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Gentlemen,—There are pinnacles to which we reach, only to be lurled down from the dizzy height into the valley below, to be hidden from the rude storms of the world, and where peace and quiet and easy-going hum-drum pervades the spot, while the green grass grows under the feet. This is the well-known valley of the "have-beens." Hills have only two sides, one going up and the other going down, and when one has reached such honor as you have conferred upon me, he has climbed the upside and must begin the descent. One is elated with the honor, but grieved with a retrospect of all that led up to it; one is pleased with the evidence of the good-will of his fellows—and a better lot of fellows never lived in any profession—but subdued with that soul-shading feeling that youth is fleeting and age approaching. Each man naturally looks forward to the day upon which he may occupy the presidential chair, but when the day comes he would give much to be able to postpone the honor for another ten years. And now it is time for the past-presidents to move up and make room for me; but I do not intend to be placed upon the shelf, if health and strength remain. We all like to mingle with youth, but, unfor-

tunately, youth and age were never meant to mix, as Charles Kingsley has aptly put it:—

“When all the world is old, lad,
 And all the trees are brown,
 And all the sport is stale, lad,
 And all the wheels run down,
 Creep home and take your place there
 The spent and maimed among,
 God grant you find a face there
 You loved, when all was young.”

It is a satisfaction, in dealing with the awful miseries of life, to know that others suffer, that suffering and death are the accompaniments of life, and from this springs much of the beautiful sympathy that is witnessed by our profession. We have a grand work to do. Charles Dickens has put it in the words of the doctor's wife where she says, “We are not rich in the bank, but we have always prospered, and we have quite enough. I never walk with my husband but I hear the people bless him. I never go into a house of any degree but I hear his praises or see them in grateful eyes. I never lie down at night but I know that in the course of that day he has alleviated pain and soothed some fellow-creature in the time of need. I know that from the beds of those who were past recovery thanks have often gone up in the last hour for his patient ministrations. Is not this to be rich?”

The young doctor must have as his main master-faculty, sense, common-sense, and he must have a real turn for the profession. A great divine has said: “The grace of God can do much, but it canna gie a man common-sense.” The danger of the present day is that the mind gets too much of too many things. A young medical student may have, as one author puts it, zeal, knowledge, ingenuity, attention, a good eye, a steady hand; he may be an accomplished anatomist, histologist, analyst, and yet with all the lectures and all the books and other helps of his teachers he may be beaten in treating a whitlow or a colic by the nurse in the wards, or the old country doctor, who was present at his birth. The prime qualifications for a doctor have been given by Dr. Brown in the words, *Capax*, *Perspicax*, *Sagax*, *Efficax*. *Capax*, room, for the reception and proper arrangement of knowledge; *Perspicax*, a keen and accurate perception; *Sagax*, the power of judging, ability to choose and reject; *Efficax*, the will to do, and a knowledge of the way to do it, the power to use the other three qualities.

The doctor must have a discerning spirit. There is a nick of time, or, in other words, a presence of mind, and this he

must have on, as Dr. Chalmers has said, "Power and promptitude." "Has he wecht, he has promptitude, has he power? He has power, has he promptitude, and, moreover, has he a discerning spirit?" The doctor must be as a general in the field or the pilot in the storm. I often think he belongs to no one in particular, but is a public property. His time is never his own. His children see little of him, and he leads a sort of Bohemian life, restless, active, thoughtful, worried, much beloved and occasionally cordially hated. He should be Bohemian in his tastes if he wishes for refinement to soften his manners and make him less of a wild beast. Art and literature, however, help to make noble only what is already noble, but such hobbies elevate and improve the mind and lift it above the run of every-day life. A good education is a first essential. It is not necessary that everybody should know everything, but it is more to the purpose that every man, when his turn comes, should be able to do some one thing. "The boy who teaches himself natural history by actual bird nesting is healthier and happier, better equipped in body and mind for the battle of life than the nervous, interesting, feverish boy with the big head and thin legs—the wonder of his class." It is well to have a pursuit as well as a study.

The doctor should marry, but his wife should be kept out of his work. Goldsmith said, "I was ever of opinion that the honest man who married and brought up a large family did more service than he who continued single and only talked of population." By marriage a man's sympathies are extended and his views of life are broadened. A touching picture of the refining influence of sorrow has been given us by Dr. Brown, the author of "Rab and His Friends," in speaking of his father. He says, "A child, the image of himself, lovely, pensive, and yet ready for any fun, with a keenness of affection that perilled everything on being loved, who must cling to someone and be clasped, made for a garden, not for the rough world, the child of his old age. This peculiar meeting of opposites was very marked. She was stricken with sucklen illness. Her mother was gone, and so she was to her father the flower he had the sole keeping of, and his joy in her wild mirth, watching her childish moods of sadness, as if a shadow came over her young heaven, were themselves something to watch. She sunk at once and without much pain, her soul quick and unclouded, and her little forefinger playing to the last with her father's curls, her eyes trying in vain to brighten his. The anguish, the

distress was intense, in its essence permanent. He went mourning and looking for her all his days." But the affection, we learn, softened and refined him, and made him better fitted for his work. His son tells us further that "his affectionate ways with his students were often very curious. He contrived to get at their hearts and find out all their family and local specialities in a sort of shorthand way, and he never forgot them in after life."

And such attentions are valued throughout life, and the clay is moulded and figured and ornamented and enriched and burned in the fire, and fitted for the battle of life. And the defective articles must be rejected and the broken articles may, perhaps, be mended, but they are never the same again, and, perhaps, we would be better without them. Our ranks must be kept clean. We must have a good, healthy professional growth, and in Ontario I am glad to say that such exists. The regular who adopts the methods of a quack is a much more dangerous individual than the quack himself. But we have others who are by no means quacks, who unfortunately lack discernment, and who do not mean to do the harm that they certainly occasion. Our duty is to relieve, and not to cause, suffering. Some surgical procedures of the present day require severe criticism. Surgeons may be too conservative or not conservative enough. A few years ago we had an epidemic of the former, and now we are suffering from a plague of the latter. We are able to do so much that we are apt to do more than we should. I hope that the few dangerous individuals will soon be quarantined, so that the death rate and the cripple rate may diminish and the epidemic be checked. The epidemic has been spreading and has assumed large proportions, and seems to affect chiefly young and middle-aged nervous women. Men with exposed organs appear to be fairly free from its ravages.

But, as a profession in general, we have been making great strides. The state is being saved from the enormous losses incident to great epidemics, and the medical profession is out of pocket as a consequence. It does not appear that proper efforts have been made to reimburse the doctors. We are asked to do what our friends, the lawyers, would take good care not to do without a proper arrangement for the payment of a proper fee. We are asked to register births, to register deaths, to notify regarding infectious diseases, and to attend the poor without remuneration. These are not charities. We are assisting and defending the commonwealth, and the commonwealth should pay us, and we should organize and agitate with this end

in view. Unless such matters are attended to and a new method of payment of members of the profession is adopted, the numbers entering must be considerably reduced. In China the doctor is paid for keeping the family in good health. In Canada we, as a profession, protect the people from dangerous diseases, but the services are not paid for, and are scarcely recognized. A few officials take all the fees. Our real charity is not among the really needy, but among the apparently well-to-do. A proper revision of the relations of medical and surgical fees to one another is much needed, and a ruling of the Association on the ethics of commissions is required. A special committee of this Association should be appointed to investigate these matters and submit a report at our next meeting. It has been said that knowledge is no barren, cold essence, but it is alive with the colors of the earth and sky, and is radiant with light and stars. If we endeavor to follow along the lines of experimental investigation of natural phenomena, we must obtain a fondness for the impartiality and truth which such a study incites. Says Draper, "We will thus dedicate our days to the good of the human race, so that in the fading light of life's evening we may not, on looking back, be forced to acknowledge how insignificant and useless are the objects that we have pursued."

A paragraph that has greatly interested me by way of a retrospect, is the following: "In olden times, the surface of the continent of Europe was, for the most part, covered with pathless forests; here and there it was dotted with monasteries and towns. There were low-lying districts, sometimes hundreds of miles in extent, that spread aches far and wide. In Paris and in London, the two largest cities, the houses were built of wood and daubed with clay, and the roofs were thatched with straw or reeds. There were no windows, and very few had wooden floors until after the introduction of the saw-mill, and such a thing as a carpet was unknown. A little straw scattered here and there in the room was the covering used for the floor. As there were no chimneys, the smoke of the ill-fed, cheerless fire escaped, Indian wigwam-wise, through a hole in the roof. It is needless to say that in such habitations there was but little protection from the weather. No attempt was made at drainage, and the putrefying garbage and rubbish were thrown out of the doors. Men, women and children slept in the same apartment, and, not infrequently, with domestic animals as companions; and, as a consequence, neither modesty nor morality could be maintained. The bed was usually a bag of straw, and

a wooden log for a pillow. Personal cleanliness was unknown, and great officers of the state, even dignitaries so high as the Archbishop of Canterbury, swarmed with vermin. Perfumes were largely used to conceal personal impurity. Many of the citizens clothed themselves in leather, a garment that, with its ever-accumulating impurity, lasted for many years. If a man could procure fresh meat once a week for his dinner, he was considered to be in easy circumstances. Not only was there no house drainage, but there was no street sewerage. There were no pavements or street lamps. After nightfall, the shutters were thrown open, and the slops were unceremoniously emptied down, to the discomfiture of the wayfarer, tracking his path through the narrow streets, with his lantern in his hand." What a picture for us to criticize in the present day! And yet we scarcely realize all the hard work, ignorance, bigotry, persecution and glorious self-denial that have given us what we have to-day in our Western civilization.

Much progress has been due to the work of societies, such as that grand old society, the Royal Society of London. As university men and as educationalists, knowing as we do that our present day conditions are due to the dissemination of knowledge, we should organize and promote similar societies, and see to it that they hold as prominent a place in the community as the churches. It was by the Royal Society that Harvey's discovery of the circulation of the blood was first accepted. The same society gave so much encouragement to vaccination that Queen Caroline submitted her own children to the operation. All scientific observers are satisfied that Queen Caroline was right and the Royal Society was right. Then it was demonstrated that scurvy, the curse of long sea voyages, could be cured by the use of vegetable substances. We follow along and find jails and buildings ventilated and illuminated with gas. Cities were lit up, and made much more habitable. If we expect to have progress, we must rally around our educational institutions, and see to it that they are well provided with the means required to carry on efficiently and well the work of scientific investigation, and that they are untrammelled by the views of either church or state, remembering always, that the slogan of the twentieth century is "Knowledge is power." If this is done, man cannot lapse again into the dark days of the dismal centuries, when pestilences were looked upon as the visitation of God and not as we know them to be, the consequences of filth and wretchedness, easily pre-

vented by personal and municipal cleanliness. In the twelfth century it was found necessary to pave the streets of Paris, as the stench from them was unbearable. Dysenteries and spotted fever, that had been prevalent, diminished, and a sanitary condition was soon established, that approached to that of the Moorish cities of Spain, that had been paved for centuries. But alas for backsliding! Many of the Spanish cities have been allowed to lapse into an unsanitary condition, and the evidences of Spanish sanitation, as I saw it in Cuba, were not calculated to excite enthusiasm. Under the control of Western civilization and the proper application of knowledge, matters have been changed. When it was decided that plagues were not a visitation of God, quarantine was established. Nothing has protected the human race to a greater extent than the establishment of proper quarantine.

When anesthetics were first introduced, their use in labor was discouraged, as it was believed that women should not escape the curse pronounced against them in Genesis. Now anesthetics are, I hope, very universally used, to prevent the awful agonies of labor, by an enlightened, educated, scientific and humane profession. The very best evidence that can be brought forward to emphasize the benefits to mankind of improved methods of living has been obtained from the British Government reports of life insurance transactions, carried out in the seventeenth, and again, a hundred years later, in the eighteenth century. In 1693, the British Government borrowed money by selling annuities on lives from infancy upward, on the basis of the average longevity. The contract was profitable. Ninety-seven years later, another tontine of scale of annuities on the basis of the same expectation of life as in the previous century, was issued. These latter annuitants, however, lived so much longer than their predecessors that it proved to be a very costly loan for the Government. It was found that while 10,000 of each sex in the first tontine died under the age of 28, only 5,772 males and 6,416 females in the second tontine died at the same age, one hundred years later, or, in other words, 20,000 died in the first period and only 12,188 in the second period of one hundred years later, a very greatly diminished mortality, all conditions being identical except the improvements wrought by advanced sanitation.

Once fairly introduced, discovery and invention have unceasingly advanced at an accelerated pace. Each continually reacted on the other, continually they sapped supernaturalism. The diffusion of knowledge by the newspapers and reviews

has immensely increased the power of the press. Where ignorance reigns, crime is prevalent. In such cities as Naples, where the education laws, such as we have in Ontario, either do not exist or are not enforced, the streets are filled with street arabs, who are a nuisance and a menace to society, growing up in squalor, ignorance and filth. In our Western civilization such a condition of affairs cannot exist, and I trust never will exist. The intellectual enlightenment, surrounding scientific activity, has imparted innumerable and invaluable blessings to the human race. Science is not confined to any one nation, but is cosmopolitan. We are living in an age of electric progress. The marvels of electric force have been studied and utilized for the great benefit of mankind. To-day the mummified remains of an Egyptian king, Amenophis, who lived thousands of years ago, are viewed in the original tomb, with the aid of the rays of the electric light. The telegraph and telephone are to be found in the very heart of Darkest Africa. The discovery of the achromatic microscope has rendered us great assistance in studying the nature of disease, and the X-ray has enabled us to pierce what was before impenetrable gloom. The harvest is ready, but not riper than it has been for centuries, but there are more enlightened and better educated and better equipped workers in the field. There is very much to be done and we must be constantly up and doing. I say this particularly to the young and enthusiastic. The foundation of our knowledge as modern doctors is science, and the superstructure must be built upon scientific lines. Hospitals are needed, not such as those that were first established, but modern, properly equipped and up-to-date institutions, with modern, up-to-date methods.

Many hospitals have been erected through the munificence of individuals in the towns, throughout our country. Every town of any size should have its hospital. Such institutions are not intended to do the work of the larger ones in sixteen larger centres; but there is a certain amount of work that can never reach the larger centres that can be done very satisfactorily in small hospitals properly equipped and served by a properly educated profession. Assistance from the larger fields of observation can be obtained when required, and under improved conditions such aid will be of greater service. The almost universal use of the electric light aids our work very materially.

Our prisons have been improved. Our younger criminals have been cared for. Our insane have been kept off the streets. Our poor are being looked after, and now health and comfort

go hand in hand. The true function of our study and deliberation is to prevent rather than to cure disease, and we are fulfilling our functions. But yet death reigns everywhere and at all times and in all places, and we know it. But he is not the stalking giant that he was. He has been marvellously reduced in stature.

Our medical press requires considerable regeneration. The articles published are not censored as rigidly as they should be. Much that is written and published is incomplete, speculative and inaccurate, and hence misleading. Our journals should be purely scientific publications, and not the hotbeds for the propagation of unstable theories. Looking back is not always a pleasant pastime, but there is a definite certainty about it that does not belong to the future. All that has been printed is liable at any time to be reviewed.

And now, in closing, let me say that in the year that has passed a much-desired amalgamation has been effected between two of our greatest educational institutions, Trinity and Toronto University. At first the task looked like a hopeless one, but owing to the good feeling existing between the rival faculties, it was finally achieved. Our province stands high in the banking world, in the musical world, and in the educational world. I was gratified to hear our provincial University so well spoken of in the Mother Land and even in Egypt. The Medical Faculty of the University of Toronto, as now constituted, with its ever increasing facilities, stands second to none, in Canada, at least, and the work accomplished, as evidenced by the standing obtained by our students abroad, is of a very high order.

Fathered by this Association is an institution intended to be a guardian and repository of our archives. We must be prepared to preserve our records for the use and assistance of those who come after us. A calamity befell the world when the Alexandrian library was burned, and a calamity would befall the profession of this province if the books, collected under the name of the Ontario Medical Library, should meet with a similar fate. We are about to occupy new premises, but we need more money to carry on the good work. This is not a municipal matter, but a provincial and professional need, and I hope that many of the out-of-town members of this Association will assist us. Such an institution, to do the work well, must be liberally endowed.

Three trustees have been appointed, and through the generosity of the members of the profession of Toronto, of our good

friend, Prof. Wm. Osler, of Mr. Geo. Gooderham, of Mr. E. B. Osler, Mr. Timothy Eaton, and the executors of the estate of the late H. A. Massey, ten thousand dollars are already in sight.

I desire to thank this Association for the great honor it has conferred upon me, and to thank those who have organized and arranged this meeting.

I feel sure that the hope and desire of every member of this vigorous twenty-four-year-old Association is that it may long be spared to write, to teach, and to guide the medical profession of this our great province.

NEWER METHODS OF DIAGNOSIS OF KIDNEY CASES AS APPLIED TO RENAL SURGERY.*

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I appreciate the honor conferred on me in being allowed to present a paper before this representative medical society of my native province. Whilst there is practically nothing original in this essay, your attention is called to some of the newer methods in diagnosis of kidney diseases which have been introduced since 1885, and which aid us in telling whether it is safe to operate or not on a diseased kidney.

Cystoscopy, or inspection of the interior of the bladder, is performed by two kinds of instruments: one perfected by Nitze, Casper, and Leiter, containing a lens system, and using water in the bladder, and the other variety by Howard Kelly and others, in which the bladder is filled with air. It is possible to tell, whether there is any inflammation or ulceration of the bladder mucosa, and also the number, position and appearance of the ureteral openings. Sometimes there is only one kidney and one ureteral orifice. The urine is seen to spurt from the ureteral openings, and this spurt may appear clear, cloudy, bloody or purulent. Much information may be gained about the activity of the kidneys by watching the contractions of the

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ureteral ends, the spurting of the urine and the intervals between them.

Halban observed tears in the ureteral opening after a ureteral stone had passed.

In tuberculosis of the kidney, the cystoscope often shows a tubercular process around the mouth of the ureter. If blood is seen to escape from one of the ureters, that will assist in making a diagnosis between vesical and renal hemorrhage.

Methylene-blue tinges the urine green, which can be recognized in the case of a normal kidney in fifteen to thirty minutes after taking the drug by the mouth. If we have to wait sixty minutes or longer before one ureter emits tinged urine, then we know there is disease on that side.—Ackard and Castaigne, 1897.

Voelcher and Joseph inject 16 centigrammes of indigo-carmin into the gluteal muscles, and in normal cases the urine is tinged purple in fifteen to thirty minutes. They state that this drug is excreted entirely by the kidneys and is harmless.

In his latest report (1904), Hofmeyer agrees with their views, and the advantages of chromo-cystoscopy are stated as follows:

1. Intensity of the color is seen to vary.
2. The ureteral whirl may be seen going down towards the base of bladder or upwards, indicating a difference in the specific gravity.
3. The opening of ureter may be covered with ulcerations and the only way to find the orifice is to watch for the colored spurt coming out.

The same authors give iodide of potassium by the mouth and fill the bladder with a weak solution of peroxide of hydrogen containing starch. The urinary spurt becomes bluish as soon as potassium iodide begins to be excreted. These tests aid us in determining whether the kidneys are functioning properly or not.

It is evident, however, that if the urine can be obtained separately from each kidney, without being contaminated by pathological elements coming from the ureters, bladder or urethra, diagnosis will be less difficult. There are two methods of accomplishing this, viz., ureteral catheterization and segregation. It is unnecessary at this time to discuss the instruments used for catheterization of ureters, their mode of sterilization, application, etc. Some prefer water dilation of the bladder, and others the air dilation. From my brief experience in the work,

I prefer the water dilation, and the use of a Brenner, or a somewhat similar cystoscope with a lens system, permitting exact and direct images. No matter what instrument is used, all of us will fail at times to catheterize the ureters. Ureteral catheterization is becoming more popular, but at the same time requires much skill and patience. Very few, if any, authentic cases of infection of the ureters follow catheterization. The catheters may become plugged with blood, etc., preventing the collection of urine. Ureteral catheters spoil readily, making the method expensive.

Segregation has for its object the collecting of the urine from each kidney separately, without the use of ureteral catheterization. The principle of the segregator perfected by Neumann, Harris and Down is to raise the centre of the posterior wall of the bladder up, with the aid of an elevator in the rectum or vagina, and then draw off the urine with catheters, separately, from the divided parts.

Lutys and Cathelin have designed an intravesical segregator, which divides the bladder into two halves by the use of a thin rubber membrane stretched over a spiral spring. Keen has used this kind with success.

Harris says: "After quite an extensive experience with the segregator, I can state that its intelligent use in suitable cases furnishes results which are reliable and gratifying. It should be used in connection with the cystoscope."

Segregation does not supplant entirely catheterization of the ureters, as there are cases in which the latter is more suitable, but that it does have a very useful field is certain. As many of the diseases of the kidneys require surgical operations for their cure, or even that one of the organs be sacrificed entirely, the necessity in the latter case of being able to estimate the functional capacity of the remaining organ became at once apparent, for upon this point depends the life or death of the patient.

Before the days of ureteral catheterization and the segregator, the determination of this point was practically beyond our power, unless we opened the peritoneum for digital examination of both kidneys; but now by an examination of the separate urines we are able to determine the amount of work done by each organ with almost mathematical precision. In order to do this it is necessary to take into consideration, when examining the urines, the time occupied in their collection, the amount collected from each side, the body weight of the patient, the diet and the amount of solids, such as urea, chlorides, etc. Some of the objections to segregation are:

1. There may be ulceration of bladder and urine is contaminated.

2. Segregators cannot be used when the bladder is much contracted, when bladder tumors of any size exist, or when the prostate is much enlarged.

3. The segregator cannot be left in much over an hour.

4. The ureteral openings are usually close to the median-line. Kummell tells of a case where the right kidney had been removed, and yet with Luys' segregator, the urine escaped from the right side.

Albarren, lately made a number of comparative examinations on the kidneys of dogs, and found the left kidney 15 to 20 grammes heavier than the right. He says that the longer the urine was collected from each kidney, the less the difference, and from a study of the anatomy, physiology and pathology of the kidneys, they are organs of the same kind, but not symmetrical.

Nicollet reports a novel method, which he has employed with success in three suitable cases. The patient rests for a few hours and the bladder is emptied. He uses abdominal massage over one kidney, collects the urine and bladder is washed; then the other kidney is massaged and urine collected.

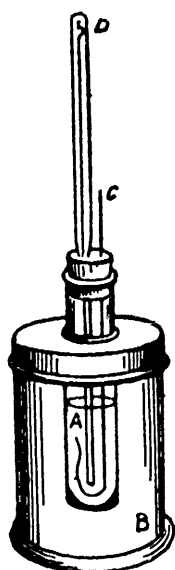
Collecting the urine separately from each kidney is certainly the greatest achievement introduced into this field of work. For example, in tuberculosis of the kidney, if a nephrectomy is to be done, which kidney is tubercular and what is the condition of the other? These questions may be decided by examining the urine obtained separately from each kidney by the use of the ureteral catheters. If a tubercular process be visible around the ureteral opening, then it is unnecessary to catheterize that ureter, as it, no doubt, leads to a tubercular kidney. Catheterization of the opposite and apparently healthy kidney is, however, indicated and the urine so obtained, examined chemically, bacteriologically, and microscopically. These "older" methods of examining the urine should not be discarded, but used in every case.

Cryoscopy (*cryos*, frost) was suggested by De Coppet, in 1871. He pointed out the interesting fact that when a molecule or a definite part by weight of any substance is dissolved in a definite quantity of distilled water, the freezing point of the solution is always lowered to a definite degree; or in other words, the lower the freezing point of a solution the greater the concentration.

Raoult developed this idea in 1882, when he published the

first systematic work on the subject of cryoscopy. This was not made use of in medicine until 1898, when Koryani, of Budapest, saw the value of this method in diseases of the kidney.

Cryoscopy of the urine has no value, except as compared with the blood. By the examination of a great number of normal cases, the urine has been found to freeze at from .9 deg. to 1.8 deg. C., and when the molecular concentration diminishes sufficiently to cause a freezing point above .9 deg. it is an indication of renal insufficiency. When renal insufficiency exists, waste products are retained in the blood and its freezing point is lowered. The normal freezing point of blood varies slightly



between 0.57 deg. and 0.55 deg., the normal being taken as 0.56 deg.—*Dreser*.

Barth says: "The freezing point of the urine from the diseased kidney is less than that from the sound or partially diseased, and the greater the difference (one side being near normal), the greater the pathological process on the diseased side."

The apparatus used for the determination of the freezing point is that of Beckmann:

It consists of an outer jar (B), in which the freezing mixture of ice and salt is placed. Suspended in the jar is the tube (A), and projecting into this is a wire stirring rod (C), and a thermometer (D). This thermometer is graduated in one-

hundredths of a degree centigrade, usually from one degree above to four degrees below zero. The scale is sufficiently coarse to allow of the reading of 1-200 of a degree.

Heidenhain's modification differs only in having an extra tube around the tube *A*, thus providing an air-space between the liquid to be tested and the freezing mixture, so that the cooling will be more gradual. There is also a somewhat simpler apparatus in which the freezing is done with carbon dioxide gas. Before using the thermometer it must be tested by taking the freezing point of distilled water, and any variation from the zero point noted, subsequent reading being corrected by this difference.

The ice and the salt, in large pieces, are placed in the jar in alternate layers, and from 10 to 20 cubic centimeters of the fluid to be tested poured into the inner tube. While the solution is cooling it is constantly stirred by means of the rod, to insure a thorough mixing and a uniform temperature throughout. The mercury at first sinks below the freezing point, but as congelation takes place it again rises and the freezing point read.

In testing the urine, Claude uses a portion of the mixed twenty-four hour amount; while others use a fresh specimen from each kidney. Blood for the test may be withdrawn from one of the large veins in the arm, by means of an aspirator, about 10 c.c. being required to determine the freezing point.

Lindermann finds that there is no deviation from the normal freezing points so long as the suppurative process is limited to the bladder and pelvis of the kidney, but as soon as the parenchyma of the kidney is involved, there is a deviation at once, *i.e.*, the freezing point of the urine is higher than normal, and approaches that of distilled water. There is also a change in the freezing point of the blood if the kidneys are affected to a pronounced degree, and the blood will freeze lower than normal, *i.e.*, below 0.56 deg. C.

Moritz's investigations are also valuable, as he was able to study the pathological conditions of the kidneys after death in all of his cases. He had studied the freezing points of the urine and blood for weeks before the patients died. Claude et Baltazard, Casper and Richter, and others have reached conclusions practically identical.

Kummel and his assistant, Rumpel, are very enthusiastic in advocating the use of cryoscopy in renal surgery. Kummel reports a series of 245 cases, which includes nearly every pathological condition of the kidney in which surgical interference

could be considered. It includes cases of renal stone, tuberculosis, perinephritic abscesses, hydronephrosis, and pyonephrosis, movable kidneys and tumor of many kinds. He gives his experience in his latest publication (1903), and states that his faith in cryoscopy as a means of diagnosis remains unshaken. In over 500 determinations of blood and urine, cryoscopy has not disappointed him once, and it is of the greatest value, when used in relation to surgical diseases of the kidneys.

Kummel claims that the differences in the results obtained by recent writers are due to errors in technique. He does not rely alone upon cryoscopic examination in any case, but employs it in connection with the usual methods as a supplementary test.

Before the introduction of cryoscopy of the blood and urine and ureteral catheterization, the surgeon was in constant fear after every nephrectomy until the danger period has passed, lest the other kidney be unable to carry on the function of elimination properly, or become incompetent as a result of the operation. At that time the mortality was 16 per cent. or more. Since using the newer methods of diagnosis, Kummel has not lost a single case in seventy-two operations, where the evidence showed that he was on the safe side.

Tieken, who has made over 500 estimations of the freezing point, says that when we have exhausted all the usual methods of examination and are still in doubt, we should make a careful cryoscopic examination of the blood, and of a specimen of urine obtained from each kidney separately, by ureteral catheterization, or by the use of some good segregator, and then be governed accordingly as the result may indicate. He usually advises against operative interference in a kidney lesion when the freezing point of the blood showed a concentration far beyond the danger point.

I hope to report, at a future time, on a series of cases where cryoscopy has been used.

Phloridzin Test.—Another aid in determining the functional activity of the kidneys is the comparative estimation of the amount of sugar eliminated by each, during a given time following the administration of .005 phloridzin hypodermically. In fifteen minutes, if the kidney is functioning normally, a temporary glycosuria occurs. The test for sugar may be made with the catheters inserted. This glycosuria does not occur so quickly, nor in such large amounts, in a diseased kidney, nor in one which is not functioning properly.

Another method for the estimation of the sufficiency or in-

sufficiency of the kidneys has been brought into experimental use. It is the electric conductivity of the urine, and can be carried out readily and with small quantities of urine. It gives comparative figures with cryoscopy and depends also on the inorganic molecular concentration of the urine.

Englemann, after making a series of experiments in Kummel's laboratory, reported last month as follows:

1. The freezing point of blood in healthy persons varies within certain limits, i. e., from 0.55 deg. to 0.58 deg., and the concentration of the urine, in health, is subject to daily changes.

2. Increase of the concentration of the blood over normal is a sign of beginning insufficiency of the kidneys and means disease of both kidneys, unless some severe disease, as advanced cancer, be present elsewhere, causing disturbances of the circulation. Other diseases, as a rule, and unilateral affections of the kidney do not change the freezing point of the blood. Large tumors in the abdomen do not change the freezing point of the blood.

3. The electrical conductivity of the blood serum is not changed by insufficiency of the kidneys. Always in acute uremia, and generally in chronic uremia, the freezing point of the blood is considerably increased but the values for electrical conductivity do not go above normal. After intravenous infusions of normal saline solution, the osmotic pressure of the blood returns in a few minutes to its original condition.

4. In the beginning of a disease of one kidney, even when other clinical symptoms are absent, differences in concentration of the separated urines can be found. Also the electrical conductivity shows the same differences as the cryoscopic values.

The X-rays have been of service in this work during the past three years. McArthur, Leonard and Bevan were the first in America to demonstrate skiagraphs of kidney stones, which were later verified by operations. A skiagraph negative as to stone does not prove the absence of a stone, yet a positive skiagraph, which shows one or more stones, is invaluable to the surgeon.

Schmidt reports a case where he injected oil, through a ureteral catheter, into the pelvis of the kidney, and a stone escaped afterwards.

Kolischer and Schmidt have adopted a unique method, which consists in the passage of a lead bougie into the ureter as far as possible, and then while in place a skiagraph is taken. By this method, the course of the ureters can be determined, the location of the renal pelvis, whether dilated or not, and the exact

topography of renal calculi can be determined. It aids in differentiating gall stones from renal stones.

Kelly has designed wax-tipped bougies in order to locate ureteral stones, which produce markings or scratchings on the wax.

I believe that these newer methods are beginning to, and should, to a great extent, take the place of exploratory operations on the kidney, so that now the surgeon may be almost positive of his diagnosis before operating. If this resume shall be the means of arousing the interest of some of the members of this society in these methods, I will be amply repaid for the time spent in preparing it. My thanks are due to Max Bailin for assistance in translating.

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A curious and interesting note (The Annual Report of the Chief Inspector of Factories and Workshops, England, for the year 1902) is given on the decline of a very old industry, the manufacture of clay pipes. The increased use or abuse of cigarettes is, of course, one obvious cause of this, but another is mentioned, which would hardly have been suspected. It is said that the working of the Act prohibiting the sale of alcoholic drinks to children has a great effect in the same direction. The youngsters whose former duty it was to fetch the evening beer were accustomed to beg for a pipe, and under the new law it is much to be feared that the instructive and pretty practice of blowing bubbles will become a lost art.—*The Lancet*.

Reports of Societies

THE ONTARIO MEDICAL ASSOCIATION CONVENTION.

In the new Medical Building of the University of Toronto, the Ontario Medical Association celebrated its twenty-fourth anniversary on the 14th, 15th and 16th of June. The spacious and comfortable lecture-room was tastefully decorated with palms and flowers, and, as President J. F. W. Ross remarked, it gave one a comfortable feeling to hold a meeting in such pleasant surroundings. There was a goodly sprinkling of members present when the president called the meeting to order, and these increased from time to time until upwards of two hundred were assembled. The secretary, Dr. C. P. Lusk, had all matters of business and all papers carefully arranged, and everything went along rapidly and smoothly. The papers read were of a superior order, and subjects of general interest. Under the skilful direction of the chairman the discussions were prompt, brief and pointed. "Altogether," said Dr. Ross, as he was vacating the chair for his successor, Dr. Burt, "we have certainly had the most excellent meeting in the history of the Association."

Dr. C. J. Hastings (Toronto) gave a paper on "Myxomatous Degeneration of the Villi of the Chorion." The various theories advanced by the earliest writers to explain this condition were briefly considered. Early in the sixth century Amidi taught that each vesicle contained a living embryo. Later the echinococcus was blamed for the condition. Velpeau first showed the cysts to be distended villi.

Among the causes given for this condition are diseases of the blood vessels, disease of the lymphatics, and degeneration of the mucus in the villi. The whole chorion is usually diseased; sometimes the placenta alone is involved. Marshand demonstrated that it was the epithelial covering of the villi, more than the stroma, that was affected, and that both the syncytium and Langhan's layers of cells underwent profuse and irregular proliferation. The terminal blood vessels disappeared, the stroma degenerated, and the cells necrosed. (The fluid contents is not mucin, but serum.)

Etiology.—The causes are not known. Maternal causation is at present most favored. Syphilis, tuberculosis, and endometritis are mentioned as predisposing causes.

Symptoms.—Usually manifest before the tenth week; to the

usual signs of pregnancy there is added a sudden bloody discharge and a disproportionately large uterus, with no evidence of fetal life. Constitutionally, anemia and debility, with pressure symptoms and pain.

Diagnosis.—The enlarged uterus, the irregular flowing, with the absence of fetal signs, are suggestive. Exploration may be necessary. Twins and threatened abortion must be differentiated.

Treatment.—The indication is to empty the uterus at once, using the finger or the long-handled ovum forceps to remove the neoplasm. Firm contraction must be secured subsequently.

Morbid Anatomy.—The vesicles are characteristic; their mode of attachment to the main stem is by a pedicle. The embryo may or may not be found. Dr. Hastings further pointed out the fact that chorion epithelioma is frequently preceded by hydatidiform mole. He presented a series of three cases illustrating the condition.

DISCUSSION.

Mr. Cameron called attention to this condition as illustrating an epithelial growth from the fetus to the mother tissue. He cited a case of a woman pregnant of an hydatid one year after the menopause, followed by abortion and a subsequent deciduoma malignum.

Dr. McIlwraith pointed out that secondary infections in deciduoma malignum frequently disappeared after operation.

Dr. John Sheahan (St. Catharines) presented a most carefully prepared paper on "The Treatment of Appendicitis in Pregnancy." The question as to whether or not the surgeon should interfere in these cases was ably discussed. Until quite recently non-interference has been the practice; now, however, in acute infective cases pregnancy must be considered no bar to immediate and radical operation.

CASE.—Mrs. B., aged 25, primipara, four months pregnant. No history of previous appendiceal trouble—seized with sudden severe pain in the hepatic region. The following day temperature and pulse normal, frequent desire to urinate, with pain in the bladder and over the liver. Three days later a chill, followed by a temperature of 104, pulse 140, respiration 30, and some vomiting. Pain in hepatic region and tenderness over McBurney's point, with but slight rigidity. Two days later a thickened and inflamed appendix was removed, an uninterrupted recovery following. At the eighth month premature labor was induced for albuminuria, with the birth of a dead child.

A summary of one hundred cases prior to 1899 showed that abortion most frequently followed operation; when pregnancy went to full term the fetal mortality being 50 per cent.

Etiology.—The same causative factors as exist in uncomplicated cases, pregnancy itself affecting only those cases where the appendix hangs over the pelvic brim, or where the enlarging uterus separates the adhesions of former attacks, or presses on an appendiceal enterolith.

Pathology.—The frequent occurrence of abortion, estimated at 40 per cent., is referred to the intimate vascular connections existing between the appendix and the uterine adnexa. Cases with abscess involving the uterus are most unfortunate, as the uterine contractions aid in extension of the pus.

Diagnosis.—The uterine tumor prevents palpation. The muscles are stretched and the intestines are pushed up. The following points are important: 1. A history of constipation. 2. The sudden onset of acute abdominal pain in the right iliac fossa. 3. The localization of the pain over McBurney's point. 4. Vomiting. 5. High temperature and rapid pulse. 6. Rigidity of right rectus. 7. Examination per vagina under an anesthetic is advisable. Conditions such as right tubal pregnancy, acute salpingitis, cholecystitis, gall-stone colic and kidney crises must all be carefully differentiated.

Prognosis.—In simple catarrhal forms, good without operation; all cases favorable if operated on early. Abrahams says the prognosis is gloomy. He observed sixteen cases with eight deaths, and an infantile mortality of 86 per cent.

Treatment.—An inflamed appendix is a source of extreme danger, and as its removal is attended by few additional dangers to the mother and fetus, Munde's dictum is, "Treat the case early, regardless of pregnancy." W. Meyer, of New York, lays down the following rules: 1. Operate within twelve hours in acute perforating appendicitis. 2. A rapid pulse (116 to 120) is an indication for operation. 3. In case of doubt, operation is better than waiting. 4. A sudden lull for ten or twelve hours is an indication for operation. 5. The recurrence of an old appendicitis during pregnancy also demands surgical interference.

DISCUSSION.

Dr. Webster (Toronto) advised operation by the vaginal route in pelvic peritonitis during pregnancy. It entailed less shock to the patient. He reported a case of suppurating appendicitis with pelvic abscess opened by this route with excellent results.

"Occipito-Posterior Presentations" was the subject of a paper by Dr. A. A. Macdonald (Toronto). Since the advent of antiseptics and anesthetics a new era has arrived in obstetrics as in surgery. They are exceedingly useful in correcting faulty presentations. Occipito-posterior presentations occur in one and one-half per cent. of all labor cases. Formerly the single blade forceps were used to cause the head to rotate. Herman, in his "Difficult Labor," gives three directions for the use of forceps in treatment: (a) Pull, (b) Flex, (c) Rotate. The practice I advocate is briefly as follows: If you are called to a case late, but before the membranes have ruptured, wait until the os is dilated, then introduce the hand and rotate one-quarter turn, converting the case into an occipito-anterior. To do this fully anesthetize the patient, sterilize the parts and your hands, insert the whole hand, and grasp the head. The occiput being now anterior, flex the head and hold it in position until the forceps are applied and locked. There is no injury to the child's neck, as the turn is only one-quarter. With the forceps on, delivery is readily effected, and without laceration.

DISCUSSION.

Dr. Barrick (Toronto) said that he endorsed the methods of Dr. Macdonald. In cases where the head is out of proportion to the pelvis, how can we use the forceps? The rotation or quarter turn may be impossible when the pelvis is narrow. My treatment is, where the child is viable, perform version, as it preserves the mother from injury.

Dr. A. F. McKenzie (Bracebridge) noted the importance of the paper, but took issue with Dr. Macdonald's percentage for posterior presentations. In his experience there was about 20 per cent. of such cases, but nature generally rotates them herself. He emphasized the importance of diagnosis; it is not always necessary to insert the hand, external palpation being sufficient, especially if the abdominal walls are thin. In vaginal examinations, if the anterior fontanelle is felt first, the case is generally left occipito-posterior presentation.

Dr. Hastings (Toronto) drew attention to the importance of strict asepsis, and emphasized the usefulness of abdominal palpation as an aid to diagnosis.

Dr. Todd (Toronto) said in his experience the method of introducing the hand and rotating the head was accompanied by a greater mortality to the child.

Dr. Hunter (Parkdale) advised leaving the cases largely

alone and not meddling with them. Nature would nearly always correct the position and effect delivery.

Dr. Temple (Toronto) said that early anterior rotation forward is always the treatment for posterior presentations. He could see no reason for an increased mortality, provided surgical asepsis was maintained.

Dr. McIlwraith (Toronto) said that leaving these cases to nature for a time and then applying the forceps was a cause of increased mortality. He advised early anterior rotation.

Dr. Ross (Toronto) explained, on request of Mr. Cameron, his father's method of treatment in these cases. He passed two fingers in front during a pain and the head rotated itself on them.

Dr. Macdonald (reply) could see no reason for an increase of mortality by introduction of the hand. The following points are essential: 1. Choose your time, *i.e.*, before the membranes rupture, the os being dilated. 2. Fully anesthetize the patient. 3. Cleanse the parturient canal and your hands, rotate the head the quarter turn; rotate the shoulders by external manipulation. 4. Keep the occiput down and in position until the forceps are on and locked. Then make traction in the correct direction.

Dr. H. P. H. Galloway (Toronto) then read his paper.

DISCUSSION.

Dr. B. E. McKenzie (Toronto) said the diagnosis of congenital dislocation is usually easy; to exclude infantile paralysis is sometimes a difficulty. The value of X-rays in diagnosis is well illustrated by the excellent photographs presented by Dr. Galloway. Other reasons of failure in reduction are that sometimes the head of the femur is absent or is very small, or that there may be no acetabulum, or a very small one. The anatomical conditions are such as to render failure inevitable. He reported fifteen cases with three cures.

In the discussion on Sir Wm. Hingston's paper, "Thoughts on Cancer," it was moved by Mr. Cameron (Toronto), seconded by Dr. Harrison (Selkirk), that the hearty thanks of this Association be tendered to Sir Wm. Hingston for his most excellent paper. Carried with applause.

Dr. Dickson (Toronto) said that the electrical treatment of epithelioma of the face is accompanied by good cosmetic results. He advocated the establishment of a chair of electrical therapeutics in the University. He referred to the method of electro-metallic treatment with the decomposition of mercury and zinc in the tissue forming an oxychloride of mercury and zinc, as

being especially useful in epithelioma of the tongue and sarcoma. He advised the ray treatment to follow operation on malignant cases, citing examples to show that the secondaries frequently disappeared under the raying.

Dr. W. Oldright (Toronto) gave an account of a case of amputation of the breast, in which he had not removed the glands in the axilla, with a good result. He believed that the glands should not always be removed.

Dr. A. McPhedran (Toronto) discussed the importance of early diagnosis in gastric carcinoma. The patient should be submitted to careful examination, with special attention to the age, pain and discomfort in the epigastrium, its nature and relation to food, etc. Many cases may be relieved if diagnosed sufficiently early.

Dr. John Hunter (Toronto) emphasized the importance of good hygienic and systematic after-treatment in these cases; it helped to prolong their lives.

Sir Wm. Hingston (reply) supported Dr. Dickson's electrical treatment. In operations he aimed to cut wide of the growth, and considered it a great misfortune if, during the course of an operation, he should see the cancer. Never operate for purposes of diagnosis. Take time and exercise patience. The less experienced the man, the sooner he will operate.

Dr. Mellwraith (Toronto) then read his paper on "Placenta Prævia." From a careful consideration of the various methods of treatment, the conclusion was reached that when you decide to interfere in these cases, *i.e.*, when the fetus is dead, or the mother in danger from hemorrhage, the best method of procedure is to do a combined or Braxton-Hicks' version, bringing down a leg and then leaving the delivery to nature. The leg serves to check hemorrhage, whilst, by leaving the case to nature, you avoid post-partum hemorrhage from laceration of the cervix or rupture of the uterus. To perform version, dilatation of the os sufficient to admit of the introduction of two fingers is all that is necessary. When the os is not dilated, plug the cervix with iodoform gauze or a Lysol tampon, and repeat if necessary in from four to six hours. Champetier de Ribes' bag is not satisfactory. For rapid dilatation no instrument is equal to the skilled use of the fingers.

DISCUSSION.

Dr. Holmes (Chatham) has tried and discarded most methods. The tampon has given him the best satisfaction in most cases. The patient should be in a hospital or under the constant care of a trained nurse. No patient should be left alone

in the country with the danger of a hemorrhage coming on suddenly. The doctor related an instance in which he had spent a whole week in the country watching one patient. The tampon should be sterile, but in introducing it do not draw the uterus down, as when the tenaculum is taken off the uterus returns to its position, leaving a space between it and the tampon. Use a Sim's speculum, and introduce the cotton tampons one by one until the canal is packed full. The pains will come on rapidly, and the presenting part come down and check the hemorrhage.

Dr. W. J. Wilson (Toronto) would not risk the tampon if the waters have come away.

Dr. John Hunter (Parkdale) said it is important to resuscitate the patient before commencing delivery.

Dr. McIlwraith (reply) expressed his opinion that the tampon kills the child, and is not sufficient in checking severe hemorrhage.

Dr. N. A. Powell (Toronto) gave a very interesting and instructive demonstration of technique of intestinal anastomosis by elastic ligature and other devices. He first traced the history of intestinal anastomosis, making mention of Senn's bone plates, Murphy's button, and McGraw's elastic ligature. "The trend of opinion to-day is to do away with complex devices, the surgeon endeavoring to become more proficient in manipulation." The doctor performed two gastro-jejunal anastomoses, illustrating the method of employing the elastic ligature, and the later improvement by means of the triangular stitch introduced by Drs. R. S. Weir and J. W. D. Maury, of New York.

Dr. Geo. Hodge (London), in an exhaustive paper, reviewed the causes and diagnosis of pain in the upper abdominal zone. Among the causes noted were pleurisy, pneumonia, gastric crises, caries of the dorsal vertebræ, uremia, appendicitis in the early stage; cardiac cases: (*a*) pericarditis, (*b*) angina, (*c*) aneurism; rheumatism, especially in children; subphrenic peritonitis following gastric ulcer, hyperacidity of the stomach, hypersecretion with spasmodic vomiting, gastric ulcer, carcinoma of the stomach, chronic gastritis. In the liver, abscess, carcinoma, Hanot's hypertrophic cirrhosis, cholecystitis, cancer of the gall-bladder, cholelithiasis. Of the spleen, movable spleen, infarct, abscess, splenomedullary leukemia. In the pancreas, acute pancreatitis, chronic pancreatitis, cystic disease, and cancer. In the intestines, duodenal stricture, impacted feces in the transverse colon. In the kidney, enteroptosis, nephrolithiasis, abscess, tuberculosis, and malignant disease.

DISCUSSION.

Dr. H. A. McCallum (London) complimented Dr. Hodge on his masterly paper. He drew attention to the difficulty of diagnosis in cholecystitis, reciting a case with pain over the gall-bladder with rigidity, following typhoid. It proved to be suppurating cholecystitis.

Dr. McPhedran (Toronto) also complimented Dr. Hodge on his excellent treatment of this important subject, in which mistakes in diagnosis are extremely numerous. He drew attention to the fact that many abdominal lesions were accompanied by identical symptoms, the pain in the early stages being practically always referred to the umbilicus. He called especial attention to diaphragmatic pleurisy complicating central pneumonia, and to a tender area just to the right of the eleventh dorsal vertebrae, described by Boas, and occurring invariably in cholecystitis. In faulty conditions of the gastric secretion, especially accompanied by an excess of hydrochloric acid, the pain is extreme and is not relieved by food or the administration of antacids; this class of patients, moreover, are neurasthenics and bear pain badly. The stomach contents varies greatly; it may be scanty, or copious if associated with pyloric spasm.

Dr. Oldright (Toronto) said that the pain of appendicitis and perforation of the intestine was frequently referred to the upper abdominal zone.

Sir Wm. Hingston (Montreal) was pleased to note that Dr. Hodge, in his most exhaustive enumeration of causes, had not forgotten to mention that most important condition, uremia. He instanced a case in which he and a confrère had been puzzled by this condition for some days.

Dr. Holmes (Chatham) gave the history of an interesting case. The patient had been sick for three or four years with pain in the right side, extending from the iliac region to the liver. Paroxysms of severe pain, with acute suppression of urine, followed by a copious discharge of pus in the urine, occurred at various intervals. The diagnosis lay between appendicitis, movable kidney, and suppurating cholecystitis. An exploratory incision over the region of the gall-bladder revealed a tongue-like projection of the liver, which in some mysterious way pressed on a suppurating kidney, and under certain conditions prevented the discharge of pus. He was at a loss to satisfactorily explain the mechanism of this action. The patient was immediately turned on his side, a nephrectomy done, perfect cure following.

Dr. Marlow (Toronto) called attention to small hernial pro-

trusions of fat in the linea alba., sometimes producing severe pain. He had seen two cases.

Dr. Webster (Toronto), said that pain may be due to dislocation of the spleen, with rupture of the gastro-splenic omentum. Tumor of the ovary and herpes zoster were other causes of pain.

Dr. C. B. Shuttleworth (Toronto), in an able paper, gave a complete and critical review of the subject, "Lithotomy *versus* Litholapaxy." From statistics of all the large hospitals available, the writer concluded:

(a) Litholapaxy is certainly the operation of election in all simple cases of stone in the urinary bladder.

(b) When the stone is too hard or too large to be crushed through the urethra or removed by the lateral method without injury, the suprapubic method should be adopted, or, perhaps better, perineal lithotripsy.

(c) When the stone is encysted or associated with a tumor of the bladder or prostate, choose the suprapubic route and remove both at the same time. The mortality of a large number of cases is about 20 per cent. by the suprapubic method.

(d) Where there is a tight, deep, urethral stricture, especially when fistulæ exist, requiring a long operation to overcome, select the suprapubic or median perineal operation.

(e) In ankylosis of one or both hip joints, which interferes with the use of urethral instruments, and excludes all perineal operations, do suprapubic lithotomy.

(f) In the presence of foreign bodies in the bladder, which may form the nucleus of a calculus and resist the lithotrite, perform one of the perineal methods.

(g) Although the litholapaxy applied to children is very successful in the hands of experts, for the present lateral lithotomy is the safer operation for the general surgeon.

(h) Litholapaxy should be carried out, whenever possible, when senile degenerations exist, or when there are morbid changes in the genito-urinary apparatus, and the necessary treatment afforded to the complication either before or after litholapaxy.

DISCUSSION.

Dr. Cockburn (Hamilton) said that as a matter of practical importance we do not get a sufficient number of cases to afford the necessary practice to become expert in the operation of litholapaxy. The suprapubic method has undoubtedly a bad record, but is an easy operation to perform, and with no chance

of blank lithotomy. The safest method is perineal litholapaxy, but I consider the method of dilating the prostatic urethra with the finger, as advised by Reginald Harrison, a dangerous procedure. The surgeons should practise the operation on the cadaver.

Dr. Powell (Toronto) drew attention to the importance of litholapaxy as a method of extracting stones from female children. He instanced two cases; one, a girl five years old, from whom he removed a large and a small calculus, weighing 241 grains, by litholapaxy. This was some years ago, and, so far as he knew, was the first instance of the method being employed in female children. At the request of Dr. Bigelow, these cases were published; the first may be found in full in Skene's text-book on the diseases of women. The method has now become the established procedure. "I have never been able to overcome my dread of the suprapubic route, based on the mortality reports of the large hospitals. So far, I have only removed 107 stones by the suprapubic method—it is only fair to say, however, that 106 of these came from one case. On the whole I prefer the lateral section when the case is not suitable for litholapaxy."

Dr. Primrose (Toronto) regretted that he had not heard the whole paper, but considered the suprapubic method quite as difficult as the perineal operation. He told of a case where the surgeon attempted litholapaxy and failed; then anesthetized the patient and attempted the suprapubic method, which was given up after wounding the peritoneum twice; the patient was finally put in the lithotomy position and the stone extracted with the greatest ease by lateral section. He took issue with Dr. Shuttleworth's tables of mortality of the various methods, pointing out that the more difficult cases, those with prostatic complication, were the subjects of suprapubic section. Consequently the mortality compared unfavorably with the simpler cases in which the other methods were employed.

Dr. Ross (Toronto) had recently visited Mr. Freyer in London, and had seen some of his work. Mr. Freyer had become so skilful in litholapaxy that he now practically never cuts for stone.

Dr. Webster (Toronto) wished to know which method would be employed with encysted stone.

Dr. Shuttleworth (reply) thanked the gentlemen for the interest taken in the discussion. His statistics had been gathered from a great number of cases in large hospitals, and embodied the results of operations on all cases.

Dr. Perry Goldsmith (Belleville) was then called upon for his paper, "The Treatment of Ophthalmia Neonatorum."

DISCUSSION.

Dr. Trow (Toronto) did not consider that Dr. Goldsmith should call his treatment unorthodox, in fact, he considered it quite the orthodox method. He emphasized the importance of the careful treatment of the cornea. Argyrol is a god-send in many cases; a 20 per cent. solution may be dropped into the eye, and, if the child is lying down, will reach all parts of the conjunctival sac. No thickening of the conjunctiva results, as with the old painting method, in which abrasion of the cornea was so dangerous. Cocaine should be used with caution; it hardens the cornea, and causes some proliferation of the epithelium. Bichloride does this also, and should not be used in eye work. Protargol has not the advantage of being painless, as is argyrol.

Dr. Goldsmith (reply)—Theoretically, the bichloride is of no use, as it precipitates with mucus and forms an insoluble albuminate of mercury.

Dr. Parfitt (Gravenhurst) presented an account of the work done by the Free Hospital for Incipient Tuberculosis, recently opened in Muskoka by the National Sanitarium Association. He appealed to the members of the profession for a fuller recognition of the importance and need of this work, pointing out that the hospital was dependent upon the charity of the public, and that the medical profession could do a great deal towards keeping its doors open to the needy poor by their co-operation. He presented statistics of the hospital, showing that excellent results followed the systematic out-door treatment, and closed his most interesting paper with a hearty invitation to the members of the Association to visit the Free Hospital and see for themselves the out-door treatment in active operation.

DISCUSSION.

Dr. Elliott (Gravenhurst) joined with Dr. Parfitt in inviting more of the profession to visit the sanatorium. He assured them of a hearty welcome, and was quite convinced that the visit would be of profit to themselves.

Dr. Goldsmith (Belleville) had visited the institutions, and could testify to their excellent work, especially in laryngeal cases. The patients were under the constant supervision of the resident physicians, and received treatment, inhalations, applications, etc.,

once or twice daily, if necessary. He had no hesitation in advising patients to go to the sanatorium.

Dr. Milner (Toronto) said that from his experience in examining for life insurance, he was convinced that the early diagnosis of phthisis, in which stage it was favorable for sanatorium treatment, was often overlooked. He considered it the duty of every family physician to examine carefully at least every six months those of his patients with a phthisical tendency. He should pay special attention to hemic murmurs, and the character of the breath sounds.

Dr. Trow (Toronto) related the experience of a patient, a neurasthenic, phthisical, sallow-faced book-worm, who lived in a tent at Gravenhurst through the summer and through most of the severe winter months, coming back to Toronto robust and healthy.

Dr. Parfitt (reply) regretted to say that laryngeal cases usually do badly unless the patient be in otherwise good health. He was sorry that doctors would continue to send to the sanatorium patients in advanced stages of the disease with only a few more months to live. He would much prefer to have patients sent merely on suspicion, as they were prepared to make most delicate tests by means of tuberculin and the injection of sputum into guinea-pigs.

Dr. Wm. Oldright (Toronto) exhibited specimens of tumors removed, in which the diagnosis had been complicated. He related the history of these cases, and gave a *resume* of the differential diagnosis.

DISCUSSION.

Dr. Perfect (Toronto Junction) asked how Dr. Oldright would control vomiting following abdominal section.

Dr. Oldright said that vomiting after operation is often difficult to control. Washing out the stomach is useful, and a hypodermic of morphia over the epigastrium successful in stubborn cases.

On Wednesday morning a very excellent series of papers dealing with the various phases of life insurance as it more especially interests the doctor, was read by the following gentlemen: Dr. H. R. Frank (Brantford); Dr. F. Le M. Grasett (Toronto, Canada Life); Dr. R. J. Dwyer (Toronto); Dr. Edw. Ryan (Kingston, Canadian Order of Foresters); Dr. H. C. Scadding (Toronto, Canada Life); Dr. B. L. Riordan (Toronto); Mr. Percy C. H. Papps, A. I. A. (Toronto, Actuary, Manufacturers Life).

A vote of thanks was moved by Drs. Harrison and Davison to Mr. Papps for his interesting and instructive paper.

DISCUSSION.

Dr. J. L. Davison (Toronto, Imperial Life)—While it may be true that adolescence is especially the age of tuberculosis, and old age that of cancer, yet it must be emphatically understood that no period of life is exempt from tuberculosis. Concerning the influence of heredity on cancer, at the present day not much attention is paid to it, the report of the recent German committee of investigation being that cancer is not hereditary. In regard to syphilis, I hold that three years of active treatment, as advised by Jonathan Hutchison, is the only safe method. The patient should not be considered cured until he has remained free from symptoms for a period of ten years, and even then he cannot be certain of complete safety. Examining physicians should be more careful of their reports, and should not hesitate to write confidential letters to the medical director explaining obscure points. As to the examination of the blood vessels, any degree of sclerosis, or visible pulsation in the radials, is of great importance, often of more importance than the existence of a heart murmur.

Dr. Machell (Toronto, Crown Life) suggested that owing to the excellence of the papers and their importance to practitioners in general, they should be published in book form and distributed to members of the Association.

Dr. Ferguson (Toronto, Excelsior Life) held in regard to syphilis that Sir Wm. Gowers was right. "It damages the vitality of the system, and paves the way for the entrance of other diseases such as tabes, aneurism and paresis." The descendants of long-lived parents are not necessarily good risks. Alcoholism is an evidence of neurosis—50 to 60 per cent. of neurotics having alcoholic tendencies. In reference to tuberculosis, I hold that without the seed there is no crop. The nature of the soil is also important, some soils being much more favorable to the growth of the germ than others. The following points are important: (a) Family history; (b) Personal condition; (c) Past history; (d) Collateral influence of occupation, habits, etc.

Dr. Hay (Toronto, People's Life) emphasized the importance of completely exposing the chest. In a recent case, a woman objected to exposing the chest, and upon insisting, he discovered that one breast had been removed for malignant disease, and the other one showed infection also. The woman was even at that

time under the care of a surgeon who proposed to remove the remaining breast.

Dr. Oldright (Toronto) considered that some cases of mitral regurgitation with good compensation were as deserving of acceptance as were many other cases which were sloved through. Moreover, that a man operated on for appendicitis, with a good, clean, well-healed scar, should be accepted without difficulty.

Dr. Freel (Stouffville)—We have heard much good advice from the medical directors, but I would like to speak a word in behalf of the unfortunate examiners. (Applause.) The difficulty of getting correct answers cannot be over-estimated; especially is it almost impossible to get accurate information concerning the habits and history of the applicant.

Dr. Britton (Toronto) considered that the examiner who was on the spot, and frequently personally acquainted with the applicant, was in a much better position to judge of the acceptance of the risk than the medical referee. He considered that the referees should pay more attention to the examiners' answer to that question.

Dr. Hunter (Parkdale) considered that the pay was much too small for the trouble to which the examining physician was oftentimes put. Recently he had made three attempts to examine an applicant, and on the occasion of the third visit the man informed him that "he hadn't time to be examined then, as his wife had some friends in to a card party."

Dr. Webster (Toronto) wanted to know if it was true that some physicians in Toronto were examining applicants for life insurance at twenty-five cents apiece.

Dr. Scadding (Toronto) said it was true that the doctor was not sufficiently paid in some cases, but the applicant paid the doctor's fees, and in many cases these were poor patients who could not afford to pay more. Moreover the fees were cash, with no difficulty in collecting accounts.

Mr. Papps said that if the doctors are not sufficiently paid, it is largely their own fault. There are physicians who are willing to accept the present fee, and so long as the company could get the services of such men, they could not be expected to pay more.

Dr. Sheard (Toronto) read an excellent paper on "The Relative Importance of the Clinical and Bacteriological Evidences in Diphtheria," as follows:

I have not thought it wise to present to you a set paper this evening, but shall submit some ideas with the object of eliciting an expression of opinion from those members of the profession

assembled here. Many physicians imagined that the discovery of the Klebs-Loeffler bacillus and the proof by injection into guinea-pigs and cats of the production of diphtheria, settled the question beyond further discussion. But I make bold to state that the physician who imagines we know all about diphtheria is confronted with difficulties and troubles at every turn. I am fully convinced we cannot depend exclusively on the findings of bacteriological examination in these cases. There are many cases which present no physical signs, but in which the bacilli are undoubtedly present, and the generally accepted opinion that when the Klebs-Loeffler is present we have diphtheria is not always true. Whether the absence of symptoms is due to a personal immunity or not I am not prepared to say.

There are four distinct varieties of the Klebs-Loeffler bacillus: the long forms, the short, the attenuated, and the pseudo-bacilli. They produce soluble toxins, and are sometimes associated in their action with pus organisms—these toxins produce the symptoms which we designate diphtheria.

I have a series of seven cases diagnosed as posterior fibrinous rhinitis, in which not one but a series of bacteriological examinations failed to reveal the presence of the Klebs-Loeffler, but each case was followed by paralysis. We generally admit with paralysis we have diphtheria. The virulence of diphtheria varies much according to the seed, the mortality being sometimes over 90 per cent. I remember a man from Buffalo with diphtheria who stopped at the Brown Hotel; seven new cases developed from exposure, of whom six died. Some time ago a Russian family of nine set out for Toronto; two of them died at sea of diphtheria, two more in Montreal, and two others in Toronto. All this bears out the teaching that diphtheria is due to a particular form of vegetable organism, and as such is subject to the laws which govern the growth of all seed in various soils.

1st. The sequelæ are due entirely to the toxins, the extent of the membrane being of no consequence in this connection. If we have cellulitis, and no adenitis, the condition is most serious, the toxins entering the nerve trunks and destroying their vitality. The sequelæ may be expected at any time from the third week to the third month.

2nd. Many conditions are due to the associated pus organisms, such as the secondary eruptions which are identical with those of septicemia, and in no way dependent upon the Klebs-Loeffler.

Another form of bacterial diphtheria is the post-scarlatinal type, in which during the second week of the fever the patients

have the Klebs-Loeffler, but exhibit no symptoms; they invariably get well and are not infective. I have records of sixteen such cases. Again we have the association of scarlet fever and diphtheria, the diphtheria not following the scarlet fever, but both diseases existing simultaneously in the same patient as the result of two separate exposures—the incubation period of scarlet fever being four days, whilst that of diphtheria is about six days. At the Isolation Hospital we have a separate ward for these mixed cases. Again we have those cases of post-diphtheritic scarlet fever where the scarlet fever follows closely on the heels of the diphtheria, and where, in spite of any form of treatment, we have a mortality of over 80 per cent. And as these cases occur as frequently in private houses as in hospitals, they cannot be accounted for by infection from one hospital patient to another. A frequent experience at the Isolation Hospital is to have whole families sent in, half of whom are suffering from diphtheria, the other half from scarlet fever; showing the correctness of Sydenham's contention that there exists a far greater intimacy between these two diseases than the private physician would care to admit.

I can report several cases in which, after weeks of most energetic treatment, the bacilli could not be gotten rid of, and though such cases were discharged, no new cases have been known to result from them. One patient in the scarlet fever ward developed otitis media, in the discharge from which the Klebs-Loeffler bacilli were found. He was discharged, and no cases resulting have been reported. From these experiences I am convinced that when the bacillus of diphtheria exists in pus it is innocuous and non-virulent.

In conclusion, these questions naturally arise: 1st. Is scarlet fever antidotal to diphtheria? The answer appears to be in the affirmative. 2nd. Does not diphtheria aggravate scarlet fever? The answer again is "Yes." 3rd. Is the difference in the two diseases due to the evolution of a soluble toxin by the Klebs-Loeffler bacillus? Osler once said to me, "If the rash appears, disappears, and re-appears, it is in all probability a septic rash." The scarlet fever rash, we know, does not disappear and re-appear, but there are many septic cases, such as recurring erysipelatous rashes, all closely connected clinically with diphtheria and scarlet fever.

Dr. McMahon followed Dr. Sheard with a masterly paper upon "The Uncertainties of Diagnosis and the Necessity of Early and Vigorous Treatment of Diphtheria." He emphasized the importance of the early injection of adequate doses of anti-toxin in all suspected cases, even before the results of a bacterio-

logical examination could be obtained. He called attention to the great reduction in the mortality, especially of laryngeal cases, since the introduction and the general use of antitoxin. In his own practice he was pleased to report that since he had adopted the rule of early and efficient treatment with antitoxin, he had not had a single death. From the reports of the Hospital for Sick Children, he was convinced of the effectiveness of immunizing doses of antitoxin, and advised that members of a family in which a case occurred should each receive adequate immunizing injections.

DISCUSSION.

Dr. A. R. Gordon (Toronto) strongly verified Dr. McMahon's statements, and expressed himself in favor of the early, abundant, and fearless treatment with antitoxin.

Dr. Allan Baines (Toronto)—I must congratulate Dr. McMahon upon his happy experience with antitoxin. I wish it to be emphatically understood that I am a believer in antitoxin, but I can report no such good results. . . . In one case I injected 4,000 units, followed in four hours by 2,000 units, in four hours more by 2,000 more units; in all 8,000 units in eight hours, but in spite of this the patient died. Pure cases of diphtheria are undoubtedly benefited by antitoxin, but those cases of mixed infection, with the streptococcus and the staphylococcus, are not cured by antitoxin. It is just ten years since this question was thoroughly thrashed out in the Pediatric Society at New York, when this same conclusion was reached.

Dr. W. J. Wilson (Toronto)—My experience is the same as Dr. McMahon's. My practice is to inject antitoxin early, make swabs in all suspicious cases, and make my own cultures, in which case I have a report in eight hours. I believe calomel fumigation and intubation to be valuable adjuncts in the treatment of laryngeal cases, but my rule is, "When in doubt, use antitoxin." A difficulty we encounter is that when the swabs are sent to the Health Office on Saturday evening, no report can be received until the following Tuesday morning.

Dr. John Ferguson (Toronto)—I endorse Dr. McMahon's position. I use antitoxin freely and early, and in young children rather increase the size of the dose than diminish it, as their tender constitutions have little power in producing self-immunity. Concerning the cases of mixed infection, with the staphylococcus or streptococcus present, I maintain that if you control the Klebs-Loeffler bacillus, you materially aid the child in its struggle. I am pleased to report that I have not had one death since using

antitoxin; in all I have had nine intubation cases, three before the period of antitoxin, and all died, and six since the introduction of antitoxin, and all recovered.

Dr. B. Z. Milner (Toronto)—I wish to call Dr. McMahon's attention to the fact that there is diphtheria in the Sick Children's Hospital at the present time, and that recently when I wished to operate on several cases, I was informed that they were in the isolation ward with diphtheria.

Dr. Sheard (Toronto)—I would like to ask Dr. Machell concerning fifteen cases in the Children's Home. Did these all receive immunizing doses?

Dr. Machell (Toronto)—So far as my memory serves me, I believe all did not receive immunizing doses before being ill, and that but one or two cases occurred in those patients where immunizing doses had been given. . . . Diphtheria varies markedly in epidemics. In some epidemics all die, in others all get well.

Dr. F. N. G. Starr (Toronto) pointed out that the cases at the S. C. H., where the present epidemic commenced, were in children from eight to ten years old, and that the ordinary immunizing dose of 500 units for a child of two or three years was not sufficient for these older children.

Dr. John Hunter (Parkdale) expressed the opinion that the mortality was greater with the use of antitoxin than without it.

Dr. Webster (Toronto) has never seen any good result follow the use of antitoxin after the child once has diphtheria. Of four cases in one family, sent to the Isolation Hospital, one only received antitoxin, and she died; the other three received no antitoxin, and all recovered.

Dr. A. A. Macdonald (Toronto) believes in the effect of immunizing doses, but that in most cases the dose is too small. Do the thing early and do it thoroughly. "Is not your experience the same as mine in laryngeal cases? Formerly did not practically all our laryngeal cases die, while is it not now your experience that the child suffering from marked dyspnea after the injection of the antitoxin, soon commences to breathe freely and easily?"

Dr. McMahon (reply) reiterated his former statements, and said that if Dr. Webster had used antitoxin immediately, the little girl would not now be under a small mound on the hillside.

Dr. Sheard (reply) wished to be understood that there were other things in the treatment of diphtheria besides antitoxin, such as cleansing sprays and swabs; and moreover that laryngeal cases will die in spite of antitoxin, not from toxemia, but from larynx-

gismus stridulus. He doubted the immunizing effects of anti-toxin.

On Wednesday afternoon the Association held their annual luncheon. The affair was a most enjoyable one, excellent speeches being given by Premier Ross, Hon. Mr. Harcourt, Dr. Harrison (Selkirk), and Dean Reeve. Immediately after the luncheon, through the kindness of the Automobile Club, the members of the Association were treated to a ride around the city.

"The Treatment of Prostatic Hypertrophy" was the title of a paper by Dr. T. K. Holmes (Chatham).

From a careful consideration of the subject, Dr. Holmes concludes that castration and vasectomy are of little value; that the Bottini operation, while not in general favor, has many good points, and is deserving of a more careful study and a wider employment; that suprapubic prostatectomy is difficult in fat subjects; the perineal method is the one most generally useful. The gland is drawn down into the wound by means of Sims' rubber bag, and carefully enucleated from its capsule. If it is desirable to avoid damage to the ejaculatory ducts, Dr. Young's (Baltimore) device for pulling down the gland and performing the operation visually is recommended. Dr. Holmes gave the history of two successful cases; in one he employed the Bottini operation, in the other median perineal prostatectomy was done. In conclusion he warned the profession against the constant use of the catheter, as it almost invariably resulted in cystitis. "There are one hundred men in this room, and probably twenty of us will have to seek relief for an enlarged prostate. We should advise to others the same treatment that we ourselves would like to receive."

DISCUSSION.

Dr. Bruce (Toronto) preferred the suprapubic operation, although he had not acquired the dexterity of Mr. Freyer, who shelled out the prostate in two minutes. He had never met with any special difficulty in reaching the gland in fat patients. Within the last month he had operated on one very stout gentleman, and by pressing the prostate forward from below had experienced no difficulty in removing it.

Dr. Powell (Toronto) had not intended to take part in the discussion, but was drawn into it by the good-natured raillery of one of the speakers. He was pleased to say that, although he dreaded the suprapubic route, he had as yet no mortality in the operation. Statistics from large centres, however, showed the operation to be attended by a mortality of about 20 per cent.

He cited a recent aggravated case, and had just that day received a letter from the patient announcing that "he was able to dispense with his catheter."

President Ross told of a recent visit to Mr. Freyer, in London, and gave short extracts from letters of rejoicing nobility, upon whom Mr. Freyer had operated for enlarged prostate. "Duke — writes, 'Dear Dr., . . . I can now pump ship like a two-year-old.'" "Earl — writes, 'Dear Dr., . . . I tell you I can now make the pot hum.'"

Mr. Cameron (Toronto) was pleased to have heard Dr. Holmes' interesting and able paper. He agreed that the older perineal route was the better method. It was not absolutely necessary to damage the urethra in all cases. He took exception to the expression "the anatomical middle lobe," as there is no middle lobe to the prostate. He regretted to report a serious mortality by the suprapubic method. He did so, however, out of the hope that those present might benefit from his misfortunes. Within the last year and a half he had done fifteen suprapubic sections, with five deaths. Two of the fatalities could not be attributed to the operation, one being from facial erysipelas and bronchitis, the other from hemiplegia; but the other three, who were promising and otherwise healthy patients, died suddenly; one acutely insane in twenty-four hours, who was perfectly well twelve hours after the operation; one unaccountably, without either hemorrhage or shock, in about twenty hours, having been in excellent condition twelve hours after the operation; and the last in about forty-eight hours, of albuminous edema of the lungs, the pulse and temperature having been normal and the general condition excellent twelve, twenty-four, and thirty-six hours after the operation. With the old perineal operation he had had no mortality.

Dr. McKinnon (Guelph) operated wholly by the suprapubic method. He considered it much easier, involving less danger of wounding the rectum, and rarely followed by fistulæ. His mortality had not been great. The perineal route is simple, involves less shock to the patient, but is frequently followed by fistulæ. He reported a series of cases with successful operation and recovery, in patients from 65 to 83 years old. He had only had two deaths.

Dr. Olmstead (Hamilton) said that all methods are simple to those practised and skilled in the method of their choice. On the continent the perineal method was used almost exclusively and with great success; in England and Canada the suprapubic route was the method of election and enjoyed the same success.

He advocated the more frequent use of the cystoscope. Freyer was able to announce good results, and he was surprised that, with the immense amount of material at his disposal, he did not announce more of them, because he was able to carefully select his cases. We in Canada here could not so pick and choose, but were forced to do our best to relieve all sufferers. In his mind the one objection to the suprapubic method was the poor drainage obtained.

Dr. Holmes (reply) strongly advised more careful study of the Bottini operation. No general anesthetic was required, and he believed it had a great future before it.

Dr. Bingham—The contracted bladder was easily raised by the hand in the rectum. The bladder should be sutured to the abdominal wall before opening.

Dr. J. Campbell Meyers (Deer Park) read a splendid paper on "Neurasthenia in Some of its Relations to Insanity."

DISCUSSION.

Dr. McKenzie (Bracebridge) emphasized the importance of the subject, stating that neurasthenics were frequently met with in country practice. These cases fall easy victims to the quacks. It was a matter of great difficulty to carry out isolation in many cases.

Dr. Ferguson (Toronto) said that neurasthenia and the earlier forms of insanity are several links in the same chain; the exact situation of the boundary line is beyond human judgment. Pronounced cases of neurasthenia or insanity are easy of diagnosis, but between these there is a series most puzzling to us all. The question is one of physical disturbance, the great feature being that the slightest mental effort produces exhaustion. Again, the nerve system becomes so depleted of all energy that physical exertion is impossible. The condition is a nutritional change first, followed later by an anatomical one. The dendrites fail to absorb sufficient nutriment from the brain matter, and the slightest possible effort exhausts this limited supply. Disorganization sets in and the sickly, weakly, though normal, cell becomes a morbid and pathological one, and ultimately disappears. The conditions producing these effects are: 1. Prolonged worry; 2. Sudden mental shock; 3. Over-work and no rest; 4. Some toxemia which affects the brain, destroying the nerve cell.

Dr. Hunter (Parkdale) would like to know the position hydrotherapy occupied in Dr. Meyers' treatment. A woman under his care, suffering from a pronounced form of neuras-

themia, for whom he had prescribed a cold bath every morning (preferably at 5 a.m.), followed by a brisk bicycle ride, was now a perfect picture of ruddy health.

Dr. Bruce Smith emphasized the use of hydrotherapy in treatment, the etiological value of toxemia, and the importance of early recognition of the symptoms in neurasthenia. "Insanity," he concluded, "is the culmination of nervous derangements in the patient, undiscovered and uncorrected."

Dr. Holmes (Chatham) said that women were born with unstable nervous systems, and later in life misfortunes overtake them which lower their vitality and produce the symptoms of neurasthenia. We must search carefully for the cause; it may be a movable kidney, an inflamed gall-bladder, faulty position of the uterus, inflammation of the ovary, laceration of the cervix, or eye-strain. The correction of these conditions, he believed, would, in most cases, result in the entire disappearance of the nervous symptoms. In a case of puerperal insanity recently under his care, he repaired a torn cervix, and the insanity disappeared. Many cases also were due, he believed, to auto-intoxication from the alimentary canal.

Dr. McPhedran (Toronto) said that cases on the borderland between neurasthenia and insanity are difficult of diagnosis. Neurasthenia should include all cases of nerve prostration; *e.g.*, in one patient weakness of digestion may be the prominent feature; another patient cannot sleep or rest; still another may have disturbed cardiac action; but all are neurasthenic. He believed that there should be better provision for more careful attention to the incipient insane. There should be one or more stations for the temporary treatment of such patients, and wherein incurable and curable cases could be separated. This would materially relieve the asylums and save the patient from the stigma attached to the inmate of an insane asylum. There are such institutions in Europe and the United States. An inherited difference in the vitality of tissue is responsible for the easy break-down in neurasthenics. Some have poor vitality of brain, of kidney, or of stomach, with the result that these organs are readily exhausted.

Dr. W. J. Wilson, Toronto, agreed with Dr. Holmes that putting all the organs right and changing the environment of the patient would accomplish many cures. He deprecated the wholesale removal of ovaries for trifling causes, the ultimate result being bad.

President Ross could not agree with Dr. Holmes. Some years ago, through the kindness of Dr. Beemer, of Mimico

Asylum, he operated on a number of women patients, repairing lacerations, correcting uterine displacements, etc., with no change in the mental condition of the patients. They were insane before, and they are insane yet, and will probably remain so.

Dr. Meyers (reply)—Any pathological condition should certainly be treated, but improvement in the mental condition could not be expected to follow. He could see no reason why an operation on a woman's uterus should influence the condition of her mind.

Dr. McPhedran discussed some forms of skin disease.

1. *Impetigo Contagiosa*.—The disease is contagious, most commonly occurring on the face or pubic regions, and due to the streptococcus or staphylococcus (or some believe to a specific organism). The disease tends to recur from time to time.

Treatment.—Cleansing, and the application of antiseptic ointments such as ung. hyd. amm. chlor., or, better, resorcin, 20 to 30 grains in an ounce of lanolin. The principle in the treatment of all skin diseases is, cleanse and apply antiseptic, soothing, or stimulating applications.

2. *Erythema Multiforma*.—The trouble commenced in March, four years ago, as a vesicular eruption, occurring on the hands, face, and neck, *i.e.*, the exposed parts only. The eruption lasted all summer, faded in the fall, leaving no mark. It returned in March of the following spring, and went through the same cycle. The lesions are first vesicular, then pustular, and finally coarse crusts, which drop off in a few weeks, leaving faint marks. No inflammation precedes the vesiculation. It is, doubtless, purely a congestion with a serous exudate, followed by an exudate of leucocytes and ultimate crusting.

3. *Acne and eruption on the leg* (syphilitic or tubercular).

Treatment.—Acne, difficult in phlegmatic types. Stimulate until slight desquamation and then soothe. He prescribed Resorcin, 20 gr.; B. naphthol $\frac{1}{2}$ dr.; sulphur, 2 dr.; green soap and vaselin, aa 1 oz. To soothe the leg ulcer use Unna's paste: zinc oxide 1, gelatine 2, glycerin 3, aqua 4. Add, if necessary, ichthyol, 2, 3, 4, or 5 per cent.

4. *Tinea Tonsurans*.—Difficult to cure, as the microsporon is deep down in the hair follicles. Two principles to be observed, thoroughness and perseverance, *i.e.*, use any parasiticide and keep it up. He prescribed sulphur, 2 dr.; lanolin, 1 oz.; or chrysarobin, 1 dr. to the oz.

5. *Cycosis Non-parasitica*.

6. *Leucoderma* in a man with pernicious anemia.

Dr. H. B. Anderson (Toronto) followed Dr. McPhedran.

1. *Urticaria Pigmentosa*.—Present since birth. Small wheels, leaving yellowish or brownish pigmentation spots; recur at intervals in the same spot, leaving a deeper stain. Pigmentation due to the escape of red blood corpuscles and deposit of their pigment.

2. *Weeping Eczema*.

3. *Psoriasis*.

4. Exhibition of diolene crystals from the blood of a nerve case, prepared by Dr. F. H. Scott, according to the method of Dr. Haliburton.

5. *Molluscum Fibrosum*.—A man with many hundreds of small cutaneous tumors.

Dr. H. B. Anderson then read a paper on "Strain in Heart Disease." The influence of severe bodily exertion in inducing rupture of the heart or blood vessels, in patients with arteriosclerosis, or in those unused to physical exertion, was illustrated by the exhibition of a number of specimens, with a short history of each.

1. A patient dropped dead on the street, following rapid walking. The specimen showed rupture of the aorta. Presented by Dr. Powell.

2. A woman, aged 60, died suddenly during the passage of a stomach tube. Specimen reveals rupture of the left ventricle.

3. Captain on a boat attempted to carry a heavy tie, fell unconscious, suffering from tachycardia. Died nine months later, aged 55. Specimen shows rupture of the sinus of Valsalva, with aneurismal dilatation pressing on the right heart.

4. Patient a moderate drinker, good liver, no history of syphilis. After a week of unusual exertion was seized with a sudden pain and sense of weakness, and died the same night. The autopsy showed a dissecting aneurism involving the whole of the descending aorta down to the bifurcation of the iliacs. The blood had burst the middle and inner coats of the aorta, making a false passage for itself under the adventitia.

Dr. J. H. Elliott (Gravenhurst) gave an illustrated paper on the advantages of a pictorial record of chest examinations. By means of lines, circles, dots and crosses, he represents the degree of dulness, adventitious sounds, the nature of the breath sounds, pleuritic rubs, etc. The method commended itself for ease, simplicity and efficiency to all present. Dr. Elliott very kindly offered to explain the details of the system, with illustrations, etc., to anyone who cared to communicate with him.

Dr. R. N. Fraser (Thamesville) then read his paper, and

reported a remarkable group of cases of malignant disease occurring in members of the same family and attendants who waited on them.

DISCUSSION.

Dr. W. J. Wilson (Toronto) recited the case of a gentleman in Germany, who by mistake drank the stomach contents from a patient with gastric carcinoma, and he himself died of cancer some months later. Another case, where a physician by mistake sucked up the stomach contents of a cancer patient from a tube, he himself dying of cancer some fifteen months later, was mentioned.

Dr. Ferguson (Toronto) referred to the excellent record of family cases of malignant disease reported in a recent number of the *British Lancet*.

Dr. Marlow (Toronto) asked if the undescended testicle in No. 5 of Dr. Fraser's series had been found to be cancerous.

Dr. Fraser (reply) did not wish to give the impression that he held cancer to be infectious. It is probably auto-infectious. He could not answer Dr. Marlow's question, as the gland had not been examined.

Dr. A. Primrose (Toronto) then read a paper on "The Surgical Relief of Epilepsy."

Dr. Primrose presented the history of two cases of traumatic epilepsy operated on with good results so far. The first patient was a young lad, about 20, who gave a thrilling history of shipwreck and exposure at sea, after which the fits developed. The seizures always commenced in the first two fingers of the left hand; the wound, however, was on the left side of the head. Was this, then, a case where the pyramidal tracts did not cross, or had there been a lesion on the right side, owing to bursting as a result of the blow on the left side? The left Rolandic area was first trephined, and electrodes applied in the hand area, causing immediate movement of the fingers of the right hand. This proved that the pyramidal tracts did cross. An opening was immediately made on the right side, which revealed a thickened dura mater, and but little other change. Some of this was removed, tension relieved, and the wounds closed up. The patient had two or three fits the night after the operation, but since then (some six months now), has been free from them. The second case was the result of a depressed fracture involving only the inner table of the skull, the result of a pitch-fork wound. The operation revealed an abscess, which was opened and drained. The patient has since been free from seizures.

DISCUSSION.

Dr. Dickson (Toronto) explained the method of localizing motor centres in the cortex by electrodes from a Faradic current. Experimenting should not be done, as it involves great shock to the patient. Fine platinum electrodes are inserted into the cortex and the current turned on gently.

Mr. Cameron (Toronto) said that a lesion giving rise to cortical irritation should be removed. Epilepsy is a discharge of nervous energy from the motor centre in which the cells go off at halfcock. He believed Case 1 of Professor Primrose was a hysterio-epileptic, probably a disciple of Captain Marryat's. There is no use operating unless you find some focal symptom. Personally he had not met with much success in the operation; the patients were better for about a year, but the epilepsy almost invariably returned.

Dr. Ferguson (Toronto) said that statistics show that less than 5 per cent. of epileptics are relieved by surgical procedure. Idiopathic cases, with focal symptoms, and especially Jacksonian epilepsy, are most favorable. Cases operated on almost invariably recur, owing to the contraction of cicatricial tissue, and the last condition is worse than the first. He reported a case of depressed fracture, operated on with complete recovery.

Dr. Bruce (Toronto) reported a case of traumatic epilepsy in which he had removed some of the cortex corresponding to the hand centre. At first there was paresis of the hand, but this recovered, and later on the patient developed epilepsy on the opposite side. "So I transferred him from a right-handed to a left-handed epileptic," said the surgeon.

Dr. McConnell, of Las Cruces, Mexico, read a most instructive and interesting paper on "Climatology and its Influence in the Cure of many Cases of, especially, Chest Trouble."

Dr. Oldright (Toronto) complimented Dr. McConnell on his excellent paper. Was always pleased to meet their former students, and learn of their successes. He asked Dr. McConnell to explain the action of the alfalfa in stopping dust.

Dr. Wishart (Toronto) said that we should congratulate ourselves on the information gained from this paper. It will be of great assistance in directing patients to suitable health resorts. He asked the doctor about the winds and the feeding in the arid zone.

Dr. Hunter (Parkdale) had visited the arid regions and could add his testimony to that of Dr. McConnell. The medical men in those districts were prominent physicians from New York

and other large cities, forced to live in these health resorts. "Do not load your patients down with directions how to live, but place them in the hands of resident medical men." He would like to know about the disinfection of houses and the removal of patients in Pullman cars.

Mr. Cameron highly complimented the writer; the paper was as full of pabulum as an egg, and might be well taken as a model.

Dr. Webster (Toronto) said that many consumptive people have but limited means, and cannot afford to take long journeys and live in expensive resorts. Lots of them are able to get well right here in Toronto.

Dr. McConnell (reply) said that the alfalfa meadows were effective barriers to the dust. Patients did better to provide themselves with tents, and then they ran no risk of infection from houses. One could live comfortably on \$10 a week.

Dr. Burnham (Toronto) then read a paper on "Inflammations of the Lachrymal Apparatus."

Inflammation of the lachrymal sac is the result of struma, violence, or the entrance of irritating fluid, or, most commonly, stricture of the nasal duct. This last condition results in insufficient drainage to the duct, and a chronic blenorrhoea is set up. This mucocele is attended by much suffering and constant disturbance, and demands effective treatment. Initial leeching, calomel, etc., usually fail to abort the attack; hot linseed poultices and free incision on fluctuation are necessary in the acute stage. To remove the cause, and consequently relieve the condition, Dr. Burnham operates as follows: Having slit the canaliculus into the sac, he introduces by means of a syringe a 5 per cent. solution of cocaine, and passes probes Nos. 1 and 2 only. He then irrigates freely with adrenalin, followed by potassium permanganate, 1 in 12,000; and last of all he passes a silver style, which is allowed to remain in position. In three or four days the style is removed, the cocaine, adrenalin, and permanganate irrigation repeated, and the style replaced. This method of treatment is much less painful and much more effective than the old method of passing the largest probe possible and using no medication. During the process of healing, little fibrous bands appear along the floor of the divided canaliculus, which act as dams preventing the free exit of the tears, and which must consequently be divided.

DISCUSSION.

Dr. Wishart asked Dr. Burnham if the inferior turbinate was not frequently enlarged close to the outlet of the nasal duct, and

if cauterization was not indicated? Would like Dr. Burnham to explain more fully what he meant by the constriction bands in the canaliculus lachrymalis.

Dr. Burnham (reply)—Where the turbinate was enlarged, it should certainly be treated. By the constrictions he meant little cicatricial bands, 6, 8, or 10 in number, which prevented the free passage of the probe into the lachrymal sac, and had to be divided time and time again until no obstruction was offered.

Dr. D. J. Gibb Wishart then read his report of a case of double otitis media, with mastoid involvement. Operation and termination in fatal purulent leptomeningitis.

Dr. Wishart reported a case of mastoid development which presented no symptoms except pus in the middle ear, which seemed to well up through the opening in the drum, and some indefinite headache. The man was under the careful observation of both himself and the family physician, a careful record of temperature having been kept, which showed at no time any marked elevation. The patient did not improve, however; was sent to the General Hospital, the mastoid opened, but fatal leptomeningitis followed. The interesting feature of the case is that at no time did the patient exhibit the usual symptoms of mastoid trouble; at no time was there local pain or tenderness, nor any elevation of temperature nor rigors.

Dr. B. Z. Milner (Toronto) read a paper on "Lympho-sarcoma." The tumor occurred in a young man about nineteen, a strong athletic fellow. It was situated in the neck, and examination showed it to be a round-celled sarcoma. It was removed by operation, but the glands in the neighborhood were found to be involved, and the growth recurred. The patient was treated with X-rays, with no apparent improvement. Coley's fluid was then used, and after a thorough trial was abandoned, no benefit having resulted. Finsen's rays also proved useless. The patient was seen at various times by Dr. Powell (Toronto), and Dr. Coley (New York). It was now about a year since the first appearance of the trouble, and the patient was in bad condition. As a last resort X-rays, combined with quinine-fluorescence (the quinine being given internally before the raying), were tried. Under this the growth made no further progress, and some improvement even was noted. The patient, however, was so exhausted that he succumbed.

"Some of the Newer Methods of Diagnosis in Kidney Cases as Applied to Renal Surgery," was the title of a paper by Dr. W. A. Hackett, Professor of Genito-Urinary Diseases (Detroit).

Dr. Hackett briefly reviewed the more important devices and

methods introduced since 1885, pointing out the use and advantages of each. Chromocystoscopy is a useful method of determining the activity of the kidneys. The patient is given a dose of methyl blue or indigo carmine, which are normally excreted by the kidneys in fifteen to thirty minutes. By watching the urethral openings with a cystoscope, the exact time of the appearance of colored urine from each kidney can be determined. If one is manifestly slower than the other, it is evidently the diseased kidney.

Urethral catheterization and segregation enable us to collect the urine from the individual kidney. The former method, while becoming more and more popular, is expensive, and demands skill and patience on the part of the operator. Segregation is open to the objection that the bladder may be diseased.

The history of cryoscopy, or the determination of the freezing point of urine, and the application of Dr. Coppet's law, that the lower the freezing point the greater the concentration, was considered in some detail. The method combined with segregation has been shown to be a most valuable aid in diagnosis, and has removed the fear of the surgeon after nephrectomy to a large extent.

Phloridzin Test.—After the hypodermic injection of phloridzin, a diseased kidney is found to excrete sugar less rapidly than a normal one. . . . Electrical conductivity of urine, X-rays and various bougies were briefly mentioned also. In concluding, the writer explained that these new methods of diagnosis are gradually replacing the old exploratory operation.

Dr. R. D. Rudolf (Toronto) followed next with a paper on "Diagnosis of Functional Heart Murmurs."

Functional murmurs, as first described by Laennec, are soft and blowing in character, occur most commonly in the position of the pulmonary area, opposite the second left costal cartilage, and are in no way connected with valvular diseases. They are due, not to the anemia, as so often taught, but to a condition of hypotonus of the muscles of the circulatory system; that is, there is a relaxation of the sphincter muscles guarding the mitral and tricuspid orifices, and permitting of a leakage. In the pulmonary area, the fibrous band around the orifice permits of no dilatation, but the muscular structure of the pulmonary artery permits it to dilate, and consequently we have a condition in which the blood stream flows from one chamber, that is, the right ventricle, through a relatively constricted orifice, into the dilated pulmonary artery. This is the most favorable arrangement for the pro-

duction of a murmur. Dr. Rudolf laid down the following rules to aid in the diagnosis of functional from organic murmurs:

1. They occur in adolescence and young adults.
2. They are more common in males than females.
3. They all occur during ventricular systole.
4. While the pulmonic area is the most common situation for functional murmurs, it is a rare site for organic murmurs (congenital stenosis being the only one found).
5. Functional murmurs are heard in the neck; *e.g.*, bruit de diable.
6. As the general health improves, functional murmurs tend to disappear; organic murmurs, on the other hand, tend to get louder with increasing strength.
7. Functional murmurs are soft, and accompany rather than displace the first sound.
8. They are not so widely propagated as organic murmurs.
9. They vary under certain conditions; *e.g.*, they are louder after exertion, and are especially increased on lying down.
10. The pulmonic second sound is accentuated early, even before the murmur is heard; this is not so in organic pulmonary stenosis.
11. They are accompanied with little signs of dilatation or displacement of the apex.
12. Cardio-respiratory sounds are sometimes mistaken; ask the patient to hold his breath and they will disappear.
13. Signs of failing compensation are rare in functional cases.
14. The patients are not conscious of the existence of the murmur. An analysis of the patients in the surgical wards of the H. S. C. showed that in 60 per cent. functional murmurs were present. An analysis of a number of wards in the Toronto General Hospital and St. Michael's Hospital showed the existence of functional murmurs in 50 per cent. of the patients.
15. Fever gives rise to functional murmurs. They occur in 66 per cent. of scarlet fever cases, and are apt to recur in rheumatic fever. A useful rule in this connection is, "Functional murmurs tend to occur late in fever (*e.g.*, rheumatic fever), while endocardial murmurs appear within the first ten days."
16. Pressure has not much effect as a rule in altering functional murmurs.

Finally, we are all too apt to conclude that there is organic disease when we hear a murmur, and we are too easily soothed into believing the patient organically sound when no murmur can be discovered.

Dr. Chas. Hodgetts, Secretary, Ontario Board of Health, read a capital paper on "The Diagnosis of Modified Smallpox."

Dr. Hodgetts employs the word "modified" to designate those cases where the course is in any way atypical, not to cases modified by vaccination—the so-called varioloid.

About five years ago the disease appeared in Essex County and Northern Ontario, and was variously diagnosed as chicken-pox, impetigo and syphilis. The spread of the affection and the fact that those unvaccinated were its victims, soon, however, established the nature of the epidemic. Since then the disease has continued from year to year, with the maximum number of cases in January and the minimum during the summer months. The virulence of the contagion has been variable, during the early stages (preceding pustulation), but slightly contagious, and in many mild cases the contagion seems slight throughout. The regulation incubation period of twelve days has been the rule, but many cases of fifteen, sixteen and eighteen days have occurred, necessitating the period of quarantine being extended to eighteen days.

The initial symptoms have varied all the way from a passing malaise to severe headache and backache, accompanied by nausea and vomiting. The initial temperature has been from 100 to 102 F. The mildness or severity of the onset, however, has been no indication of a mild or severe attack. The fever drops with the appearance of the characteristic rash in about seventy-two hours. The rash runs through its regular series of macules, vesicles, pustules and crusts.

The affection is most frequently mistaken for chicken-pox, impetigo and pustular syphiloderm, and in the differentiation the following points are important:

Chicken-pox.—1. A disease of childhood. 2. Runs a rapid course; lesions are papules, vesicles and scabs, all in twenty-four hours. All over in a week. 3. Premonitory symptoms slight or none. 4. Temperature appears with the rash. 5. Vesicles soft and irregular. 6. Eruption occurs on covered parts. 7. No scar or pigmentation left.

Impetigo.—1. No elevation of temperature. 2. No initial stage. 3. Begins as a vesicle or vesicular pustule. 4. Occurs on the face, hands and exposed parts. 5. Unsymmetrical and superficial, large blebs. 6. Crust friable, leaves no scar. 7. Finger-nails carry the infection.

Pustular Syphiloderm.—The large indurated base of the vesicle, which lacks umbilication, and the history and persistence of the symptoms should prevent mistake.

"Enlargements of the Prostate Gland" was the title of a paper by Dr. F. W. Marlow (Toronto).

Dr. Marlow gave a very comprehensive account of the anatomy of the prostate, explaining most carefully the position and variations of the anatomical middle lobe.

Prostatic enlargement, he said, does not necessarily mean prostatic obstruction; according to Sir Henry Thompson, while 30 per cent. of men beyond the age of 55 have prostatic enlargement, but 5 per cent. have obstruction. The etiology of the condition is still obscure; two theories most in vogue at the present time are: (a) Prostatic enlargement is a local result of a general arterio-sclerosis (held by Guyon and the French school). This is opposed by Freyer, Casper, Bruce, Clark, etc., who regard arterio-sclerosis as conducive to atrophy and not hypertrophy. (b) On account of similarity in the structure of the prostate and the uterus, Velpeau claims the existence of an analogy between prostatic enlargement and fibromyoma of the uterus.

The enlargement may be uniform or more frequently asymmetrical, the enlarged portion raising the vesicle outlet, stretching the urethral walls and forming a pouch in which residual urine collects. The symptoms of the trouble are increased frequency of micturition, due first to irritation of the growth, but later to diminution of the bladder capacity. There is difficulty in starting the stream, which is small, without its normal projection curve, and followed by dribbling. With proper attention to the history and symptoms, and careful digital examination, the diagnosis should be easy.

Dr. G. A. Bingham (Toronto) read a paper on "Surgical Treatment of Enlargement of the Prostate."

The methods employed will depend entirely upon the individual case. One man with no symptoms but increased micturition may be carefully and scientifically introduced to catheter life. While in another case with overflow, cystitis and probably, pyelitis, drainage by median perineal cystotomy, done under a local anaesthesia, is demanded. Between these extremes are a number of cases amenable to radical treatment, and for these the following operations have all been done: (a) Orchidectomy. The shock is severe and the operation not generally useful, and is now abandoned. (b) Vesicotomy. Slow and uncertain, and applicable to but a limited number of cases. (c) Perineal and suprapubic prostatectomy. Of these the most rational and scientific procedure is the suprapubic. In this the field is freely exposed, the gland readily reached, and easily shelled out of its attenuated capsule. The results are usually most satisfactory.

Dr. E. Clouse (Toronto) then read his paper, "Notes of an Uncommon Case of Rectal Surgery."

Dr. Clouse recounted a remarkable instance of a patient's unfortunate adventures with hemorrhoids. The patient, a prominent clergyman, fell into the hands of a quack, who attempted to do Whitehead's radical operation, but was so unfortunate in the result that the mucous membrane and the skin outside would not unite. Shortly after, having moved to British Columbia, he came under the care of a friendly jeweller. This ingenious individual invented for the hapless minister a manner of stem pessary, by means of which the rectum was kept in position. The clergyman wore this device for six long years, suffering the inconvenience and discomfort of having to remove it once or twice a day. Dr. Clouse now saw him again, and had in consultation several other prominent surgeons. They decided that nothing could be done to relieve the situation except a colotomy. This the patient refused, and again besought Dr. Clouse to do something for him. Dr. Clouse consented to try what could be done and, with the patient under an anesthetic, discovered that by snipping the skin just beyond the red border he was able to relieve the tension on the bowel, and a perfect cure was wrought.

Dr. J. H. Peters (Hamilton) prepared a paper on "Anomalies in Fetal Development, with Specimens."

The Secretary read Dr. Peters' paper, which gave an illustrated account of a fetal monstrosity exhibited. The specimen was what Hirst calls a celosoma and of the type agenosoma. The liver and bowels are exposed, with an absence of the genital organs. This is one of the two or three cases of agenosoma reported.

MOTIONS, RESOLUTIONS, ETC.

Moved by A. McPhedran, seconded by N. H. Beemer, That in the opinion of this Association there exists an urgent need for the establishment of hospital accommodation for the temporary reception and treatment of suspected and incipient cases of mental alienation. The establishment of such institutions offers the only efficient means for the cure of such cases, and would save many of them from the stigma of having been incarcerated in an asylum for the insane. Carried.

Moved by W. H. Smith, and seconded by F. Fenton, That the thanks of this Association are to be extended to the Automobile Club of Toronto for the kindness exhibited to the members in the very pleasurable ride about the parks of the city. Carried.

Votes of thanks were also passed to the President and Senate of the University of Toronto for the use of the Medical Building; to the retiring President, the Secretary, the Assistant Secretary, and other officers of the Association for their painstaking work in arranging for this excellent meeting.

The motion of Drs. Cameron and Thistle, that the Ontario Medical Association be changed to constitute a branch of the British Medical Association, was, on motion of Drs. Powell and McPhedran, referred to a committee to be named by the incoming President and Mr. Cameron, which committee should report to this Association. In connection with this Mr. Cameron pointed out that the membership fee of one guinea to the British Medical Association included the subscription for the *British Medical Journal*. By constituting this Association a branch of the British Medical Association, we would in no way interfere with our own autonomy. Dr. Bingham pointed out the difficulty already existing in getting men to attend the Ontario Medical Association meetings, and that the matter was one of too much importance to be passed over hurriedly.

The following officers were elected for the ensuing year: President, Dr. W. A. Burt (Paris); 1st Vice-President, Dr. J. L. Davison; 2nd Vice-President, Dr. George Hodge (London); 3rd Vice-President, Dr. Edw. Ryan (Kingston); 4th Vice-President, Dr. T. H. Middleboro (Owen Sound); General Secretary, Dr. Chas. P. Lusk (Toronto); Assistant Secretary, Dr. Samuel Johnston (Toronto); Treasurer, Dr. Fred T. Fenton.

The following names were elected by the Nomination Committee to serve on committees: Credentials—Dr. Olmstead (Hamilton), Dr. Boyd (Bobcaygeon). Public Health—Dr. Trimble (Queenston), Dr. Fraser (Thamesville). Legislation—Dr. H. D. Livingstone (Rockwood), Dr. Chas. Sampson (Windsor). Publication—Dr. Alex. Taylor (Goderich), Dr. W. J. Charlton (Weston). Ethics—Dr. H. A. McCallum (London), Dr. T. McKeough (Chatham).

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And Ontario Medical Journal

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No. 2.

THE INFLUENCE OF BORIC ACID AND BORAX ON DIGESTION AND HEALTH.

The elaborate and valuable investigations of Dr. Wiley, of the U. S. Department of Agriculture, on the influence of boric acid and borax on digestion and health, were commenced in the autumn of 1902. These investigations were not undertaken haphazard, but after a careful study of similar work in other countries, which certainly adds value to the U. S. observations. Twelve young men were selected from the Bureau of Chemistry and other branches of the Department of Agriculture. They were then pledged to obey and observe all the rules and regulations laid down for the investigations. The experiments were inaugurated in December, 1902, and concluded on July 1st, 1903, so far as boric acid and borax were concerned.

Briefly, the results may be summarized as follows:

(1) That boric acid and borax are almost, if not altogether, absorbed into the circulation from the intestinal tract; 80 per cent. of the total amount exhibited was recoverable in the urine, the rest being chiefly excreted through the skin, and only traces through the feces.

(2) Boric acid or borax, when administered with food,

appears rapidly in traces in the urine; but the experiments showed and proved that there was not any great tendency to accumulation.

(3) It was found that the most convenient method of exhibition was by capsules, as then there was no dislike created for the food, a dislike due largely to the mental attitude, and not to bad taste or flavor.

(4) When administered in the food in small quantities, $\frac{1}{2}$ grain or less per day, no notable effects are observed; but given over a period of time, as in one case fifty days, there were observed periods of loss of appetite, fulness in the head, and distress in the stomach. These were not observed in everyone, as some are apparently more sensitive to the action of borax and boric acid than others. In these cases there was no tendency to either diarrhea or diuresis.

(5) As was to be expected, when administered in larger and increasing doses, the above symptoms are exaggerated, the most common one developing being a persistent headache.

(6) Upon the digestive processes the specific action of the drugs is not very well marked.

(7) The continued administration of boric acid and borax has a decided, well marked effect upon the weight of the body, as it causes a decrease in the desire for food; and during the administration of the preservatives there is a slight tendency to diminution in the weight of the body—a tendency which becomes so well fixed that it is not entirely eliminated for many days, even after cessation of the administration of the preservative. A point worth recording is that any effects produced are not of a permanent character.

(8) It is not advisable to use borax or boric acid in articles of food intended for common and continuous use, and even when incorporated in foods used only occasionally, the consumer has a right to know of it.

(9) The use of borax or boric acid as an external application to cured meats to preserve them during shipment is not condemned, as the quantity of the drug actually becoming incorporated in the food can never be great.

Summing up, it was found that in doses not exceeding $7\frac{1}{2}$ grains a day, boric acid and borax were prejudicial when consumed for a long time, especially so with the young, the debilitated, and the sick; and that it would be a safe rule to adopt to exclude entirely these substances as preservatives from those foods used for general consumption.

The foregoing deductions, no doubt prepared with the greatest discretion and care, must stand as law so far as medical science is concerned, regarding the employment of borax and boric acid as preservatives of foods.

CANADIAN MEDICAL ASSOCIATION.

We have the opportunity once again to draw the attention of our readers to the Thirty-seventh Annual Meeting of the Canadian Medical Association at Vancouver, B.C., from August 23rd to 26th. It is an opportunity to visit the Pacific Province which should be considered with more than ordinary care by all our readers; and especially do we desire to have our Toronto readers ponder over it. No doubt the next annual meeting will convene in Toronto, and this city is in duty bound to send a good delegation to Vancouver. If this duty cannot be performed, we are quite confident in stating that Toronto physicians will welcome warmly the Canadian Medical Association in 1905, and every effort will be put forward to surpass any meeting ever held. But this year we join heartily with Vancouver, and wish that city every success in surpassing its predecessors, and we understand there is every indication that Vancouver will eclipse her sister cities in the East.

Whilst the trip is a long one, and considerable time taken from practice, there is such splendid promise of good times and good profit that all who stay away will never cease regretting about it. Therefore, it cannot be too often or too forcibly brought home to our readers in the East, that we owe a duty and a debt to the West, who oftentimes before have journeyed over these vast prairie and mountainous tracts to attend our meetings in the East. Weigh the matter calmly and carefully, and see if you do not decide that your presence is desired in Vancouver in August. Many years will, no doubt, pass away before you are privileged to go again. This year—Vancouver; next year—Toronto; in 1906—Halifax, as we understand it is the purpose of the Maritime Medical Association to issue an invitation for that year. The Canadian Medical Association is prospering beyond conception. United and organized action will make us a powerful body to be considered with in the councils of Canada.

NEWS ITEMS

DR. MAL. GALBRAITH has gone to Coldwater to assist Dr. Boyd, of that place, in his practice.

DR. J. H. McCULLOUGH, formerly of Owen Sound, Ont., died July 12th at Battleford, N.W.T.

DR. A. F. DEMARY, of Kerwood, has been appointed to a position in the sanitarium at Muskoka.

DR. LORD, of Forest, has entered upon his duties as house surgeon at the Sarnia General Hospital.

INFANT MORTALITY in Montreal has reached as high as 133 deaths in one week during the present summer.

DR. CHARLES MCKINLEY, of Georgetown, has been appointed associate coroner for the County of Halton.

DR. J. R. ARMSTRONG, house surgeon at Victoria Hospital, London, has resigned his position on the staff, and has begun practice in Oil Springs.

DR. W. W. JONES, of Mount Forest, has successfully passed his final exam. in London for a Fellowship of the Royal College of Surgeons, England.

DR. J. P. HUBBARD, Forest, Ont., has gone to Baltimore, where he will spend a month taking a special course with Dr. Kelly, one of the leading specialists of the United States.

DR. LAPHORN SMITH, of Montreal, will leave on August 14th for a seven weeks' trip to Europe, going by the Hamburg-American SS. "Prince Adelbert" direct to Naples, and returning by the White Star "Baltic" from Liverpool to New York, reaching home about the first of October. His visit is principally for pleasure, but he hopes to spend a few days watching the work of Kocher and other celebrated European abdominal surgeons.

TO THE WORLD'S FAIR, ST. LOUIS, MO., OVER THE WABASH LINE, in their new advanced twentieth century imperial blue trains, nothing finer on wheels. Round trip tickets on sale at single first-class fare. Passengers returning from this great exposition say the grandeur and magnitude is beyond their comprehension; that the Wabash is the best route, because it saves many hours of travel and lands you right at the World's Fair gates. Passengers leaving Toronto and west on evening trains

arrive in St. Louis next day at noon. New palace sleepers all the way. For rates, time-tables and descriptive folders, address: J. A. Richardson, District Passenger Agent, north-east corner King and Yonge Street, Toronto.

TORONTO GENERAL HOSPITAL STAFF FOR 1904-1905.—The following appointments have been ratified by the Trustees of the Toronto General Hospital for the ensuing year: W. B. Wright, Toronto; N. McLaurin, Toronto; W. A. McCauley, Warkworth; A. J. Fraleigh, Bloomfield; T. W. Rowntree, Thistledown; N. O. Fisher, Ashgrove; E. K. Cullen, Parkdale; J. A. Oille, Sparta; G. E. Smith, Toronto; W. E. Gallie, Barrie; T. Hair, Lavender; G. E. Greenway, Little Britain; W. B. Hendry, Toronto; H. R. Elliott, New Sarum. The outside staff is: A. W. Canfield, Woodstock; E. A. McCulloch, Thomasburg; A. C. C. Johnston, Toronto; W. S. Turnbull, Goderich; T. P. McKinnon, Toronto; W. S. Fawns, Udora. The Trustees decided to appoint two official anesthetists and also one medical and one surgical registrar, and one resident pathologist. Applications for the above appointments are to be sent to the Secretary, with qualifications. In our advertising columns will be noticed an announcement *re* these appointments.

CANADIAN MEDICAL ASSOCIATION.—In going to the Canadian Medical Association Meeting at Vancouver, August 23rd to 26th, have your tickets routed Canadian Pacific Railway to Vancouver or Victoria. If not returning direct by C.P.R., a good way to return will be over the Northern Pacific Railway as follows: Vancouver to Sumas on the boundary line, C.P.R.; Sumas to Seattle, N. P. R.; thence to Spokane and Livingstone (if visiting the Yellowstone National Park—a week's staging at \$49.50, meals and sleeping accommodation thrown in); thence to St. Paul; from St. Paul to Chicago be routed over the Chicago and Northwestern; from Chicago to St. Louis or Detroit go by the Wabash; C.P.R. direct to your home. If going through California after the meeting is over, have your tickets read Southern Pacific, Portland to Los Angeles or San Francisco; returning over Union Pacific through Salt Lake City, Denver and Kansas City; then Kansas City to St. Louis over Wabash; from St. Louis to Chicago over Wabash, or over Wabash to Detroit direct; Chicago to Detroit over Wabash; Canadian Pacific, Detroit to starting point. Seattle may be reached from Vancouver by Canadian Pacific Steamship Line (B. C. Coast Service).

The thirty-fifth annual meeting of the American Medical Editors' Association, held at Atlantic City in June, 1904, was one of the most successful in its history, C. E. de M. Sajous, President, presiding.

The many papers presented, as well as the numerous applications received for membership, is possibly the best indication of the interest displayed in the Society. Among the new members who joined were the following: Dr. Herman Knap, editor of the *Archives of Ophthalmology*, New York; Dr. J. Madison Taylor, *Sajous Encyclopedia*, Philadelphia, Pa.; Dr. Joseph McFarland, *Medicine*, Philadelphia, Pa.; Dr. H. Longstreet Taylor, *St. Paul Medical Journal*, St. Paul, Minn.; William Davis, *St. Paul Medical Journal*, St. Paul, Minn.; Surgeon-General Walter Wymann, *Sajous Encyclopedia*, Washington, D.C.; Louis L. Pilcher, *Annals of Surgery*, Brooklyn, N.Y.; H. Enos Tuley, *Louisville Journal of Medicine*, Louisville, Ky.; Andrew Mac Phail, *Montreal Medical Journal*, Montreal, Can.; A. W. Wright, *Canadian Practitioner and Review*, Toronto, Ont., Can.; George Elliott, *DOMINION MEDICAL MONTHLY*, Toronto, Ont., Can.; E. E. Dorr, *Iowa Medical Journal*, Des Moines, Iowa; Frank B. Cross, *Lancet Clinic*, Cincinnati, Ohio; F. E. Daniel, *Texas Medical Journal*, Austin, Texas; William F. Waugh, *Alkaloidal Clinic*, Chicago, Ill.; Wm. J. Robinson, *Critic and Guide*, New York; Raymond Wallace, *Southern Medicine and Surgery*, Chattanooga, Tenn.; C. Sumner Witherstein, *Sajous Encyclopedia*, Philadelphia, Pa.; F. W. Samuel, *American Practitioner and News*, Louisville, Ky.; Arthur J. Patk, *Wisconsin Medical Journal*, Milwaukee, Wis.; Langdon B. Edwards, *Virginia Medical Semi-Monthly*, Richmond, Va.; Clarence A. Smith, *Northwest Medicine*, Seattle, Wash.; Horatio C. Wood, Jr., *Therapeutic Review*, Philadelphia, Pa.; Albert E. Stern, *Medical and Surgical Monitor*, Indianapolis, Ind.; James U. Barnhill, *Columbus Medical Journal*, Columbus, O.; Samuel F. Brothers, *Medico Pharmaceutical Journal*, New York; Alfred B. Meacham, *Post Graduate*, New York; G. L. Harrington, *Brooklyn Medical Journal*, Brooklyn, N.Y.

Among the interesting papers read and thoroughly discussed, we would mention: "Proprietary and Patent Medicines," Harold N. Moyer, Chicago, Ill.; "Military Medical Journalism of the Present Day," Major J. Evelyn Pilcher, Carlisle, P.A.; "Sun-

down Journalism," T. D. Crothers, Hartford, Conn.; "Medical Illustrations," H. V. Wurdemann, Milwaukee, Wis.; "Medical Journalism of the Pacific Coast," Winslow Anderson, San Francisco, Cal.; "The Medical Press vs. The Modern Plague," William Porter, St. Louis, Mo.; "Reading Notices," W. C. Abbott, Chicago, Ill.; "Imitation Journalism," H. Waldo Coe.

Following an animated discussion of Dr. Porter's article relative to the use of patent nostrums, the following resolution, endorsing the action of Mr. Bok, editor of the *Ladies' Home Journal*, was favorably acted upon:

Whereas,—The public is, and long has been, suffering from the use of nostrums, and from the misuses of medicines, and,

Whereas,—The medical profession and press have endeavored by every means in their power to instruct the laity upon the subject, and,

Whereas,—Some journalists either do not understand the true situation, or find it to their pecuniary gain to favor the use of nostrums and pander to the greed of their manufacturers at the expense of the health or even the lives of their dupes among the people, and,

Whereas,—The eminent editor of the *Ladies' Home Journal*, Mr. Edward Bok, in an able and vigorous editorial on page eighteen of the May number of that journal, laid the truth of the matter before his readers, thus aiding in the work of warning and educating and conserving the health and welfare of the public, be it

Resolved,—That the American Medical Editors' Association approves and commends Mr. Bok for the intelligent, honest, fearless and well-grounded position he has taken, which has been thoroughly appreciated by us and by the medical profession generally.

Resolved,—That a copy of these resolutions be spread upon the Minutes of this meeting, be transmitted to Mr. Bok, and be published in the medical journals throughout the country.

Dr. Porter presented the following resolution bearing upon the death of Dr. I. N. Love, an ex-president of the American Medical Editors' Association:

Through the joys of to-day come refrains in minor key. We welcome our friends again, but some have dropped out for ever. One day eager in all that makes the activities of life—the next cold and silent on the bosom of the dark, mysterious river. Dr. I. N. Love was no ordinary man. Endowed as few are, he cultivated the art of showing to others the natural buoyance of his nature and keeping well within himself the burden and shadows that few knew of and the many never dreamed of. No one was

better known in the medical societies of the country and especially in this Association. Quick, witty, generous, he made friends at every turn, and if to-day he made an enemy, to-morrow he was likely to kill him with kindness.

Of his work as a physician and an editor, you who were his friend, through the decades, need not be told. As a physician he was sympathetic and intelligent beyond the possibilities of most men. The devotion of his patients was a natural sequence following the sunshine of his presence in the sick-room. As an editor he was original and personal, but his personalities were more likely to be eulogistic than censorious. He called his Journal "a reflex of the medical profession," but it was more notably a reflex of his own life.

Realizing the difficulty of expressing a just appreciation of the life of one so brilliant, so fascinating and energetic, yet in token of the sense of loss sustained by the Association, be it

Resolved,—That the members of the American Medical Editors' Association, while mourning the decease of Dr. I. N. Love in the zenith of his manhood and opportunities for usefulness, remember and cherish the recollection of all in his most attractive individuality that made his record so large a part of the history of this Association.

Resolved,—That a large page of our record books be set apart for the resolutions, and that a copy be sent with our truest sympathy to the members of his family.

WM. PORTER.

C. F. TAYLOR.

A committee was appointed by the Chair, composed of C. F. Taylor, chairman; Dr. Hogehead, of San Francisco, Cal., and Dr. Pilcher, of Carlisle, Pa., and the Secretary, member ex-officio, to draft a new Constitution and By-Laws to be presented at the next meeting.

The following officers for the coming year were elected: President, Harold N. Moyer, Chicago, Ill.; 1st Vice-President, C. Evelyn Pilcher, Carlisle, Pa.; 2nd Vice-President, O. F. Ball, St. Louis, Mo.; Secretary and Treasurer, J. MacDonald, Jr., New York; Executive Committee: C. E. de M. Sajous, Chairman; John Pulton, W. A. Young, W. C. Abbott, H. M. Simons, C. F. Taylor and Chas. Wood Fassett.

This Association now enjoys a membership of over one hundred active medical editors, and those medical journalists not now associated are invited to present their applications for membership to the Secretary, Dr. J. MacDonald, Jr., 100 William Street, New York City, N.Y.