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LITHOTOMY *versus* LITHOLAPAXY.*

BY CHARLES B. SHUTTLEWORTH, M.D., C.M., L.R.C.P. (LOND.), F.R.C.S. (ENG.),

Surgeon Out-Patients' Department Toronto General, St. Michael's and Hospital
for Sick Children, Toronto; Demonstrator Clinical Surgery and Anatomy,
Toronto University Medical Faculty.

The subject of stone in the bladder, notwithstanding the fact that it has been so often discussed, is of great interest to the surgeon, who is always inclined to give a favorable reception to any suggestions which may help to throw any light on the subject.

There are certain parts of the globe where stone is very prevalent, such as the North-West of India, the delta of the Nile, East Anglia, and, on this continent, the Mississippi valley, while in other countries of the world stone is only occasionally met with, or, indeed, is almost unknown.

In a review of the literature of the subject of urinary calculus, I have taken advantage of the writings of those who have had wide experience and unrivalled opportunities in dealing with this affection. These include Freyer, Keegan, Keith and Baker, in India; Milton, in Egypt; Ferguson, Thompson, Harrison, Cadge and Burton, in England; Guyon, Dittel and Volkmann, in Europe; and Briggs, Cabot, Keyes and Bangs, in America.

No single operation meets the requirements of all cases of stone. We have several entirely different methods, each of which has certain advantages and also its own peculiar difficulties and dangers, which must be recognized and avoided. The best results will be attained by the surgeon who has a thorough practical knowledge of all methods of operating, and who will

* Read before the Ontario Medical Association, June 13th, 1904.

study each case by itself, and, in the best interests of his patient, select the operation which best meets the indications and requirements. He will, in this way, obtain better results than are possible to the mere advocate of a special operation, however expert he may be in its performance.

Where a stone in the bladder is too large to pass *per vias naturales* one of two methods may be adopted, either opening the bladder through the perineum, or above the pubes; or crushing the calculus so that it may be removed through the urethra.

The first method of "cutting for stone" is one of the oldest operations known to surgeons, and dates back before the time of Hippocrates, and since Celsus, with a scalpel alone, cut blindly "on the gripe" the operation of perineal lithotomy has undergone many modifications. It was practised by priests and laymen with great success as late as the earlier part of the eighteenth century. To Cheselden, in England, is due the credit of placing the lateral operation on a scientific anatomical basis. He performed 213 lateral lithotomies with a mortality of only 5 per cent. Suprapubic lithotomy was first performed by Pierre Franco, in 1550, but was not recommended by him, and was lost to sight for a long time. It was revived in the eighteenth century by Douglass and Cheselden, in England, and was frequently practised during the earlier part of last century, but gradually declined in popularity, being more dangerous than the perineal route. In 1880 it was again revived by Petersen, of Kiel, who improved the operation by distention of the bladder and rectum with water. To this procedure, and the application of antiseptic methods, the operation owes its present popularity.

In 1818, Civiale published his work on lithotrity. He advocated the crushing of the stone in the bladder, at many short sittings, and left the fragments to be passed with the urine. His first successful operation was performed in 1824, and although operating with inferior appliances, he demonstrated the possibility of pulverizing stones by instruments introduced through the urethra. Subsequently various improvements were made in the instruments used, until the invention of the modern lithotrite, when the operation reached a high degree of perfection, although the death-rate was high.

It was, however, to the genius of Henry J. Bigelow, of Boston, that the origin of "lithotrity at one sitting" or litholapaxy is to be attributed. This occurred in 1878, when he introduced improved instruments, and proposed, under anesthesia, not only to crush the stone through the urethra, but by a powerful evacuator to wholly remove the fragments at one and the same sitting.

This procedure was eagerly accepted by the profession. It revolutionized the old operation of lithotrity, and up to the present time has been universally accepted as the best method of treating uncomplicated cases of vesical calculus.

Bigelow showed that the bladder was much more tolerant to instrumentation than was previously believed, and pointed out that the greatest danger of lithotrity was not in the use of instruments, but from the subsequent irritation of the bladder by the fragments of stone left in it.

In 1878, Otis, of New York, pointed out that the calibre of the urethra was greater than had formerly been supposed, and this has been found to hold good in children. Notwithstanding the fact that lateral lithotomy had been eminently successful in children, Surgeon-Major Keegan, in India, extended the operation of litholapaxy to males up to the age of puberty, and in the *Lancet* of January 16th, 1897, published the following table, showing the comparative safety of crushing operations in children:

Nature of Operation.	Number of Cases.	Average Age.	Percentage Mortality.
Litholapaxy	509	6.35	2.35
Lateral Lithotomy	267	6.90	5.24

In making a choice of several entirely different methods, it will be necessary to carefully consider various factors which in great measure contribute to a successful issue. These may be arranged as follows:

1. Age and mortality.
2. Size and consistency of the stone.
3. Completeness of cure.
4. The state of the urethra, bladder and kidneys.
5. The damage done to anatomical structures and interference with the functions of the parts.

To these must be added the skill and experience of the operator.

Age and Mortality.—The mortality of all stone operations is least in children, and increases with each decade after puberty, and cases may consequently be conveniently arranged in three groups, according to age; (a) Infancy to puberty; (b) Puberty to middle age; (c) Middle age to old age. This division marks more or less accurately certain epochs in the development and decay of the genito-urinary organs.

The following table, compiled from various sources by Cabot, of Boston, for "Morrow's System," includes the records of many operators, and also embraces Barling's Tables from six large London and six provincial hospitals, but excludes the statistics of surgeons who, by long practice and exceptional opportunities, have become exceedingly expert, as with Ferguson, Cadge and Agnew, in lithotomy, and Guyon, Keith, Keegan and Freyer in the operation of litholapaxy.

Group (a)—Infancy to Puberty.

	Cases.	Deaths.	Percentage Mortality.
Perineal Lithotomy.....	602	19	3.1
Suprapubic.....	637	84	13.1
Litholapaxy.....	284	5	1.7

Group (b)—Puberty to Middle Age.

	Cases.	Deaths.	Percentage Mortality.
Perineal Lithotomy.....	226	22	9.7
Suprapubic Lithotomy.....	159	18	11.3
Litholapaxy.....	485	22	4.5

Group (c)—Middle Age to Old Age.

	Cases.	Deaths.	Percentage Mortality.
Perineal Lithotomy.....	69	13	19
Suprapubic Lithotomy.....	91	17	18
Litholapaxy.....	581	40	7

The above statistics being based on the results of operations performed by various surgeons outside the "stone districts" will, perhaps, give a truer estimate of the relative mortality than the following table, which represents the returns of

operations performed on patients of all ages by experts in India, where stone is very common :

Operation.	Cases.	Cured.	Died.	Mortality.
Lateral Lithotomy	7,201	6,407	794	11.02
Suprapubic Lithotomy	147	86	61	42.17
Litholapaxy	10,073	9,665	399	3.96

Keegan, in *Lancet*, January 30th, 1897.

These figures show that in childhood the crushing operation is one of comparative safety, although there is little to choose between it and the time-honored lateral section. The *sectio alta* is at this age much more dangerous. After puberty the enlargement of the urethra and development of the prostate, with a consequent increase in vascularity, increases the dangers of cutting operations through the perineum. These changes, however, facilitate the crushing operation, and render the performance of litholapaxy comparatively easy and safe. In old age the mortality is decidedly in favor of litholapaxy, being very little higher than it was earlier in life, whereas the danger of all cutting operations is markedly increased at this age. This is due to a loss of vigor, the increased size of the prostate gland with its injurious effect on the bladder.

Size and Consistency of the Stone.—The limits as to size under litholapaxy are being from time to time extended as instruments become more perfected. Stones weighing as much as 6½ ounces, which could not at first have been attempted, have been removed successfully in this way. (Freyer, in *British Medical Journal*, 1894.)

The hardness of the stone does not now contraindicate litholapaxy, but where a very large or dense calculus is encountered which defies the powers of the lithotrite, the surgeon will have to resort to one of the cutting operations.

Completeness of Cure.—That there is a greater danger of leaving a fragment of stone in the bladder after crushing than after lithotomy is one of the chief objections urged, but this is due rather to a want of thoroughness on the part of the surgeon than to a lack of completeness in the operation, for with a variety of evacuating cannulae, both straight and curved, in competent hands, the chance of recurrence from retained fragments is very small indeed. The danger of retention of fragments is, however, greatly increased by any obstruction to the flow of urine, such as enlarged prostate. The bladder is then

more apt to be sacculated, and the chance of fragments being missed by the evacuator are decidedly greater. A healthy bladder would, no doubt, rid itself of such *débris*.

The State of the Urethra, Bladder and Kidneys.—Stricture of the urethra, in any part of its course, is no longer an obstacle to crushing, for it may be first dealt with either by divulsion or internal urethrotomy. If, however, an old, indurated, tortuous stricture exists, especially if complicated with fistulæ; or if the urethra is intolerant of instrumentation, and rigors and fever follow any attempt at dilatation, it will be necessary to cut, for this would permit the removal of the stone and the cure of the stricture.

Enlarged prostate does not prohibit litholapaxy if the necessary instruments can be introduced, and many brilliant results have been obtained in such cases, but it may be difficult or impossible to seize the calculus with the lithotrite, and, even if the stone be broken, there may be great difficulty in finding the fragments, and also the danger of leaving fragments behind while aspirating. Here the suprapubic operation, in the hands of the general surgeon, will be advisable.

In old men with enlarged prostates, where the necessary mechanical disturbance attending litholapaxy stirs up the vesical neck so that a cystitis, more or less intense and prolonged, follows the operation, E. L. Keyes, in a paper read before the Medical Society, New York, in 1892, pointed out that "these cases do well under lithotomy, and in them the suprapubic method should be adopted, because it allows the surgeon to deal at a single sitting, not only with the minor necessity—the small stone—but also with the more important and permanent disability—the enlarged prostate—by prolonging the superapubic lithotomy into a prostatectomy and making the patient's necessity the surgeon's opportunity."

Where the stone is encysted, or lodged in the opening of the ureter, or urethra, and cannot be dislodged, or a concomitant tumor or tuberculosis of the bladder exists, suprapubic lithotomy is the operation of election, for by no other method can both be dealt with. In diseased conditions of the bladder or kidneys, which so militate against the chances of recovery in all operative procedure, or in cases of unhealthy urine arising from either, the opinion of Sir Wm. Hingston, of Montreal, is to the effect that "the lithotrite is as safe an instrument as the lithotomist's knife. Nor should an attempt at the removal of a calculus by either method be delayed pending an effort—usually fruitless—to improve any of these conditions."

The Damage Done to Anatomical Structures and Interference with the Functions of the Part.—The especial superiority of litholapaxy to all other methods lies in the fact that, when

carefully performed, it involves no permanent injury to the parts, nor does it disturb any physiological function. Its sequelae are few and rarely serious. Suprapubic lithotomy causes no permanent trouble, although a fistulous opening sometimes remains which refuses to heal, and is a constant source of discomfort to the patient. There may be difficulty in a very fat patient in reaching the bladder above the pubes, or in obtaining sufficient room to reach that viscus, owing to the close relations of the peritoneum to the pubic bone. Hemorrhage and urinary infiltration, with consequent sepsis, constitute the chief dangers of the operation. The presence of a wound in the bladder wall may be the cause of adhesions to the abdominal wall or pubes, and so interfere with the proper contraction of the fibres of the bladder, or a urinary deposit may take place on the scar and lead to a recurrence of stone.

The lateral operation passes through important structures. Incontinence of urine, fistula, injury to the seminal ducts, sometimes resulting in sterility, are objections urged against this operation. It often involves an extensive incision into the prostate, or serious bruising of the gland, by the necessary dilatation of the neck of the bladder, and the extraction of the calculus through it—a grave danger in old people. Profuse hemorrhage and injury to the rectum must also be taken into account.

An account of the various operations for the removal of stone would be incomplete without reference to perineal lithotripsy, proposed by Dolbeau, in 1862, modified by Reginald Harrison, and described by him in the *Lancet* of September 22nd, 1888. Mr. Harrison, by a small median incision, opens the membranous urethra on a grooved guide, digitally dilates the prostatic urethra and neck of the bladder, and then, by a giant lithotrite, introduced into the bladder, crushes the stone and removes the fragments by forceps or aspirator.

In the Bradshaw Lecture of 1896, Mr. Harrison points out the advantages of perineal lithotripsy as follows: (1) It enables the operator to crush and evacuate large stones in a short time. (2) Less risk to life than other cutting operations, and is well adapted to the old and feeble, where for any reason crushing is inadmissible. (3) It permits of more effectual washing of the bladder and any pouches connected with it, as the route is shorter and larger tubes may be used. (4) The bladder may be more thoroughly explored by forceps or finger to ascertain that the viscus is cleared of *débris*. (5) It allows of efficient drainage of the bladder by rubber tubes, and treatment of cystitis due to retention of urine in pouches in its walls. This method is also well adapted for the cure of stricture in the deep urethra when complicating stone.

Perineal lithotrity, no doubt, has a great future, and on account of its safety may replace both lateral and suprapubic lithotomy. Forbes Keith, of Delhi, India, has operated by this method 157 times, with a mortality of 1.9 per cent. (*Lancet*, September 30th, 1893.)

In conclusion, the choice of operation may be briefly summarized, as follows:

1. Litholapaxy is certainly the operation of election in all simple cases of stone in the urinary bladder.

2. 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, by perineal lithotrity.

3. 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.

4. 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.

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

6. 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.

7. Although 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.

8. 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.

MORBUS COXAE—ETIOLOGY AND DIAGNOSIS.*

By W. E. GALLIE, M.B., TORONTO.

During my term on the surgical wards of the Hospital for Sick Children, I have had an opportunity of closely studying the course of hip-joint disease. Owing to the method of keeping clinical records of all cases admitted, some statistics have come to my hand which I hope will be interesting and instructive.

Since the building of the Hospital for Sick Children upon its present site in 1892, 318 cases of tuberculous disease of bone have been treated in its wards. These were distributed as follows:—

Hips.....	179	Spines.....	70
Knees.....	52	Ankles.....	9
Wrists.....	4	Metacarpal bones.....	1

Three main factors are recognized in the etiology of tuberculous disease:

First—The general predisposition of the patient to infection, a predisposition which may be hereditary or acquired.

Second—The local predisposition of the part, that is, the formation of a circumscribed area whose resistance to infection is less than that of the surrounding tissues.

Third—The source of infection itself, the tubercle bacillus.

Let us discuss, in the first place, the general predisposition of the patient. By this it is meant that the body fluids are less antiseptic than normal to the bacillus of tuberculosis. Authorities state that such a condition may be inherited from parents who have tuberculosis or who are themselves in a condition of predisposition to the disease. A study of the statistics of hospitals for consumptives indicates that heredity plays a large part in predisposition to pulmonary tuberculosis, some stating that if the inquiry is thorough enough a family history will be found present in practically all cases. This statement can not be so well applied to tuberculosis of bone. Of our 318 cases only 131 had any semblance of a tubercular family history, even when traced out among the uncles, aunts and cousins. We may say, then, that only one-third of our cases have any taint whatever of hereditary predisposition. Getting down closer to the patient, we find that only 73 out of the total of 318 cases were the children of tubercular parents. That is to say, only one quarter of all our cases had a direct family history. Comparing them, the proportion of tubercular cases

*Presented to the Post-Graduate Society of Toronto.

who have a history of the disease in the family with the proportion of children who are perfectly healthy and yet have relatives with the disease, it will be found that there is not sufficient evidence to justify us in concluding that tuberculosis in the parent particularly predisposes the child. Our statistics on this point compare very favorably with those of the Hospital for Ruptured and Crippled in New York. They have found that only 25 per cent. of some thousands of cases examined have any trace of tuberculosis in the family history, even a smaller proportion than we find here in Toronto. Of course, it may be suggested that the getting of a family history depends largely on the house-surgeon who admits the patient. It is a well-known fact that people dislike very much to admit that there is any hereditary disease present in the family, and it is possible that if the admitting physician is not careful he may overlook some small clue that would lead to a definite discovery. With this possibility in mind, during my term on the admitting department, I went very carefully into the family history of each case, with a result that in only one out of ten consecutive cases admitted was there any history of tuberculosis whatever. In view of these facts, I think I am justified in concluding that in determining whether a child is or is not to have osseous tuberculosis, family predisposition is of not very great importance.

But there is another factor which has a strong influence in determining whether an attack by tubercle bacilli shall be successful or not. This is the condition of antisepsis of the body fluids to disease germs in general.

It is a matter of common observation that weak, sickly parents beget puny, ill-nourished children. The parents of our tubercular patients are particularly noticeable as a pale, tired-out sort of people, not necessarily tubercular, but having simply that unhealthy appearance that indicates a low state of vitality. Naturally the children of such parents start out in life with a very small stock of resisting power to the onset of disease.

Added to this inherited predisposition are usually found many factors which still further tend to diminish the vital resisting power. The most potent of these is poverty. The majority of our patients have been ill-fed, dirty and ill-clad all their lives. Their hygienic surroundings have been of the worst variety—bad heat, bad light and bad ventilation combining to reduce still further their already small stock of vitality. As a natural result, over one-half of our patients were delicate children from birth, the parents giving histories of difficult feeding during infancy, a slowness of the growth and physiological development of the child, and a marked susceptibility to infectious disease. Usually the category of

the diseases of childhood is full—mumps, chicken-pox, whooping-cough, measles, scarlet fever and diphtheria appearing in their turns, and now the onset of tuberculosis shows that once again the weakened defenses have been broken down, and the penalty must be paid for disobeying Nature's laws.

Summing up the conclusions to which I have arrived on the subject of predisposition to tuberculosis in bones and joints, I would arrange the etiological factors in this order:—

Of greatest importance, a weakened vital resistance, acquired from any of the influences I have described. Secondly, inheritance of a low resisting power to infectious disease in general. And of least importance of all, what is commonly known as "heredity."

The second heading in the discussion of the etiology was local predisposition. Of our total of three hundred and eighteen cases, one hundred and thirteen, or over one-third, gave a definite history of injury. A typical history of these cases, as we receive them, is somewhat as follows:

Two months ago, Johnnie fell on the ice and severely injured his knee. For a few days he limped about with considerable difficulty, but gradually the pain and stiffness disappeared, until finally the only indication of an injury was a slight limitation of movement in the joint. Six weeks later it was noticed that he began to limp again, and so on the various symptoms proceeded to assert themselves.

The presence of that bridge of slight limitation of movement between the actual injury and the onset of the typical symptoms leaves no doubt in my mind that the injury was the direct cause of the disease. Frequently, of course, you find cases where the injury was of some trivial character, such as a slight bruise or twist, and in these the signs of trauma have completely disappeared before the onset of the symptoms of tuberculosis. But the uniformity with which we find these patients giving a history of injury at a certain definite interval, four to six weeks before the onset of the disease, proves conclusively that trauma is a potent factor in aiding the growth of the bacillus of tuberculosis.

The statement was made above that over one-third of our cases gave a definite history of injury. This, however, does not give a correct idea of the important part injury plays in the etiology of the disease. In the total number of cases treated here are many from whom it would be impossible to get such a history, even though there had been a definite traumatic influence. For instance, children under four years of age might easily have had a fall, of which the parents knew nothing, and as a result our statistics would suffer. To get over this difficulty I have picked out the histories of the

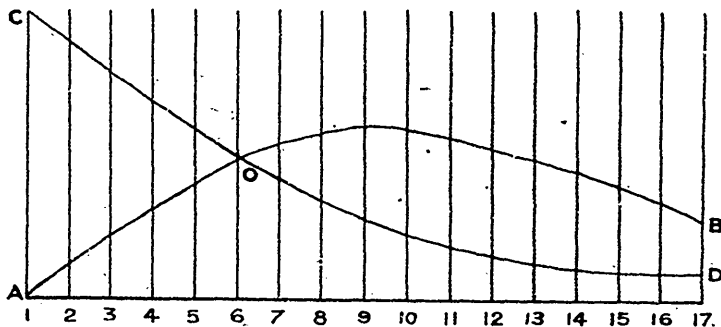
tuberculous hips and knees over four years of age, a total of two hundred and five, and of this number, ninety, or practically one-half, give a history of injury. So that by excluding those cases that could not possibly give a history of trauma, we have increased our proportion from one-third to one-half. But it is also possible that many of these cases, over four years of age, from whom we have obtained no definite story of injury, may have met with some slight accident, such as a bruise or sprain, quite sufficient to start bacterial growth, but which the patient has never noticed at all. To prove that this is the case, let me return to my statistics again. Of those two hundred and five cases of tuberculous hips and knees, one hundred and twenty-one were on the right side and only seventy-eight were on the left. That is, practically two-thirds were rights and one-third lefts, or the number of rights was double the number of lefts. Now all children use the right side of the body more than the left. Among boys playing football it is considered a rare quality to be able to kick with the left foot as well as with the right. If you will notice boys playing hockey or racing on the ice, you will find that in making a turn they usually go to the left so as to use the right foot to better advantage as a means of propulsion, so that I think we are perfectly safe in stating that the right foot and leg are the ones most constantly subjected to work, and consequently to strain or injury. The fact, then, that we have twice as many rights as lefts is easily explained by the theory, that infection may be favored by the numerous little jars and strains, which, although they arouse no comment at the time, nevertheless result in injury to the tissues.

One more proof that injury is a very important factor in the onset of tuberculosis. We find that out of a total of one hundred and twenty-one cases of hips and knees, on the right side, only thirty-four give a definite history of injury; while out of a total of seventy-eight lefts, fifty date the onset of symptoms from some fall or blow. That is, only one-quarter of the rights, as compared with practically all the lefts, have a history of following trauma. Now, as we said above, the right side of the body is much more used than the left, so that it is much more prone to little additional jars or strains which may be entirely overlooked. On the other hand, the left side is not as much used, and injury to it is much more likely to be noticed than on the right, and as a result we find that practically all the lefts have a history of definite injury. So that, to summarize, we find that on the side where the proportion of injuries which are slight and liable to be overlooked is the greater, the number of injuries recorded is much less than on the side where minor injury is not so likely to occur. Reasoning backwards from

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and fall with the maximum point at the age of six gives food for interesting discussion. In explanation of the fact let me advance the following theory:

You will notice that in the first year of life there are practically no cases of tuberculous disease of bones or joints. This is explained by the fact that there is comparatively small chance of injury during that period and consequently, as we decided above, a proportionately small chance of the onset of the disease. But as the child grows older his liability to injury increases, until about the seventh or eighth year, which may be described as the clumsy age, he gets more knocks and bumps than at any other time. But the younger a child is, the more prone he is to infection by bacteria, that is, as a child grows older his resisting power to bacterial growth becomes proportionately stronger, until finally at the age of eleven or twelve, he has reached a state of comparative immunity to infectious disease. Let us represent graphically what we have thus far stated.



Let the line *AB* represent the gradual increase in the liability to injury from one year of age to the age of eight or nine, when it slowly begins to fall again, and let the line *CD* represent the liability of the child to infection, falling from its maximum in the first year to its minimum beyond the ages of twelve or thirteen. The point at which these two lines cross, namely at *O*, in the line representing the sixth year, indicates the time at which the child is most liable to the disease. That is to say, the time in the life history of a child at which he is most liable to injury, and at the same time least able to resist bacterial growth, which happens to be the sixth year, is the time when is he most liable to the onset of tuberculosis in bones and joints.

Besides this explanation, there is another which shows why the bones and joints are particularly chosen as the seat of the attack during this definite period. At this time, the ends of the bones

become the seat of great activity among the blood vessels. The capillaries are found to be dilated, blending with one another to form large sinuses, until finally, when examined histologically, the ends of the bones, and particularly the epiphyseal lines, are seen to be converted into strictures very much like cavernous angiomata. It is very easy to imagine that if the tubercle bacilli happen to be passing along in the blood stream, they will be much more easily filtered out and caught by such an irregular mass of blood vessels than by the ordinary smooth-walled capillaries.

Another theory that has been advanced as an explanation of the frequency of disease of the bones and joints at this age is that cells concentrating their energy upon reproduction lose in so doing a part of their power of vital resistance. The epiphyseal lines between the ages of three and nine are the seat of rapid reproduction of the bone-forming cells, so that it is possible that upon this depends the prevalence of osseous disease at this period.

I shall now pass on to a discussion of the third heading under which it was proposed to deal with the etiology, that is, the infective agent itself, the tubercle bacillus. In the first place, the question arises, how do the bacilli reach the tissues affected? This is easily answered when we consider that the only moving medium that could carry particles from place to place is the blood. That tubercle bacilli do circulate in the blood is a proven fact, since examination of the urine of perfectly healthy people will frequently show the presence of bacilli that have been excreted by the kidney. We are now confronted with the question, how did the bacilli get into the blood? In answering this, we are much assisted by a study of the statistics of autopsies performed on children who have died from other causes than tuberculosis. Out of seven hundred and sixty-nine cases examined post mortem at the hospital for children, Great Ormond St., London, two hundred and sixty-nine presented tuberculous lesions. Of these fifty-seven per cent. were found in the bronchial and cervical glands, and twenty-three per cent. in the glands of the mesentery. In the great majority of these cases the disease was not active, and on that account this form of glandular disease has been called latent tuberculosis. The mode of infection is very plain. The bronchial glands drain the lymph from the lymphatics of the bronchi so that the bacilli must have come from the bronchial mucous membrane, upon which they were deposited by inhalation. In the same way the tuberculous cervical and mesenteric glands point to the mucous membrane of the mouth and intestine, respectively, as their particular source of infection. In many cases, notably those of the two hundred and sixty-nine autopsies just recorded,

this tuberculous condition may remain latent and finally die out ; but in others small particles become dislocated from the glands, and getting into the general lymph stream, finally reach the blood, and so pass on to some part where conditions are favorable to setting up local disease.

Besides this road of infection by means of the lymph stream, there is another which of late years has been given a place of greater importance. You will remember that the tonsil is formed on the surface somewhat like the cortex of the brain, convolutions alternating with sulci or crypts. Covering the surface of the gland is a mucous membrane, formed of several layers of cells, and this mucous membrane dips down into the crypts, making in adults a complete external coat. But in children it is found that in places, deep down in the crypts, the mucous membrane becomes extremely thin and sometimes disappears. Owing to this loss of epithelium, the blood, with which the gland is very plentifully supplied, comes into almost actual contact with the contents of the crypts, so that germs could easily pass directly into the blood stream. Now it is reasonable to suppose that among the many bacteria that live deep down in the tonsillar crypts the tubercle bacilli may easily be present, and without leaving any indication of the avenue of infection, pass into the body fluids.

Besides the tonsil, open wounds offer an avenue of entrance directly into the vessels. If the bacilli are lying about on the instrument causing the wound, or on the skin of the surrounding surface, they might easily be drawn into the open vessels and carried away by the blood.

That germs do frequently get into the blood and set up tuberculosis, without any other focus of disease being present, is demonstrated by the investigations of Koeing, who found that in fourteen out of sixty-seven autopsies on subjects who had suffered from tuberculosis of bones or joints, no other lesions whatever could be found.

EARLY SYMPTOMS AND DIAGNOSIS. *

The frequency with which a mistaken diagnosis is made in cases of morbus coxæ is astonishing. Instead of getting the patients early in the disease, the majority of our cases have been suffering a year or more, during which time they have been treated for anything but tuberculosis. Case after case comes in with a history something like this :—

Johnnie fell on the ice a year ago and hurt his hip. Six weeks later he began to limp. He was treated for rheumatism for a month or so when it was decided that the pain about the hip and knee indicated sciatica. The local treatment for sciatica was then pursued for some time, until finally the gradual

progress of the disease caused an awakening to the fact that tuberculosis was present.

Another error frequently made is to completely mistake the joint affected. Several cases were admitted during any outdoor term, in whom the knee had been blistered and otherwise treated for months, simply because the patient had complained of pain in that particular joint. The frequency of these and similar errors in diagnosis is a sufficient indication that the greatest care must be taken in dealing with cases that may possibly have disease of the bones or joints.

Limp is the most important of the early signs of the disease. It is due entirely to sensitiveness rather than to any restriction in the movement of the joint, the patient simply spending less time on the affected than on the healthy leg. It is noticed that he walks with a combination of flexion of the thigh and plantar flexion of the foot, the whole object being to make the limb more elastic, and thus prevent jarring at the hip. The degree of limping often varies in the course of a day, being usually worse in the morning or after a rest of any kind.

Very early in the disease pain may become a prominent symptom, although more frequently it does not assert itself until the process is pretty far advanced. The characteristic pain is not in the hip but on the inner side of the knee, and hence the errors in diagnosis that so frequently arise. In seven out of the ten cases that I admitted, the pain was referred to the knee, and in the other three it was seated in the hip. This peculiarity is readily explained when we remember that the same nerves that supply the hip joint also send terminal branches to the knee. Following the general rule, that pain along the course of a nerve is interpreted as arising at its terminal branches, it is easy to see how the knee is indicated as the part diseased.

The pain of hip disease is induced by sudden or unguarded movements or by injury, although there is sometimes present a dull ache which is wholly due to increased tension within the joint.

It will be well to note here a symptom occurring in acute cases, which is of very great importance from a standpoint of prognosis. This is night-cry. It is a symptom present in many of our hospital patients, so that I have had a good opportunity of observing it and the accompanying phenomena. The child is usually sleeping quietly with all his muscles relaxed, when suddenly he involuntarily moves in his sleep. The movement causes the diseased bones to rub together, and instantly all the muscles surrounding the joint contract to protect the site of disease. This sudden muscular contraction drives the head of the bone with great force into the acetabulum, the result of

which is a spasm of acute pain, evidenced by a loud piercing cry. The child then sobs for a minute or two, never entirely gaining consciousness, and finally falls fast asleep again. This sign is of importance from a standpoint of prognosis, because it gives some idea of the extent to which the disease has advanced. That the slight rubbing together of the bones results in reflex muscular spasm, means that the ends of the bones are rough and diseased. This is a sure indication that the process is no longer confined to the interior of the bone, but that it has invaded the cavity of the joint.

The other symptoms of the disease, which are more properly termed physical signs, are stiffness, distortion, change of contour of the hip and atrophy.

Stiffness, due to reflex muscular spasm, is by far the most important sign, coming probably before the limp and remaining until repair is complete. If an attempt is made to force the limb beyond the limit set by muscular resistance, the whole body follows the movement, and the expression on the patient's face shows discomfort and apprehension. It is always a sign of a sensitive joint, and unless it is the direct effect of injury, indicates disease. In the early stages it is due entirely to reflex muscular spasm, as is shown by its disappearance if the patient is anesthetized, but, of course, as destruction of the tissue goes on in the joint, adhesions and contractions develop which still further accentuate the symptom.

Distortion of the limb may occur early in the disease, and its character depends on the degree of the intensity of the process. If the attack is of a mild variety the limb will be in what is usually described as the first position, namely, flexion, abduction and external rotation. This position may be described as the attitude of disuse. It is the position assumed by perfectly healthy people when tired by long standing, that is, they throw all the weight on one leg, and let the other simply hang out at one side to act as a prop to maintain the body equilibrium. Another explanation of this position is based on the increased tension in the joint. It has been found in the dissecting room, that by filling the joint with water, injected through the bottom of the acetabulum the limb immediately becomes flexed, abducted and rotated outward. The reason is, that in this position the cavity of the joint is increased to its maximum capacity, and is thus accommodated to the increased pressure of the water. Similarly, in tuberculous disease of the hip, the increased tension demands the maximum amount of room in the joint, and as a result the first position is assumed. This latter explanation is probably the correct one for the phenomenon, when the disease has reached the joint itself, but the former accounts very well for the position when the process is confined to the bone.

If the disease is acute in character, we get what is known as the second position. This is, flexion, adduction and internal rotation. Here the spasm of the muscles in their attempt to protect the painful joint comes into play, and the stronger muscles decide the attitude of the limb. It happens that the flexors, adductors and internal rotators are stronger than the extensors, abductors and external rotators, so that the resultant of the spasm of all, is the position of the second stage. Contrasting the two positions as the patient lies in bed, as I have had an excellent opportunity of doing in the case of a boy whose right leg was in the first and whose left was in the second position, we have a picture something like this:

The leg in the first position lies in an attitude of rest upon its outer side, pointing a little away from the median line of the body, and easily movable to a limited extent. The other is inverted and drawn tightly in towards the middle line and is absolutely rigid.

Resulting from these acquired positions, we have several others which try to hide the deformity. Thus, flexion is partially hidden by an increased lordosis in the lumbar vertebre, a circumstance which must be remembered in the examination of the patient. The abduction of the first stage and the adduction of the second, result in the elevation or depression, respectively, of the diseased side of the pelvis, in order that the two limbs may remain parallel. In consequence, if measurements be made from the umbilicus to the malleolus, there will be found apparent lengthening in the first stage and apparent shortening in the second. In the examination of the patient it is as important to note these masking deformities as to note the original distortion, since one is as characteristic of the disease as the other.

Of course, when the disease is very far advanced, and bony changes have taken place, within the joint, all sorts of deformities occur which follow no set rule whatever. It is not with these, however, that we, as young practitioners, have to deal when meeting a case for the first time, so that I shall pass over them without further remark.

Examination of the region of the joint itself will often, in the early stages assist in corroborating a diagnosis of hip disease. In practically all cases at the Children's Hospital, the inguinal glands are markedly swollen, and the superficial veins blue and distended. Palpation will often give the sensation of an indurated inflammatory area, although there may be no sign of abscess formation. The changes in contour about the joint are largely due to the position assumed by the limb and to the atrophy which takes place in the thigh.

As a sign of hip disease atrophy is of importance, because

of the great assistance it affords in arriving at a correct estimate of the length of time disease has been present. The explanation of its occurrence has given rise to much interesting discussion, but the consensus of opinion is that it is due to two main factors, physiological disuse and reflex interference with the trophic centre in the cord. That it is not entirely due to physiological disuse is easily demonstrated by measuring the limbs of boys who have been in the hospital for two or three years, and who have used their healthy legs practically as little as their crippled ones. It will be found that the diseased limbs have still a smaller circumference than the strong, proving conclusively that some other influence has been at work. It will be remembered that the nerves which supply a joint come from the same segment of the cord as those supplying the surrounding muscles. We also know that the centres governing the nutrition of the part are in the anterior cornu of the same segment of the cord, so that it is very reasonable to suppose that the constant irritation of the disease sets up stimuli, which upon reaching the cord pass to the anterior cornu and are reflected down the trophic nerves, causing atrophy and retardation of growth.

In examining cases which present symptoms indicating morbus coxæ, it is well to follow a regular routine. I shall describe that which is used at the Children's Hospital in writing up the history for the orthopedic surgeon.

A few questions usually suffice to give the admitting physician a clue to the nature of the affection. He then makes a rapid examination to convince himself that hip disease is present, and proceeds with his regular routine of inquiry on family history, previous history, and the history of the present illness.

He makes every effort to get a trace of tuberculosis in the family, and if not in the parents he goes on to the grandparents, uncles, aunts, etc., finding out exactly at what age and of what ailment each of the deceased died. He also makes inquiry as to the general health of the family, making note of the appearance of the relatives who have brought the child for admission.

Having satisfied himself on this score, he passes on to a rehearsal of the patient's previous history. Under this head he makes careful inquiry as to the child's general health, finding out whether he has been delicate or not, and testing the accuracy of the statements by questions as to appetite, bowel movements, etc. Note is then made of the variety, intensity and duration of the infectious diseases the child may have had, care being taken to see if there is any relation between them and the present affection of the hip.

He then passes on to the history of the present illness. History of injury is inquired for and the time that elapsed between the fall and the onset of symptoms noted. The length of time that symptoms have been present is very important and is asked for especially. Notes are made on the limp, night cries, pain in the knee or hip, and anything else that the parents will volunteer.

A thorough examination of the patient is now proceeded with. After remarks have been made upon his gait and general appearance he is completely stripped and placed in a recumbent position on a table. The region of the hip is then examined, and all limitations of movement, change of contour and all signs of inflammation carefully noted. It is well to notice that in examinations of a diseased hip the healthy limb is made the model upon which the crippled one is judged. Certain measurements are then made. These are the distances from the umbilicus to the internal malleoli to get the apparent lengthening or shortening, the distance from the anterior superior spines to the malleoli, for any actual shortening, and the circumference of the thighs and calves, for an estimate of the amount of atrophy that may have taken place. A description of the deformity follows, and in the case of flexion and extension this is also reduced to figures, the angles of greatest flexion and extension being obtained by the use of an instrument, or approximately by the eye. To estimate the degree of flexion, the patient is placed flat on his back and the diseased leg raised, or the healthy one flexed on the abdomen until the lumbar lordosis disappears. The angle that the diseased leg then makes with the table indicates the flexion of the limb.

In conclusion, let me make an earnest appeal for the careful examination of every child whose limp or "growing pains" could possibly mean tuberculosis. The terrible suffering that it has been my misfortune to witness in many of these little children, could, I feel convinced, have been avoided had the seriousness of the condition been recognized early and treatment begun before the dread disease had gained the upper hand.

Selected Article.

JAP MILITARY MEDICAL SERVICE.

By G. S. RYERSON, M.D., TORONTO.

The war between Japan and Russia is arousing so much interest at the present time, that it would seem a short account of the medical arrangements of the two armies might prove of interest. The succeeding remarks are founded on an excellent report by Col. William Taylor, now Surgeon-General Sir William Taylor, D.G., who was sent out by the Imperial Government to observe the medical service in the Chino-Japanese war of 1894.

The Japanese regiment of infantry consists of three battalions of four companies each, of a total strength of 2,400 officers and men. In each regiment there are forty-eight regimental bearers, distinguished by a red band worn above the elbow of the left arm. The scope of regimental medical service in action comprises medical aid in the fighting line and at the dressing stations. These stations are closed when the bearer companies begin their work. The medical officer and his assistants are employed at the front under fire at the temporary dressing stations referred to, but the Japanese regulations require the regimental medical service to keep well closed up with the fighting line, and to conform to its movements. The equipment is similar to that carried by all armies, but is very liberally supplied. The medicines are of the usual European kinds, morphia, iodoform, Hoffman's anodyne, etc.

The bearer company forms a divisional organization, consisting of a central administration and two subdivisions of three sections each, of a total strength of 416 officers and men, and fifty-one horses. There are ten medical officers and four pharmacists. This column is under the control of the division commander, who is advised by the chief of the division medical staff. Each bearer column bears the name of the division to which it belongs, and is organized so that it can at any time be divided into two equal parts. Ordinarily one-half marches with the advance guard and the other half in the main body. The function of the bearer company is to act between the dressing stations and of the field hospitals.

The dressing station is divided into three sections, indicated by flags of different colors. 1. Receiving and forwarding section (blue flag). 2. Operating section (white). 3. Dressing section

(red). The dressing stations are, in addition, distinguished by the Geneva Red Cross flag by day, while they are marked by red lanterns at night. The identification of patients is secured by a metal label worn by all ranks. The registry of all property is also provided for. The medical and surgical equipment of the bearer column consists of four panniers, eight reserve panniers, ninety-six stretchers and two tents, for the carriage of which thirty-six horses are allotted. The stretcher is made of bamboo with canvas bottom and movable cross piece. Most of the land carriage of patients is done with these stretchers and the native springless carts. There does not appear to be a provision for ambulances, though I understand a large number have been ordered from a firm in the United States for the purposes of the present war.

Field Hospitals.—There are six field hospitals in each division, three are with the first line of transport and three with the second. Their function is to receive patients from the dressing stations or direct from the fighting line, to continue or complete the treatment previously received, and to be prepared for rapid evacuation should it become necessary. The *personnel* of these field hospitals for each division consists of forty-eight officers, 108 non-commissioned officers, 510 men and 264 horses. The quota of patients for each hospital is 200.

Transport.—Passing from the field hospitals to the rear along the lines of communication to the base, the patients are in the hands of the hospital transport corps. There is also a reserve medical staff and a reserve medical store.

The supreme medical control is vested in a field medical commander, who is chief of the medical department of the war office, and, during war, serves with the grand headquarters of the army, and with him he has a personal staff of four. The army is also supplied with hospital transports and a hospital ship. The latter has accommodation for fifty officers and 200 men (patients).

General Hospitals at the Base.—The reserve hospitals are established either within military garrisons or without, and bear the name of the locality where they are located. They have an establishment of from forty-two to seventy officers and men of the hospital corps.

The Red Cross Society.—The Red Cross Society was inaugurated in 1886 and had, in 1894, since largely increased, 75,902 members, employing 1,170 medical officers, female nurses and orderlies.

The first aid dressing used is Dr. Kikuchi's straw ash pad. It consists of straw ashes, freed from grit and put in muslin bags. Applied directly to the wounds, it is said to be very absorptive and aseptic. If there is no discharge from the wound

it is applied dry, but if it discharges freely the pad is first soaked in bichloride solution.

It will be noticed that the Japanese are supplied with very liberal and adequate medical service, and General Taylor speaks in glowing terms of the devotion and bravery displayed by the bearers in bringing wounded men in under fire. The free use of voluntary aid through the medium of the Red Cross Society is noticeable. I think that it is admitted that no nation maintains, even in time of war, a sufficient medical staff to meet the requirements. It will be remembered that during the late South African war the St. John Ambulance Association supplied upwards of two thousand trained orderlies for hospital work, and that the Red Cross Society contributed more than three million dollars' worth of supplies for the sick. It is painful to think what would have been the fate of the sick and wounded without this adventitious aid. We ought in this country to develop these societies, especially the ambulance association, as a reserve for the army medical corps, for trained orderlies cannot be improvised at a moment's notice.—*Can. Lancet.*

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, H. J. HAMILTON, C. J. COPP
AND F. A. CLARKSON.

Inoculation of Syphilis in Anthropoid Apes.

Last year we dealt with the report, made by Roux and Metchnikoff to the Academy of Medicine of Paris, on the positive results obtained from the inoculation of syphilitic virus in a young female chimpanzee. The same authorities recently reported (*Annales de l'Institut Pasteur*) that they had been able to transmit syphilis to a male chimpanzee, inoculating it with material obtained from the former animal. They made two inoculations: one, in the penis, with material obtained from the syphilitic ulcer, which appeared in the first animal on the forty-fifth day; the other, in the thigh, with scrapings from a papulo-squamous eruption. Both inoculations gave rise on the thirty-fifth day to syphiloscleroma. Unfortunately the animal died one month and a half after the appearance of this lesion, without presenting symptoms of general infection.

Lassar communicated to the Society of Medicine of Berlin, at a recent meeting, the statement that he had inoculated a male chimpanzee with particles of material from a syphilitic ulcer. This material he had obtained from a young man who had contracted syphilis from tattooing. He had had no treatment, and presented, besides the syphilitic ulcer, secondary symptoms, that left no doubt as to the diagnosis. The small wounds of inoculation cicatrized, but two of them, situated over the right eyebrow, became hard on the fourteenth day, assuming the typical syphilitic appearance. A third lesion appeared soon afterwards on the median line of the forehead. Subsequently there appeared an eruption of rounded spots, with edges slightly raised, centre a little depressed, arranged in groups on the palmar, plantar and anal regions. At the same time the animal's skin became shiny in several places.

The histological examination of one of the lesions of the forehead showed, in the superficial arteries of the skin, changes analogous to those which characterize syphiloscleroma in man (a process of *endo* and of *periarteritis* with thickening of the arterial walls and infiltration of the adventitious coat).

Lassar subsequently inoculated in the penis of an orang-outang, material from a syphilitic ulcer which had not been treated. Sixteen days later there appeared a lesion on the site of inoculation.

At the same meeting Friedenthal reported that he had inoculated a chimpanzee and a gibbon with material from a syphilitic ulcer. Locally the inoculations produced no result, but later there appeared in the two animals a vesicular eruption with swelling of the glands, which in one case was symmetrical.—Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

Salt and Nephritis.

Widal and Javal (Paris), by a number of careful experiments, were able to prove that in parenchymatous nephritis the retention of chlorides produces hydration and edema. With a patient suffering from this disease, they could at will produce anasarca by increasing the amount of chlorides in his food. They found also that the degree of albuminuria follows the oscillations of the chloride retention curve. When salt was almost entirely eliminated from the diet, the patient decreased in weight, and the edema and albuminuria disappeared, while an increase of the chlorides in the food again soon caused a return of these conditions. They further noted that by careful weighing they could prognosticate the onset of albuminuria and edema. For example, in the patient upon whom they experimented, a weight above 62 kilos was accompanied by anasarca, and the edema always disappeared when the weight reached 61 kilos. Their conclusions are that it is not so much the kind of food used as the amount of salt consumed which produces the ill-effects in nephritis. They gave a milk diet, to which was added a quantity of salt, and the patient did badly, whereas on meat of all sorts, and little else, but always unsalted, the patient rapidly recovered. The average amount of salt required per day for a healthy man is about 10 gms. (150 grains). They emphasize the point, however, that it is not the amount of chlorides excreted which must be taken into account, but the relation of the amount absorbed to the amount thrown out of the body by the kidneys.—“International Clinics,” Vol. I.

OPHTHALMOLOGY AND OTOLOGY.

IN CHARGE OF J. T. DUNCAN, M.B., M.D., C.M.

Sarcoma of the Orbit—Report of a Case Cured by the X-Ray.

In the “Archives of Ophthalmology,” L. Webster Fox details this case. The patient came for treatment in March, 1903, being twenty years of age. For six weeks she had noticed a gradually enlarging swelling of the left naso-orbital region,

which was forcing the eyeball out of the orbit. Vision, however, was still normal. The diagnosis (confirmed by the microscope) was of malignant growth—sarcoma.

Various lines of treatment were tried, including surgical, with but partial success. As a last resort the X-rays were tried, as follows: For the first four weeks, one application per day; for the next two weeks, three per week; then two per week, then one each week, and latterly one every two weeks.

The earlier sittings were in length about five minutes, the later ones about ten minutes. Altogether the treatment extended from May 25th to November 21st, or about six months. While a single case does not prove that X-ray treatment is capable of curing all such cases, it does show a possibility of bringing about a favorable result, the importance of which must not be ignored.

Inflammations of the Iris.

In the *Birmingham Medical Review* for November, 1903, Owen in a somewhat exhaustive paper on this subject reminds us that heat and cold are useful in relieving pain and reducing inflammation. Of the two, heat is by far the more valuable; only in the early stages of iritis is cold likely to be advantageous, while moist heat in any stage is advantageous.

Leeching is a method formerly greatly employed, but not so much used at present. But abstraction of blood has this advantage: when pain or congestion is excessive, or when the pupil refuses—due to over engorgement of the vessels of the iris—to respond to the use of the mydriatic, the temporary anemia induced by bleeding is advantageous.

Counter-irritation used to be applied with vigor in the acute stages of the disease. It is useless and worse, for it increases the patient's misery.

The pain in iritis calls for special treatment. It is, as a rule, so much worse at night that unless some composing draught is given the patient is worn out by the unceasing pain. Opium in one form or other is most valuable. Great relief is obtained also from antipyrin and phenacetine. Chloral and bromide of potassium, alone or together, are useful for night draughts. A good deal of advantage is gained by free sweating. This may be induced either by hot air or vapor baths, or by the subcutaneous injection of a tenth to a third of a grain of nitrate of pilocarpine.

It need hardly be said that from the first the patient suffering from iritis should be kept at rest; the eyes should be shaded from light and kept more or less constantly covered. It is well, if opportunity allow, to begin the treatment of iritis by a brisk purgative, and when the effect of this is over, let the

cause of the disease be what it may, mercury is invaluable in the early stages. It may be given as small doses of calomel combined with opium every few hours, until the first evidences of constitutional effect are manifest. By this means exudation is controlled and any adhesions which may have formed stand a chance of being removed by absorption of the freshly exuded matter.

This stage in the treatment being reached, any specific remedy indicated by the cause of the disease may be employed. In syphilitic cases mercury should be continued; it is the remedy of all others. Whether small doses should be continued by the mouth, or whether inunction should be used, or any other form of exhibition, is greatly a matter of opinion. The more acute the case, the greater the need for rapid saturation of the blood by mercury, and small doses of calomel given as above indicated form the best means. In later stages inunction is valuable.

In rheumatic iritis the salicylate of soda in 15-grain doses every three or four hours is an admirable remedy, the benefit of which is specially marked in the painful stages—in fact, it does not matter what may be the origin of iritis, this remedy seldom fails to be of use. In the gonorrhœal form, alkalies, particularly the iodide and bicarbonate of potash, and large doses of the benzoate of soda, combined with quinine or tincture of cinchona, are most useful.

Where a gouty element seems to prevail, alkalies with colchicum act like a specific. In cases of iritis occurring in diabetes, salicylate of soda is useful. In tuberculous iritis, quinine, iron, and arsenic, with cod-liver oil, and careful hygiene, should be employed.

The Necessity of a Knowledge Among General Practitioners of the Diagnosis and Treatment of Glaucoma, is the title of an article by D. B. ST. JOHN ROOSA in the *Medical Review of Reviews*.

Glaucoma is a disease which ought to be better known by the all-round practitioner than it is. Were it so, many cases of inoperable and incurable forms of this disease would not present themselves in this state to the specialist. There are, perhaps, certain affections of the eye which the general practitioner may ignore—for example, cataract and strabismus—but inflammatory affections which run a rapid course, and end in irreparable damage to the sight, should be diagnosticated at the earliest possible moment. Glaucoma belongs to this class of diseases. Without attempting to enter into a discussion of the true nature of the disease, the object of what I am writing at

this time is simply to reiterate my suggestions for a simpler nomenclature, and to call renewed attention to a marked symptom which will enable any observing practitioner to diagnosticate the existence of glaucoma. I can see no reason why we should have any other nomenclature than *acute* and *chronic* glaucoma—with a subclassification of primary and secondary glaucoma. Hardening of the globe or increased tension, a pathognomonic symptom, always present when there is glaucoma, should have been the name. When the eyeball is in a state of increased tension, so that it is sensibly hard by comparison with normal eyes to the fingers placed on the closed lids, in a palpating method as if searching for fluid—a comparison perfectly easy to make—that is either primary or secondary glaucoma. In addition to this chief symptom, which, even if no other objective one exists, marks the disease as glaucoma, will generally be found a redness of the eyeball in the circumcorneal region, a dilated pupil, a watery eye, and, perhaps, a very great deterioration of vision, with failure of accommodation. In addition to this there may be an important subjective symptom—a halo around lights. Rainbow colors seen especially about a candle flame, or the like, although a subjective symptom, is a very suspicious and alarming one. If we add to the picture the very important fact that patients generally suffer severe pain of a neuralgic character, we have the disease, acute glaucoma, which ought at once to receive operative attention. The operation demanded is an iridectomy; which is almost always successful when done early enough. But if the condition has been allowed to pass into chronic glaucoma, iridectomy has none of the efficacy which it has in the acute form of the disease. The above fact shows the importance of an early diagnosis of glaucoma. But, even if it be diagnosed, it is not always possible to have an operation at once. In those circumstances, Roosa strongly advises the use of oily solutions of eserine. He has given this means of treatment a fair trial, and thinks it ranks among the best for inoperable cases of glaucoma, and in chronic glaucoma he is rather inclined to increase the field of inoperable cases than to diminish it. He thinks the claim is a just one, that these oily solutions are more rapid in action and more durable in effect. They are employed three to four times in twenty-four hours, and followed by fomentations of hot water for, say, twenty minutes.

The author points out the great danger of using atropia in any form of glaucoma, and says, "The general practitioner ought, for this reason, among the many others, to be able to diagnosticate glaucoma, lest he aggravate the conditions by dropping atropine in an eye having the prodromal symptoms of glaucoma, or even induce it in a suspicious case. While atropia

is one of the very best remedies, of the widest usefulness in ophthalmology, it is of the greatest harm in glaucoma, as may be many mydriatics." An error in the diagnosis of glaucoma will lead to the complete loss of sight. The means of relief are so simple that they can be carried on in any household where circumstances render it impossible for the patient to be put under special care. The eserine can be used by virtue of its being used in oil, in the strength of two grains to the ounce, or even, in some cases, three to four grains to the ounce. I find castor-oil the best of the oils as a vehicle, and if afterwards fomentations are used for a period of not less than twenty minutes, the pain usually caused by strong solutions of eserine does not occur.

A number of illustrative cases are given. It will be sufficient to quote one of them, a case of glaucoma, supposed to be cold settling in the eye, without treatment directed to the disease for a year. One eye lost:

"Mrs. L. E. M., aged 66, May, 1903. The patient states that a year ago last February 'cold settled' in the left eye. It was treated by a physician for more than a year. An opacity of the lens began at that time. She sees a halo, rainbow colors, around a light. The left pupil is dilated and fixed, the lens opaque tension +. There is no perception of light. In the right eye the vision becomes $\frac{20}{80}$ + with glasses, but the tension is also +. With the ophthalmoscope, the right optic papilla was found to be excavated. Eserine in castor-oil was dropped in four times in twenty-four hours. In a few days the tension in the right eye became normal, and the subjective sensations were removed. The tension of the left eye also became normal, although, of course, it remained sightless."

PEDIATRICS.

IN CHARGE OF ALLEN BAINES AND W. J. GREIG.

Relation of Certain Extra and Intra-Cranial Hemorrhages in the Newborn. (J. HOWELL EVANS, *Brit. Journal of Children's Diseases*, May, 1904.)

The writer means the extra-cranial and extra dural cephal-hematomata on the one hand and the meningeal or cortical hemorrhages on the other, and he considers only those hemorrhages connected with the parietal bone. He notes the presence of foramina in the parietal bone through which an artery and vein pass, thus forming an important vascular communication between structures within and without the skull.

Now, in the moulding of the head which takes place at birth, these vessels are liable to injury, especially if this moulding is irregular or excessive. He claims that all hemorrhages in connection with the parietal bones are due to injuries of the above mentioned vessels.

Association of Chorea with *Tenia Solium*. (JAMES BURNET, Edin.; *Brit. Journal of Children's Diseases*, April, 1904.)

It is not unusual to find chorea associated with thread and round worms, but the author says that in every instance there has been a definite rheumatic history. Two cases are related.

1. Girl 17 years old. Movements very violent. At times had thrown herself on the floor. Pulse 128. Respiration 32. Heart dilated, but no murmur. Bromide and digitalis with sod. salicyl. were given for a week without result. Tape-worm having been suggested, a capsule of ext. filicis mas was given. Result, the expulsion of a large tape-worm without the head. From that time improvement began and in three weeks the choreic movements had practical ceased. A second dose of filix mas brought away the head with a large number of segments. Complete recovery followed.

The second case was more striking than the first. Aspirin and arsenic had been given for three weeks, with the patient steadily becoming worse. A dose of filix mas was given. A large tape-worm with its head came away. Almost immediately the choreic movements ceased, but it was a fortnight before the heart became normal.

Relation of the Status Lymphaticus to Sudden Death, Death Under Anesthesia, and Infection. (*Johns Hopkins Bulletin*, Oct., 1903, GEO. BLUMER.)

The views set forth are based on the personal study of nine cases of sudden death in infancy and childhood and upon the study of the literature. As to whether it is possible to make a diagnosis of the status lymphaticus before the onset of the attack, which is the immediate cause of death, the author mentions Escherich as stating that such patients usually have a pale thin skin, a pasty complexion and a good pad of subcutaneous fat; frequently signs of rachitis or scrofula are present. The superficial lymph nodes, especially those of the neck and axilla, are enlarged; there are hypertrophy of the tonsils and of the pharyngeal adenoids and the spleen is often palpable. A percussible thymus may develop later, and Ewing's work suggests that an increase in the lymphocytes is probably present. Of the clinical symptoms preceding the attack little is known, though the immediate causes of death are probably only two, cardiac paralysis and asphyxia.

Many of the infants found dead in bed, and of those supposed to have been overlain, belong to this class of cases. Most of these cases dying with symptoms of respiratory difficulty may be classed under the head of thymic asthma; percussion usually reveals the enlarged thymus gland. When the attacks of thymic asthma are not so severe operation has been done, the enlarged thymus removed and the symptoms relieved.

In regard to sudden death under anesthesia in such cases, almost all observers agree that there is cardiac failure; at first it was thought that chloroform was especially dangerous, but lately it has been shown that ether is equally so. Patients with adenoids and those with goitre seem especially liable to death under anesthesia if the status lymphaticus is also present.

In regard to infections and their course, in such cases, Dant found in a series of cases from Escherich's clinic, over one quarter of the patients dying from diphtheria presented the picture of the status lymphaticus.

The pathology of the condition is broadly a hyperplasia of the thymus and of other lymphatic tissues over the body. Other lesions are hypoplasia of the vascular system and in some compression of the trachea; there may be a lymphoid condition of the bone marrow and occasionally an enlarged thyroid gland. Microscopically the lesions are generally hyperplastic, along with slight degenerative changes in the proliferated cells composing the germinal centres. Bacteria do not seem to play any part in the causation of the condition.

- The author concludes:

1. Status lymphaticus is a definite pathological entity.
2. It is probably associated with, if not due to, a condition of intermittent lympho-toxemia.
3. It may be associated with sudden death, probably as a result of lympho-toxemia alone in some cases, or as a result of the action of toxic, physical or psychical injuries, which are rendered much more powerful than usual by the predisposing action of the lympho-toxemia.
4. In some cases, the sudden death is due to asphyxia from pressure of the enlarged thymus in the trachea.
5. Subjects of the status lymphaticus can be recognized clinically in some instances.

W. J. G.

Editorials.

MEDICAL ETHICS IN FRANCE.

The leading practitioners of France have recently adopted a new code of medical ethics. In regard to professional fees liberty is accorded to doctors and patients to arrange between themselves whatever terms they please, but practitioners enjoying exceptional repute are authorized to charge higher prices than humble beginners. It is also understood that fees should be more substantial for wealthy patients, thereby supplying compensations for poor patients, who are often attended gratuitously. The *New York Tribune* tells us that hereafter wealthy Americans visiting Paris and requiring medical attendance will probably find their doctor's bills sometimes higher than in former years; while, on the other hand, poor American students in the Latin Quarter will only be expected to pay their doctors small fees, in some cases not higher than \$1 for several visits. The average price of medical visits in Paris is five francs, but for urgent visits the fee is double.

Physicians are now entitled to resort to the Law Courts to obtain payment for fees, but not until the amounts of their bills have been verified by arbitration by a committee composed of physicians. The custom of dividing fees between attending physicians and surgeons is forbidden. In no case can a physician draw upon a patient for payment through a banker. No physician can take pecuniary interest in any commercial or industrial enterprise having for its object the manufacture, preparation, or sale of patent medicines, or the exploitation of mineral waters. The dividing of fees between physicians and druggists, between physicians and midwives, or between a physician and directors of therapeutic institutions is absolutely prohibited. Any physician found guilty of entering into pecuniary participation in the profits of hotels, water or air resorts, etc., will be forthwith dropped from the rolls of the profession. No member of the profession is permitted to publish articles in the newspapers with the view of inviting publicity of any pharmaceutical preparation or

special method of treatment. Professional advertising of every description is forbidden. All members of the faculty are warned against making professional visits when it is not absolutely necessary to do so.

QUEEN'S MEDICAL FACULTY.

We learn from the Convocation address of the Dean of the Medical Faculty of University that that institution is in a flourishing condition. The attendance during the last season was the largest in the College's experience, the total registration being 216. There were in attendance thirty-seven Art graduates, and also a fair number of students who are attending the combined Arts and Medical course of six years. Of non-matriculate students there are seventeen on the list. In the past there has been no fixed rule as to when matriculation must be completed. It has now been decided, however, that each student must matriculate within one year after entering upon the study of medicine. Consequently hereafter, all second year students must be full matriculates. The division into junior and senior classes is now completed, excepting in clinics, and in these a beginning has been made. The Department of Anatomy will be strengthened by the appointment of a man who will devote all his time to the teaching of human and comparative anatomy. For the teaching of Pharmacology a building is now being fitted up, and its equipment will be completed as soon as possible. The record of this fine old institution has been in all respects good, and her many friends will rejoice at her present prosperity.

TRINITY UNIVERSITY.

The last Spring Convocation of the University of Trinity College was held on Saturday afternoon, May 28th, in the Convocation Hall. Dr. Temple, in his address to the graduates, took occasion to say that the results of federation with the University of Toronto had thus far been highly satisfactory.

He congratulated the Trinity graduates in Medicine on the excellent showing they had made at the examinations, and added that he never examined a better lot of papers. It was at one time feared that there would be friction between the students of Trinity and Toronto University after the amalgamation, but he was happy to say that, on the contrary, the students of both classes joined together as one, and their conduct had been in all respects admirable.

ONTARIO MEDICAL ASSOCIATION.

The recent meeting of the Ontario Medical Association was in many respects above the average, although the attendance was not so large as its officers expected.

The meeting was held in the new Medical Building of the University of Toronto. The building is admirably adapted for such a purpose, and we understand that the majority of members and exhibitors were well satisfied.

Many admirable papers were read, and listened to with deep interest. The discussions on the same were not very good—in many cases the papers were practically not discussed at all. It is difficult to assign a good reason for this defect, but we are inclined to think that there were too many papers for the time. The President, Dr. Jas. F. W. Ross, who made an admirable chairman, did not discourage discussions in any case; in fact, he encouraged them, but there appeared to be a pretty general feeling that the meeting was always *behind time*, and that consequently discussions should be curtailed.

The Committee on Papers and Business worked well, and furnished an excellent programme. The President did much to assist this committee, especially after his return from the Sudan.

The Committee of Arrangements also did excellent work. The Smoker and the Luncheon were both well managed. The general credit for this is due to Dr. Allen Baines, who did the lion's share of the work, and he happens to know how to work.

There was a general feeling of satisfaction at the promotion of the first vice-president, Dr. Burt, of Paris, to the presidency. We know of no man in Ontario who more thoroughly deserves

this honor. It should be remembered, however, that last year the nominating committee nominated Dr. Ingersoll Olmsted, of Hamilton, for the presidency. He preferred, however, not to become president then because of his intention to spend a portion of the year in Germany, but even Dr. Olmsted and his friends were well satisfied with the choice of this year. We desire, however, in this connection to express the hope that Dr. Olmsted's turn will come in the near future.

The place of meeting next year is Toronto. Many of the members preferred some other city—London being the choice of many. Many of us in Toronto learned at the meeting of the Canadian Medical Association last year that the profession of London well know how to conduct a successful medical meeting. A full report of the proceedings of the meeting will appear in the August number.

CANADIAN MEDICAL ASSOCIATION

We learn from the President, Dr. Tunstall, and the General Secretary, Dr. Elliott, that good progress is being made in the preparations for the 37th Annual Meeting of the Canadian Medical Association, August 23, 24, 25 and 26. This is the first occasion of a meeting so far west. One meeting was held in Banff in 1889, and another was held in Winnipeg in 1901.

We understand from the local committee that a banquet will be held in Vancouver on the evening of the second day. The Members and their friends will take the steamer Princess Victoria for Victoria, on the third day. A run will be made to the William Head quarantine station and the return to Victoria will be made by way of Esquimalt, to give the members an opportunity of inspecting the fortifications. Upon arriving in Victoria the members will be formally received at the Legislative Building. Numerous trips are arranged for the fourth day to points of interest about the City. A large number of physicians in Ontario have decided to attend, and many of such have sent in their names to the General Secretary. Others who decide to attend are requested to send in their names without delay.

NOTES.

Mr. John Lyman, of the firm of Northrup & Lyman, who at one time lived in Toronto, died recently at Syracuse, N.Y., where he had been residing for about twenty years. Mr. Lyman in framing his will showed a very generous disposition towards Toronto. We find that he has bequeathed to charitable institutions in this city over \$88,000, while he bequeathed to similar institutions in Syracuse \$70,000. Among the bequests to Toronto were: \$25,000 to Grace Hospital, \$10,000 to Hospital for Sick Children, \$10,000 to Home for Incurables.

We have heard much lately as to the efficiency, or lack of efficiency, in the professorate of the University of Toronto. We notice that an important resolution was passed at the University of Toronto Senate, May 5th, moved by Vice-Chancellor Moss, as follows: "That the President of the University be requested to inquire into the conduct, teaching and efficiency of every professor and instructor in the University, and as to the general condition and progress of the University, and report thereon with all convenient speed, and that the Principal of University College be requested to make a like inquiry and report with respect to University College."

The University of Toronto *Monthly* has, through Mr. S. J. McLean, Associate Professor of Economics in Stanford University, California, obtained the following list of names and addresses of medical graduates of Toronto University now living in California: Dr. D. A. Braille (Trin. '92), Santa Clara; E. J. Boyes, M.D., C.M. (Trin. '90), Central Bank Building, Oakland; E. B. Boyes, M.D., C.M. (Trin. '96), Central Bank Building, Oakland; W. E. Ledyard, B.A., '67, M.B. '70, Central Ave. and Walnut Street, Alameda; F. H. Moss, M.B. '92, Palo Alto; J. B. MacCallum, B.A. '96 (M.D.), Assistant in Physiology University of California, Berkeley; C. L. McCracken, M.B. '81, Pescadero; Geo. McKenzie, M.B. '91, Concord; R. E. McKibbin, M.B. '97, Loleta; J. C. Stinson, M.D., C.M. (Trin. '93), 533 Shuter Street, San Francisco.

RESULTS OF THE FINAL AND INTERMEDIATE EXAMINATIONS.

The following candidates passed the final examination of the College of Physicians and Surgeons of Ontario, June, 1904:

S. F. Abbott, London; J. R. Armstrong, London; J. L. Biggar, Toronto; F. M. Bell, Kingston; A. T. Bond, Ryckman's Corners; R. S. Brewster, Beeton; N. Blanchard, Sunderland; W. F. Babb, Carlingford; F. W. Blakeman, Stratford; M. E. Branscombe, Picton; H. G. F. Blair, Ashton; R. K. Cullen, Toronto; W. J. Chambers, Lochalsh; G. F. Chapinan, London; L. V. Croft, Middleville; J. H. Cryan, Demorestville; J. S. Dickey, North Williamsburg; C. E. Duggan, Oil Springs; F. DeHaitre, Rockland; F. J. Dodd, Ottawa; R. O. Fisher, Ashgrove; E. V. Frederick, Campbellford; A. J. Fraleigh, Bloomfield; E. J. Foster, Kagawong; W. T. Gemmell, Seaforth; G. E. Greenway, Little Britain; W. A. Graham, Toronto; W. E. Gallie, Barrie; C. Gilmour, Toronto; C. H. Hair, Lavender; R. B. Harris, Prince Albert; J. C. Hunt, London; W. B. Hunt, London; K. H. Holmes, Chatham; W. B. Hendry, Toronto; F. W. Hill, Ottawa; D. H. Houston, Belleville; E. L. Hodgson, Toronto; H. C. Jamieson, Guelph; W. J. Kerfoot, Minesing; C. E. Kinsler, Ruscom; J. H. Kidd, Warsaw; M. H. Lang, Langford; J. D. Leeson, Toronto; Isabella Little, Toronto; H. Moore, Athens; C. F. Magee, North Gower; W. N. Meldrum, Ayr; G. E. Marshall, Toronto; J. H. Munro, Maxville; F. J. Muga, Toronto; D. C. Murray, Newton; D. Munro, Blytheswood; H. C. McLean, St. Thomas; J. M. McCulloch, Durham; E. A. McCulloch, Thomasburg; J. A. McIntosh, Vankleek Hill; R. McLaughlin, Cumberland; W. W. McKinley, Sealey's Bay; G. W. McIntosh, Mississippi Station; D. M. McCarthy, Kingston; J. McLellan, Toronto; G. W. R. McCartney, Carlisle; T. H. McColl, Wallacetown; Hector McLean, Glencoe; A. McInnes, Bognor; B. R. O'Reilly, Toronto; J. A. Oille, Sparta; A. D. Proctor, Ottawa; J. Phillips, Hewett; M. J. Perkins, Toronto; P. F. Quinlan, Stratford; F. A. Ross, Guthrie; G. A. Richardson, Stouffville; V. Ross, Guthrie; E. J. Robinson, North Williamsburg; Victoria Reed, Kingston; J. W. Rowntree, Thistletown; A. A. Staley, Wolfe Island; S. Singer, Toronto; W. H. Secord, Brantford; A. H. Singleton, Newboro'; George E. Smith, Toronto; E. A. Taggart, Ottawa; G. H. Ward, Napanee; A. Wilson, Russell; W. T. Williams, St. Thomas; W. A. Woolner, Toronto; G. F. Wilson, Toronto; B. C. Weir, Strathroy; E. J. F. Williams, Brockville; J. M. Young, Renfrew.

INTERMEDIATE.

N. G. Allin, Bowmanville; R. W. Anderson, Toronto; W. G. Anderson, Thorndale; A. H. Adams, Whitby; W. J. Barber, Toronto; F. W. Blakeman, Stratford; M. E. Branscombe, Picton; A. V. Brown, Neustadt; F. J. Brodie, Forest; N. Blanchard, Sunderland; J. W. Brien, Lindsay; J. A. Brown, Colborne; H. R. H. Bryan, Cairngorm; J. H. Bennett, Sarnia; H. G. F. Blair, Ashton; J. H. Berwick, Gorrie; L. V. Croft, Middleville; J. H. Cryan, Demorestville; W. K. Clarke, Schomberg; A. H. W. Caulfield, Toronto; W. H. Carveth, Toronto; C. W. Clark, Picton; W. J. Chapman, Holland Landing; J. C. Caskey, Tweed; G. W. Crosby, Campbellford; J. A. Duncan, Elora; E. DeHaitre, Rockland; T. Alex. Davies, Toronto; G. A. Durnin, Dungannon; F. J. Dodd, Ottawa; R. H. Ells, Ottawa; G. E. Eakins, Toronto; A. J. Fraleigh, Bloomfield; B. J. Ferguson, Teeswater; E. J. Foster, Kagawong; J. Ferguson, Hamilton; J. V. Gallivan, Kingston; John Graham, Belwood, A. L. Hore, Valentia; F. N. Hughes, Fennells; W. H. Harvey, Toronto; W. E. Hendry, Toronto; F. W. Hill, Ottawa; D. H. Houston, Belleville; E. L. Hodgson, Toronto; A. C. C. Johnston, Toronto; N. D. Kyle, Belwood; A. Kinghorn, Toronto; J. F. L. Killoran, Seaforth; H. E. Knoke, Mitchell; J. A. Kane, Orillia; J. H. Kidd, Warsaw; Isabella Little, Toronto; D. C. Murray, Newton; A. F. Malloy, Nobleton; G. N. Marshall, Toronto; J. H. Munro, Maxville; C. F. Magee, North Gower; H. Moore, Athens; P. J. Mugan, Toronto; A. J. Manard, Belle River; D. Munro, Blytheswood; H. C. McLean, St. Thomas; J. A. McIntosh, Vankleek Hill; C. C. McCullough, Gananoque; A. H. McFadden, Mill Brook; W. A. McQuade, Warsaw; P. McGibbon, Forest; W. E. McLellan, Almonte; R. A. McLurg, Sault Ste. Marie; R. McCaffrey, Madoc; R. J. P. McCulloch, Thomasburg; E. A. McCulloch, Thomasburg; W. E. McLaughlin, Cadmus; J. K. McGregor, Waterdown; A. G. McMillan, London; J. M. McCulloch, Durham; A. D. Proctor, Ottawa; M. J. Perkins, Toronto; R. J. Robinson, North Williamsburg; Victoria Reed, Kingston; William Reid, Waterford; F. J. Rundle, Port Perry; J. W. Rowantree, Thistleton; J. B. Stallwood, Hagersville; W. E. Somers, Waterford; A. E. Schultz, Elmira; A. B. Sutton, Cooksville; F. J. Sheahan, Newark; A. A. J. Simpson, White Church; A. H. Singleton, Newboro'; L. G. Stewart, Toronto; George F. Smith, Toronto; E. G. Spence, London; N. F. Sutton, Madoc; E. A. Taggart, Ottawa; W. F. Thorn, Picton; A. Turner, London; A. S. Unsworth, Hamilton; F. S. Vrooman, Lindsay; B. C. Weir, Strathroy; B. C. H. Whyte, Mill Brook; F. A. Watterson, Manotick; E. J. F. Williams, Brockville; S. B. Walker, Niagara Falls; J. M. Young, Renfrew.

GRADUATES OF TORONTO UNIVERSITY IN MEDICINE HOLD A REUNION

The class of 1894 in medicine of Toronto University held a reunion June 16th in celebration of their tenth anniversary. A banquet was held at the University dining hall. Out of a class of 65 members the large number of 25 gathered together to celebrate the event. Members of the class were present from Fredericton, N.B., Chicago, Warren, Pa., Detroit and from all parts of Ontario.

Dr. D. A. McClenahan, of Waterdown, president of the class, was in the chair, and seated on his right was Dr. James H. Richardson, for many years professor of anatomy at Toronto University, who was the only guest of the evening.

The toast of the King was proposed by the president.

The toast to Canada was proposed by Dr. F. W. Smith, of Aylmer, and replied to by Dr. Richardson in a speech full of reminiscences.

Dr. G. M. Ferris, of Cobourg, proposed Toronto University and Prof. McIlwraith, a member of the class, responded.

Dr. Brain, of Crysler, proposed the ladies and the toast was responded to by Dr. W. A. Ball and Dr. Becket, of Thamesville.

The "Absent Members" of the class were honored and a large number of letters were read from members of the class expressing regret at not being present.

It was decided to hold another reunion in five years.

The officers of the class were elected as follows: Hon. President, Dr. James H. Richardson; President, Dr. E. B. Fisher, Fredericton, N.B.; Vice-President, Dr. G. M. Ferris, Cobourg; Secretary, Dr. W. J. McCollum, Toronto

The following were present: W. H. Alexander, Toronto; W. Arrell, Cayuga; W. A. Ball, Toronto; A. W. Aikins, Chicago; W. E. Brain, Crysler; J. D. Curtis, St. Thomas; W. B. Boyd, Coldwater; E. B. Fisher, Fredericton, N.B.; G. M. Ferris, Cobourg; J. W. Ford, Thorndale; J. Becket, Thamesville; E. D. Graham, Queensville; K. C. McIlwraith, Toronto; D. H. McClenahan, Waterdown; F. W. Smith, Aylmer; W. A. Hackett, Detroit; J. R. Durham, Warren, Pa.; J. A. White, Lindsay; J. R. Mencke, Bridgeburg; J. A. Lawson, Brampton; W. Laidlaw, Edgar; H. H. Sinclair, Walkerton; J. Stenhouse, Toronto; W. J. McCollum, Toronto.

UNIVERSITY OF TORONTO.

The events of Commencement week of the University of Toronto were unusually interesting. They included luncheon parties, concerts, dances, at-homes, open-air plays, lacrosse, tennis and cricket matches, garden parties, excursions, etc.

The annual meeting of the Alumni Association was held in the Chemical Laboratory on Thursday afternoon, June 9th. Dr. Reeve, President of the Association, presided, and presented the annual report of the Executive Committee. The report noted that there were now twenty-three branches in Ontario, one in Quebec, one in Manitoba, three in British Columbia, and two in the United States, making a total of forty-three organizations. Reference is made to the fact that the information bureau of the association, which endeavors to keep informed of possible openings for Alumni in commercial, industrial and professional phases of activity, had been able during the year to assist a considerable number of graduates and undergraduates to positions of emolument.

The Convocation Hall Fund, subscriptions to date totalled \$51,787, and the structure would be commenced forthwith. The *University of Toronto Monthly* at the end of the year showed a profit balance of \$219. The Treasurer of the Association reported a surplus on May 31st ult. of \$272.

ELECTION OF OFFICERS.

The report was adopted, as was also the report of the Nominating Committee recommending the following officers for the ensuing year:—

Hon. President, Jas. Loudon, LL.D.; President, R. A. Reeve, M.D., LL.D.; 1st Vice-President, I. H. Cameron, M.D., F.R.C.S. Vice-Presidents—J. E. Glashan, LL.B., Ottawa; Rev. James Allan, M.A., Sault Ste. Marie; Rev. Neil MacNish, LL.D., Cornwall; Sheriff William Watt, LL.B., Brantford; William Gunn, M.D., Clinton; Rev. J. E. Tolmie, B.A., Windsor; Secretary-Treasurer, J. C. McLennan, Ph.D. Executive Committee—A. R. Bain, Miss E. Balmer, Miss M. E. T. Addison, Dr. W. L. T. Addison, A. F. Aylesworth, G. A. Bingham, J. S. Carstairs, Harold Clark, H. J. Crawford, W. H. Ellis, Rev. G. R. Faskin, Dr. J. T. Fotheringham, N. W. Hoyles, C. C. Jones, M. H. Ludwig, Rev. E. Bruce Macdonald, Dr. McPhedran, Rev. John Neil, Dr. W. Packenham, Wm. Prendergast, Thos. Langton, Professor Squair, J. R. L. Starr, F. H. Torrington, R. S. Waldie, Geo. Wilkie, W. T. White, Prof. J. McGregor Young and R. J. Younge.

On the same evening the Chancellor, Sir Wm. Meredith, delivered an address. He gave a comprehensive *résumé* of the

progress, the present status, and the needs of the University. While noting the splendid progress that had been made in all departments during recent years, Sir William expressed the opinion that inadequate support was given the University in view of the imperative needs for larger equipment and broadening curricula. He also announced that Mrs. Massey-Treble intended to provide funds for the erection of a University Household Science Building, to be situated on University property between Victoria and Wycliffe Colleges. He further announced that the Dominion Government had accepted and approved of a site for a new Observatory, to be erected within two years, on University property situated on the south-west corner of Bloor Street and Devonshire Place.

Speaking of the Medical Faculty, he declared a more self-denying and loyal faculty could not be found in any University. The total enrolment of students had increased from 490 last year to 724 this year, including the Trinity students, and 90 occasional Dental students. The Faculty comprised 90 members, and the amalgamation of the Toronto and Trinity Faculties had been happily accomplished without friction. He noted that the summer post-graduate course, begun June 1st, was proving a great success, over 25 practitioners in the province having enrolled in the course. Reference was also made to the establishing of a new course in Public Health, which would prove of very considerable advantage to the public.

As to the scheme for a woman's residence, Sir William declared that the plan was about to assume practical shape. Steps were now on foot to make a beginning in the way of establishing a temporary woman's residence for next year. He regretted that there was no immediate prospect of a men's residence. Little could be expected from the Government in this connection. However, now that Convocation Hall was assured, probably the Alumni could undertake with equal success the scheme for a residence for the men students.

CONVOCAATION HALL.

The corner stone of the University Convocation Hall was laid by the Lieut.-Governor at twelve o'clock, Friday, June 10th. Dr. Reeve rejoiced that the faith of the Alumni and friends of the University was about to be rewarded. He then read the following letter from Dr. Goldwin Smith :

THE GRANGE, TORONTO, June 9th, 1904.

*To R. A. Reeve, M.D., President of the Alumni Association,
University of Toronto.*

DEAR DR. REEVE,—I am sorry to find that I have to plead physical weakness as my excuse for inability to take part, as I

had hoped to do, in the laying of the foundation stone of our new Convocation Hall to-morrow.

It is needless to say how hearty an interest I feel in anything that marks the success, progress and unity of our University. We are now on the right track: that of combining in one great provincial university the resources, once scattered over a number of local and denominational institutions. Correspondents of the papers are calling upon the university for the highest class of lecturing power. First-rate lecturing power is a commodity for which, as for other first-rate commodities, we must pay a first-rate price, and this we can do only by a combination of our resources. For my part I do not covet an unlimited increase in the number of students. The more intellectual callings may become overstocked, and you may then have ambition and sensibility without bread. At the same time the list of university studies has been made practical, perhaps to the full extent possible, without compromising the special function of a university as a place of the higher knowledge and training. For exceptional ability lowly-born a way to rise should, in the interest of society, always be made. All honest callings are equally respectable, and when pursued with industry and cheered by domestic affection may be equally happy. In a world vexed with political strife and wars or rumors of wars you are laying the foundation stone of a hall of peaceful progress. In a world much given over to the pursuit of gain you are paying homage to the culture which belongs to the higher nature of man. Where you now gather, generation after generation of professors and students will gather as the ages go on. In time, probably, with the progress of science and of society, they will differ from our generation as widely as our generation does from the professors and students of the middle ages. But the foundation stone laid to-day will remain unmoved, and so we hope and believe will the usefulness and honor of the University of Toronto.

Yours very truly,

(Signed) GOLDWIN SMITH.

His Honor tapped the block of granite three times, and said "I declare this stone to be well and truly laid." They had heard, he said, something of the difficulties that had been encountered. When they saw this building completed, he had no doubt the Government would see its way clear to render still further assistance to the University. It was quite erroneous to think that the demands of the University would ever be satisfied, the greater its classes the more it would require for its maintenance.

Hon. Mr. Harcourt, the Minister of Education, said that he

was delighted to be there as a graduate, the building was largely to be placed to the credit of the graduates. The potentialities of the University rested not in its buildings, nor in governments, but in the graduates themselves. He was glad to learn that the undergraduates had contributed thousands of dollars, and the Lieutenant-Governor had a half interest in the building. He might say that it was strictly a limited partnership. The Government's liability was not to be more than \$50,000. That was to be understood. He thought that they should make their appeal now to the Alumni who had not yet contributed.

The annual Convocation was held in the Gymnasium on the same afternoon. After the close of the Convocation a large garden party was held on the University Campus. At the Alumni dinner, held on the same evening, many interesting speeches were delivered, from them we cull the following abstracts:

THE LIEUTENANT-GOVERNOR.

His Honor the Lieutenant-Governor, in proposing the toast to *Alma Mater*, noted with satisfaction the growing public interest in the welfare and growth of the University. He believed that the future of the University must, in the main, be with the Alumni, whose efforts in behalf of their *Alma Mater* would go far towards strengthening the bonds of the Government. He emphasized the importance of the culture idea in university education as distinct from the mere bread-and-butter species of education. As Favorinus had said, there was nothing great in life but man, and nothing great in man but mind.

His Honor urged college men to devote themselves to research work in special subjects of the university curriculum. There were great difficulties, jealousies, and disappointments in the field of professional and commercial life, but in the pursuit of truth there was no disappointment to the earnest seeker. Learning was its own reward.

PRESIDENT HARPER.

Professor Harper, the newly-made alumnus of Toronto, in replying to the toast, was pleased to be able to call himself one of the Alumni gathered there. He brought the greetings of Toronto men at the University of Chicago. A finer body of university men he did not know. The university spirit wherever found was united ever in the desire to do earnest and sincere work, to push forward the outer bounds of knowledge in all the great realms of truth. There could be no jealous rivalries in such a work. It was just such gatherings of university men that removed all jealousies and misconceptions.

Continuing, Dr. Harper referred to the ever pertinent university question—the question of money. During the last few years, he declared, 90 per cent. of the money which came to the University of Chicago had come unsolicited. Men of means could find no better way of getting rid of their surplus wealth than in helping out some university scheme. It was one of the encouraging signs of the age that men of wealth were coming to regard the university as so important a factor in the upbuilding of a nation. But men, loyal, true, and self-sacrificing, were needed as well as money. The cause of science in these days witnessed sacrifices as great in its behalf as did any mission movement. And such self-sacrificing men were to be found on Toronto's faculty. The obligations of university men were wide, reaching out into nearly every sphere of life, private as well as public.

But the great thing that had come to university life in the past quarter century was the spirit of research. It was admitted more and more that the primary object of the university was to investigate rather than to teach. And in this connection Toronto was abreast of the times. The names of Toronto professors were known the world over in connection with original work in their departments. They must be given increased facilities for such work. Only thus would the university keep abreast of the times.

As one of the Alumni of Toronto, he pledged himself to work for the university along the lines of research and investigation.

UNIVERSITY AND GOVERNMENT.

Hon. Richard Harcourt, following Dr. Harper in reply to the same toast, declared that for long years there had been in the Legislature of the Province no difference of opinion as to what the attitude of the province, as a whole, should be towards the university. Public sentiment, he believed, demanded that the province adequately support the Provincial University. But the Government of the day had to consider not only the needs of the university, but also the interests of the secondary and primary schools. Last year the province gave one dollar out of every four to the cause of education. He excused the lack of further assistance at present to the university on the ground that the provincial revenue would not stand it. Toronto, like every other university, must be expected to lament that its growing needs could not be met. Its position was not unique. But he believed the Government was doing its best to meet generously all reasonable demands. I ask you only to wait but a comparatively short time, and you will get all you ask.

The Government, he added, intended to proceed not hastily, but only after due deliberation. They would at the earliest

possible moment meet the just demands made in the interest of the university, and, therefore, in the interest of the whole public.

Judge Chisholm, of Berlin, also responded to the toast. A few years ago, he said, the University of Toronto dwelt in a state of splendid isolation. It was not a common child of the people of the province. Now this feeling had changed, thanks largely to the efforts of the Alumni Association.

Professor Wm. Clarke paid a sincere tribute to the work of Provost Macklem in furthering and carrying through the federation movement, and declared his own willingness to further the interests of the united universities with all his power.

CANADIAN TO THE FORE.

Professor Newcomb declared that he was proud to claim Canada as his native land. It was a common thing in the States to find on inquiry that many of the very highest men in America were Canadians, and in many cases graduates of the University of Toronto. He laid down as a thorough test of a man's fitness the ascertaining as to whether or not he had the capacity to acquire "useless knowledge." The men who succeeded, he declared, were the men who had that faculty. The university's object should be to train men to think and observe, and to make the best use of their time.

Dr. Minot drew some lessons from the experience of America's oldest university, Harvard. The university, he believed, should train its students to exercise the faculties of eye and ear in appreciating the beauties of nature and sweet sound and to understand their fellow man. The university must leave with its graduates the desire for the joy of services. He noted the great achievements of Toronto University in the past. But what had been done was but promises of what was still to come. He aptly expressed, in conclusion, the hope that the Minister of Education "would never smother the Desdemona of University Building under the pillow of financial expediency."

Dr. McDougall, an alumnus of forty-five years standing, spoke briefly, urging that people with money to give should be strongly encouraged to come to the assistance of the University.

Chancellor Burwash referred to the fact that this was the sixtieth class in Arts to graduate from Toronto University. They might well draw inspiration from the proud record of the past, and boast themselves to be even better than their fathers, though the Alumni of the past had numbered many strong and notable men. He declared that the University must grow strong from its own inner strength. The Alumni could do, in the end, more than the Government.

Personals.

Dr. K. C. McIlwraith, of Toronto, has removed from Carlton Street to 54 Avenue Road.

Dr. C. T. Noecker, of Waterloo, spent a month in New York, working chiefly on the Eye and Ear.

Dr. John McCrae (Tor. '98) has resigned his position as Resident Pathologist to the Montreal General Hospital.

Dr. John J. Gunn, son of Dr. John Gunn of Ailsa Craig, has been appointed to the staff of the Asylum for Insane, London.

Dr. Herbert Bruce, of Toronto, will sail from New York for England, July 15th. He will attend the meeting of the British Medical Association.

Drs. Osler and Thos. McCrae, of Baltimore, and Dr. Hugh A. McCallum, of London, Ont., are going to attend the meeting of the British Medical Association.

Dr. Price-Brown will spend the summer months across the Atlantic. He sailed from Montreal on the 1st inst. and expects to return to the city early in September.

Dr. J. H. Bull (Tor. '94), Holland Centre, has been appointed Associate Coroner for the County of Grey, and Dr. N. J. Amyot (Tor. '95), of Belle River, has been appointed Associate Coroner for the County of Essex.

Dr. Gilbert Royce (Tor. '97), who has been practising in Ottawa since 1898, is paying a visit to Toronto, his old home. He goes to New York for post-graduate work early in July. He will make a specialty of the Eye and Ear and will return to Ottawa.

Dr. Robt. G. Brett (Vic. '74), is Vice-President of the Calgary Alumni Association. At the annual dinner held on the evening of April 1st, thirty members from Calgary and South Alberta were present. The speakers expressed pleasure at the entrance of Trinity University into confederation.

Dr. E. K. Cullen (Tor. '03) published in the *Johns Hopkins Bulletin* last December, "A Morphological Study of the blood of certain Fishes and Birds," with special reference to the leucocytes of birds, and including a note on the occurrence of filariæ in the blood of two birds and two porcupines.

Dr. Herbert D. Pease (Tor. '93) sometime Fellow in Pathology in the University of Johns Hopkins, Baltimore, and later an official Bacteriologist at Philadelphia and Buffalo, is at present Director of the Antitoxin Laboratory of the New York State Department of Health at Albany, N.Y.

Dr. Herbert E. Wallace, of Bolton, was married to Miss Bonnar, June 7th.

Dr. F. D. McGrattam, of Port Perry, was married to Miss Jenkins, June 29th.

Dr. Albert H. Cook, of Dover Plains, N.Y., was married to Miss Patterson, of Toronto, June 9th.

Dr. Lelia Davis has removed from 189 College Street to the Alexandra Apartments, University Avenue.

Dr. W. P. Caven sailed from Montreal for England June 16th. He will return to Canada about August 15th.

Dr. Hodgetts, Secretary of the Provincial Board of Health, attended the meeting of the Public Health Association of America held in Washington, June 7, 8, 9, 10.

Dr. Herbert Burnham, of Toronto, will leave for New York, July 5th, and will sail from that city for London, July 9th. He will return to Canada and resume practice September 1st.

Sir Frederick Treeves, the eminent English Surgeon, visited the United States early in June, after a tour through the West he reached Philadelphia June 15th and received the Honorary degree of LL.D., from the University of Pennsylvania.

Prof. Pozzi, the famous gynecologist of Paris, and Editor of "The Review de Gynaecologie," came to America to attend the Congress of French speaking Physicians, held in Montreal June 28th. He visited Toronto June 25th, and was entertained at dinner on that evening by the Dean and Faculty of Medicine of the University of Toronto.

The following were elected officers of the Ontario Medical Association for the ensuing year:—President, Dr. Wm. Burt, Paris; 1st Vice-Pres., Dr. J. L. Davison; 2nd Vice-Pres., Dr. Geo. Hodge, London; 3rd Vice-Pres., Dr. Ed. Ryan, Kingston; 4th Vice-Pres., Dr. T. H. Middleboro, Owen Sound; General Secretary, Dr. Chas. P. Lusk, Toronto; Ass. Secretary, Dr. Samuel Johnston, Toronto; Treasurer, Dr. Fred. T. Fenton.

The next meeting of the Pan-American Congress will be held in Panama, the latter part of December, 1904. This Congress meets every three years. It was organized by Dr. William Pepper, of Philadelphia; Dr. C. A. Reed, of Cincinnati; Dr. Albert Van der Veer, of Albany, N.Y.; and Dr. R. L. E. Johnson, of Washington. The following meetings have thus far been held—First, in Washington, 1893; second, in Mexico, 1896; third, in Cuba, 1901.

Obituary.

July 1904

REGINALD HENWOOD, M.D.

Dr. Reginald Henwood died May 23rd, aged 76. He was born in England and came to Toronto while in his teens. He became a licentiate of the Medical Board of Upper Canada College in 1846, and shortly after went to Brantford, where, for half a century, he was the leading physician of the community. He was a very able physician, and at the same time an extremely lovable man.

CHARLES WALTER CHAFFEE, M.D., M.C., P. AND S.O.

Dr. C. W. Chaffee, of 614 Spadina Avenue, Toronto, died after a short illness from pneumonia, May 25th. He received his medical education in the Toronto School of Medicine, and after engaging in regular practice for a few years became connected with the I.O.F., and worked with that Order up to the time of his last illness.

VINCENT HOWARD MOORE, M.D., LL.D.

Dr. V. H. Moore, of Brockville, died unexpectedly at his home on June 8th, aged 56. He had been in poor health, due to chronic disease of the liver, for some time, but recently had sufficiently recovered to resume in part his practice. We are told that, without warning, he was suddenly stricken with heart failure and died at once. Dr. Moore graduated in Medicine at Queen's College, Kingston, in 1870, and practised continuously in Brockville from that time up to the time of his last illness. He was a very staunch advocate and warm champion of Queen's University, of which he was for years the representative in the Ontario Medical Council. He was made a Fellow of the Royal College of Physicians and Surgeons, in Kingston, in 1890, and was made LL.D. by Queen's University in 1903. He was one of the most influential members of the Ontario Medical Council and one of its past presidents. Apart from his large surgical practice, he was one of the most progressive citizens of Prescott, and was prominent in all municipal affairs. He was also for many years surgeon for the 41st Battalion. He was a staunch Conservative and took an active part in elections, being one of the best political speakers in the riding. He possessed rare social qualities, and was deeply beloved by his many friends.

Book Reviews.

AMERICAN EDITION OF NOTRNAGEL'S PRACTICE.

Tuberculosis and Acute General Miliary Tuberculosis. By DR. G. CORNET, of Berlin. Edited, with additions, by WALTER B. JAMES, M.D., Professor of the Practice of Medicine in the College of Physicians and Surgeons (Columbia University), New York. Handsome octavo volume of 806 pages. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

This is the seventh volume to be issued in Saunders' American edition of "Nothnagel's Practice," and the remaining four volumes are in active preparation for early publication.

The American edition of Professor Cornet's exhaustive work appears at a time when the subject of tuberculosis has a peculiar claim upon the attention of mankind. Within a few years both professional and general public interest in the disease has taken enormous strides. In almost every civilized community societies for the prevention of tuberculosis are being organized, and these are composed not only of physicians but of laymen, while governments themselves are taking an active part in the movement. Under these circumstances, and at this time, the work is of interest to practitioners, for there is no other treatise which gives an equally clear and comprehensive view of this subject.

The article on Acute General Miliary Tuberculosis has been admirably written, and gives a thoroughly clear understanding of this disease.

The importance of the Chemistry of the Tubercle Bacillus and its bearing upon immunity have warranted a thorough treatment of this subject.

The work is complete and logically arranged, and the editor has made additions where necessary to bring it down to date.

Manual of Materia Medica and Pharmacy. Specially designed for the use of practitioners and medical, pharmaceutical, dental, and veterinary students. By E. STANTON MUIR, Ph.G., V.M.D., Instructor in Comparative Materia Medica and Pharmacy in the University of Pennsylvania. Third edition, revised and enlarged. Crown octavo, 192 pages, interleaved throughout. Bound in extra cloth, \$2.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

The object of this work is to give a concise statement of the important facts of the medicines most likely to be used by a student when he becomes a practitioner. A third edition shows that the book is deservedly popular among the readers for whom it was intended.

Selections.

Treatment of Bronchopneumonia.

How to care for a baby with bronchopneumonia is summarized by Northrup in the following:

1. Castor oil to clear the field of operation. It is the first aid to the injured.

2. Fresh air, cool and flowing. It reddens the blood, stimulates the heart, improves digestion, quiets restlessness, aids against toxemia. Regulate the temperature of air of the room inversely to that of the child. The patient's feet must always be warm, and the head cool.

3. Water, plenty, inside and outside. Temperature of the water as indicated by child's temperature.

4. Quiet and rest. Tranquillizing influences about patient. Undisturbed sleep.

5. Correct feedings to avoid fermentation and gas in abdomen. If there is need, high hot salines.

6. Antipyretics. Water. No coal tar products.

7. Heart stimulants. Fresh air, hot foot baths. Relieving tympanites and crowding. Hot foot-baths and hot salines can be given in a cold room. Both can be given under the bed-clothes.

Drugs.—Whiskey and strychnine. These are the first drugs mentioned in this paper, unless that household remedy, castor oil, be included. Promote general comfort in every rational way.

How to kill a Baby with Pneumonia.—Crib in far corner of room with canopy over it. Steam kettle; gas stove (leaky tubing). Room at 80 F. Many gas jets burning. Friends in the room, also the pug dog. Chest tightly developed in waist-coat poultice. If child's temperature is 105 F. make a poultice thick, hot and tight. Blanket the windows, shut the doors. If these do not do it, give coal-tar antipyretics and wait.—*Med. News and Jour. Am. Med. Asso.*

Serum Treatment of Puerperal Fever.

Peham relates that the experience at Chrobak's clinic with Marmorek's serum were not favorable, but that Paltauf's anti-streptococcus serum has shown an unmistakably beneficial action. It is derived from horses inoculated directly with fresh streptococcus cultures from puerperal processes and other severe streptococcus infections in man, with no passage through animals. Twenty-six cases of puerperal infection were injected with the Paltauf serum and all those patients with pure strepto-

coccus infection rapidly recovered, including one case of puerperal peritonitis. In the cases in which no benefit was apparent bacteriologic investigation showed that the infection was due solely to the colon bacillus or pneumonia germ.—*Wiener Wochenschrift, in Jour. Amer. Med. Asso.*

THE DOCTOR IN POETRY.

AIR. "SOLDIER AN' SAILOR, 'TOO."

(*With apologies to Mr. Rudyard Kipling*)

As I was agoing 'ome to bed, through a muddy country lane,
I seen a man in a oilskin cape, atrudgin' through the rain,
'E 'adn't a match, an' 's pipe was out, as' I ses to 'im, "'Oo are you !"
An' 'e ses, "'I'm a doctor, the country doctor, surgeon an' midwife too !"
Now 'e never gets paid for 'arf 'e does, an' 'e does the work of two,
An' 'e isn't one of the gentlefolks, 'an' 'e ain't like me nor you,
'E's a sort of a bloomin' chameleotype, surgeon an' midwife too.

An' I seen 'im again all over the shop, aplayin' all sorts of rags,
Like settin' a fractured collar-bone with a couple of touch-line flags,
An' the parsons owe 'im money, for their wives give 'im work to do,
Though 'e's only the doctor, the country doctor, surgeon an' midwife too.
An' the Poor Law Board they sits on 'im, an' tries to dock 's screw,
Though 'e 'as 's bread and cheese to git the same as me or you,
They think 'e's a 'aughty philanthocrat, surgeon an' midwife too.

An' I seen 'im again with a knife an' things, and the sweat was on 'is brow.
'E was trying to mend the guts of a bloke as 'ad spiked 'isself in a row ;
'Twas late at night an' 'e 'adn't no light, to see what 'e 'ad to do,
An' 'is pal was a doctor, a country doctor, surgeon an' midwife too.
'E 'adn't got far with 'is little job, 'e wasn't but 'alfway through,
When the bloke sits up an' asks for a drink, the same as it might be you ;
Ho ! they ain't no special anesthetutes, surgeon and midwife too.

But there wasn't a call to do as you done when you 'ad the gout in yer toe,
And you fetched 'im out in the dead of night, an' 'e 'ad six miles to go,
For you've 'ad it before, and you'll have it again, and you know just what
to do.

You don't want the pore old country 'doc,' dispenser an' staff nurse too.
You pays 'im ? What ! Yes, tuppence a week, an' you're earnin' "thirty-
two."

An' 'e 'as to subscribe to your football club, which you're too mean to do,
Because 'e's the doctor, the country doctor, surgeon an' midwife too.

Now I never believes in them specialist thieves, what stammer, an' grunt,
an' blow,

As 'll watch yer die with a winkin' eye for a 'undred pound or so ;
An' when it's "Checks?" an' "'Oose turn next?"—which I 'opes it won't
be you !—

Let's stick to the doctor, the country doctor, surgeon an' midwife too.

An' when you come to the Bar of Gawd, an' 'E says "'Oo passed you
through ?"

(For 'e 'ates Peculiar People an' the Christian Science crew)

Just mention the doctor, the country doctor, surgeon and midwife too.—

E. G. B. A., in *St. Bartholomew's Hospital Journal*.