

Volume 21

TORONTO, JULY, 1903

Number 1

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# Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXI.

TORONTO, JULY, 1903.

No. 1.

## Original Articles

### ONTARIO MEDICAL ASSOCIATION—PRESIDENTIAL ADDRESS.

BY J. C. MITCHELL, M.D., TORONTO.

*Gentlemen of the Ontario Medical Association,*—To have been deemed worthy of the most exalted position within the province of this Society to grant is indeed an honor. The opportunity, however, to prove whether or not such virtue lies within me demands warmer expression of thanks, more zealous and untiring service from its recipient in order that the unblemished name and history of this Association may still stand for all that is worthy and of good report in our work. For both the kindly thought, and the opportunity then, I desire to again express my thanks to the Medical Association of Ontario.

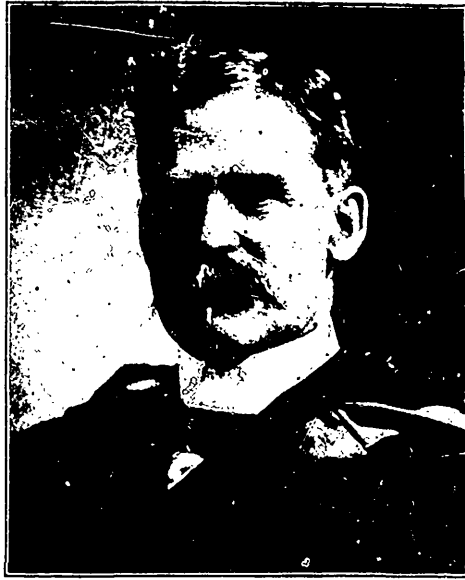
Permit me also to gratefully express my keen appreciation of the wisdom displayed in the selection of the executive. Surely no general ever had more faithful, earnest officers than were elected to support the hands of your president this year. To them, if there be success attending this meeting, let there be ascribed whatever of honor is associated in your minds with the successful carrying out of the general idea and the details of this meeting; there has been the tilling and sowing, with the labor late and early, that to you may come the full measure of reward for your faithfulness to this old Society which has meant much to many of us during past years.

And now once again the president and officers greet the members and friends of this Association, and desire to make their

greeting warmer and more full of friendship than ever before, for has not our sympathy been mellowing and ripening during another year, short though it may seem? And not alone the old members do we greet with gladness, but the new, and those who come to us as welcome guests. I utterly fail to grasp the true sentiment of the profession here if your visit at this time does not make you feel how glad we are to have you as our guests, and how anxious we are that this brief period of relaxation from your onerous professional duties may be one of the most pleasant and profitable you have ever spent. This Province, though young in years, has for the greater part of its life taken a prominent place in educational matters. Our Public School system growing out of that established by that wise educationalist, Dr. Egerton Ryerson, is one of which we are justly proud, and yet it has its faults. A few years ago Dr. Hutchison, of London, read a paper before the Association, pointing out the injury occasioned to our growing youth by the present system of determining promotion by the result of written examinations. He showed how a very large amount of the work done was simply cramming for examination, and not true education. That a great many children and young people were severely injured in health from the unwise, but unavoidable, competition under the system.

At last freedom and better order are making their appearance. The Hon. R. Harcourt, Minister of Education, has brought in a bill this session making changes as far as city schools are concerned, and he proposes discussing more radical changes with a committee appointed at the Ontario Teachers' Association, so as to enlarge its scope next year to apply to all the schools of the Province, thus making our system more educative and less competitive by combining with it manual training and eliminating many of the examinations. Our pupils will not then be under so great a mental strain, and will have better opportunities to mature and make the healthy men and women this country requires for the great future it has before it. Truly we can get along with fewer neurasthenics, neurotics, and cranks than we have at present. We welcome the evidence of progressive thought and interest in the welfare of our youth on the part of the Government.

We congratulate the medical schools of the Province on the good work they are doing. Our graduates compare most favorably with those of similar length of training wherever they may hail from—men going from our schools having that within "which maketh them not ashamed," notwithstanding the immense endowments of the wealthy colleges elsewhere on the continent.



J. C. Mitchell, M.D., Toronto.  
President Ontario Medical Association.

The rapid changes and development in both medicine and surgery will soon require a longer and more extensive course than at present, and we can confidently depend upon the Ontario Medical Council keeping up the standard required to meet the exigencies of the time. We can also trust the efficient staff of each of our medical colleges to make the clinical teaching keep pace with the large amount of work now required in the laboratory so that our graduates may be as skilled in their observation of symptoms as they are in chemical and microscopic analysis.

We are glad to note the ever-increasing number of our practitioners who are spending a greater or lesser length of time in post-graduate work. Has not the time arrived for the establishment of a post-graduate course in Toronto? We have physicians as well instructed in scientific medicine, and surgeons who operate as skilfully, as can be found anywhere. Our hospitals, too, have increased in number and importance, so that plenty of material could be at hand. A staff formed by the union of our best men to give a post-graduate course could not fail to be of benefit to the Province and afford opportunities for advanced study to many who could not, and to many who should not, be allowed to go elsewhere.

We are glad to notice the increased number of hospitals throughout Ontario. It means a great deal to the afflicted, and particularly to those of limited means. It will give our local surgeons and practitioners a chance to do much better work, and to obtain vastly better results from the improved regime possible in a more general use of the hospital. We trust it will not be many years until every town in Ontario will have its hospital.

We congratulate Lady Minto on her success in the establishment of cottage hospitals, and feel sure she will be rewarded for her labors in this direction by the benefit obtained by those afflicted ones who will receive care and treatment therein. In our city hospitals I would endorse what our immediate Past-President, Dr. Powell, proposed last year, that the term of the house surgeon should be extended to at least eighteen months, and so arranged that only one-half the staff be relieved at one time, so that skilled and expert men may be always in attendance. In this way a new appointee would not occupy a responsible position until trained for it and a skilled anesthetist would always be available.

In provincial legislation the only matter of special note is the regulation adopted by the Provincial Board of Health on Feb. 12th last *re* scarlet fever. It has occasioned a great deal of ad-



verse criticism, and it is questionable if the order for removal to either Isolation Hospital or tent is practicable at all seasons of the year, either in congested communities or rural districts, and unless the attending physician has some voice in the matter, it is not likely this law will be productive of good.

As for the Dominion House, Dr. Roddick succeeded in getting an Act passed providing for the establishment of a Dominion Medical Council with full power to hold examinations in medicine, and grant licenses valid in any portion of the Dominion. This Council can only become constituted when all the Provinces have accepted the provisions of the Act. With the exception of Quebec all have enacted such legislation as to make the Act effective. The Legislature of the Province of Quebec, however, defeated the Bill introduced for the purpose, rendering the Bill inoperative. The reason for this action was that under the present Provincial Act Quebec graduates in McGill, Bishop's, and Laval Universities who have passed four years in their studies and obtained their degree are entitled, without further examination, to obtain a license to practise medicine in that Province. Graduates of the Manitoba University also require but four years, whereas, in Ontario, as we all know, a fifth year has to be spent before the candidate can go up for his final examination before the Council. Dr. Roddick's Bill, had it been accepted, would have placed students in all the Provinces upon the same footing, and having passed the examination of the Dominion Council the successful candidate would then have possessed the license entitling him to practise anywhere in Canada. The series of amendments to the Act suggested to render it acceptable to Quebec would be so manifestly unfair to Ontario that we of this Province could never accept them. It would appear therefore, that inter-provincial legislation is dead for the time being unless Quebec is willing to rescind its action of the past session and, like Manitoba, unselfishly place itself on the equal and advanced footing of the other Provinces.

Dr. Roddick, however, has still hopes, and writes to say that "Considering that four of the Provinces have completed the concurrent legislation necessary, I am not disposed to give up the fight." He is now asking the Parliament to amend the Dominion Registration Act, so as to permit the Provinces that favor it to begin at once the work of such registration. The Doctor certainly deserves great credit for the vigorous fight he has put up, and we earnestly hope he may be successful in his efforts.

The need, for an importance of the continuous education of

the public on the lines of public health and prophylaxis is well illustrated by the formation of an anti-vaccination society in this city. At some of the meetings of this Society, this year, some practising physicians made statements (or were reported to have made them, according to daily papers April 10th) so wide of the truth that they showed a most lamentable ignorance of the whole history of the subject. When we find the very commendable action for the enforcement of vaccination questioned by one of our own profession by the bringing in of a law at the late session of the Legislature for the repeal of said enactment, it is certainly time to look into the matter, and ventilate it as thoroughly as possible.

We believe with Dr. Ridpath that: "Essential freedom is the right to differ, and that right must be sacredly respected, nor must the privilege of dissent be conceded with coldness or disdain, but openly, cordially, and with good-will. No loss of rank, abatement of character or ostracism from society must darken the pathway of the humblest, honest seeker after truth. The right of free thought, free inquiry, and of free speech to all everywhere is as clear as the noonday, and bounteous as the air and the sea."

If all professed seekers after truth were only honest in their views we could have no quarrel with them, even though we might differ in the result of our investigations. Some talk loudly on these subjects simply for effect, and are not honest in their statements, but desirous to achieve notoriety. Others talk through ignorance, having never taken either the time or labor to obtain for themselves the facts of the case. Then added to these classes we have the cranks and bores who will have a word in any way, even it be to repeat again and again some set speech. At the same time it is the duty of the medical profession to continue to do as they have done in the past: ascertain all the facts in the case, study out the underlying truths and put them, so far as we can, in the possession of the public. We must, so far as in us lies, continue to protect the public from themselves, even though we may often be called hard names, and lie under the charge that we are working with interested motives. On the contrary, we have motives of the very highest and noblest character, viz., the best interest of humanity, the desire to have justice done to the poorest and humblest who have not the means of protecting themselves from the scourges (such as smallpox, etc.) that may devastate and destroy countless numbers as in the past. Smallpox, from being a dreaded scourge, has become a disease seldom seen and its increased prevalence during the past few years may well be ascribed to our increasing carelessness in vaccination.

Unless we are occasionally awakened up by an epidemic, the tendency to neglect all forms of safeguarding ourselves grows upon us, and we do not like to take the trouble to render ourselves safe. It is difficult to convince people who have never seen the ravages of smallpox that it is an essential thing that their children should be vaccinated (and run the chances of a few days' illness or a very sore arm) for the sake of being prepared for an evil that is unknown to them, and therefore entirely unappreciated. There certainly have been evils in connection with vaccination, but what are the very worst of those compared to an epidemic of true smallpox in an unvaccinated neighborhood? It would be safe to pay no attention to these anti-vaccinationists, and class them with the followers of Christian Science, the Dowieites, Vitosophists, Osteopathists, etc., were they not such a menace by reason of their position as guardians of the public health. We see very many apparently sensible people led off by these fads, so it becomes our duty to impart to them all the knowledge we can on these important questions of health and disease, and particularly along the line of preventive medicine.

Germany has possibly the most compulsory system of vaccination in the world known, and the result is that smallpox is almost vanished from the empire. In 1899, with a population of 54,000,000, there were only 28 deaths and these nearly all came in from an adjoining country.

If we consider the duty of the true physician is to stand by all measures that tend to promote health and prevent disease, there should be some way then of punishing those doctors who encourage the laity in their foolishness in combatting the laws which are intended for their best interests. Such action is certainly highly reprehensible, and it is hard to believe physicians of any school could be guilty of talking such "utter nonsense" as was attributed to them at one of their anti-vaccination meetings. It is highly probable that Dr. Councilman's great discovery of the germ that causes smallpox will assist us in a short time to a better understanding of the *rationale* of vaccination. Two years ago the then President, Dr. McKinnon, referred to the great and often serious delay there was in gaining admission to our asylums for cases of acute mania, particularly with those at a distance. This need never occur at present time with our long distance telephone facilities, if our physicians are only careful enough to supply sufficient information. In all our asylums the superintendents are anxious to take in and look after this class of cases, and if applying physicians will but send full particulars setting forth the

urgency of the case, complete papers for admission will be sent on at once. Asylum authorities, as a rule, send the history or application paper to fill up first, and then if the case is a suitable one and they can at all make room, the patient is admitted. A great many senile cases are sent into asylums which could be looked after all right in their own homes.

It is a matter of deep regret that so many insane people are sent to gaol without first making application to our asylums to see if such cannot be admitted at once. In the past year of all the insane that have been sent into Toronto gaol (and there has been a large number) in only four cases was Toronto asylum asked to admit the patient previous to arrest, and in all of these cases (with one exception due to overcrowding), although we sent the complete set of papers immediately on application, an arrest was made before the papers reached them, when there was really no necessity for this precipitancy.

Our physicians have a large measure of responsibility in this matter, and they should try and prevent any case of insanity being sent to the gaol unless there is absolutely no room for them in the asylums, as is sometimes the case. A change also should be made in the law so that two medical certificates should transfer a patient from the gaol to the asylum as it does from outside. In this way prompt action could be taken as against the complex procedure which at present exists.

We are glad to note that the Provincial Secretary, Hon. J. R. Stratton, has introduced and passed an Act the past session, making it compulsory for all counties to erect and help to sustain County Refuge Homes, one in each county or united counties. If these Homes were in every county our asylums could in time be unloaded of all the chronic harmless dements, and leave space for those amenable to treatment, or who are a menace to the public or themselves. So much can be accomplished by proper treatment, and so many apparently hopeless patients restored to normal, or almost normal, conditions, that it is certainly very sad that all the deranged cannot obtain a fair chance for recovery. We are overcrowded by a class of patients that would be quite safe elsewhere. If County Homes would take harmless dements and the majority of senile cases, it would leave room for the immediate admission of all acute cases, and give opportunity for the better classification and arranging of those under treatment. It would also, if properly looked after, lessen the arrests for insanity, and shorten the period of their confinement in gaol when arrested. It would be well to see the name "asylum" done away

with and the term "hospital" substituted. An asylum simply indicates a place of refuge, while the term "hospital" would educate the public to understand that it is an institution for cure. The medical profession should educate the public as to the dire results of heredity by misalliances which populate the country with degenerates, a large number of whom afterwards gravitate to the asylums. They also have a very wide field in the way of preventative treatment of children with a tainted line or lines of ancestry. Much more can be done than is commonly thought to ward off impending future evils by early attention to the mental and physical evolution of such children.

The officers and active friends of the Ontario Medical Library Association have made strenuous efforts the past few months to place the library on a more sound financial basis.

There has been a movement on foot to enable the Board to purchase or erect a suitable building in which to store the books, and in which the several medical societies in the city can hold their regular meetings. At the last annual meeting, held on June 10th, handsome subscriptions for this purpose were reported by the Trust Committee, including \$1,000 from Prof. William Osler; the amount subscribed by the profession is upwards of \$3,600. In addition between five and six thousand dollars have already been promised by a few public spirited gentlemen who have the interests of the library at heart. The members of the profession have not as yet been all canvassed. The Board feel very much encouraged in their efforts, and hope soon to be able to report further progress, and that the long-felt want will soon be a reality.

Now that the amalgamation of the universities of Trinity and Toronto seems to be assured, there is greater unanimity than ever among the friends of the Library. The feeling is that we should have a large central building which could be used for meetings such as this, a place where each medical man in the city and Province could feel that he had a home. For the present they still occupy rooms in the upper floor of the Medical Council building, which have been provided for them by that body for a number of years. The Board wish to convey their thanks to the members of the Ontario Medical Council and Ontario Medical Association and the numerous private individuals who have generously contributed to the support of the Library. The books on the shelves are now catalogued and members of this Association are requested to take a copy of the catalogue with them, and if they wish to have a book sent them that can be done simply by

mailing a card to the Assistant Librarian and paying express charges. It will be noted that in order to make the Library self-sustaining as far as possible, the annual fee of \$2.00 has been raised to \$5.00.

At Gravenhurst, the National Sanitarium Association are continuing the excellent work for consumptive patients of our Province and of the Dominion. A free hospital has been provided at a cost of \$40,000 for the treatment of those who are really unable to care for themselves as well as for those who are able to pay but a portion of the expense for their care. No patient has been turned away, providing he was medically considered fit to undergo the treatment there. So that in all cases of incipient phthisis the poorest as well as the richest have thus a door opened to them which has in many cases proved a door of salvation. An effort is being made to induce the Government to make a grant of \$20,000 towards the latter institution, and we cannot conceive of a more legitimate demand on the part of the people for an apportionment of the people's money than one to this cause. It is greatly to be desired that both the public and the profession examine more thoroughly the work carried on, so that all may be more interested in what has proved to be one of the most worthy of our Province. One of the greatest bars to the successful prosecution of the work from the professional aspect is the failure on the part of the profession to secure an early diagnosis of the condition of a patient. How long will it be necessary for this Association to call attention to this fact. Happily our minds are slowly awakening to it, though our rising is but slow. The fault is not entirely with ourselves, but also largely belongs to the careless public. As for ourselves, let there be no longer any taint upon our skirts, no partial and unsatisfactory examination of patients; no longer let the ready cough mixture take the place of scientific treatment preceded by systematic and minute analysis of symptoms. To-day, with the enlightenment abroad in the world, it is for every practitioner to enjoy the privileges made possible by the indefatigable workers along these lines. One of the greatest advantages that results to the patients undergoing treatment at Gravenhurst is the knowledge he acquires as to how to live, so that he may prolong his own life and care for it, as well as teach others how to live.

Although the religious periodicals of Ontario have greatly improved in character, in the medical advertisements published during the past few years, they might go still further and copy the example set this year by one denomination in the United

States. The agent having charge of all the advertising in the Methodist periodicals for the whole of the United States has definitely announced that no medical advertisement of any kind will be accepted this year. Many of these advertisements are not only very immodest, but have an extremely debasing and immoral tendency, and many things are advertised to be used for immoral purposes, but worded in such a way as to keep the advertiser safe from the law, as they admit of a double meaning. Our public press still pander to this kind of thing, and many of the advertisements in our daily papers are simply disgraceful, and not decent enough to be introduced into a respectable home. Apart from this they are all intended to gull the public. Take for example, the wonderful cures by "The Great Dr. Bluff," of Boston, the electric belts, Previenu syrup, and scores of other fakes of that class. People who have lead immoral lives, chronic sufferers, and the weak-minded generally, are led away by the wonderful results promised in this misleading twaddle. They think there can be some miraculous change performed by these quack remedies, and that they will be restored to health, and still go ahead and violate nature's laws in any and every particular.

It is time that our leading journals freed themselves from this prostitution, and published clean sheets that have for their object the building up and amelioration of man's condition. Our medical men themselves, we are sorry to admit, are not always free from dabbling with quack remedies, and it is not to be wondered at when some of the medical journals south of us advertise medicines which border on quackery as freely as they do. If we want to retain our own self-respect and the respect of our professional brethren we must stand by legitimate medicine. "Prove all things, hold fast that which is good."

We cannot bring our paper to a close without referring to some of the events which have occurred during the year bringing sadness to all our minds. The "rider of the pale horse" has been busy counting up his roll of victims. We see emblazoned upon the marble shields of his hosts an ever-increasing number of names of good soldiers who have been overcome while battling "strong and true." We who are thrown into the posts of danger and the vanguard of the forces must yield our quota of losses, for the inexorable law promulgated in the beginning of time may not be set aside. Though our warfare must always end in defeat until that great day when a new heaven and a new earth appear, and the weapons of our warfare are laid aside, yet we battle on,

proud in our strife, because of the glorious possibilities which lie before all seekers after truth. Every true physician desires but to say at last, "I have fought a good fight, I have finished my course," for though the sword of the King of Terrors strike us from our places, yet does it but cut the latch which lightly closes the gateway to the eternal.

Ontario this year has a long roll of names of those who have gone up from the battle. Of these, perhaps, the most familiar to us all are those of Spencer, Gordon, and Horsey. The first two because of their long connection with the two medical colleges, in which they did faithful work, and also because of the active interest they took in this Association. The latter because of the important position he filled, and seemed destined to enlarge, in the political life of the Dominion. The kindly references to the life and work of Gilbert Gordon in the daily press with its general estimation of the value of the cultured, honorable and sympathetic practitioner to the community, commands our warm praise, and makes us feel that the oftentimes overtaxing strain is after all worth the labor if it but brings us so near to the hearts of our fellow-men.

Abroad, one of the princes of medicine passed away in the person of the great Virchow; honored by his fellows the world over, by the State and by the people.

While the veil of the future still hangs before our eyes, and though we stand on this side in what seems to be the full glory of the noon-tide of discovery, yet ever and anon there flash out from its impenetrableness gleams of light that seem to us revelations more glorious and full of hope than any which have yet been accorded to this age of rapid advancement. We rejoice in the history of the past with its record, from the groping of inexperience to the dawn of rationalism. The progress in our science has carried us from the question, "How shall we treat?" to "How shall we prevent?" and the unfolding of the future will largely concern developments along the line of the latter question. To its solution this chair again calls your eager attention and effort. No question involving greater issues has ever been presented to the minds of men.

The time demands greater concentration of effort, more systematic methods of study and work, a priesthood in the temple of Galen more intellectual and highly trained than has been found during the past, and these the time will have. Let it be our part to so lay the new road-beds of medical progress that the trains



may run no danger of being jolted and hindered by the pine stumps and rocks of the "has been."

"Then let us on through shower and sun,  
And heat and cold be driving;  
There's life alone in duty done,  
And rest alone in striving."—*Whittier.*

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## UTERINE MYOMATA AND THEIR TREATMENT.

BY THOMAS S. CULLEN, M.B.

Associate Professor of Gynecology in the Johns Hopkins University.

---

*Mr. President and Gentlemen,*—I gladly accepted your very kind invitation, not only on account of the great honor you have conferred upon me, but also because it gives me the pleasure of once more mingling with my teachers and schoolmates. It carries me back to my earliest glimpses of medicine, and even now I have vague recollections of sitting on the anxious bench nervously awaiting the results of the University and Council examination.

The subject I have chosen is a familiar one everywhere, but strikingly so in the South, where the negro population is greater. In Baltimore, nearly one-tenth of all gynecological cases admitted to our wards have been uterine myomata. Dr. Kelly and I have been analyzing the material of the Johns Hopkins Hospital for the last fourteen years, and, during that time, considerably more than a thousand cases of myoma have been placed on record. In deciding upon the preferable operative procedure in a given case, it is necessary to bear in mind the different varieties of myomata, their situation and size, the various degenerative processes which they may undergo, and the complications that may arise. Furthermore, certain symptoms will also serve as a guide for treatment. In order to make the present paper clearer, permit me to discuss briefly these points. The subject is not new, but we are every day adding little by little to our knowledge of it.

From the investigations of others, as well as from our own studies, it would appear probable that in the beginning nearly all myomata are interstitial. As they increase in size they may remain so, or, on the other hand, may push outward or inward,

forming subperitoneal or submucous nodules. The number of myomata present in a uterus may vary greatly. Occasionally only one is present, but more frequently seven or eight, and in not a few instances, twenty or more can be counted. Again, these growths usually vary much in size. Thus in a uterus there will often be found a myoma of many pounds' weight, while in its immediate vicinity is another myomatous nodule not larger than a pin-head. As we all know, myomata may occupy any part of the uterus, sometimes being located on the surface of the organ or at other times pushing their way out between the folds of the broad ligament. Again, not infrequently they occupy the entire pelvis, and we find the body of the uterus lying on the top of them. These are the cervical myomata, which at times are so difficult of removal.

*Condition of the Endometrium where Simple Uterine Myomata Exist.*—As a rule, the cervical mucosa is perfectly normal save for the presence of a cervical polyp or some dilated cervical glands. In the body of the uterus endometritis is occasionally found, but, when present, is almost invariably associated with inflammatory changes in the adnexa. Tuberculosis of the endometrium is occasionally associated with myomata, but rarely occurs independently, and is then secondary to a similar process in the Fallopian tubes. Of squamous-cell carcinoma of the cervix, and adeno-carcinoma of the body of the uterus, we shall speak later.

While any of the foregoing conditions may exist, in nearly all instances the changes present are usually entirely mechanical in their nature. If the myomata are subperitoneal or intraligamentary, the mucosa is usually normal, provided, of course, that the tubes are unaltered. When the nodule impinges on the uterine cavity the mucosa over the most prominent part becomes stretched and thinned out, until eventually there will remain nothing but the surface epithelium covering the nodule. While this atrophy is taking place, the mucosa in the depressions at the sides of the nodules remains unaltered or becomes thicker, this thickening occasionally being due to simple gland hypertrophy. Portions of the mucosa are often mechanically forced out into the cavity, producing polypi. With the distortion of the mucosa the glands sometimes become blocked, and small cystic dilatations are formed. When the myoma becomes entirely submucous, it is usually covered by a thin layer of mucosa, but in a few instances we have seen a sloughing focus in the myoma opening directly into the uterine cavity. Now and then a submucous myoma in

the posterior wall will blend with a similar nodule in the anterior wall, obliterating the uterine cavity entirely over a limited area. From an examination of a great many specimens we can lay down the general rule that where the Fallopian tubes are normal, and where no sloughing submucous myoma exists the uterine mucosa is perfectly normal. This fact has no little bearing on the operative treatment, inasmuch as the condition of the mucosa is an index of how far we may venture in removing a partially submucous myoma by way of the abdomen. Histological studies, then, having taught us that the endometrium is usually normal, we can in most instances open up the uterine cavity with little or no danger of infection.

*Parasitic Myomata.*—With the increase in their size, the subperitoneal nodules are continually rubbing against neighboring structures, and frequently become attached to them. As a rule, they become adherent to the omentum, the omental vessels soon furnishing a part of the blood supply and the original attachment to the uterus becoming less and less, until it is finally lost, and the nodule apparently springs from the omentum, and from it receives its entire nourishment. Recently, I operated upon a patient giving a clinical history almost typical of an ovarian cyst, but on opening the abdomen I found a myoma about the size of a fetal head. This was attached to the uterus by a very delicate pedicle, while all the omental vessels plunged into its upper portion, and supplied nearly all its nourishment. Associated with this partially parasitic myoma was an accumulation of fifty-two litres of ascitic fluid.

A few months ago while performing a hysteromyomectomy, I saw a nodule as large as a base-ball situated at the brim of the pelvis. It lay directly over the uterus as the latter crossed the pelvic brim. Its nourishment came from the mesenteric vessels, and it had absolutely no connection with the uterus. This nodule in all probability had originated in the uterus, but becoming adherent to the pelvic brim, had gradually changed its source of nourishment until eventually all trace of its former attachment was lost.

*Simple Degeneration in Myomata.*—Myomata, no matter where situated, often undergo softening. In the first place, the tissue changes in color from the characteristic whitish pink to a white or yellowish-white. Such areas are sharply circumscribed, and occupy a varying portion of the myoma. This whitish tissue gradually disintegrates, and the spaces thus resulting are usually filled with a clear, serous fluid. Sometimes, however, the material

is oily in nature, resembling melted butter. As a result of the continual breaking-down of this altered tissue we have large cavities traversed by delicate trabeculæ. On histological examination the degeneration is seen to be hyaline in character, and this hyaline tissue gradually melts or fades away, leaving the spaces filled usually with serum, but occasionally with butter-like material. This fluid on histological examination is found to contain large quantities of fat droplets and cholesterin crystals. In these degenerated myomata there is usually not the slightest inflammatory reaction, and no evidence of infection. This is fortunate, since if perchance we should accidentally rupture such a myoma during its removal, we should have little to fear if some of its contents escaped into the abdominal cavity.

*Suppurating Myomata.*—Occasionally subperitoneal and intra-ligamentary myomata become infected, probably as the result of some degeneration which has permitted the entrance of bacteria. These suppurating myomata have an outer covering of myomatous tissue, and are lined internally by granulation tissue. We have seen them containing several litres of pus. In one patient operated upon at the Johns Hopkins Hospital there was a large cavity in a subperitoneal myoma which extended as high as the umbilicus. This cavity communicated freely with the transverse colon, the feces passing directly from the gut into the abscess cavity.

*Sloughing Submucous Myomata.*—While the subperitoneal nodules are extending upward and outward, the submucous ones are forced more and more into the uterine cavity. Their mucosa becomes thinner and thinner, and eventually the dependent portion of the nodule usually undergoes necrosis and sloughing. Sometimes only a small portion of the nodule disintegrates, but occasionally the uterine cavity contains a sloughing nodule fully as large as an adult head. In one of our cases we found a necrotic interstitial myoma which on its inner side communicated with the uterine cavity. On its outer side it had involved the uterine wall; necrosis followed, the peritoneum became involved, and the patient had died of a general purulent peritonitis.

*The Tubes and Ovaries in Cases of Myoma.*—Let us now briefly consider the condition of the tubes and ovaries, and also see the effect of the myomatous uterus on the surrounding structures. In the tubes we have noted hydrosalpinx (simple and follicular), hemosalpinx, tubal pregnancy, salpingitis, tubo-ovarian cysts and adeno-carcinoma, secondary to adeno-carcinoma of the ovary. Occasionally the normal tubes may be lost on

the surface of the myoma, and appear again at a distant point. While any of these conditions may be found, simple inflammatory adhesions are the most frequent. In all probability the adherent condition of the tube is due to the mechanical irritation caused by its being rotated and rubbed against surrounding parts. Numerous pathological conditions of the ovary are also associated with uterine myomata. Thus we have found Graafian follicle cysts, both large and small, corpus luteum cysts, multilocular adeno-cystomata, dermoids, papillo-cystomata, primary adeno-carcinomata and ovarian abscesses. The ovaries are often embedded in adhesions, usually delicate and fan-like. The inflammatory reaction seems to be chiefly the result of mechanical irritation. Parovarian cysts are also associated with myomata in a moderate number of cases.

The relation of the bladder to the myomatous uterus is also of importance from an operative standpoint. At times it is not at all altered in its position, but is often drawn upward and outward, being spread uniformly over the anterior surface of the tumor. In other instances it has early become adherent to the tumor at one point, and with the growth of the myoma has been drawn out into a long tongue- or funnel-shaped projection. We have seen the bladder drawn fifteen or more centimetres above its normal attachment, and in a few instances it has extended upward as far as the umbilicus. The interior of the bladder is rarely, if ever, altered. If the tumor become incarcerated in the pelvis and pressure symptoms develop the ureters are frequently affected. First, they dilate, giving rise to a hydro-ureter, sometimes reaching 1.3 cm. or more in diameter. Later on they may become adherent to the myoma, and with its continued growth, be carried up out of the pelvis. It is exceedingly important to remember this possible displacement when operating. Hypertrophy of the ureter is occasionally caused by the myoma and hydronephrosis may supervene. Adhesions between the myomatous organ and the rectum frequently take place, especially where the growth tends to become incarcerated in the pelvis. As the growth rises up, it sometimes takes the rectum with it, making it taut and carrying the upper portion high into the abdomen. As might naturally be expected, the intestines which lie in direct contact with the tumor, sometimes become adherent to it. As a rule these adhesions are slight, but at times the intestine is so intimately blended with the growth that it is necessary to sacrifice a portion of the uterine wall in removing the organ. Occasionally kinks in the bowel follow as

a result of adhesions and the patient dies of intestinal obstruction. The appendix in many cases has dropped down and becomes adherent to the tumor or to the right tube and ovary.

*Adeno-Myomata of the Uterus.*—We will now consider a variety of myoma which until very recently has received little attention. In these cases we have, as a rule, a uterus which is moderately enlarged, but which conforms to the normal contour save for some small nodules scattered throughout its walls or over its surface. On microscopic examination we find that the inner muscular layers of the uterine walls have become coarse in texture, and converted into myomatous tissue. Into this coarse-textured tissue the uterine mucosa literally flows. We thus have myomatous tissue with islands and rivers of normal uterine mucosa scattered throughout it. With the gradual growth of the adeno-myoma portions of the mucosa are nipped off and either become submucous adeno-myomata or pass to the outer surface, forming subperitoneal nodules. The islands of mucosa in the myomata still retain their natural menstrual function, and hence at each period pour out their quota of menstrual blood. Naturally where the nodule is subperitoneal, and the glands are surrounded on all sides by myomatous muscle, there is no escape for this flow. It thus accumulates and eventually we have the myomata containing large cyst-like spaces lined by a smooth velvety mucosa and filled with chocolate-colored fluid—the dammed-up, changed menstrual flow. In nearly every instance in which we find a large intraligamentary or subperitoneal myoma containing such cyst-like spaces and filled with chocolate-colored contents we may ascribe it to an old adeno-myoma. Adeno-myomata of the uterus were found in nearly 2 per cent. of our cases. They are benign.

*Sarcomatous Degeneration of Myomata.*—Within recent years studies have definitely established the fact that myomata may undergo sarcomatous degeneration. Clinically, patients suffering from such growths usually give a history of several years' duration during which the growth has either lain dormant or increased very slowly. Suddenly there is renewed activity, and in a few months the myoma increases greatly in size, and more or less marked signs of cachexia begin to appear. Sarcoma usually develops in one of several myomatous nodules, and may be subperitoneal, interstitial or submucous, although it was formerly thought that such growths were always of the last-named variety. If the sarcoma develops in a submucous myoma portions of it may from time to time be expelled through the vagina—the so-called "recurrent fibroids." The sarcoma

may develop from one of two sources: the connective tissue or the myomatous muscle cells. If it originates from the stroma the sarcoma may be spindle-celled, or round-celled; if from the muscle, it is of the spindle-celled variety. From the drawings which are being passed anyone will be able to convince himself that a sarcoma may develop in the centres of myomata, and from the histological pictures it is possible to trace all stages from the normal muscle fibres to those which show the typical ear-marks of sarcoma. We have had several such cases in our series where the myomata became sarcomatous, and in some of them death soon followed from metastases. It is of extreme importance to remember these cases when weighing in our minds the appropriate mode of treatment.

*Carcinoma of the Uterus, Associated with Myoma.*—In my work on cancer I reported several cases of carcinoma of the uterus occurring in conjunction with myomata, and in the three years intervening since the appearance of the book a goodly number of similar cases have come under my observation. Of course where squamous-celled carcinoma or adeno-carcinoma of the cervix exists it will, as a rule, be readily detected before the operation, and we will thereby be influenced in our mode of treatment. In the majority of the cases, however, where cancer of the body of the uterus has existed, it has not been suspected until the uterus had been opened after operation. Nor need such ignorance be unpardonable; for in all probability the only suggestive symptom has been hemorrhage, which naturally would be explained as belonging to the myoma. One would hardly deem it necessary or wise to curette when the myoma could be so clearly outlined, and considering the fact that the uterus is to be removed in so short a time. Nevertheless, when outlining the treatment one should always bear in mind the possible co-existence of a carcinoma of the body of the uterus and act accordingly.

*Symptoms of Myomata.*—The clinical features in cases of uterine myomata are mainly dependent on two chief factors: First, the situation of the nodules; secondly, the size of the tumor. While these growths develop during the child-bearing period they may not make themselves manifest until late in life. A myoma may be as large as a fetal head, and yet give no symptoms whatever and be only accidentally detected. On the other hand, a nodule not larger than a walnut may give rise to alarming hemorrhages. If the myomata are interstitial or sub-peritoneal, and so situated that they do not encroach on the

uterine cavity, there will, as a rule, be little bleeding. On the other hand, if the myoma projects into the uterine cavity, thereby putting the mucosa on tension, there will undoubtedly be very free and troublesome hemorrhage. The amount of bleeding is usually in direct proportion to the surface area of the uterine mucosa on tension. We have had patients lose nearly two litres of blood at one time, and in one case I was called in to see the uterine cavity was 24 cm. in length, and contained over a litre of decomposing blood-clots.

In the cases in which the myomata encroach on the uterine cavity the patient will usually give a history of prolonged menstrual periods for the last few years, and will complain of some backache, and often of a feeling of bearing-down pain in the lower abdomen. After suffering from these symptoms for a time she suddenly notices a lump in the lower part of the abdomen. With this increase in size there may be an increased frequency in micturition or retention, due to the bladder being jammed up against the symphysis pubis. With the continued growth of the tumor constipation becomes marked and possibly pruritus ani develops, both due to the pressure of the growth on the rectum. Later on the woman suffers from pain, and occasionally notices edema in one or both of the lower extremities. I recently operated upon a patient who had an interstitial myoma about the size of a child's head. The pressure symptoms were such that when lying down she had to be assisted to rise, although, when once on her feet, she had no difficulty in attending to her household duties.

With the continued enlargement of the myoma the abdominal contents will be forced upward against the diaphragm, and shortness of breath will naturally follow.

In those cases in which submucous myomata exist, as evidenced by the prolonged menstrual periods or hemorrhagia, the hemorrhage usually increases in amount and between the periods of bleeding there is a purulent or muco-purulent discharge. In some instances the submucous myoma is forced more and more into the uterine cavity, and after a time projects slightly through the external os. At this time there is often a loss of substance over the most dependent portion of the tumor. Necrosis of the nodule now readily takes place and we have in addition to the hemorrhage a continual watery and most offensive vaginal discharge, in odor and appearance often strongly suggesting that so common in cancer. The long drain on the patient's resources saps her strength, and she becomes sallow or very anemic-in-



appearance, and may have irregular elevations of temperature due to the damming-up in the uterus of purulent fluid, or to a septic focus which has meanwhile developed in the Fallopian tubes, or in a neighboring myomatous nodule. The hemoglobin at this stage is often below 30 per cent. There are hemic heart murmurs, and the patient suffers from giddiness and fainting spells. Under such conditions she is now forced to spend most of her time in bed. Such is frequently the clinical history in the severe cases of myoma. In addition to these symptoms we must remember those occurring where intestinal obstruction or appendicitis supervene, or where the development of ovarian cysts or extra uterine pregnancy add to the complications.

*Vaginal Examination.*—While much may be learned from the clinical history, nothing gives such a clear idea as the bimanual examination. In a simple case the finger in the vagina finds the cervix to be of normal size, while with the abdominal hand one or more hard nodules are to be felt rising up out of the pelvis, and on making pressure upward from the vagina we are able to determine that the mass is directly continuous with the cervix. This also enables us to determine the mobility of the tumor, and also sometimes permits us to say with a fair degree of certainty whether the growth is adherent or not. In not a few instances we find the cervix jammed up against the symphysis pubis, and the posterior vaginal vault bulging downward, due to the choking of the pelvis by the tumor. If the growth be cervical, the cervix has often unfolded itself on the surface of the myoma, and is flush with the vaginal vault. In such a case the external os is often recognized as a semilunar slit 2 or 3 cm. in length.

Where a submucous myoma exists the cervix will often admit the finger, and the nodule can be felt plugging the cervical canal just above the external os. If the myoma has already partially escaped into the vagina, the finger comes immediately in contact with it, and on skirting it backward the cervical lip is felt as a tense band hugging the outer surface of the growth.

Where the myoma is necrotic and has been sloughing for a long time we may find a tough, but soft, slimy mass projecting from the vaginal outlet. Such tissue bears a striking resemblance to raw beef that has been macerated in water for some length of time.

Gentleness should always be exercised while making vaginal examinations. In at least two instances on opening the abdomen I have found that during the examination, just prior to the

operation, subperitoneal nodules had been torn from their pedicles and that from the rent there had been free hemorrhage into the pelvis. In both of these cases several persons had examined the patient and evidently, too much force had been used. Where the operation was performed at once, as in these cases, the injury was of little consequence, but should such an accident have occurred during an ordinary routine examination, there would in all probability have been a fatal hemorrhage.

*Treatment of Uterine Myomata.*—The surgeon's first duty is to remove the growth. The second, equally important, is to sacrifice the reproductive organs as little as possible, consistent with safety. Prior to opening the abdomen a catheter should be introduced to determine the confines of the bladder. If the viscus is high up, the abdominal incision should be commenced near the umbilicus and carefully continued toward the pubes. After having entered the peritoneal cavity and carefully packed off the intestines, the operator should examine the tubes and ovaries, and if these are free from adhesions the question of a simple myomectomy should be considered.

*Myomectomy.*—Should the tubes be the seat of an inflammation, a hysterectomy should be performed, as there is a possibility of infecting the cavities left in the uterus after the removal of the myomata. Several years ago, over-enthusiastic for conservatism, I did a myomectomy, after having made artificial fimbriated extremities for both tubes. In a few days there were distinct evidences of infection of the uterus. I again opened the abdomen, and drained from above and below. The patient lingered for a month and then died. In this case there was in all probability a latent infection lurking in the tubes, although no pus was detected at the time of the primary operation. The operation was a simple one, and had I performed a hysterectomy, recovery would in all probability have followed. After satisfying ourselves that the appendages are normal, and that there is no offensive vaginal discharge indicative of a submucous myoma or of carcinoma, we should carefully examine the uterus to see if it be feasible to do a myomectomy. Where the nodules are few in number and situated at accessible points, the uterus should be saved. In a few instances we have removed interstitial myomata larger than an adult head and yet been able to preserve the uterus. If, however, the uterus is everywhere studded with small or medium-sized myomata, there is a great probability that some would be left behind, and a subsequent hysterectomy become necessary. It is not advisable to do a myomectomy where the

nodule is situated in the broad ligament or deep down laterally in the pelvis. In these situations it is impossible to obliterate the resultant spaces and blood is bound to accumulate. These difficulties might be overcome by abdominal drainage, but here hysterectomy is preferable. Several years ago I removed a nodule the size of a small cocoonut, from the left broad ligament. The lower portion of this nodule extended far down beside the vagina. There was little hemorrhage, and the tissues apparently fell together nicely. In a few days, however, the temperature rose to 104. Shortly after this there was a free discharge of pus from the bladder, and on examination much induration of the left side of the vagina was found. The abscess had opened into the bladder. After several weeks the abscess cavity closed, and the patient is now, six years after operation, in perfect health. A similar case was noted by a colleague of mine. In this instance, however, the bladder was not implicated. Should we decide on myomectomy, the easiest method of controlling bleeding is by means of a gauze rope applied around the cervix and clamped with artery forceps, thus avoiding the necessity of tying. If the myoma be small, the incision is made directly over it, and as soon as the nodule is exposed, it is grasped with a meso-forceps and twisted or shelled out. Where the nodule is large and partially subperitoneal, a lozenge-shaped piece of muscle is usually excised with the tumor. Care should be taken not to sacrifice too much muscle as so much contraction may occur that it will be found almost impossible to bring the margins of the cavity together. After carefully palpating the uterine walls to be sure that no other nodules remain, and having turned in the mucosa and sutured with cat-gut should the uterine cavity have been opened at any point, the various cavities are totally obliterated by cat-gut sutures, three or four rows being used if necessary. It is upon this total obliteration of all dead spaces that the success of the operation depends. Often there is bleeding from the stitch holes on the surface. This is usually controlled by placing one or more cat-gut strictures at right angles to the others. The operator need not be alarmed if the temperature rise to 100 or even to 102 or 103 a few days after the operation. This we have noted very frequently. In such cases some dead spaces have undoubtedly been left behind, and there soon occur a disintegration and absorption of the blood. One should always remember that myomectomy is a much more dangerous operation than hysterectomy, and if the patient be weak or any other contra-indication exist the complete operation should be chosen. The latter opera-

tion is the one of choice after the menopause, myomectomy being applicable during the child-bearing period. The operator should also bear in mind the possibility of leaving some myomata behind. I recently saw in the dispensary a patient on whom myomectomy had been performed nine years previously. She had been perfectly well for several years, but when admitted to the hospital a second time the uterus was fully five times the normal size, and everywhere studded with myomata. Where the resultant incision in the uterus is long and it is necessary to hold the organ up on account of its large size, intra-abdominal shortening of the round ligaments is preferable to suspension. I am familiar with a case in which, following a myomectomy, the uterine incision became intimately blended with the abdominal wall over a wide area. Pregnancy followed, Cæsarian section was performed, and the patient died. Suspension in such a case is an entirely different problem to the simple operation for displacement, as in the latter there is no raw surface whatsoever. I would strongly advise giving the preference to myomectomy in all suitable cases, but in every doubtful instance hysterectomy should be performed.

*Hystero-myomectomy with Preservation of the Ovaries.*—In those cases in which it is deemed safer to perform hysterectomy, if the patient has not passed the menopause, we should endeavor to save the ovaries. In the first place we have no right to remove normal structures, and in the second place, preservation of the ovaries will relieve the patient, to a great extent, of the troublesome hot flushes and nervous phenomena naturally associated with the menopause. Thus where the operation is performed on a woman, say, thirty-five years of age, these unpleasant phenomena are generally deferred until the usual time for the cessation of menstrual life or for several years at least. We make it a point to preserve one or both ovaries wherever feasible. Spinelli and others are still more conservative, and, whenever possible, preserve at least the lower segment of the uterine cavity; in other words, some of the mucosa from the body is left *in situ* and the menstrual function, although naturally limited, is still preserved. In the near future it seems probable that this plan of treatment will often be adopted. In performing the ordinary hysterectomy with amputation through the cervix, it is always well to remember the blood supply of the pelvic organs. From above downward we have the ovarian artery and veins easily exposed to the outer side of the ovary. Next comes the artery of the round ligament which, although small, often occasions much oozing if not

tied. On freeing the folds of the broad ligament the uterine artery with its accompanying veins is seen skirting the side of the cervix near the internal os. On the opposite side a similar system of vessels is encountered. We may then roughly compare the hysterectomy with amputation at the cervix to an ordinary amputation with four main vessels, the ovarian and uterine on each side. Where the growth is situated in the body of the organ and the cervix is long, the operation is as a rule quite simple. The round ligaments are first tied and the organ can be lifted still higher out of the abdomen. Portions of the ovarian vessels passing to the uterus are controlled at the uterine horn, and the uterus is freed on each side. After opening up the broad ligaments laterally and separating the bladder reflection anteriorly, the uterine vessels are readily exposed and tied. Many operators employ only cat-gut for the uterine and ovarian arteries. We still feel much safer with silk, and always use it for the larger vessels. After tying the uterine arteries, taking, of course, good care not to include a ureter in the ligature we cut through the cervix, encountering little or no bleeding except from the tumor. We usually cup the cervix slightly, and then close with cat-gut sutures. Only occasionally is the cautery introduced into the cervical canal. The broad ligaments are then closed with continuous cat-gut sutures, care being taken to cover over the stumps of the appendages. The bladder peritoneum is drawn over to that of the posterior surface of the cervix. The pelvis now presents a perfectly smooth surface, offering little opportunity for the subsequent development of intestinal adhesions.

*Hysterectomy with Removal of the Appendages.*—If it has been deemed advisable to remove the ovaries, the operation is carried out in precisely the same manner, save that the ovarian vessels are tied just before they reach the ovary instead of on the uterine side. While many hysteromyomectomies offer little difficulty, others are by no means so easy. Sometimes the growths are exceedingly large, and so distorted that it is at first hard to get one's bearings. Under such circumstances it is always advisable to seek out the round ligaments and sever them at once. This invariably renders the tumor more mobile. The left tube and ovary are then usually tied off, and the tumor rolled outward and to the right, as recommended by Dr. Kelly. The uterine vessels on the left side are now controlled and severed, and the cervix is cut across with the upright slant so that the cervical stump and, consequently, the uterine vessels left on the

right side, will be longer. Clamps are applied to the right ovarian vessels, and the entire tumor is removed *en masse*. It is astonishing with what ease an otherwise difficult operation is rendered comparatively simple by this "from left to right" operation of Kelly. Great care must be taken with the ureter, and if the operator has the least suspicion that one or both have been injured, he should seek each ureter as it crosses the pelvic brim, and follow it through the pelvis, and carefully outline it to its vesicle insertion. Several months ago I had a very difficult hysteromectomy, in which the patient was exceedingly anemic and the vagina was filled with a very vascular submucous myoma. While liberating a subperitoneal nodule adherent to the right pelvic brim I found it necessary to tie the ovarian vessels. There was only one point at which the vessel could be controlled, and that merely wide enough for a single ligature. After having emptied the pelvis I felt rather uneasy about the right ureter, although no suture had been placed anywhere near the usual ureteral site. As a matter of fact the ureter had been included with the right ovarian vessels. It was released with ease, and the patient made a perfect recovery. Sometimes the ureter is carried up out of the pelvic cavity by large tumors, and there is great danger of it being tied or cut. If, after tying the round ligaments and releasing the tube and ovary, the blunt dissection be carried down close to the uterus the danger is minimized. In some instances, it may be necessary to perform a preliminary myomectomy, thus diminishing greatly the size of the uterus, and allowing the ureters to drop back into their normal position. The same result may be accomplished by bisection of the uterus.

*Bisection of the Uterus.*—In not a few instances, on opening the abdomen, the operator is confronted with a very discouraging problem. The pelvis is filled with a nodular tumor glued everywhere to the omentum and intestinal loops, or firmly wedged in the pelvis. In some of these cases it is next to impossible to gain a point of cleavage, and were it not for bisection of the uterus the operation would either have to be abandoned, or the resultant injury to the intestines from the difficulty in the separation of adhesions would be so great that the chances of the patient's recovery would be minimized. In such difficult cases the uterus is firmly grasped with mesoforceps on each side, and the organ is boldly split in the middle. As the incision is increased fresh mesoforceps grasp the uterine walls on either side, and eventually the entire organ is separated into two halves, or divided as far as

the cervix. We would naturally expect to see injury to the surrounding parts, but by this operation we reach the adhesions from their under surfaces, where they are lightest. You would also naturally expect much hemorrhage, but if the uterine halves are kept taut with the mesoforceps no danger from this source is to be feared. With the uterus now in halves, the respective portions are removed entire or amputated through the cervix, the vessels being controlled in reverse order to the usual method, namely, first, the uterus, then the round ligament artery, and finally the ovarian vessels. The remainder of the operation is completed in the usual way.

*Abdominal Hysterectomy with Preliminary Amputation through the Cervix.*—In a certain number of cases in which the adhesions are so great that bisection of the tumor is not feasible, it may be possible after severing the round ligaments to push down the bladder so that the cervix is exposed. The uterine vessels are then clamped on both sides, and the cervix is cut through. The cervix is then drawn strongly forward and Douglas sac is opened from below. The broad ligaments are then clamped and the tissues cut. The cervix is now drawn still further upward, and all the adhesions are gradually separated from the under surface. The ovarian vessels are clamped on each side and the tumor is delivered. In these desperate cases all vessels have been clamped, and the organ is removed without a ligature having been applied. The vessels are tied with silk, and the operation is completed in the usual way. Where the intestines are densely adherent to the tumor, always sacrifice part of the myoma or its overlying layer of uterine muscle as the case may be, leaving it attached to the intestines. This raw flap adherent to the gut is now turned in on itself in such a manner that the bleeding is checked and a smooth surface left.

*Complete Abdominal Hysterectomy.*—While amputation of the cervix is usually preferable; first, because it is easier, and secondly, on account of the remaining portion of the cervix forming a good support for the vaginal vault, still in not a few instances the complete operation is clearly indicated. For example, where a large cervical myoma exists there is often no normal cervix left, and the growth has so encroached on the vagina that a small cuff of this must also be removed. In these cases after tying the uterine arteries low down near the ureter it is not very difficult to free the mass on all sides until the vagina is exposed. In every case, however, where there is great danger of injury to

the ureters these should be carefully outlined to see that they are intact.\*

In all cases in which we suspect adeno-carcinoma or development of sarcoma in a myoma, splitting of the uterus should never be performed, as we run a risk of not only implanting cancer and sarcoma cells upon healthy tissue, but also of setting up a general peritonitis, as in these cases virulent pus organisms are very liable to be present. Knowing that we may at any time encounter malignant growths in the uterus, when we are operating for myoma, I have made it a rule where the uterus has been amputated at the cervix to always have the organ opened at once, so that if perchance a malignant growth exists the cervix may also be removed before the abdomen is closed.

*Treatment of Myoma complicating Pregnancy.*—If pregnancy occurs when the uterus is studded by large and small myomata which apparently encroach on the uterine cavity to such an extent that they almost preclude the possibility of the pregnancy advancing over a few months, hysterectomy should undoubtedly be performed irrespective of the ovum. In other cases in which the myoma is cervical, and so plugs the pelvis that labor through the normal passage is impossible, the question should be laid squarely before the family, and the alternative of complete hysterectomy at once or Cæsarian section at term followed by hysterectomy at a later period discussed. The uterus might possibly be removed immediately after the Cæsarian section, but the parts are so vascular in the pelvic floor, and a large cervical myoma is often so difficult of removal that no fixed rule can be laid down, and the surgeon must use his own discretion in the individual case. Recently, I saw a patient who was eight months' pregnant, who had a myoma as large as a child's head, situated in the anterior uterine wall. Three surgeons were sure that Cæsarian section would be necessary; two considered normal labor possible. All preparation was made for operative interference, but the patient fortunately had a normal labor.

*Treatment of Submucous Myomata.*—Where the submucous myoma is small and situated far up in the body, and no discharge exists, it will often be advisable to open the abdomen, split the uterus, and remove the nodule, sewing up the rent in the uterine mucosa and then uniting the muscle. If the myoma project

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\*Doyen's operation where Douglas's sac is opened: the cervix firmly grasped and drawn backward and upward and then freed from the vagina on all sides and the uterine vessels are clamped and cut, is also a method of complete hysterectomy to be strongly recommended.



through the cervix where it can be grasped it is often possible to bring it down, and we can control the pedicle by two or three cat-gut sutures. If it be impracticable to reach the pedicle, the cervix may be split anteriorly until the necessary exposure is obtained. If the nodule is very large and fills the vagina, delivery by obstetrical forceps is at times feasible; but as a preliminary measure it may be necessary to incise the peritoneum to obtain the requisite space. In a recent case the vagina was completely filled by the growth and the hemorrhages had been very profuse and frequent. I endeavored to build up the patient, but without success. We waited until within a few days of the next period so that she might rally somewhat. On attempting to wash up the vagina the hemorrhage was alarming. I accordingly desisted and opened the abdomen at once, fearing that any more vaginal interference until the uterine vessels were tied would render her pulseless. After all the blood supply had been cut off, the nodule was readily drawn up through the abdominal incision with the accompanying multinodular myomatous uterus.

Where a sloughing submucous myoma exists, the utmost care is necessary. If there be little bleeding, it will be safe to delay operation a few days, and frequent douches of a 1 or 2 per cent. formalin solution should be given. Where there are no other myomatous nodules, and where the offensive discharge has ceased, the myoma may be treated as a simple submucous nodule and removed. If, however, the uterus be large and studded with other growths, the cervical lips may be sewn together (the vaginal portion of the growth having been removed some days previous). The vagina is then thoroughly douched with a 2 per cent. formalin solution and bichloride, and complete abdominal hysterectomy performed. Unless the chances of infection from the uterine cavity be reduced to a minimum, the probability of general peritonitis is great.

*When not to Operate in Cases of Uterine Myomata.*—It is only after studying many cases and following, as it were, their life history, that we can get the true perspective, and determine with any degree of accuracy when to operate or in what cases it would be better surgery to refrain from interference. This is especially the case when considering the treatment of uterine myomata. We all know of patients who have had myomata for many years and yet suffered no inconvenience whatever. Others have experienced some trouble, but not sufficient to interfere with their daily work. Judging from these cases alone we would naturally infer that no operation would be necessary unless the myoma

attained very large proportions. From our work on the subject, however, we find that unpleasant consequences may follow ultra-conservative treatment. In the first place, we have seen that uterine hemorrhages often become profuse and frequent, occasionally amounting to from one to two litres at a time. Then again, the general health gradually yields under the constant loss of blood. After a time pressure symptoms' not infrequently develop accompanied by gradual interference with locomotion. Again, we have to bear in mind that these growths may be so situated as to effectively prevent a normal labor. With the formation, of adhesions there is some danger of intestinal obstruction and an operation, where such a complication exists, is most unpromising. Finally, we must remember that in fully 1 per cent. of the cases sarcomatous degeneration of the myomata occurs.\*

*The Operative Results in Myoma Cases.*—It is not many years since the mortality in simple myoma cases was excessive. To attempt removal of a large and adherent myomatous uterus was rarely undertaken; but during the last decade the technique has been so perfected that in some clinics the mortality in simple cases is not over 3 per cent., and in Naples last fall Professor Spinelli informed me that he had just operated upon 100 cases with a mortality of not over 1 per cent. With such advances in surgery, bringing with them so marked a decrease in the mortality of these cases, have we the right to advise against operative interference, with the possibility of hemorrhage, loss of health, pressure symptoms, septic infections, intestinal obstruction, starting us in the face, and even the remote likelihood of sarcomatous degeneration or carcinoma? And this is not all. When giving our verdict in this or that case it is on the assumption that our diagnosis has been correct. Unfortunately we are not infallible. Less than seven weeks ago I saw in consultation a patient complaining of slight hemorrhage and with a uterus about twice the natural size, rather firm and feeling exactly like a small uterus containing a nodule the size of a small apple. To clinch the diagnosis were two small nodules each about 2 cm. in diameter, one on the posterior surface of the uterus, the other at the right cornu. She asked if it were cancer, and I informed her that it was without a doubt a myoma. On account of bleeding I advised hysterectomy, and to my surprise the growth proved to be an

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\* This is a very conservative estimate, as some have noted it in 2 per cent. and in another 1 per cent. carcinoma complicates myoma; so that in practically 2 per cent. of all uterine myomata a malignant growth also develops at one period or another.

adeno-carcinoma of the body of the uterus, while the two supposed small myomata were situated at points at which the cancer had extended entirely through the uterine walls, forming secondary growths on the surface of the organ. They were already adherent to the small intestines. With my eyes closed and that uterus in my hand I should have undoubtedly diagnosed the case as one of myoma. Nor are these cases by any means rare. I removed a uterus the size of a four months' pregnancy two years ago, and to my surprise on opening it I found it the seat of an extensive nodular carcinoma, no myoma being present. Two weeks ago one of my colleagues removed a uterus about the size of a four months' pregnancy. Pregnancy, however, was absolutely excluded, and the specimen was sent to the laboratory with the supposition that the growth was a myoma. On opening the organ, however, we found a cancer just above the internal os. This had blocked the cervical canal, and the uterus was distended by fully 500 c.c. of blood. On three different occasions I have opened the abdomen expecting to find myomata. In each the history was absolutely against pregnancy, but upon this we cannot rely in the majority of the colored race. In each of the three, I carefully made an incision until the nodule was detected, and then did a hysterectomy. These are but a few instances of the difficulties that arise in making an absolute diagnosis in cases in which myomata are suspected. After a careful study of many cases, and finding that the operative mortality is as low as, or even lower than, that which follows where patients are not subjected to operation, I feel that the only patients that should be advised against operation are those who exhibit no symptoms, or where the myomata are very small, and give rise to little or no trouble.

I am afraid my remarks have been too lengthy, but the subject is a very important one and merits, I feel, all the time you have so kindly allowed me to occupy.

#### DISCUSSION.

Mr. I. H. CAMERON.—It affords me the utmost pleasure to express the satisfaction and delight with which I have listened to this paper. I would not venture to criticise those portions of his paper which are personal experiences, coming from such an authority. I do not know that any more clear, lucid explanation of the subject can be heard than that to which we have listened, and, therefore, Dr. Cullen is deserving of the highest commendation. There is one point to which I would venture to offer criticism. There is nothing in the paper which does not accord with

my own experience, that may be saying much or little for it, but this point is one in which Dr. Cullen has departed from the teaching I have given him. I have not seen the diagrams which went around demonstrating his point, but I am very sceptical indeed about the correctness of the statement that myomata are subject to sarcomatous degeneration. I am quite in accord with Dr. Cullen that those changes do occur, but whether it is because of degeneration of neoplasm is a question. Another point to which he referred about which I must take issue, and that is that we get a carcinomatous degeneration. Against that I protest. However, all this has nothing to do with the merits of Dr. Cullen's paper. I am not finding fault with the paper at all. I cannot take my seat, however, without giving expression to my appreciation of the most lucid explanation of the subject to which I have listened.

Dr. HERBERT BRUCE.—I have nothing in the way of criticism to offer. I am sure it has been a very great pleasure to me to listen to my old classmate, Dr. Cullen, give such a clear exposition of the subject. I could not help recollecting the time we elected Dr. Cullen to represent the undergraduates at a dinner. He was returning thanks to us, and, as he had just reached the age of twenty-one, he remarked that it was a very great pleasure to him to have been given this particular honor on this particular occasion as he had just joined the "great majority." (Laughter.) I am glad to see him here to-day, and that he is not yet in the position which he said he had then reached.

Dr. GEO. A. BINGHAM.—I have nothing to add to what has been said, except to extend to Dr. Cullen my congratulations.

Dr. CULLEN.—Mr. President and Gentlemen: I am extremely obliged to my old friend and teacher Dr. Cameron for his remarks. In the first place a great many have been sceptical as to the sarcomatous degeneration, but those who have seen the degeneration have agreed absolutely that it is a direct transformation of the muscle fibres into the cells. You can see every gradation, every step, until it has been transformed into sarcoma. In this case you find sarcomatous tendencies. There will be a blur here and there and, in the centre a typical sarcoma. I think Dr. Cameron has misunderstood me with regard to examination. It is not the sort of the cancer degeneration, it is the association of cancer with myoma. In one person, at least, we have found cancer in the body associated with myoma. I have said myself you might have a cancerous degeneration of a myoma: I take it back. There is only one place where you can have it; that is a cancerous degeneration of a myoma.

## THE MEDICAL EXPERT AS A WITNESS.\*

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BY W. R. RIDDELL, ESQ., K.C., TORONTO.

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*Mr. Chairman and Members of the Medical Profession,—* You will allow me to say, in the first place, that I decline to look upon myself as an entire stranger in a gathering of medical men and women. True it is I do not have the honor of being a doctor of medicine, nor do I practise medicine (for which I duly offer up thanksgiving every day of my life), but I had the good fortune during my earlier years to study medicine for a short time in the same office as my friend, Dr. Powell; and that has given me an interest in medical subjects and in medical men which I have never lost, and which I trust I never shall lose.

The very interesting paper of Dr. McKenzie, and the still more interesting discussion which followed, struck me as I sat on the platform as furnishing a strong illustration of what Herbert Spencer and the evolutionists call differentiation, and the advance and evolution from the homogeneous to the heterogeneous. Now, when I studied medicine there was no such difficulty about diphtheria as there is now. The diagnosis, the treatment, the prognosis were perfectly simple. (Laughter.) If the neighbors' children had had a sore throat and died, and my child had a sore throat, then it was diphtheria. If they had not died of sore throat, then it was not diphtheria. The treatment too, was perfectly simple, once the case is diagnosed as diphtheria—take a stick about six inches long with a piece of cotton rag more or less clean (they had no antiseptic or aseptic methods in those days) tied around one end of the stick, and make it tight with thread, No. 30 preferred; dip that into a solution of nitrate of silver and swab out the throat. That was the treatment, and the only treatment. Prognosis, too was certain. (Laughter.) Repeat that treatment. If the child gets better it probably will not die. (Laughter.) If it takes a turn for the worse and dies, then the case is hopeless. (Laughter and applause.) There were no cultures in those days. They had beef tea, indeed, but it was used for feeding the patient, not the bacteria. They had nothing in the way of incubators and the like that you put into your waistcoat pockets, or into the axilla of the patient in order to develop bacteria.

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\* An Address delivered before the Ontario Medical Association, in June, 1903.

There was then no difference of opinion as to diagnosis, treatment, prognosis. Now I see no two medical men seem to be able to agree except on this point: "If you get a really costly medicine, the more of it you administer the better the result." (Laughter and applause.)

Like my friend, Dr. McKenzie, when I was asked to read a paper before this Association I had some little difficulty in coming to a conclusion as to what kind of paper would probably answer your requirements best. As however, I had already, at the request of the Medical Faculty of the University of Toronto, prepared a series of lectures for the medical students upon the subject of "Medical Men in Court," I thought it might not be out of place to take part of one of these lectures, change it somewhat, and adapt it to the "meaner capacity," as the Shorter Catechism has it, and give you that. That will account for the didactic tone which I propose to use. You will please consider yourselves students who are sitting at the feet of Gamaliel and learning from him.

In the English language the adjective has three degrees of comparison: The positive, the comparative, and the superlative. The noun substantive, with the exception of a very few words, has nothing of the kind. One of these exceptions is the useful and expressive word "liar." There are three kinds of liars: there is the liar, the d——d liar, and the expert witness. (Laughter and applause.) Now that gibe, that proverb, derives most of its vogue from the medical witness. And there is a modicum of truth concealed in it, although when one considers what it means, and what it implies and considers what a medical witness, as a rule is, it will be found to be grossly extravagant and grossly unjust.

There are two kinds of witnesses: the common witness, who speaks as to a matter of fact; the expert witness, who speaks as to a matter of opinion; and when we remember that an expert witness is only such when he is speaking as to a matter of opinion, and that in the case of opinions there are, and always have been and always will be, differences, it is not at all wonderful that expert witnesses do not agree in their testimony.

Concerning opinions there is constant disputing; and it is not doctors alone who are constantly disputing. Take the clergy: the *odium theologium* is worse than the *odium medicum* and the *odium forensecum*, and both of these, God knows, are bad enough. The clergy of one church believe that the theology of another church is based upon error and they know that the opin-

ions of the clergy of that other church are wrong. Members of my church know that they are right, and the other fellows are all wrong. Orthodoxy is my doxy; heterodoxy is your doxy. Lawyers do not agree, even when they are put on the Bench. Occasionally a lawyer is put on the Bench; it is not always the case, but still those who are lawyers are put there. (Laughter.) I have in my mind more than one case of pure law, not matters of fact at all, but matters of opinion, where one court has given a verdict for the plaintiff, this has been reversed by the next court, that again reversed, and then in the Supreme Court this last was again reversed. The only reason, perhaps, this was not reversed again was because there was no other court to go to. Politicians—people generally—do not agree in their opinions. Over there in the adjoining Park in the Legislative Assembly this afternoon they will be discussing a matter of opinion, and if you will give me a list of the people who are going to vote, if you tell me their names, I will tell you the majority on one side or the other. Opinions must necessarily differ, and, therefore it is that the expert witness who is called upon to swear, not to a matter of fact at all, but to a matter of opinion, almost as a matter of course differs from another expert witness.

Now, you will say that I am travelling very wide from my subject, but that is really not so, as I hope to be able to show you in a few minutes. What is the object of a court? What is the witness in the box for? What are courts of justice kept up for? They are kept up for determining facts, in the first place, and then applying the law to those facts so found; the judge applies the law, the facts are found by a jury, or by a judge sitting instead of a jury—and I shall for convenience use the word "jury" instead of judge sitting for a jury. The facts so to be found by the jury are not to be found by them from their own knowledge. In the jury box, as everywhere else, one is entitled to use common knowledge, that is, what everybody is supposed to know. Everybody is supposed to know that we have night and day, there are seven days in the week, that water is wet and fire will burn, and that when medical men get together at dinner they have a good time. (Laughter.) I won't say anything further on the latter matter, lest it might lead to painful misapprehensions. (Laughter.) A juryman or a judge has no right to found a verdict upon his own knowledge of facts. He determines the facts upon the evidence given in the witness box and by the witnesses; and therefore it is that the witness is probably the most important man in the court of justice after all, although you will find difficulty in convincing the unhappy litigant of that.

What is the object of cross-examination? It is to determine two things. The object ultimately is the truth, and that is determined in two ways; finding out first of all how near the witness is trying to tell the truth, and secondly, how far he is worthy of belief even if he is trying to tell the truth. Now both of these two matters must be considered. A man may be perfectly truthful, telling what he believes to be the exact truth, and by reason of his want of capacity, or by reason of some idiosyncrasy, which can only be determined by careful investigation, he is not succeeding in telling the truth.

Again, the value of the evidence of a witness depends upon a number of things. In the first place, it depends upon the opportunity which the witness has had to investigate the matters concerning which he is giving evidence. This is the case with the common witness as well as the expert witness. I have heard medical men swear (I have never heard medical men say it outside of the witness box) that a man who has examined a patient once will have as good an idea of the extent of his injuries, and the probabilities of his making a rapid recovery, as the man who has been with him from the time the injury took place, who has waited upon him, prescribed for him over and over again, who has joyed over him when he showed signs of recovery, and whose heart has gone down as his patient's health has gone down. However that may be, the means of observation which a witness has is the first thing of importance. The second thing is his capacity to observe, his capacity to form an opinion, his capacity to understand what he sees. That is a matter largely of education and of experience. Again, the value of the testimony depends upon a man's memory—how accurate is a person? how retentive is his memory? does he remember what he thinks he remembers? Is it the fact that he is telling the truth concerning something that has taken place in the past? Another thing is his capacity to say what he means. You may think that is an extraordinary statement; it is not. No man who has been much in a court of justice but will agree with me in this. Not one man in twenty appreciates the value of an accurate use of the English language. Not one man in twenty can express exactly what he means, so that there cannot be any mistake about what he does mean. The capacity to express one's thoughts, the ability to put in words and in decent English what it is desired to convey, is another thing upon which the value of a witness's testimony depends.

Another thing is his honesty. Medical witnesses are generally honest. The medical man who will allow himself to be ap-



proached, and who will give evidence contrary to fact or contrary to his real opinion, for the purpose of enabling the plaintiff to get a larger verdict out of a railway company is as much a thief, is as much a criminal, and should be behind the bars just as truly, as a man who opens a bank with dynamite. (Applause.)

Now, the object of cross-examination is to determine how far is the man's testimony to be relied upon, how far is what he is stating the actual fact. I remember once defending a man and woman for murder. A very graphic description was given by a young girl about thirteen or fourteen years of age of a whole series of circumstances, which she detailed so well and vividly that one could see that they led to an irresistible conclusion, that the man and woman in the dock were guilty of murder. I cross-examined at some length and with some care. Her story wavered. Each time we approached the story from a different point of view it changed. One little circumstance was modified, and little contradictions began to appear. By a little careful leading, or perhaps by a good deal of careful leading, she began contradicting her story in important points. Before the cross-examination was through she had contradicted her whole story, and that not by inadvertence, but of intention. She had yielded to the suggestion of the stronger mind. She had been living for three months in the home of a well-known enemy of the prisoners. The judge discharged the prisoners, and would not allow the matter to go to the jury. I was asked by a clergyman ten minutes after the acquittal, "How could you get that girl to lie the way she did; did you think it was honest or right to ask her those questions?" I answered, "Yes, eternally so." He said, "Why! you knew she was telling what was not true?" "Yes, but I wanted the jury to see that girl had a mind of such a character as to yield to the suggestion of a stronger mind. That she would allow to be instilled into her brain thoughts which had never been there, and thoughts which ought not to be there, thus showing that she was easily influenced." Then, taking the fact that she had been in the house of a well-known enemy of the accused for two or three months, the danger of allowing such evidence to procure a conviction was obvious.

I say cross-examination is one of the most valuable of weapons for arriving at the truth, and I speak of it because there is, at the present time, a feeling in some quarters against cross-examination. Take some of those very papers who are now crying out against cross-examination, and let anybody charge them with libel; and let that person be put in the witness box in order

to give evidence against them, and they will be the very first person to say, "It is the duty of a counsel to test in every possible way how far the witness is trying to tell the truth and how far the witness is succeeding in telling the truth." Of course, this will lead to inquiry into matters apparently irrelevant, but all proper cross-examination is directed to the sifting of opportunity, capacity, honesty.

Now, a witness has two duties. I suppose that probably will be news to you. I do not think you will find this in any of the books of medical jurisprudence. I don't think you will find it in any book of any kind—but I am not a man of theory, I am a man of practice. My profession calls upon me, and I am employed to get verdicts, if I can; that is my life work, and I propose to get verdicts by every honorable means, and I don't care one rap for theory. Your books tell you the witness has got only one duty, that is, to stand up there and tell the truth. That is grossly wrong. I have heard witnesses tell the truth in the witness box and nobody believed them. A witness has more than one duty. In addition to actually telling the truth, a witness owes it to himself and to his position to tell the truth in such a way that the jury and spectators will believe him. Your text-books tell you, "Go into the witness box and answer the questions truly, and then leave the witness box secure in the approval of your own conscience." I say, however, that not only should a witness tell the truth, but he should tell the truth in such a way as that people will believe him—and that, after all, is the main object of a witness—to say something which will be believed and have an effect upon the verdict.

Now, that leads me a little further. A witness box is no place for frivolity. A witness box is no place for jesting or trifling. The man who has taken an oath to tell the truth is under a serious obligation, and that obligation he ought to have in his mind before he goes into the witness box. Those are common-places, perhaps, to you, but none the less they are exceedingly important. If a man is going to be a witness, it is his duty to prepare himself by finding out all the facts concerning which he is likely to be asked. An expert witness who is going to be asked about his opinion ought to prepare himself with authorities backing up his opinion; he ought to be in a position to justify his opinion to the very utmost, because if the cross-examining lawyer is worth his salt that opinion may be severely tested. Physical preparation is not out of place. An important medical witness, being cross-examined by a lawyer who understands his business,

has a physical strain put upon him which is not light. The lawyer feels it, but it is his business, he is at it every day, but the witness has an unaccustomed physical strain, and therefore one going into the witness box ought to see to it that he is as far as possible physically fit. One's personal appearance is not unimportant. The man who is decently and properly dressed will receive more consideration at the hands of the judge, and at the hands of the jury, than the fop, or the sloven. The medical profession never stood higher in the estimation of the people than when they had their distinctive garb of the furred robe, the cap, and with this the gold-headed cane. The judges are wise in their day and generation when they insist on lawyers wearing the gown and being properly clothed in court. The rule of old Polonius still stands good—

Costly thy habit as thy purse can buy,  
But not expressed in fancy ; rich not gaudy,  
For the apparel oft proclaims the man.

These are preparations, things you consider before you go into the witness box; matters which will, or may, bear upon the value of your testimony. They won't help you to tell the truth, but none of them will hurt you in the slightest degree. All will assist you in that important matter, *i.e.*, making the truth tell.

Then in the witness box I have been in the habit of laying down for solicitors rules which will look almost absurd to you when I mention them, but rules which in themselves have a wide usefulness, and ought to be borne in mind by every witness. One-third of the time of trial courts is taken up with perfectly useless blather—not only useless in itself, but doing harm in beclouding proper evidence, in belittling the other parts of the case which ought to receive attention. Now, while judges sometimes, and lawyers oftener, are responsible for that, to a great extent witnesses are also responsible for that in no few cases.

Rule 1.—Don't answer a question until you understand it. Now, that seems silly. Go into a court room and listen to a trial; you will find witnesses persist in answering something they are not asked, and in not answering what they are asked. If in the witness box you do not understand the question, or if the question is complicated, you have a right to have the question put in such a shape as that you do understand it, and to have it put in such a shape as that you can answer it without deviating from the strict line of truth. If the lawyer declines (and there are men who will decline) you have a right to appeal to the judge,

and it is the judge's duty to see to it that the question is put in such a way as is understandable, and that it may be fairly answered.

In the second place, when you do thoroughly understand the question, answer it as briefly and concisely as you can consistently with the truth. If a question can be answered "Yes" or "No," answer it "Yes" or "No." If it cannot be answered "Yes" or "No," refuse to answer it "Yes" or "No." (Applause.) It is a well-known trick in my profession to insist, with a great air of indignation, upon a direct answer to a direct question. Of course, that is simply "talkee-talkee" for the jury. Sometimes the witness yields to the insistence of the counsel and answers "Yes" or "No," when he feels and knows no such answer should be given. This is wrong. If a question cannot be answered "Yes" or "No," you have a right to appeal to the judge, and almost invariably the judge will put things right. Do not, however, be hypercritical. The counsel for the side upon which you have been summoned as a witness will give you ample opportunity to explain your answer, and frequently the judge will say, "Answer the question. You will have an opportunity to explain." Insist on this opportunity.

Thirdly, and a more important rule than either of the others; when you get through answering a question, shut up. (Applause and laughter.) Men will talk and talk and talk, and the more they talk the better the cross-examining counsel like it, because it is absolutely certain if a man keeps his mouth wide open long enough, he is going to put his feet in it. (Laughter.) In my experience I have seen more cases lost (I mean by incidental matters) by witnesses going on talking after they had finished their answer to the question than by anything else. If the lawyer understands his business you may be sure he will ask questions enough. If you answer all the questions he will put to you, you will be doing all the law calls upon you to do, and enough to pay for all the remuneration you get. I have been asked: What should you do supposing a question should be put in such a way as that any answer to it would be misleading? Say so. You have rights as well as the cross-examining counsel, and your rights are bound to be respected. Say, "I cannot answer that question in a way that will convey the proper impression." Have the question put in such a way that you can answer it. These three simple rules seem probably almost like baby talk, but if they were observed at least one-third of the time taken up in our courts would be saved, and at least one-half of the humiliation

and mental pain which witnesses experience, both before and especially after they leave the witness box would be prevented.

Don't despise the cross-examining counsel. Poor chap! he may not know the difference between a heart and a liver if he were to see them. He may know nothing of medicine generally, but if he is worth his salt, and if he is doing honest work for the fee that is paid to him—I withdraw that—promised him—(laughter)—he will know as much about the subject for the time being as you do. Don't despise him; he is in a different line of business, but if he is a first-class man, he will, for the time being, know his subject; and if he is anything like a first-class man he will at least make the jury believe he knows more than you do about it.

Don't get into jangles. Don't cross swords in the way of wit with the counsel. That is our play, what we are after. Give me the witness that will jest with me, particularly an expert witness, and in nine cases out of ten he will give me what I want. If the cross-examining counsel laughs at you he has either got you on the hip, or you have hit him hard. (Laughter.) If he laughs at you, then as a rule you have got him, but if he laughs with you, you might as well leave the witness box.

I have seen cases lost by witnesses being too smart. I have in my mind now a case (I think there is at least one gentleman in this hall who will remember it) where a medical witness, called for the defence, used the word "imagination" in reference to the diagnosis of one of the medical witnesses called for the other side. Plaintiff's counsel knew that was all he wanted. Of course at once he was glowingly indignant at the idea of a member of a liberal and learned profession talking about another member of that profession using his imagination. It was perfectly useless for that medical man to say that he was using the word "imagination" in Tyndall's sense, "the scientific use of the imagination." The jury did not know Tyndall, and did not want to. All they knew was that one medical man ventured to say another medical man was imagining things, and promptly gave a verdict for the plaintiff.

Another medical man of the highest standing had the effect of his evidence absolutely destroyed when he admitted to me in the witness box that he was an advocate. It was perfectly useless for the gentleman to say that when he used the word "advocate" he meant an advocate for the truth. The jury knew well what an advocate was. That he was a lawyer employed and paid to speak upon one side.

Don't go and talk outside of the question, and "don't get gay."

Now, Mr. Chairman and gentlemen, I have talked already longer than I intended. I have been trying to say to you something practical, and these are not "Counsels of perfection." I know medical witnesses who, under cross-examination (while I daresay they never heard of any such rules as these I have been speaking of), have followed exactly the spirit of these rules, and as though they had them in mind. Any medical man who respects himself, and is willing to do what is right, need have no fear of his position in the witness box under cross-examination if, first, he understands his business; secondly, he takes pains to prepare himself; and thirdly, he is willing to tell the truth.

Gentlemen, I thank you very heartily for your kindness and the honor you have conferred upon me. If anything I have said will in the slightest degree assist you in the future, I am more than repaid. (Applause.)

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## APPENDICITIS FROM THE STANDPOINT OF THE COUNTRY DOCTOR.\*

BY JOHN W. S. McCULLOUGH, M.D., ALLISTON, ONT.

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Appendicitis is a very common and frequently fatal affection. It is the cause of the majority of cases of peritonitis in the male, and of the most of those in the female excepting those cases which arise in connection with some affection of the genito-urinary organs. There are a few facts relating to the appendix which tend to make apparent why this organ is so liable to inflammatory affections. First of all, it is understood to be a degenerate organ without any known function. Consequently it has poor nutrition. Added to this it has a scanty blood supply. There is but one small artery from the ilio-colic branch of the superior mesenteric. Its mesentery often does not reach nearly to the distal end of the organ. It is a blind pouch with small calibre, and such slender canals are known to be liable to stric-

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\* Contributed to annual meeting of Ontario Medical Association, June 16th to 18th, 1903.

ture. Its walls have no circular muscular fibres, and consequently it is unable to readily empty itself of the fecal matter and various foreign bodies with which, in its dependent position, it is liable to become distended. It has a relatively large amount of lymphoid tissue in its walls. Its powers of absorption are large, and the contents soon become dry and harden. Its contents from their very nature, are the habitat of various bacteria. It frequently lies upon the psoas muscle, and is therefore liable to irritation from the constant movement of this muscle. Inflammation of the appendix may begin in its mucosa. The lining membrane may afford an entrance to bacteria through an erosion produced by hardened fecal matter or a foreign body. Pressure of its contents may cause stasis of the feeble circulation, and by lowering nutrition of the mucosa allow of the invasion of the colon or other bacillus. Kinking or distortion of the mesentery, or a thrombosis of the blood vessel may cut off the circulation. These two factors, lowered nutrition from whatever cause and the entrance of bacteria, are the foundations of the pathology of appendicitis. Resulting from these conditions we may have either the mildest of attacks, productive simply of colic, or a local inflammation of a portion of the mucosa with eventual formation of a tiny stricture of its lumen, swelling the hyperplasia of the whole organ, ulceration, perforation, gangrene of a portion of all the appendix, the formation of a circumscribed abscess, pus formation in the subperitoneal tissue or general septic peritonitis. The progress may be very slow, and the disease may succumb to nature's efforts at a cure, or it may be so rapid that a few hours may decide the fate of the patient. If the attack is a mild one, and the patient happily recovers, a condition may be and frequently is left which more than ever leaves him susceptible to future attacks. The strictured condition often seen after more or less mild attacks, allows of the contents of the appendix to the distal side of the stricture becoming very hard and acting as a foreign body. Serous inflammation may have bound the organ to other portions of the intestines or to other organs, to its own mesentery, or to itself. Some of these conditions may account for the constipation, the pain, and the digestive disturbances seen in chronic cases.

*Symptoms.*—The most important symptoms are sudden acute pain in the abdomen, nausea, and vomiting, with coincident or subsequent rigidity of the abdominal muscles of the right side and tenderness in right iliac region. The pain is colicky, is spoken of by the laity as "cramps," and is due to reflex irritation

carried through the branches of the superior mesenteric plexus. The nausea and vomiting are due to irritation of the sympathetic nerves. The rigidity is due to the fact that the muscles are striving to protect the tender organ underneath, while the tenderness itself shows that peritonitis has commenced. While these are the earliest and most characteristic symptoms, there are usually some fever and increase of pulse-rate. Some authorities instruct us to pay little attention to the pulse and temperature, yet they undoubtedly, when they are carefully considered, afford some assistance. If the affection is due to the colon bacillus, which, perhaps, the larger number of these cases are, the temperature and pulse may be but little elevated. If due to a streptococcus or mixed infection the temperature may reach 102 degrees F., or more, with a correspondingly rapid pulse. With the condition of perforation or gangrene of the appendix, the pulse and temperature may be normal or subnormal. If the case is making unfavorable progress the tenderness may increase, and may be elicited by pressure on the left side. There may be more or less distension of the abdomen. Delirium, persistent vomiting, signs of shock, and chills, are unfavorable symptoms. The condition of the bowels may be unchanged or there may be constipation or diarrhea. The patient's face may show anxiety. The appetite is usually gone. Hiccough is a most unfavorable symptom.

*Diagnosis.*—A correct diagnosis, and especially an early one, is most important. Fortunately, in most cases, when seen early it is not particularly difficult, but it is much more difficult, and often well-nigh impossible, to say at a later period just what condition will be found inside the abdomen. I have known cases operated on within fifteen hours after the onset of first symptoms, and a circumscribed abscess found, and I have known others in which the attending surgeon refused operation (not believing it necessary, as the patient appeared to be improving) to subsequently have a large collection of pus in the abdominal cavity. Occasionally pain and tenderness may be confined to the left side. These cases are ones in which there is either a long appendix pointing towards the left side, or else there are adhesions confining a branch of a nerve through which the pain is reflexly carried. One of the earliest chronic cases I saw had no pain except in the region of the lower border of the ribs on the left side. The appendix was hard, bent on itself like one's flexed little finger, and with its tip adherent to the cecum. Following its removal, there has been no pain for the last seven years. The cardinal symptoms of sudden acute pain beginning in the region of the umbili-



cus, with nausea, vomiting, and rigidity of the muscles followed by tenderness over McBurney's point, are the ones to be relied on in making a diagnosis.

We will require to differentiate between appendicitis and (1) tubo-ovarian disease; (2) affections of the gall-bladder and ducts; (3) affections of the kidney; (4) affections of other portions of the intestines.

1. *Tubo-ovarian Disease*.—In this disease, which is more common on the left than on the right side, the pain is not usually so sudden in its onset nor so colicky. There is not the rigidity of the abdominal wall which is found in appendicitis. A history of genito-urinary disease, if it can be obtained, will aid in clearing up the diagnosis. Most helpful of all will be an examination under anaesthesia. In ectopic gestation the sudden collapse following rupture of the sac might be confounded with perforation in appendicitis. The puerperal age and the symptoms in pregnancy, if such can be obtained, will be of value in separating the affections.

2. *Affections of the Gall-Bladder and Ducts*.—In hepatic colic the pain is found in the upper part of the abdomen, and radiates towards the right shoulder. There may be tenderness over the gall-bladder, vomiting is more persistent than in appendicitis. The temperature is irregular, high at some times and low at others. There is often jaundice. In case of collapse from rupture of the gall-bladder an error might be made; usually, however, there is some history which will clear up the case. But in other cases nothing but an exploratory incision will diagnose the condition.

3. *Renal Colic may be Confused with Appendicitis*.—I recollect seeing a patient in consultation who had an unmistakable attack of renal colic, and along with it appendicitis, for which he was operated on in a few days.

4. Illustrative of the difficulty in separating this from other intestinal affections, permit me to give a few notes of a rather unique case I saw a short time ago. The patient was a hearty baby girl, sixteen and a half months old. She had some pain and vomiting at 10 p.m. Sunday, for which her mother gave a dose of castor oil. As a result she slept all night, and at 1 p.m. Monday the bowels moved freely. She had a return of the pain and vomiting; I saw her at 3 p.m. and found her in a state of shock, for which I gave a saline enema, mustard bath and gr. 1-60 strychn. sulph. hypodermically. She was relieved for a couple of hours. On return of pain a second enema was given. There

was a slight discharge of blood from the bowel. The pain and vomiting recurred with greater severity. There developed tenderness and rigidity on the right side of the abdomen, with perhaps a slight distension. A colleague in consultation with me that evening agreed as to the likelihood of appendicitis, but suggested that, considering the severe shock and the passage of blood, that there might be a volvulus. There being an increase of the symptoms, I did a celiotomy next morning, thirty-six hours after onset of first symptoms, and removed a highly inflamed appendix almost black for an inch at the tip and found in addition a volvulus of about six inches of the ileum just above its junction with the large bowel. There was a knuckle of its ileum pushed in the angle formed by the cecum and its mesentery and adherent there. About four inches of the ileum was dark and angry looking. Hot gauge compresses were assiduously applied, and after half an hour the circulation was restored, and the abdominal wound closed without drainage. The little patient has made a prompt recovery. In this case I cannot say which was the primary condition, nor whether one had anything to do with the production of the other.

*Treatment.*—In the light of our knowledge of the pathological conditions found in appendicitis, the treatment in all but the mildest cases should be surgical. At the outset, the patient should be given an enema, and a mild laxative of castor oil or repeated small doses of calomel. For the relief of pain chloroform water or spirits of chloroform may be given as required. Every case must be treated on its own merits, but any case that does not show improvement or which gets progressively worse during the first twenty-four hours should be operated upon. Mild cases undoubtedly get well without much treatment of any kind, but with due deference to those who pin their faith to the opium or morphine treatment, I doubt if it ever effects anything in appendicitis except to ease the pain, and fool everyone about the case who is not on the alert as to its masking qualities. But opium has its place all right, and, having decided upon operation and while making preparations to open the abdomen, a dose of morphine combined with atropine and strychnine will do good service in quieting the nerves of the patient and will leave him in better condition for operation than if he is allowed to suffer without it. The dose should not be large, and its purpose understood. It is not so easy to operate in the country as in the city. But, notwithstanding the absence of well-equipped operating rooms, the best surgical appliances and good nurses, good results are ob-

tained in the surgical treatment of this affection by the country doctor, and for two reasons : He can operate at the earliest possible moment, when he has the best prospect of success, and the absence of noise and dust incident to a city, with the benefit derived from pure air, perhaps go far to make up for what he may lack in surgical skill and surroundings. The operation in uncomplicated cases of appendicitis is a comparatively easy one, with ordinary equipment and scrupulous attention to aseptic conditions these cases do well. If the country doctor is constantly on the alert in appendicitis cases few of them should become complicated. If they go for days or weeks without improvement a condition may be eventually found which will tax the skill of the most experienced. In cases which have gone to the formation of a local circumscribed abscess the pus should be washed out, or gently swabbed out. If the appendix or what remains of it can be readily recognized, it may be removed, but the greatest care must be taken not to disturb the limiting wall of the abscess. In these abscess cases we should be reasonably satisfied that more than one pus collection does not exist. Cases of general septic peritonitis should be judged on their merits, and we should operate or not just as we deem best in the interest of our patients. For the sake of our reputation, perhaps, a large number of these cases had best be left alone.

Finally, in all cases where the country doctor decides to operate, he will but conduce to the patient's comfort and safety, and his own success and peace of mind, by having a good trained nurse. Perhaps no other adjunct except his skill as a diagnostician and an operator will make so much for success than this factor. The mild cases should be operated on in the interval. In chronic cases all are agreed as to operation. Fulminant cases require to be operated on without an hour's delay.

#### DISCUSSION.

Dr. T. S. WEBSTER (Toronto).—Mr. Chairman, there is one thing I would like to allude to. In tubal ovarian disease we find that the symptoms are nearly always felt, and in appendicitis the symptoms are not. The recollection of that will enable us in many instances to distinguish between tubal ovarian disease and appendicitis. If both are present, as we get in some cases, with the appendix attached, it becomes a more difficult matter, but the history of the case would indicate in what way the disease originated. I am glad Dr. McCullough regards

appendicitis as a surgical disease, that is, it should be treated in all cases surgically at some time or other, and I think he has outlined the time for operation under the various conditions according to the best authorities.

Dr. CARVETH (Toronto).—There is just one point. In no case of appendicitis, or suspected appendicitis, should a purgative or laxative be given. Ninety-nine out of every hundred cases of colic in the intestine are treated by opening medicine. If it is an ordinary type of colic it will get better without that; if it is appendicitis, in every case it will be made worse by the interference with what nature is doing.

Dr. BRYANS (Toronto).—I am not a surgeon, but I have seen numbers of cases in the city here. I would like to take exception to one remark. It was to the effect that in every case appendicitis should be operated on by a surgeon. I have seen very satisfactory results without operation, and I would not like to have that statement admitted as correct. If I had appendicitis I would not like to have it impressed upon me that I must some time have an operation.

Dr. LIVINGSTONE (Rockwood).—My experience is that in the large majority of cases of appendicitis which come under surgical experience, it is very hard to distinguish between a mild case of colic and appendicitis, and what a few hours will bring forth. I have seen cases in which I thought the onset was very mild, and a few hours afterwards found all the symptoms of perforation. I have had an opportunity lately of seeing a number of cases that perforated under twenty-four hours. All came under operation.

Dr. ALLEN.—I think an important point is the dressing, etc.

Dr. McCULLOUGH.—Mr. President, the last remark was in connection with the dressing. I am in the habit of simply buying plain gauze, about two or two and a half cents a yard, and I sterilize that myself, prepare gauze and splints and all that kind of thing. I always try to make it a point to have a dressing or two in hand. With regard to the cat-gut, I always buy it prepared. I do not think, unless one goes into it very extensively, you can prepare cat-gut satisfactorily. A good way to have it is to have it in those tubes that are hermetically sealed, and use it at one operation. If there is any left throw it away. This is better than to buy it in bowls or bottles. When I use iodoform gauze, which I don't a great deal, I generally buy it prepared, different strengths. Regarding a remark made about purgatives in appendicitis. I have been a little uncertain about

that. However, I feel a little safer if I administer a dose of castor oil. Possibly it may do harm, but I have not seen it do harm, and I think I will wait until then. While I have no doubt at all that there are some mild cases of appendicitis that recover without operation, still I think a patient who has appendicitis is in danger. He may have an attack at some future time under much more unfavorable circumstances. For my own part if I had an appendicitis of any consequence I think I would have the appendix out, and call in some of my colleagues to help me.

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### ANESTHETICS AND THE OPEN AIR.

BY GEORGE H. CARVETH, M.D., TORONTO.

Two years ago I said here that all diseases may be treated out of doors—summer and winter, day and night, hot or cold, rain or shine. The President himself rather doubted some of my statements. He asked a few questions and came to see me afterwards in reference to the treatment. He believes in the method at the present time. I understand that all of his patients are open-air patients; at least, they follow a profession that keeps them in the open air “wool gathering.” (Laughter.) The subject I want to take up to-day is in connection with giving anesthetics in the open air. What is the present condition of affairs? I have been in a few of the operating rooms of North America; they are all arranged with special reference to light, but not very many with special reference to air; very few of them are arranged with as much attention to the importance of bringing fresh air into a room without draughts as with attention to having proper light. Nurses suffer, patients suffer, doctors especially suffer as a result of the present arrangements; our lives are shortened as the result of present conditions. This morning before we got through the doctors were tired, the nurses were tired out, and the patient was what we call “flattened out.” Why? not the result of the anesthetic only, but the result of the anesthetic being administered in a room in which the air is not as good as out of doors. I think that sums up all the present condition of affairs. We prepare the

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patient in a hot, close room (I am speaking generally, not a particular case), either for an examination under an anesthetic or for the operation; then we do the operation in a hot, close room, or the examination, as the case may be. The temperature of the operating rooms in North America varies from 75 to 105 and that should not be. Then the patient is put in a room to recover from the anesthetic which is hot and close. The results are that the patient is tired out, weakened as the result of the conditions, letting alone the operation and examination; the nurses are tired out, weakened, and the doctors are very much abused from a health standpoint. That is the condition of affairs at the present time. The special point that we are all interested in is vomiting—sickness of the stomach, nausea, vomiting—in a certain number of cases we wish to guard against this nausea. In cases, for instance, where the patient has taken an anesthetic before, and dreads it not on account of the operation, but on account of the vomiting. You have the vomiting in abdominal operations.

Now, how can we prevent this? It can be summed up just in these words: Prepare the patient in the open air; administer the anesthetic in the open air; make the examination in the open air; or do the operation in the open air; still allow the patient to remain there to recover in the open air. You say, "That is all nonsense." Well, it has been done a number of times with satisfaction to the patient, to the nurses, and to the doctors. It was done long before I mentioned the subject, in the United States, and the results are perfect. The patient is not done out as the result of administering the anesthetic; the doctors come away fresh from the operation, the nurses are not tired out; there is no vomiting; there is no nausea afterwards in the case of the patient. Mr. Chairman, I think that sums up all I have to say on the subject.

#### DISCUSSION.

DR. JNO. L. BRAY (Chatham).—Mr. President and Gentlemen: One thing that struck me when Dr. Carveth was speaking, and that was this, It is all very well this time of the year to operate in the open air, but how are you going to do it when it is 9 or 10 below zero? The patient cannot be exposed, the doctor and the nurses cannot be exposed. What are you going to do in cases of that kind? I am a great advocate of open-air treatment. I think the doctor's remarks about the operating rooms are well-timed; but that is one point I would like the doctor to explain.

Dr. JOHN FERGUSON (Toronto).—I agree with the doctor about the benefit of open-air treatment, and I would say this: It is advantageous to remove the patient outdoors after the operation, instead of putting them in a close ward, even if the anesthetic has not been administered out of doors.

Dr. PRICE BROWN (Toronto).—I know Dr. Carveth is a very strong advocate of tent treatment. I suppose he means his operation should take place in a tent. A question would be raised with regard to giving an anesthetic in the open air; heated by the stove, it would pass away.

Dr. CARVETH.—Mr. Chairman and Gentlemen: That question was answered in my paper two years ago. The open-air treatment may be carried out in one of two ways: underneath the trees on a cot, on a verandah on the east or south side of the building; in this Province, in tents. Abdominal operations may be done in Toronto in November in the open air with good results. We have a distinguished visitor here who performed an operation in December of 1902 practically in the open air, the patient two minutes after the last suture was put in was placed out of doors and remained out of doors. A very important point in connection with the open-air treatment is that the patient must be in the care of a nurse, trained to manage cases under these conditions. Operations can be done practically in the open air in winter in a very warm ventilated tent, but from the first of May till the first of October in the southern part of Ontario operations may be done out of doors. I see operations done every day practically under these conditions.

Dr. BRYAN (Toronto).—I would like to know if the doctor would operate on an infant out of doors at every season of the year. As some of you know, Dr. Carveth is connected with the staff of the Western Hospital, and I am not surprised at him rebelling about giving an anesthetic in the operating room there. The conditions are such that I think it would be better to operate outside at all seasons of the year. That is the worst operating room I have seen any place for ventilation, so it is a good thing to have one member of the staff in favor of fresh air. I have seen the open-air treatment in the Hospital, and great things are being done by Dr. Carveth's treatment; I think, however, he slightly overstates.

Dr. HUNTER (Toronto).—I think a great deal depends upon the preparation of the patient. I think the nurse should take to cold baths. It is my suggestion to prepare the patient with cold baths. Give the patient cold water to drink, give the doctor a

cold bath—(laughter.)—and there would be little or no trouble under ordinary conditions.

Dr. CARVETH.—Mr. President, I would like to say a word or two in regard to patients vomiting. Those that are taken from the tent, and after the operation taken back there, rarely vomit. With regard to the Western Hospital operating room: It is not very large; there is a window at each end, and a big window at the top, and anyone who goes in there when the operating room is not properly ventilated has to blame himself. I don't operate until I open the windows, and the room is under the same conditions as if I operated outside.

Dr. MCMAHON (Toronto).—I think, Mr. President, we have to be on our guard against the tendency of a new creed to go to extremes. I think the experience of every abdominal surgeon is that his patients do not get along well if they are allowed to get cold after the operation. Nobody could be a stronger advocate of open-air treatment in very many cases than I am, but I am afraid we would be in the position of some who followed so faithfully the teaching of walking in the snow, if we went to extremes. You know the good old Pope tried that treatment a little while, and it nearly killed him. (Laughter.) I don't look forward to the time when we shall perform abdominal operations in the open air when it is below zero. I don't like to criticise, but I believe in some of the operating rooms in Toronto the air is kept very good. I do not believe that Dr. Carveth has gone too far in certain directions; for instance, in having the anesthetic administered in a room where the air is absolutely pure, but the part I do object to is to expose the abdomen or viscera to any temperature that is nearly down to zero.

Dr. CARVETH.—Mr. Chairman, I do not wish to be known as a faddist, to be thought of as going too far in any reckless direction; but we all know that changes have been brought about by the reckless leader in any special line. We are not doing reckless things in giving anesthetics out in the middle of the winter to our patients for an abdominal dissection of the intestines; but if we will remember one or two points that I have mentioned: To prepare the patient in fresh air; to give the anesthetic in fresh or open air, and as quickly as possible get them away from the operating room surroundings, because they cannot be comfortable there, to get them to the open air, and the results will be better when recovering from the anesthetic, whether from chloroform or ether.



## Therapeutics.

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### An Insuiflation Powder.

Especially in some more or less chronic nasal inflammations a protective powder that the patient himself can frequently apply is frequently called for. Such a preparation may be made up as follows:—

R Pulv. camph .....gr. xxx.  
 Pulv. aristol .....gr. x.  
 Pulv. menthol .....gr. xx.  
 Subcarb. bismuth .....ʒii.

M.

—*Clinical Review.*

### Toxic Effects of Urotropin.

In a recent communication before the New York Academy of Medicine Dr. W. Coleman found the following (*Med. Rec.*): He said that urotropin was a product resulting from the action of formaldehyde on ammonia. Toxic symptoms were not infrequently noted under a daily dosage of fifteen grains, and individuals differed very greatly in their susceptibility to it. According to Keyes, this susceptibility varied in the same individual at different times. Urotropin was quickly absorbed and eliminated, the rapidity of its complete elimination depending upon the dosage. Apparently urotropin was not ordinarily decomposed in the blood. Formaldehyde could not be demonstrated in the urine of persons taking urotropin, yet clinical experience showed that it possessed a distinctly antiseptic action on the urine. One observer had maintained that acid urine apparently produced a partial decomposition of the urine. Whatever might be the action of urotropin it was the most powerful urinary antiseptic in our possession. It was nevertheless quite irritating to the urinary passages, according to Keyes. Many clinicians did not share this opinion. Urotropin also acted as a diuretic and as a solvent of uric acid. While urotropin was being administered it was common to note some irritation of the stomach and some slight malnutrition. Diarrhea and abdominal pain were observed in a few cases. One case had been reported in which the skin became irritated and resulted in the development of an eruption somewhat resembling measles. These phenomena disappeared promptly on stopping the urotropin. Headache and ringing in the ears had also been noted. Albuminuria had been

produced experimentally in rabbits by the administration of urotropin. Irritation of the bladder manifested itself under two forms, strangury and cauterization of raw surfaces. Bladder irritation was perhaps the most common of the toxic effects of urotropin. The tendency to irritation of the bladder depended partly upon individual susceptibility, but largely upon the size of the dose. When sufficiently severe it was associated with the passage of bloody urine. There were at least seven cases on record of hematuria resulting from the use of urotropin.—*Clinical Review.*

#### The Opium Habit.

Dr. Elliott I. Osgood, of Chu-Cheo (*China Medical Missionary Journal*, April) gives a very satisfactory account of the success obtained in the breaking up of the opium habit among the Chinese at Chu-Cheo. Dr. Osgood's plan was to give four pills daily of either Dr. Macklin's or Dr. Beebe's antiopium prescription, and supplement this, at the time of the craving or other symptoms, with glonoin, sparteine, digitalis or passiflora (the tincture of the passion flower). The craving nearly always ceased at the end of three days. Dr. Beebe's pill is as follows:—

R	Quinine sulphate . . . . .	ʒxii.
	Extract of cannabis indica . . . . .	ʒxi.
	Extract of nux vomica . . . . .	ʒx.
	Sodium phosphate . . . . .	ʒii.

M. Make into 1,280 pills.

Dr. Macklin's prescription is:

R	Quinine sulphate . . . . .	gr. ii.
	Extract of belladonna . . . . .	gr. 1/6.
	Extract of nux vomica . . . . .	gr. 1/6.
	Extract of cannabis indica . . . . .	gr. 1/4.

M. For one pill.

Some of the patients, says Dr. Osgood, complained that the latter pill increased their craving, but a change to the former satisfied them. Glonoin (1-100 grain) acted well in the restlessness and sparteine (1-4 grain) was a splendid heart tonic.

With the departure of the craving, a building up process was adopted. The tonics used were usually arsenous acid, 1-120 grain, strychnine sulphate, 1 1-120 grain, and hydrochloric acid, 1 drop; or nux vomica 1-10 grain, and zinc phosphide 1-25 grain. This dose was given three times daily. Of passiflora, Dr. Osgood says that it "is the finest remedy for sleeplessness we have used.

For these opium patients two teaspoonfuls divided into two doses was necessary, but for an ordinary person from ten to fifteen drops will induce refreshing sleep. There are no evil after effects. With this remedy the opium patient almost invariably got sleep each of those first three nights when the craving was on."—*N.Y.M.J. and P.M.J.*

#### Hay Fever.

According to L. B. Locard, in *Boston Med. and Surg. Jour.*, the treatment of hay fever is either preventive or palliative. With the proper preventive treatment from 60 to 80 per cent. of the cases may be rendered immune, and by the palliative treatment a large majority of the cases may be given complete relief. The preventive treatment as outlined by the author consists, locally, in correcting deformities and cauterizing the sensitive areas lightly with the galvano-cautery. The constitutional treatment should be started four or five weeks before the usual commencement of the attack. The object of this form of treatment should be to increase the elimination and decrease the production of uric acid, to correct any neurosis present and other abnormalities. To increase the elimination and decrease uric acid production, alkalies, lithia and sodium salicylate should be given, together with a proper regulation of the diet. Chloretone should be administered as a nerve sedative, giving it just previous to an expected attack. The palliative treatment consists in the use of adrenalin locally, followed by an oily spray. If this does not check the excessive nasal secretion morphin or atrophin will usually control it or caffein and suprarenal gland may be given internally. The patient should wear smoked glasses for the eyes and use adrenalin solution or boric acid and camphor water as an eye wash. As a local application in the treatment of hay fever Yeo recommends the following:—

R. Resorcin .....gr. iss.  
Sod. chloridi .....gr. iv.  
Acidi acetici.....℥ii.  
Aquæ q. s. ad .....ʒi.

M. Sig.: Apply locally with a brush or a swab and repeat the application frequently.

Hydrozone may be used as a local application as follow:—

R. Hydrozone.....ʒss.  
Aq. destil .....ʒvi.

M. Sig.: Apply as a nasal douche four times a day, beginning

two weeks before the expected attack. The author also recommends a local application of deodorized cod-liver oil sprayed into the nares every three hours.—*Jour. Amer. Med. Asso.*

#### Intestinal Indigestion.

Hemmeter, according to an abstract in *St. Louis Med. Rev.*, recommends the following in the treatment of putrefactive diarrheas associated with abdominal pain:—

R	Tannigen .....	ʒi.
	Bismuthi subgal .....	ʒii.
	Salol .....	gr. xxiv.
	Ext. opii (denarcotized) .....	gr. iii.
	Elix. gentianæ	
	Essentiæ calisayæ, aa .....	ʒiii.

M. Sig.: Shake and take one tablespoonful three or four times a day.

The foregoing may be prescribed in capsule form, if preferred, by omitting the last two preparations and making twelve capsules. When anorexia is present the following combination is recommended:—

R	Strych. sulph.....	gr. 1/3.
	Acidi hydrochlor. dil.....	ʒss.
	Ext. condurango. flu.....	ʒss.
	Elix. gentianæ .....	ʒvi.

M. Sig.: One tablespoonful in two ounces of water one-half hour before each meal; or:—

R	Tinct. nucis vom .....	ʒiiss.
	Ess. calisayæ .....	ʒii.
	Elix. gentianæ.....	ʒvi.

M. Sig.: One tablespoonful three times a day before meals, in water.

When anemia is present, accompanied by gastric hypochylia, the following combination is of value:—

R	Quin. sulph.....	gr. xviii.
	Strych. sulph.....	gr. 1/3.
	Ferri sulph.....	gr. xii.
	Acidi arsenosi .....	gr. 1/5.

M. Ft. pilulæ No. xii. Sig.: One pill three times a day. The foregoing pills should be made up fresh and not coated.—*Jour. Amer. Med. Asso.*

Desiring to make a practical, useful journal for the General Practitioner,  
the Editors respectfully solicit Clinical Reports from subscribers and others.

# Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

GRAHAM CHAMBERS, B.A., M.B.      WALTER McKEOWN, B.A., M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

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TORONTO, JULY, 1903.

No. 1.

## THE PRESIDENT'S ADDRESS—ONTARIO MEDICAL ASSOCIATION.

While it is not our intention to criticise the very able and practical address delivered by the President of the Ontario Medical Association, Dr. J. C. Mitchell, of this city, we somehow do feel that the Association is lacking in appreciation for these presidential addresses because so seldom is any action taken upon the very valuable hints and suggestions which are thrown out. We wish only in this instance to make reference to one item of that address, because it is one upon which we have written on former occasions, and one which we would like to point out to our contemporaries in this city that they should take up and not rest until there has been a radical change made. We refer to the disgraceful patent medicine advertisements, inciters to crime and debauchery, which daily appear before the gaze of virtue in our public press. Dr. Mitchell, nor any other president, could be too severe in demanding clean sheets at the hands of the publishers of our every-day press; and the Association could have done well indeed, in following up this matter and passing a resolution condemnatory of the filthy practices. One of our great leading dailies failed to make any reference by either word or letter to that portion of the president's address, but cut it *en bloc*; and yet that self same newspaper poses as a model of public uprightness

and virtue. Dr. Mitchell told us that all the Methodist periodicals of the United States had decided upon cutting out for the current year all patent medicine advertisements. There are certain high-class periodicals of the great American Union which have persistently and faithfully refused these advertisements. They desire to be clean, and one cannot be clean when besmirched with filth. Whoever heard of one of these cure-alls which had failed to produce good results, and yet they are constantly paraded because of the money they make for their promoters. The Canadian medical press can do well in instituting and keeping up a campaign for clean every-day journalism. The profession of medicine have ever been hygienists of the first order. This is why they cry out for clean newspapers.

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#### TORONTO AND THE ONTARIO MEDICAL ASSOCIATION.

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Complaints have been placed before us that the meetings of the Ontario Medical Association smack too much of Toronto. That such a feeling should be created is unfortunate, because we believe that there is very little ground for such a feeling. Outside men declare that Toronto men read all the papers and get all the offices; while Toronto men declare that it is a very difficult thing to get outside men to contribute papers. The regularity of the meeting of the Association in Toronto year after year may possibly have something to do with that feeling. This year Toronto was selected again as the place of meeting for next year, and that by a Nominating Committee which we believe was composed entirely of Toronto practitioners. It seems rather unfortunate that the present system of electing the Nominating Committee prevails, and that this very important committee can be elected altogether from practitioners in this city to the total exclusion of men from the other cities and towns and country outside. If Toronto is to become the permanent abiding place of the Association, would it not be better to elect half this committee from Toronto and the balance from the outside? To our knowledge the Ontario Medical Association is the only medical society in Canada outside the societies in the cities which elects to meet in one place year after year; and it might be well for next year's committee to test the feeling of the Association in general meeting on the question. It would be too bad that an Association which is now so prosperous should suffer under the charge that it is altogether too "Toronto."

## AN ONTARIO BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

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Notice of motion was given at the recent meeting of the Ontario Medical Association by Mr. I. H. Cameron that at the next annual meeting he would move that the constitution be so amended that hereafter the Ontario Medical Association would be a branch of the British Medical Association. Without having ascertained the feelings of a single member of the Association upon this new and important question in medical matters in Ontario, we doubt if the proposition is a good one. Far rather would we see the Canadian Medical Association so organized and constituted that each of the provincial, county, and city medical societies would become branches thereof and important units in our own great national medical organization. It would certainly appeal to us, and be far better to keep within our own borders and work for the glory and advancement of Canadian medicine rather than seek to augment any society, no matter how truly British and Imperialistic we may be, whose influence can never be great in this Dominion on account of the vast distance which lies between us. It seems to us that Canadians are altogether too fond of British degrees in medicine which are not one whit better than our own. The Canadian medical profession has within its ranks many brainy men, but we have no medical literature worthy of the name. We believe that if good post-graduate courses were organized in Toronto and Montreal with degrees attached, we could change the order of things. They come to us from below the line and across the water in other branches; why not in medicine?

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## A CORONER-IN-CHIEF FOR TORONTO.

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The creation of, and the appointment to the office of, chief coroner for Toronto of Dr. Arthur Jukes Johnson is an act on the part of the Ontario Government which will commend it to the medical profession of this city. For a long time it has been felt that something should be done to provide the surfeit of coroners in Toronto—for we have by far too many—with ethical means of coming to a case, and thus do away with that jostling and tumbling over one another which has been altogether too

conspicuous on numerous occasions. The creation of the office of chief coroner is as commendable as the choice for the first occupant of the position. No better man could have been secured than Dr. Arthur Jukes Johnson, a medico-legal expert of long and wide experience. The man and the office suit each other; and the honor sits with good grace because it came unsought, unsolicited, solely for merit, and without the slightest attempt at wire-pulling. In all medical appointments whether of a government or professional character the position should seek the man. The employment of the tactics of the ward politician or the political wirepuller should be declared unethical.

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#### CANADIAN MEDICAL ASSOCIATION.

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As already announced through the columns of this journal, the thirty-sixth annual meeting of the Canadian Medical Association will take place at London, Ontario, on the 25th, 26th, 27th, and 28th of August with Dr. Walter H. Moorhouse, of that city, as President. Dr. George A. Hodge, Queen's Avenue, is Chairman of the Programme Committee, and Dr. Hadley Williams, Park Ave., London, is Local Secretary, to whom or to the General Secretary, Dr. George Elliott, 129 John Street, Toronto, titles of papers may be sent. Arrangements for reduced fares on the regular Standard Convention Certificate plan have already been made with the Grand Trunk and the Canadian Pacific, while negotiations are in progress with the Intercolonial and Canadian Pacific officials for rates from the Maritime Provinces and from points west of Fort William. These arrangements will be published in full in due time. In addition to those who have consented to read the addresses, the following have so far signified their intention of contributing papers: A. M. Rosebrugh, Toronto; Perry G. Goldsmith, Belleville; T. Shaw Webster, Toronto; R. Ferguson, London; A. Laphorn Smith, Montreal; Henry Howitt, Guelph; Alexander McPhedran, Toronto; E. G. Wood, Nashville, Tenn.; C. W. Wilson, Montreal; Geo. H. Aylesworth, Collingwood; Jennie G. Drennan, St. Thomas. The list is every day being added to; and the Programme Committee is desirous that those contemplating contributing should send in their titles without further delay. Entertainment is in the hands of a strong committee, and



London is quite sure to do itself proud in this direction. It is understood that Western Ontario is going to turn out very strong to the support of London; and there is every probability that the largest attendance ever recorded will be equalled, if not eclipsed. A great many members in the Western Peninsula who have not attended the annual meetings for years will take advantage of the proximity of this meeting to renew old acquaintances. The meetings will take place in the Normal School Buildings, which are said to be the finest of their kind in Ontario.

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#### MEDICAL JOURNAL CONSOLIDATION.

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Two of the leading weekly medical journals of America have been consolidated, viz., *The New York Medical Journal* and *The Philadelphia Medical Journal*. Both formerly first and high class, it is difficult to see how they can be improved upon. Presenting all that was good and practical in medical science and practice, that part will continue to be carried out, if possible, on broader and more comprehensive lines, and the readers of the consolidated journals, with the present able editorial and successful business management, may look for and expect each week a medical journal of the first order of excellence. The *Dominion Medical Monthly* wishes the new order of things every success.

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#### THE OLD AND THE NEW DEAN OF TRINITY MEDICAL COLLEGE.

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It may be that by the time this short editorial is read by our numerous readers that Trinity Medical College and the Medical Department of Toronto University will be consolidated into one medical teaching faculty; but we cannot let the opportunity to pass without paying our due measure of respect to one who for so long had so much to do with educating many medical men throughout Ontario and other parts of Canada, and the United States. Dr. Geikie, or as he was familiarly known by "the boys" of Trinity, "The Dean," has retired from active medical teaching, and Dr. Temple has been elected "Dean" in his stead.

Of the former we can truthfully say that the students of Trinity Medical College always loved their Dean, and that they wish him, now that he has laid down active medical teaching, that his future years will be filled with rest and comfort. Not one whit less was the new Dean always loved and respected by the student-body of Trinity Medical College. We doubt if any professor or lecturer has held for so long the confidence of his classes. Year after year it has been the same; there never was any "slope" when Dr. Temple was to lecture. Everyone was always in his place. That the unanimous voice of the alumni of Trinity Medical College will be, the Faculty has chosen well, we are assured. Long live the new Dean!

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### AMERICAN MEDICINE AND THE YELLOW PRESS.

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The vigorous and slashing editorials from the pen of the gifted editor of *American Medicine* on the newspaper in medicine, patent medicine advertisements, and all and everything which fouls the sheets of our daily press, are well worth reading, and are deserving at the hands of the medical press all over the North American continent the warmest commendation and approval. And more, they should be taken as the text for similar onslaughts upon the disgraceful and rotten conduct of the management of these selfsame, self-styled, self-constituted upholders of all that is good and glorious in public morals.

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## Editorial Notes

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### The Newspaper Mouth Padlocked.

We have noticed with satisfaction the extensive, continual, and habitual quotation from the columns of *American Medicine* by the lay press, but our interest has been more constantly excited by the fact that articles on one class of subjects is never quoted. Any facts or articles, *e.g.*, upon patent medicines are received in utter silence, so far as the newspaper is concerned, and as Hans Breitman would say, are at once lost in *die Ewigkeit*. A correspondent at last points out the reason. He called

the attention of a "syndicate writer," one whose specialty was humorous articles on popular fads and fancies, to the field open to him in the exploitation of the nostrum drinkers, the electric belt men, the oil-of-mustard actina people, the women with wires about their ankles connected with a wonder-working liquid yonder, etc. In especial was pointed out the man who had taken 792 bottles of patent medicines, washed down with two gallons a week of a prized mineral water. He had failed to support his family, and had the ungratefulness to die. The fun-maker saw the opportunity and regretted his inability to work the vein. The newspapers and their writers could nag the Christian Scientists, and such, every day, because these do not advertise. But to touch the sacred alcoholic nostrum traffic, the magnetic belt business, and all that, that of course would be suicide, speaking from a newspaper point of view. And suicide is not in their intent at present. They, the solemn "guardians of public morality," prefer their mouths padlocked and the key given to the patent medicine syndicates.—*Am. Med.*

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#### **Yellow Journal Lies.**

Is there not some way of stopping the lies of the newspaper dispatches as regards medical matters? Can not the readers of the papers do something to make the editors punish the egregious reporters and authors of their press-dispatches? For years there has been a constantly recurring outbreak (every summer especially, when news is scarce) of stories of triplets, quadruplets, and even quintuplets born in some family in some far-away part of the country. There is always an exact giving of name, place, and date. We have repeatedly investigated these reports and have never found even a rag of truth in them. Recently there has been republished all over the country such a circumstantial press-report of the adoption by Mr. and Mrs. John Shandrow, of South Haven, Mich., of twenty-two orphan children. There was no truth whatever in the report. Why does the ordinary yellow newspaper prefer lies to truth? To one of our hospitals there recently came, as a patient, a man who had made a fine income for years inventing such stories. He had an especial art in concocting medical and scientific nonsense and falsehoods with an air of truth about them intended to deceive the ignorant. His work was "syndicated" and illustrated. When taken sick he was writing an account of a new species of eels he had dis-

covered that walked on their tails, he said, and he had told many absurd yarns about hospitals, medical men, etc., whose gratuitous aid he now sought. He said the newspapers that paid him for his stuff knew perfectly well what they were buying.—*Am. Med.*

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#### Medical Editors in Newspaper Offices.

The newspaper accounts of the operations performed by famous foreign surgeons that have visited and are visiting this country have, in many instances, been entirely erroneous, and unjust to the visitors and to our American surgeons. The visiting surgeons have been credited with having performed operations that had never before been done in the United States, although they had never made such a claim for themselves. Such statements bring the visitors into disfavor with their American colleagues, and also lessen the respect in which our surgeons are held by the public. It appears to us that a reputable newspaper should have sufficient pride not to print accounts of operations that are the product of the uncontrolled mind of the imaginative reporter without submitting them to a medical man for revision. If it is impossible—and it seems that it is—to prevent the lay publication of medical items, every newspaper should have attached to its editorial staff a competent physician who, as medical editor, should revise all articles pertaining to professional subjects. Newspaper science would then, to some extent, be relieved from the contempt in which it is at present held. Every self-respecting newspaper should feel as much pride in accounts of medical matters as in those of financial, real estate, or other affairs.—*Am. Med.*

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#### Newspapers and Magazines "For the Home," and "For the Young."

Among the samples of morbid serial literature that we have gathered we notice many that need the attention of the Postmaster-General. Depravity can go no lower than some of these illustrate. To appeal to the ignorant and innocent in the disguise of a "periodical for the home," and sneak into their hands the pollution of the abortionist and purveyor of obscene literature shows a depth of degradation meriting the punishment instead of the support of the government by extending to the scoundrels the help of the mail department. The meanness of

the debauchers is also shown in the fact that these periodicals are furnished at prices far below the cost of printing, the pay, and the profit coming from the filthy advertisements. Let us take one published at twenty-five cents a year. It has "Household Departments," "For Girls and Boys," "The Family Physician," "For Nurses," etc. In the interlarded advertisement columns are found the following disgusting headings:

"For ladies only. Private tips. Should the number of babies be limited? This book will bring you relief."

"A sure rheumatism-cure."

"Why suffer with kidney and bladder disease?"

"Ladies' never-failing monthly remedy."

"The folly of being good; four full-length pictures."

"How to be happy in love."

"An easy road to marriage life."

"A young girl's book of experience."

"Only a boy; for sports only; exposes the wiles of the libertine."

"Free clairvoyance."

"Ladies! Harmless; relief sure and certain."

"Ladies! Our regulators."

"Ladies! If you are afflicted."

"All troubled and despondent women."

"Your fortune free."

"Ladies! I have studied your menstrual periods."

"Gold and California oil stocks."

"Ladies! Our never-failing monthly remedy."

"Ladies! Our monthly regulating tablets."

"The magic dice."

"Eyebright!"

"A test-medium."

"Catarrh cured!"

"Self-hypnotic healing."

"Ladies, when in need!"

"Stops earache."

"The social hell."

"Lost vitality."

"Weak men cured free."

"To mothers or daughters with female troubles."

—*Am. Med.*

## News Items

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DR. DOWNING has left Thorold and will assist Dr. Stewart of Chesley in his practice this summer.

DR. T. W. WALKER, B.A., M.B., of Elora, a recent graduate, will commence practice in Ridgetown.

DR. NAIRN, Elora, is moving his family to Winterbourne, where he has secured a good practice.

DR. CALDER, Petrolia, has gone to New York to take a six weeks' post-graduate course in surgery.

DR. WM. DOAN, of Harrietsville, has been elected D.D.G.M. of District No. 4 (Elgin), of the I.O.O.F.

DR. MCCOLL, of Wallacetown, has accepted the position of house surgeon at the Sarnia General Hospital.

THE Alumni of King's College, Windsor, N.S., have decided not to amalgamate with Dalhousie University.

DR. DONALD MUNRO, of Nairn, who recently graduated at Toronto University will practise in Mt. Forest.

DR. A. CAMPBELL, of Ailsa Craig, Ont., is now on the permanent staff at the General Hospital, Huntsville, Ont.

DR. D. T. SMITH, Blyth, has left for Perrinton, Michigan, where we believe it is his intention to practise medicine.

MCGILL UNIVERSITY, Montreal, passed ninety-six final students in medicine this year. The number includes twenty-eight from Ontario.

DR. W. J. QUINLAN, for a long time a resident of Victoria, B.C., but now located in San Francisco, is at present visiting old friends in the former city.

DR. J. I. FERGUSON, of the township of Moore, and son of Dr. R. Ferguson, of South London, has been appointed associate coroner for the County of Lambton.

DR. G. R. PIRIE, Dundas, has passed a very successful examination before the New York State Board of Examiners, and is now entitled to practise in that State.

THE following Toronto practitioners have gone to England and the Continent: Mr. I. H. Cameron, Dr. R. A. Reeve, Dr. Alex. McPhedran, Dr. D. King Smith.

DR. J. H. McCULLOUGH, who has practised in Owen Sound for twenty years, has pulled up stakes in that town, and will pursue his profession in the North-West.

DR. FRED LARGE, of Listowel, is at present attending to the practice of Dr. Hay, Toronto. In the fall he intends going to England spending a year there studying in the best hospitals.

DR. R. D. FORBES, Stratford, Ont., who was recently graduated as M.D.C.M. at McGill University, Montreal, has been appointed on the staff of the Montreal General Hospital for the summer.

A DEPUTATION from the Montreal Anti-Tuberculosis League have waited on the Quebec Government, asking for assistance in establishing a consumption sanitarium at the Trembling Mountain Park in the Laurentians.

NEARLY 100 babies died in one week in the latter part of June in Montreal. The normal weekly death-rate of that city is about 115, but the total deaths during the week mentioned footed up to 186. Of those who died 93 were children.

MR. MATHEW R. BLAKE, of Ashfield, County of Huron, who has been attending the Royal College of Surgeons in London, England, has obtained the degrees of M.R.C.S. and L.R.C.P., having successfully completed the three examinations in eight months.

DR. E. J. BARRICK, of Toronto, and Dr. P. H. Bryce, Secretary of the Ontario Board of Health, have been elected President and Vice-President respectively of the American Congress on Tuberculosis which met in New York a short time ago. The Congress meets next year in St. Louis.

THE many friends of Dr. J. William Fischer, of Waterloo, will be pleased to learn that he has been appointed head surgeon of St. Joseph's Hospital, London, for the ensuing year. A big addition has been added to the hospital, so that 125 patients can be accommodated. Dr. Fischer will have two assistants.

ONE section of the Montreal Vaccination By-Law has been declared illegal. This judgment is the outcome of a case in which the city was plaintiff and a large insurance company defendants. The latter continued to have in their employ an employee who could not furnish the necessary certificate of vaccination.

ONTARIO MEDICAL ASSOCIATION.—At the twenty-third annual meeting of the Ontario Medical Association, held in Toronto on the 16th, 17th, and 18th of June, Dr. J. F. W. Ross was elected president, Dr. Andrew R. Gordon, treasurer, and Dr. Charles P. Lusk, secretary, all of Toronto. Toronto was selected for the place of meeting in 1904.

ROYAL VICTORIA HOSPITAL, MONTREAL.—The medical staff for 1903-1904 is as follows: Admitting officer, Dr. A. G. McAuley; physicians, Drs. W. W. Francis, G. H. Turner, J. M. McCullough, and Robert King; surgeons, Drs. J. D. Dixon, L. C. Harris, H. C. Church and A. L. Lynch; eye ear, nose, and throat, Dr. N. C. Jones; anesthetist, Dr. J. M. English; locum tenens in surgery, Dr. D. W. McKechnie; in medicine, Dr. A. C. Frost; externe in medicine, Dr. R. H. M. Hardisty.

DR. LORENZ IN MONTREAL.—The famous Austrian surgeon, Dr. Lorenz, was in Montreal the latter part of June at the invitation of Dr. C. W. Wilson, of that city. He performed two operations at the Montreal General Hospital, one for congenital hip disease, and the other for club foot, demonstrating his "bloodless" method in both of these operations. While in Montreal he took advantage of the proximity of Quebec City and the Capital, and visited both of these places. At the Capital he was dined in the Senate Restaurant by a number of medical men in the Capital, the Hon. Dr. Sullivan, of Kingston, presiding. Dr. Lorenz was also at the Hotel Dieu and Royal Victoria Hospitals, Montreal. At the former he gave a lecture, and at the latter held a clinic. Sir William Hingston entertained Dr. Lorenz at dinner at his residence, at which most of the medical profession of Montreal were present.



News has been received of the death at Fort Wayne, Indiana, of Dr. T. H. Hicks, formerly of London, Ont. Dr. Hicks resided in London over twenty years ago, and left London to engage in the practice of his profession at Detroit. Dr. Hicks remained in Detroit until about five years ago, when he removed to Fort Wayne, Indiana. Although a skilful physician and a gold medallist when he graduated, he did not give his whole time to his professional work, and since his removal to Fort Wayne has discovered a process for extracting gold from ore that is pronounced the most successful yet discovered. His process has been put in use at Dahlonega, Georgia, at some Western mines, and also in Australia. Dr. Hicks was born at Brantford, fifty-three years ago. He married the eldest daughter of the late John Purdom, of London, who survives him.

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### Special Selections

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#### PRACTICAL EXPERIMENTS IN THE TREATMENT OF ANEMIC CONDITIONS.

BY FRITZ EULER-ROLLE, M.D., of VIENNA.

Translated from *Wiener klinische Rundschau* (Vienna, Austria), March 29th, 1903.

In the following I desire to describe in some detail the action of an iron preparation which, owing to its great advantages, deserves a permanent place in our materia medica. The preparation referred to is Pepto-Mangan (Gude), which unites in a fortunate manner those qualities which we have a right to demand of a ferruginous remedy. In the first place, it contains besides iron a second constituent of importance in the formation of blood, namely, manganese; and secondly, both of these are present in a neutral solution, which is the more to be valued since because of this fact it disturbs neither the gastric nor the intestinal functions. For this reason we are enabled to submit every case of chlorosis at once to ferruginous treatment, irrespective of the condition of the gastro-intestinal tract. Other authors have called attention to this advantage. Heitzmann\*

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\*Allgemeine Wiener medizinische Zeitung.

emphasizes particularly how well the preparation is tolerated, and that, unlike other chalybeates, it does not have an injurious influence upon the digestive organs, but even increases the appetite.

Ripperger\* considers the preparation as a very useful and easily assimilated remedy, free from any disturbing effect upon the digestive tract.

In my own experiments with Pepto-Mangan (Gude) I have exceeded the limits of its indications hitherto maintained, inasmuch as I became convinced that this preparation should not be confined especially to cases of chlorosis and anemia, but would effect improvement in other diseases attended with weakness and exhaustion, or at least maintain the nutrition of the patient, since the peptone which it contains acts as a nutrient and deserves consideration. On this point of view I based the first series of experiments, consisting of eleven cases, in which the general result was very satisfactory. These comprise a case of tabes with gastric crises, one case of obstinate vomiting in pregnancy, one case of esophageal cancer with severe stenosis, four cases of diabetes mellitus of slight degree, three cases of uric acid diathesis with arthritis, and, finally, one case of leukemia. The second series of observations related especially to cases of chlorosis and secondary anemia, the latter comprising fourteen cases, so that altogether twenty-five experiments were made.

In the following I have made a selection from this number, and almost every case illustrates the remarkable value of the preparation.

J. P., aged thirty-three years, butcher's assistant, consulted me June 2, complaining of constant vomiting and very violent colicky pains which occurred soon after taking food of any kind. The vomited matter contained almost always the entire food ingested, and on one occasion a moderate quantity of black coagulated blood. Pressure upon the stomach was quite painful. The diagnosis of ulcer of the stomach, to which the symptoms pointed, was discarded after a more thorough examination revealed symptoms characteristic of a tabes dorsalis. The patient within a short time had become markedly emaciated, having lost eight kilos in weight. He had acquired syphilis twelve years previously, during his military service. The attacks affecting the stomach therefore proved to be gastric crises. After they had diminished in frequency and intensity under the use of hot poul-

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\**New Yorker Medizinische Wochenschrift*, 1898, No. 12.

tices and strict diet, Pepo-Mangan (Gude) was prescribed at the beginning of July. At first three tablespoonfuls were given daily, added to milk, and later, when it was found that the preparation was well tolerated, it was increased to six tablespoonfuls. After the sensitiveness of the stomach had gradually subsided the patient could be discharged from treatment in the middle of August, having regained his weight with the exception of a trifle, while the crises had completely ceased.

In a case of uncontrollable vomiting in an anemic woman, twenty-four years old, during her first pregnancy, Pepto-Mangan was administered in the quantity of three tablespoonfuls daily, to which were added small amounts of cold milk. Hot applications with the thermophor were also employed. After less than four weeks the patient was discharged from treatment, improved, without any loss of weight.

Another observation relates to a case of inoperable cancer of the esophagus. The patient, sixty-two years old, had suffered since about one and one-half years from the neoplasm, but up to six weeks ago had been able to take, without any trouble, soft foods. Since that time, however, he had been able to swallow only small amounts of fluid. One morning, as usual, he had introduced a stomach tube himself, but during its withdrawal experienced violent pain. Since then he had constantly expectorated blood. Under the use of morphine injections and the application of the ice-bag to the thorax, rest upon his back, and complete abstinence from any food, his condition improved, and on the following day a nutritive enema, consisting of milk, eggs, and red wine, with the addition of four teaspoonfuls of Pepto-Mangan (Gude) and 20 drops of tincture of opium, was administered. On the next day the same was done. After the hemorrhage had permanently ceased, nutrition by enema was supplemented by administration per os of milk and Pepto-Mangan in small amounts, which were well tolerated. In this way it was found possible to keep up the nutrition for a considerable time in a comparatively satisfactory manner.

I am also able to report two cases of diseases of the metabolism, namely, one of diabetes mellitus of moderate degree and one of the uric acid diathesis. The subject of the former was a man forty-six years old, who since two and one-half years had constantly excreted a variable quantity of sugar in the urine. He stated that while the amount at first was only 0.7 per cent., it had increased and finally reached 3.21 per cent. After being placed on exclusive animal diet there was always a gradual sub-

sidence of the glycosuria, the sugar disappearing completely from the urine after about fourteen days. In the course of time, however, he acquired an unconquerable repugnance toward any form of animal food, and the supply of albumen could only be augmented by the addition of nutritive preparations to milk, of which he took about a quart daily. Gude's Pepto-Mangan was administered regularly in quantities up to six tablespoonfuls daily, chiefly to relieve the marked anemia present, which it did excellently. Inasmuch as this preparation supplies not only iron and manganese but also peptones to the organism, the patient could be maintained in a vigorous condition during six weeks.

Another patient, fifty-eight years old, who had suffered since four years with arthritis urica, had passed three months previously through an acute gouty attack, which yielded to iodide of potassium, the former attacks having been relieved by the salicylates. The diet, which had always been somewhat abundant, was thoroughly regulated, and for a long time the patient took meat only at his midday meals, with the proportionate addition of green vegetables and some fruit, while his breakfast consisted of coffee with milk or thin cocoa, with two tablespoonfuls of pepto-mangan, and a roll, and his supper of butter, eggs, etc., and two tablespoonfuls of pepto-mangan. No recurrence of the acute gouty attack has taken place after a lapse of five months, and subjectively also the patient feels well under this regimen.

Another observation relates to a peasant girl, twenty-four years old, with leukemia. Examination of the blood showed that the number of erythrocytes had fallen to 1,600,000 to the cubic millimetre, while the number of leucocytes amounted to almost 90,000; poikilocytosis was also present. Among the leucocytes there were found about 6 per cent. of eosinophile cells and numerous lymphocytes. The percentage of hemoglobin according to Fleischl's method was about 20 per cent. The spleen was much enlarged, its lower margin being palpable three fingers' width below the navel. Besides the medicinal treatment with quinine and arsenic, Pepto-Mangan (Gude), at first three tablespoonfuls, later six tablespoonfuls, was added to the milk. The patient also received a mixed diet. At the end of two months she had gained  $\pm$  1-4 kilos in weight. If we consider that in severe leukemias the excretion of nitrogen is always increased, and that this patient before the administration of the iron preparation, in spite of an abundance of nourishment, constantly lost in weight, as shown by observations made every five days, we are forced to the conclusion that the improvement in her nutrition must be as-

cribed in great part to the abundant ingestion of easily absorbable albumen and the hematogenic power of the preparation administered.

Although from the cases cited above we are able to form a decision as to the action of this remedy, it may be further added that it fulfils its purpose in the majority of instances; for, aside from a marked case of phthisis with intestinal ulcers and amyloid changes in the internal organs, in which the profuse diarrhea was increased by the administration of the iron preparation, which therefore had to soon be discontinued, and aside from a case of severe diabetes, a considerable improvement in the general health of the patient could always be demonstrated clinically by determinations of the bodily weight, by the condition of the gastrointestinal tract, and by microscopic examinations of the blood. The increase of the diarrhea in the above cases is attributable, in my opinion, perhaps to the too large quantity of the Pepto-Mangan administered. It is well known that all peptones and albumoses stimulate more or less the mucous membrane of the intestine, and therefore may give rise to frequent fluid evacuations. This is best avoided by keeping the daily and single doses within certain limits and not increasing them too rapidly. On the other hand, this property of the preparation can be utilized therapeutically, especially in cases attended with habitual and chronic constipation, particularly in chlorotic girls, in which the iron administered enhances the existing sluggishness of the bowels, as well as in neurasthenia and similar conditions.

Inasmuch as in Pepto-Mangan the nucleins are completely absent, it acts as a valuable auxiliary in the treatment of the uric acid diathesis, since, according to Kossel, all nucleins have the effect of increasing the formation of uric acid. Moreover, it is entirely free from extractive matters. While the latter ordinarily constitute a very agreeable addition to the diet, and their increased ingestion is desirable in some cases, on the other hand, their effect is the more injurious in various diseases, especially those of the kidneys.

Up to 1870 it was the custom in all acute maladies, and especially those attended with a typical rise of the bodily temperature, to advise against the ingestion of albumen, because to it was attributed the increase of fever. This idea had its origin in the experience that in various acute infectious diseases as in typhoid, peritonitis, and acute exanthemata, and even during the period of convalescence, the administration of albuminous food, of course in the unsuitable form customary at that time, was fol-

lowed by a sudden exacerbation of the temperature. This, according to our present knowledge, was certainly not due to the albuminous elements of the diet, but only to their form and character, which were not well adapted to the condition of the digestive organs in these maladies. On the other hand, Pepto-Mangan (Gude) can be resorted to safely in all these cases without any fear of inducing complications in the course of the disease. In my opinion, it has, in fact, certain advantages over the customary alimentation with milk, since the latter, owing to coagulation in the stomach, assumes a firmer consistence, while the pepto-mangan is undoubtedly absorbed to a great extent in the stomach.

At any rate, the preparation, owing to its abundance of peptone, has calorically a great nutritive value, since, according to the investigations of various authors (Zuntz, Ewald, Pollitzer, Adamkiewicz), the albumoses and peptones are capable of replacing albumen completely, and when given in appropriate doses are able to restrict, or even to arrest, the loss of fats, just like any other albumen. This is the more readily intelligible since the greater part of albuminous foods is absorbed in the form of albumoses and peptones, and reconverted into albumen by the intestinal mucous membrane and within the tissues.

If up to now I have described only cases which are intended to illustrate the utility of the preparation even in desperate conditions, I have done so in order to point out that in cases apparently beyond medical aid, and in others in which we despair of success, we should not stand by inactive. Thus, for example, in the above case of diabetes it was a matter of great importance that we were able by means of Pepto-Mangan to raise his nutrition, which, in consequence of his repugnance towards a meat diet, had become greatly reduced and was accompanied by pronounced anemia, to such a level that for a comparatively long period of time the patient was able to get along without any large consumption of meats.

What further incited me to report these cases was that the experiments so far made with Pepto-Mangan have been restricted, for the most part, to the field of iron preparations, of which an article by Dr. Roen\* affords us a very comprehensive review. This author remarks very justly that most of the ferruginous preparations hitherto manufactured consist of albuminous mat-

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\**Medizinische Chirurgisches Zentralblatt*, 1902, No 38.

erial held in solution by an excessive amount of caustic soda, thus neutralizing the gastric juice, while, on the other hand, through their decomposition the irritating chloride of iron is produced; or they represent peptone combinations containing an excessive amount of mineral acids, and therefore are precipitated by the alkaline intestinal secretion and rendered less assimilable.

Pepto-Mangan does not share in these disadvantages, and moreover, owing to the presence of manganese, that excellent carrier of oxygen, is of the greatest value, especially in chlorosis, anemia, and allied conditions.

I take the liberty of reporting only two more cases from the remaining fourteen, both relating to chlorosis characterized by severe symptoms, and illustrating very graphically the prompt action of this chalybeate.

The first case was that of a girl, eighteen years old, who presented a well-developed type of marked chlorosis. There was marked anemia of the general integument; the mucous membranes were very pale, and she suffered since the last fourteen days with persistent headache and a buzzing in the head. This was accompanied by palpitation and a feeling of weakness, as well as pronounced edema of the lower extremities up to the middle of the leg. Her menstruation was very irregular and profuse. Examination of the blood showed a much reduced color index, twenty according to Fleischl's method. The number of red blood cells was reduced to 3,100,000, the white not being materially increased. Although the patient had taken the greatest variety of iron preparations, they were not well tolerated. I therefore decided to administer Pepto-Mangan (Gude), enjoining at the same time rest in bed, which seemed indicated, if for no other reason than that of the condition of the heart and the attacks of weakness. The patient received at first two tablespoonfuls, and after a few days three tablespoonfuls of the pepto-mangan, and this amount in the third week was increased to five tablespoonfuls daily. The effect was truly surprising; without the least disturbance of the gastro-intestinal tract, considerable improvement of her entire condition had occurred at the end of four weeks, so that she was able to be up and about. She had a good appetite, and menstruation was regular for the first time in months, while the cardiac palpitation, headache, and buzzing in the head as well as the edema, had vanished. Examination of the blood showed 3,080,000 red blood corpuscles and a hemoglobin percentage of fifty (Fleischl). After another four weeks the patient was completely restored to health, with a hemoglobin

percentage of seventy and an increase in the number of red blood cells to 4,200,000.

The second case of chlorosis related to a girl, twenty-one years old, who since the beginning of the disease had complained of marked disturbance of the digestive organs. She frequently vomited and suffered with gastric pains and an increasing feeling of aversion toward all food. In this case also an examination showed the presence of a severe chlorosis, complicated with anemia and emaciation due to the much-reduced ingestion of food. This case was the more welcome to me because it afforded a crucial test as to whether Pepto-Mangan can really be taken without any disturbance of the gastro-intestinal tract. I administered at first very cautiously, only three teaspoonfuls of the preparation, and as this was completely retained and seemed to cause no disturbances of any kind, I increased the quantity on the third day to two tablespoonfuls, and during the following days to four tablespoonfuls, which dose was not exceeded. The preparation, therefore, completely fulfilled my expectations. In the course of three weeks the gastric and intestinal troubles had disappeared, the patient regained her appetite, and was able to take an abundance of food, so that her weight had soon reached its normal level, while simultaneously with the disappearance of the chlorotic condition a considerable improvement in the state of the blood ensued.

In conclusion I would only add that during the administration of the Pepto-Mangan no unpleasant by-effects have been observed, and that the preparation has always been willingly taken.

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### IMPAIRED DIGESTION OF INFANTS—PARTICULARLY BOTTLE-FED BABIES.

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BY F. H. MUNROE, M.D., NEWARK, N.J.

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The first few months of the baby's existence are fraught with much anxiety to both mother and physician. The stomach, just beginning the functions for which it was created, is somewhat loth to accept the changed conditions; it frequently rebels at having to perform the act of digestion as it should, and rejects



the food committed to its care. Sometimes the cause of this rejection may be over-feeding, but much more frequently it is due to hyperacidity caused by fermentative changes in the food itself. Particularly is this true of bottle-fed babies, and in the trials of food necessary to discover the one that best agrees with the baby, much time is lost and much worry is caused. The very nature of artificially prepared foods predisposes to their rapid fermentation, and the process of digestion is begun before the food leaves the laboratory. Added to this condition is that of slight uncleanness, which frequently exists in spite of the persistent use of boiling water in the bottle, tube and nipple. Even a strong solution of borax or bi-carbonate of soda is not sufficient to thoroughly remove the particles of food, and prevent the excessive fermentation and its sequelæ, namely, colic, vomiting, and diarrhea.

The only rational method of treating this dreaded condition is to assist nature in her efforts to establish a normal process of digestion, and overcome the too active fermentation taking place in the stomach and intestines. Investigation has shown that these abnormal conditions may be readily overcome, and normal conditions restored by the internal administration of Glyco-Thymoline in small doses and its further use in cleansing the tube, bottle, and nipple. Ten drops of Glyco-Thymoline added to each two ounces of feeding will usually be sufficient to correct hyperacidity and prevent diarrhea, but larger dosage are necessary in cases where diarrhea has already set in. That Glyco-Thymoline does all that is claimed for it in this class of cases was conclusively proven to me last summer by the results I obtained in three cases of fermentative indigestion, which for some time gave me considerable trouble.

CASE I.—An infant, fourteen months old, fed on a modified cow's milk, suffered from vomiting after feeding, eructations of gas and colic, which persisted until relieved by the passing of wind; vomited matter very sour smelling. The diarrheal movements were attended by pain and contained mucus of a greenish color—all the symptoms pointed toward an intestinal fermentative indigestion. I had used several remedies in this case, with indifferent results, when my mind recalled the peculiar action of Glyco-Thymoline on engorged and inflamed mucous membranes, and I immediately prescribed it, ordering ten drops to be put into each two ounces of food, the bottle and nipple to be washed with a 25 per cent. solution, and the nipples, when not in use, to be kept soaked in Glyco-Thymoline of full strength. The

effect was immediate. Within twelve hours there was a decided improvement, and within twenty-four hours all the serious symptoms had entirely disappeared, and a normal condition was restored.

CASE 2.—Child, almost two years old. Fed on milk cereals, and carefully selected diet. The symptoms much the same as in the above described case, but the diarrhea was more severe, and tenesmus and pain more marked, with bloody stools, apparently a severe dysentery. Microscopical examination of the stools showed the presence of a fungus of the yeast plant variety. The colon was flushed twice daily with Glyco-Thymoline solution, two tablespoonfuls to a pint of water, by high rectal tube, and a teaspoonful of Glyco-Thymoline by mouth every four to six hours. This was followed by marked improvement in every way. I have given Glyco-Thymoline internally and by rectum in other cases, but the above are good samples of what Kress & Owen's preparation will do. It has become one of my "sheet anchors" in the treatment of intestinal disorders, both in babies and older people.