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ORIGINAL COMMUNICATIONS.

GENERAL CYSTIC DEGENERATION OF THE KIDNEY.

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Professor of Pathology, Women's Medical College, Toronto.

This unusual specimen of cystic kidney was sent me by Dr. R. B. Nevitt, who had removed it from a woman 25 years of age. The history is briefly as follows:—Patient consulted Dr. Nevitt for a moveable tumour in the left side of the abdomen with intermittent pain in that region.

Family History.—Negative.

Personal History.—No serious illness. At age of 13 years fell upon an upturned chair and one of the legs appears to have entered the body by either vagina or rectum. She was laid up for some time under a doctor's care. Since that time there had been pain in the left side. Menstruated at 13 years, always regular but painful, lasting five or six days. The pain was referred to the back and region of the tumour.

In the left side of the abdomen is a mass, freely moveable upwards, downwards and slightly inward. The upper edge lies just above the anterior superior spine of the ilium, and this can be moved upward to beneath the costal margin. The lower margin descends deeply into the pelvis. The mass is dull on percussion, and surrounded by a zone of resonance, even below, along Poupart's ligament. The uterus is displaced to the right, but free from solid or cystic enlargement. At operation this kidney was removed. The patient died some days after, the result of an infection, but unfortunately no autopsy was permitted. I find later that the patient was conscious of the tumour about two years ago.

The organ measures 6 x 4½ x 3 inches, weight 1 lb. 5½ oz. The general outline is fairly well preserved. Surface is very irregular, the irregularity being caused by numerous rounded, smooth, fluctuating elevations scattered uniformly, and varying in size. The capsule is slightly thickened, but strips off readily, and beneath it is found a dense chocolate-colored renal tissue, studded everywhere with cysts, containing clear amber fluid, enclosed in a thin transparent wall. The largest is 1½ by 1

inch. On section the organ presents a honeycombed appearance. The stroma is reddish brown in color and very dense, and in the meshes are numerous smooth-walled cysts. From most of them a clear amber fluid escapes, while others contain a firm, amber-colored, jelly-like material which is retained in the cavities after section. These cysts are distributed throughout the organ, in cortex and medulla alike. They do not communicate. The size varies from $1\frac{1}{2} \times 1$ inch to something microscopic. The pelvis is small, the lining is velvety and white. There is a deposit of fat about it.

The cyst fluid collected from a single cyst is dark amber, clear, odourless, acid. Urea is present in small amount.

Heat.—Slight precipitate much increased with HNO_3 .

HNO₃.—Abundant, curdy precipitate almost entirely dissolved on heating.

Under the microscope this precipitate shows urates and radiating figures of urate of soda.

Microscopically the sediment shows renal epithelium swollen and granular. Large compound granular cells. Cholestearine crystals in abundance. Large ovoid bodies like fat, but less refracting.

The fluid collected on section of the whole organ gave the same chemical reactions, sp. gr. 1012, and microscopically well marked renal epithelium; many caudate epithelial; few pus cells; red blood cells; many coarsely and finely granular cells and pus casts.

Histologically.—The cyst wall is made up of a fibrous portion (varying in thickness in different cases) lined by a layer of flattened epithelium. The fibrous layer is in relation with the stroma of renal tissue which also varies greatly, in some cases showing abundant new formation of connective tissue in varying stages of maturity, and in others a renal tissue not so much fibrosed as compressed. There appears to be a considerable quantity of secretive tissue remaining, but it is rarely normal. The tubules and glomeruli are either compressed (as before stated), or give evidence of increased pressure from within as shown by the flattened appearance of the epithelium, or dilation of the space. Many of Bowman's capsules are greatly distended and the vascular tuft forced to one side, while others show marked fibroid change in the capsule with contraction upon the tuft. In some tubules there are small dilatations occupied by masses of colloid material, and many of the dilated Bowman's capsules are filled with the same material. Coats considers these the starting point of the cysts.

In considering renal cysts in connection with this specimen, it is, I think, obvious that such conditions as hydatid and dermoid cysts may be set aside. Of the *simpler forms* there is the cyst of chronic interstitial nephritis, where we find in a small contracted kidney a varying number of cysts, usually small in size and with an almost constant distribution throughout the cortical area alone. These are universally looked upon as retention cysts, having their seat in the Bowman's capsules and the convoluted tubules.

There is then the *General Cystic Degeneration of the Kidney*, the so-called *Congenital Cystic Kidney*, where, in an enlarged organ, cysts

are found scattered throughout the cortex and medulla alike, and of varying size. To this class our specimen evidently belongs.

There is abundant evidence in literature that this disease is in many cases congenital. Fussell (Sajous' Annual) cites a case in which bilateral disease of this kind in the child formed an impediment to delivery, evisceration being necessary. And this is only one of many. Ziegler speaks of foetal cystic disease, saying that the child is born with them. Instances are also recorded of death in-utero or shortly after birth from the same disease. It is quite striking, also, how frequently other developmental defects such as Cleft Palate Talipes, Imperforate Anus, Hydrocephalus, Defective Bladder, Horse Shoe Kidney, etc., are found in association. While such facts justify the term Congenital Cystic Kidney, too general an application of it may be questioned, in that there is a good reason to assume that the same changes may occur in the adult kidney. *Touche*—Cites case of woman, 75 years—dead of Pneumonia, with double cystic kidney. *Boquel*—Case 45 yrs., dead of apoplexy, with bilateral Cystic Kidney. In one series of 6 cases reported the ages ranged from 21 to 65 yrs., and in another series the average age was 45 years. It seems improbable that such were congenital. *Treves* and *Coates* divide the cases into congenital and adult. *Newman* draws a distinct line between the Foetal and adult cases. *Albutt* makes a like distinction. The only instance I can find where the condition seemingly developed under observation is one in the records of Richard Bright, dated 1835, and reported in the Sydenham Society's Transactions, 1860. Male 30 yrs., emaciated and weak, urine moderate in quantity, pale, acid, contained albumen. There was a history of Haematuria 2 years previously. In the left lumbar region there was a tumour mass recognized as an enlarged kidney. When seen some weeks later patient was suffering from painful micturition and passage of pink fibrinous coagula, urine 20 oz. in 24 hours. On examination of the abdomen a mass was found in the right lumbar region similar to that on the left. Patient died in Convulsions and Coma. At the autopsy the left kidney was found 10 times larger than normal; the right kidney 6 times larger than normal. The Pathological description is that of this form of cystic kidney described as a combination of the granulated and vesiculated conditions.

As to the formation of these cysts there is a variety of opinion, as follows:

- (1) Purely retention cysts.
- (2) Adenomatous formations.
- (3) Part of a general tendency to cystic transformation, there being cysts also of Liver being Spleen and Pancreas.
- (4) Developmental errors.

Upholding the first are:

Virchow, who says they are due to inflammatory occlusion and atrophy of the papillae.

Thorn considers Inflammation of the Substance of the Papillae extending from the calices, the obstructing cause.

Newman thinks them retention Cysts, arising in the Malpighian bodies and tubules, and says that associated cysts in the Liver and Spleen, etc., are rare enough to be accidental.

Naunyn and *Courlies* think them adenomatous.

In *Clifford Allbutt's* System of Medicine they are described as a pure degeneration within the tubules with dilatation, producing pressure upon, and atrophy of, the the tissues about. Associated cysts of the Liver and Spleen are considered important as a guide to the origin.

Loomis & Thompson consider it a general cystic metamorphosis of the renal tubules and Malpighian bodies with atrophy of renal tissue about.

Treeves says:—In the *infant* it is a degeneration of embryonal tissues. In the *adult* an adenomatous formation.

Coats regards them not as retention cysts, but as the result of a perverted secretion of the renal epithelium. They are obviously growing structures, he says. In the tubules he finds masses of colloid material which he looks upon as a perverted secretion of the cells: these accumulations produce dilatation of the tubules, and a continuance of such secretion results in the well formed cysts, which with their pressure effects, are seen in the surrounding tissue. He says "an origin such as this would be consistent with cystic disease in other organs."

An explanation from a developmental point of view is given by *Shattuck*, who thinks they result from a combination of the *Mesonephros* (*Wolffian Body*) and the *Metanephros* (*Kidney proper*), the cysts arising from the former in the substance of the latter.

Some General Points about general Cystic degeneration of the Kidney:—

- (1) More frequent in males than females.
- (2) Usually bilateral, always so in infants.
- (3) Disease may be more advanced on one side than the other.
- (4) Organ always enlarged, but retains its general outline well.
- (5) Weight usually $\frac{2}{3}$ lbs. Hare's case 16 lbs. is an extreme case.
- (6) Cysts are found in every part of the organ.

Of course the number and size of the cysts and the changes in the remaining kidney tissue will be in direct ratio to the stage of the disease. The Cyst walls have their *membrana propria* or fibrous portion, with a lining of flattened epithelium. The Pelvis is usually contracted and may be filled with or surrounded by fat.

The ureter is narrow, the vessels small.

The cysts do not communicate with each other, or with the pelvis.

The *cyst contents* may be fluid, viscid or solid. In *color*, vary from pale amber to purple or haemorrhagic.

The Cysts contain—Fat and epithelium, Cholestearin, Uric Acid and some say triple phosphates. Urea is present.

This condition of kidney may give rise to no signs whatever during life. The most common, however, are those of chronic interstitial nephritis as shown by urinary examination and signs of cardiac hypertrophy. There may be haematuria; *Coats* reports a case in which there were recurring attacks during 18 years. Death is usually from uraemia.

A CASE OF CONCEALED HYDROCEPHALUS.

BY THEO. COLEMAN, B.A., M.B. TOR.; M.D.C.M., TRINITY.

The history of the patient, G. M. was briefly as follows:

The mother and father are alive, and healthy. The child G. M. was born at 8 months without the use of instruments. Mother had previously two miscarriages and since has had two healthy children at full term. There is no history of lues or tuberculosis. The child never had a rash nor sore eyes and was strong and bright up to seven years of age. About two years ago (1896) patient suffered from otitis media, without complaining of any pain. His right ear has discharged ever since. Was always nervous but bright for his years. He was circumcised and the nervousness improved for a time but returned. The parents noticed that his speech became thick, then the eyesight began to fail, and with this there was a lack of co-ordination in the legs, his ankles turned over, he stumbled and was unable to come down stairs without holding on to something. He now took to screaming and shouting so loudly and persistently that he could not be quieted and the parents were obliged to leave the neighborhood and move into different houses. Gradually his power of locomotion gave out so that finally he was unable to walk at all. In the morning his mother would bring him down and sit him on a low box where he would sit all day without attempting to move. Sometimes with his head between his hands like a melancholic; sometimes he would lean to the right and draw up the right leg. On other days he would keep up a ceaseless motion of his hands and head and make inarticulate noises. The inco-ordination spread to the arms, more power being retained in the left than right arm. He was unable to feed himself, and could only convey a crust to his mouth when very hungry; liquids ran from his mouth but this was not from any paralysis but probably from a disinclination to swallow.

He was admitted to the Children's Hospital when the following history was taken:—Patient lies in a stupid condition, is quite blind, does not answer questions, voids his urine in the bed, is constipated, eats fairly well, does not vomit, and is very irritable; legs are drawn up, cannot stand, sensations normal as far as can be made out. Patient can move both arms and legs. No facial paralysis, pupils moderately dilated, do not react to light. Patient is an imbecile, makes some inarticulate noises. Hearing seems very acute but does not respond or show any intelligence when questioned. Dr. Macallum examined the optic discs and reported:—Discs pale bluish-white, vessels seem narrowed. No optic atrophy. Right ear has a purulent discharge, small in amount and foul, perforation in inferior quadrant, left ear. Left tympanum retracted, no sign of discharge. Dr. Peters proposed an exploratory operation, and the head, after careful preparation was trephined over the motor area on the right side. When the button was removed, no bulging of the membranes occurred and nothing abnormal being seen the Dura was not opened, the button being and the wound closed. The wound healed by first intention.

The patient was discharged, the condition being unimproved. The legs were markedly flexed and drawn up, hands tremble a great deal and patient screams at night. He was admitted to the Home for Incurable Children, 138 Avenue Road, in November, 1899, where I first saw him. His physical condition had become worse, being absolutely helpless. His eyes open and staring, palpebral fissures equal, pupils equal and moderately dilated. No ptosis, lateral nystagmus. The expression is vacant. Can move his hands and legs but they are not volitional movements. Keeps his fingers in his mouth, and when taken out, it takes him some little time to get them back. There is a slight tremor as the hands begin to move. Eats a fair amount of soft food, does not like cold food, even the drinking water must be hot. Starts at sudden noises, knee jerks exaggerated, the whole leg going into clonus on touching the sole, and though he could draw his legs up and down still he was not able to withdraw the foot when tickled. He was very constipated.

A curious thing was his appreciation of music. He would laugh immoderately at hearing children sing. When he was bathed, his head had to be supported as it lopped back. About three days before he died the temperature rose to 102°, and he refused to swallow food. He died quietly without any convulsions.

Until the autopsy was performed the diagnosis had been in favor of some form of cerebral tumor, but the autopsy revealed an internal and external hydrocephalus.

Post Mortem Report by Dr. Harold Parsons.—

Case of Gordon Mackenzie aged 7 years, Home for Incurable Children. P.M. 36 hours after death.

Body fairly well nourished and well formed. Slight eczema of penis and scrotum. Thorax: pleural and pericardial cavities normal. Heart and lungs show nothing abnormal. Abdominal cavity negative. No excess of fluid. Abdominal organs negative, with the exception of urinary bladder the wall of which is slightly thickened. Mucous membrane velvety, with some haemorrhagic points. The contained urine is very cloudy and ammoniacal. Skull cap of normal thickness. Old trephine wound over motor area, button partly absorbed. On removing the skull cap the membranes were torn, and there was an abundant escape of clear pale amber fluid. This continued after cap was removed. The dura mater appears normal. The arachnoid is raised by an accumulation of fluid in the subarachnoid space. No fibrin is found any where. Coverslip preparations from the fluid are negative for organisms. While removing the brain the fluid still escaped, and the posterior portion of the brain which was supported by the hand was felt and seen to collapse as the fluid escaped. After removal, the occipital lobes formed a concavity rather than a convexity. On longitudinal section of the hemisphere the lateral ventricles are found greatly dilated, their total length is much increased, but more at the expense of the posterior than anterior lobes. The brain substance posteriorly and laterally is much reduced in thickness. The tempora-sphenoidal lobes are also encroached upon but to a less extent. The foramina are free. The central canal of the cord is not dilated. No evidence of pressure or occlusion at the transverse fissure.

In looking over the literature the symptoms seem most plain (Osler, page 1028, last edition.) Hydrocephalus was very little known till Dr. Wyeth published observations on dropsy of the brain in 1768. This writer says, "We are lead to suspect some deeply seated evil from the frantic screams and complaints of head and belly, alternating with stupor or rather lowness and unwillingness to be aroused."

The stupor is still interrupted by exclamations or shrill piercing screams while the tremulous hands of the little sufferer are incessantly engaged in picking his nose or mouth. Dr. Cheyne describes 3 stages. 1st. Increased sensibility, where each stimulus produces an inordinate response. 2nd. stage of diminished sensibility, child not easily aroused, pupils dilated, pulse slow; he is lethargic and with obstinately costive bowels. 3rd. stage palsy and convulsions, squinting, rolling of the head, stupor, convulsions, rapid thready pulse.

Dr. Wests analysis of 40 cases of Acute Hydrocephalus.

5 cases under one year.

9 cases under three years.

20 cases between three and six years.

5 cases between six and nine years.

1 case between ten and eleven years.

In Holmes Surgery, paracentesis capitis is advised, and since then many have tried with the aid of aseptic surgery to accomplished a cure but with uniformly bad results. Tapping in the region of the lumbar vertebrae has relieved some cases of external hydrocephalus, but I was unable to find any record of the patient having grown up a useful citizen.

CEREBELLAR TUMOR WITH DOUBLE OPTIC NEURITIS.

BY J. T. DUNCAN, M.B., M.D., C.M.

Ophthalmologist to the Western Hospital, etc.

F. F., aged 22. In infancy the patient showed prominence of the left eye and convergent strabismus in the right. The patient was apparently healthy until two years ago, when he showed an unsteady gait, had difficulty in walking and in riding his bicycle from which he has frequently fallen. The unsteadiness of gait gradually increased and about a year ago, he began to lose his sight and hearing. He was ordered glasses for his deficient sight, but without much improvement. Up to last August, however, he was still able to attend to his duties in a newspaper office. Then he went to Virginia, U. S., where he consulted a specialist who diagnosed "eye strain." He remained in Virginia about 5 months, during which time his sight and hearing got worse. He returned to Toronto in January of this year.

In the early part of February he was brought to my office when the following observations were made:—

Family history—good. Present condition—pulse rather weak, respiration and temperature normal. Eyes—left proptosed (prominent), both show slow nystagmoid movements. Pupils—unequal, left smaller; both react sluggishly to light and in convergence. Right only perceives light. Left counts fingers at 18 inches.

Ophthalmoscopic examination shows choked neuritis in both eyes, greatest in the left, the left disc standing out 6.5 dioptries, the right 4.5. The veins are full and tortuous, the arteries very thin. Hemorrhages are seen in the left, none in the right. But in the right is a small patch of choroidal atrophy external to the macula. The vessels are superficial to the pigment. Ears—almost total deafness of right, hears spoken conversation with difficulty at one foot with left. Gait—ataxic, most marked in right leg. Knee jerk, absent in the right, exaggerated in the left. Babinski's sign, doubtful. Reflexes of the arms are equal. There is inco-ordination of both upper and lower limbs. Anæsthesia—none discovered except on the anterior surface of the right thigh as shown in the diagram. There is paralysis of the flexors of the right thigh. Atrophy is also seen in this thigh, it being one inch smaller than the left. There is also some atrophy of the same leg. Bladder symptoms—Had to "hurry" to urinate, then has difficulty in doing so. These symptoms are not constant. Urine—specific gravity, 1016, no albumen. He has complained slightly of headache and sickness.

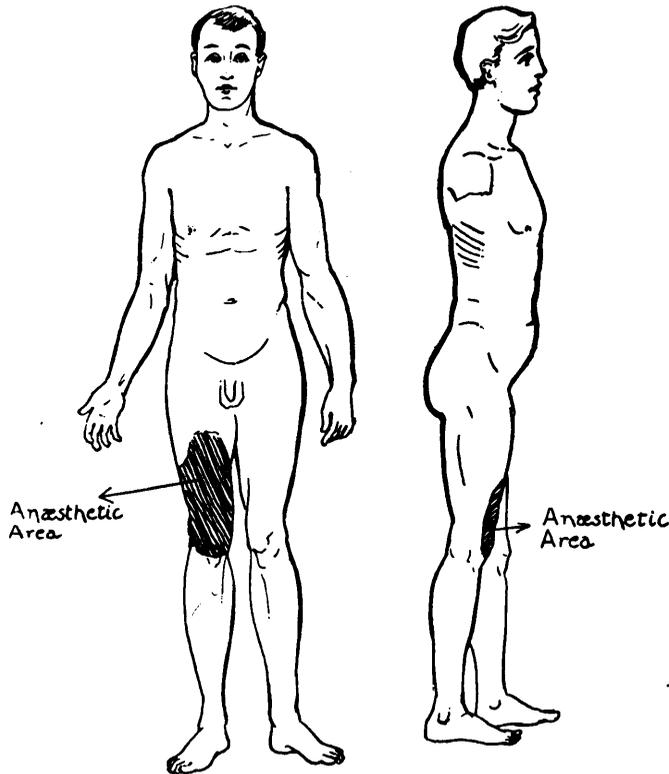
In considering this interesting case I shall dwell principally upon what information the ocular symptoms give us. In the first place the position of the eyes helps us in certain cases of brain disease. Thus in cerebellar tumor, they often stand upon a different level. But here the congenital proptosis prevents our getting any information.

State of the pupils. The inequality is often seen in cases of locomotor ataxia. But the fact that they react to light indicates that we have not to do with this disease.

The information gotten by examining the deeper parts is of great importance. The ophthalmoscope shows that the optic discs instead of being, as in the normal state, hollowed or cupped, project forward enormously.

While the general symptoms previously spoken of might leave us in doubt as to whether we have here a purely spinal case or not, the condition of the optic discs shows at once a condition of pressure in the cranial cavity, probably caused by a tumor.*

Assuming, then, that we have a tumor to deal with, can we locate it? In the first place we have to decide whether the tumor is above the tentorium or below it. If it were in any part of the cerebrum it would almost certainly cause other symptoms in addition to the optic neuritis. It is quite possible, however, to have a tumor in the corpora quadrigemina



with symptoms as we see them here, viz:—ataxia and optic neuritis. How can we distinguish between the two localities? Usually by inquiring which symptom appeared first. If the optic neuritis appeared first followed by ataxia, the tumor is not in the cerebellum, but if the ataxia preceded the optic neuritis the tumor is likely to be cerebellar. To give its locality in the cerebellum is difficult in view of the fact that in this

* It would be tedious to discuss all the causes of choked neuritis. I think they may all be excluded except as stated above.

case the lesion is not single. For I think we have here to do with disease of the cord as well as the cerebellum. I would, however, hazard the opinion that the tumor is in the right hemisphere of the cerebellum, that it presses upon or involves the right auditory nerve producing deafness and that it is probably a glioma.

In regard to the extremities we have paresis of the flexors of the right hip and anæsthesia of the thigh and wasting as shown. Now the 1st, 2nd and 3rd lumbar nerves supply the flexors of the hip and the region of the anaesthesia. Are these nerves affected by some external condition, or is the cord degenerated? The fact that the bladder is involved points to degeneration of this region of the cord. The plus knee jerk of the left is also probably due to degeneration of the cord, and not to the cerebellar tumor.

Treatment.—Still considering this case from the ophthalmological standpoint, we ask, can anything be done to relieve the optic neuritis, and thus restore the sight? Up to a few years ago such cases were considered to be hopeless. But now, thanks to the efforts of the surgeons, operations on the cerebellar region are not uncommon, and they are a recognized means for the cure of optic neuritis. It may be objected that the indefinite nature of the symptoms in this case would not enable the surgeon absolutely to come down upon the tumor. This is undoubtedly true, but the removal of a portion of the skull below the tentorium would take away pressure, relieve or cure the optic neuritis, and would therefore be perfectly justifiable, even if the tumor were not found. Therefore operation has been advised in this case.

SELECTED ARTICLES.

THE AMBULATORY AND HOSPITAL MANAGEMENT OF THE GASTROINTESTINAL DERANGEMENTS OF INFANCY IN THE SUMMER MONTHS AMONG THE POOR OF LARGE CITIES.*

BY HENRY KOPLIK, M. D.,

Attending Pediatrician to the Mount Sinai Hospital, New York.

GENTLEMEN OF THE AMERICAN PEDIATRIC SOCIETY:—I invite your sincere consideration to-day to a theme which is as broad and catholic in its bearing upon human happiness as any which can fall under the notice of the physician or layman. The care during the summer months of the vast number of infants and children of the poor in our large cities is a duty which in some countries the State and in our country private individuals assume. There is a distinct state and economic reason for this. It is not simply charity that impels us to care for these wards of humanity at large. It is our own happiness and the welfare of the State that is bound up with the welfare of the proletariat and its offspring. For this reason any fact, any suggestion which tends toward the improvement of present conditions with these little wards of ours among the poor, tends toward our own elevation, moral and material happiness. During the winter months we find among the crowded dwelling places of the poor in large cities those conditions which in an aggravated degree in the warm season cause a great mortality among the infant population. We find the housing together of vast numbers of human beings creates conditions of filth which, held in check by the lower temperature in winter, in a minor degree cause disease. In the summer, when temperature favors, these conditions act in a manner to cause frightful mortality. In short, diseases caused by dirt infection are prevalent during the winter months but to a lesser degree than during the summer. We can explain this in great part by the fact that in winter the food, which is the principle source of infection to infants, is better preserved in spite of the constant factor of personal carelessness than in summer. In this country our statistics on this subject are very imperfect, but in France of all deaths below one year, one-half of the total mortality is due to gastroenteritis. In a small brochure by Madam Chaternikoff, we find that of twenty odd thousand infants below one year of life who died of intestinal trouble, between the years of 1891-98, in Paris, 3,639 were breast-fed and 18,818 bottle-fed infants. These figures are cited only to illustrate accurately conditions which exist to-day in every civilized land. In America and in my own city, New York, these conditions exist to a great degree, possibly greater than above indicated. The breast-fed infant is not exposed to any great or as many sources of infection as the artificially-fed infant.

*Presidential Address, American Pediatric Society, Washington, May 1, 2 and 3, 1900.

In the latter cow's milk is the substitute for the breast by common consent of all practical men. Yet before it reaches the infant it passes through so many channels, and is exposed to so many chances of infection, that we wonder the mortality is not larger than it really is. Milk, above all articles of diet, attracts to itself infection even if such infection is not directly introduced into the milk. The animals from whom the milk is obtained can first introduce infection. I do not refer to tuberculosis but to filth. The udder of the animal may be the means of introducing into the milk streptococci, which can cause virulent forms of diarrhea. Dairy dirt also may be introduced into the milk during milking. Again, in passing from utensil to utensil in commerce the milk is exposed to a thousand and one sources of infection. In the Congress of Pediatricists, held abroad in 1881, before the dawn of the proper understanding of the value of cleanliness in handling infant foods, great stress was laid upon cleanliness in the collection of the milk intended for consumption by the infant (Heubner). It remained for Soxhlet to show that the food must not only be brought to the infant clean and free from infection, but it must be preserved thus until consumed by the infant. By whatever means these things are attained to-day, all practical men will agree that the greatest light introduced into the dark and baffling problem of infant feeding remains absolute cleanliness. As to the food itself, we find that the vast number of infants attain their majority through the most diverse methods of feeding. Each is lauded to the skies by the originator. I need only mention names such as Meigs, Biedert, Rotch, Escherich, Backhaus, Gaertner, Heubner, Soxhlet, Hoffman, to show that the successful feeding of the healthy infant can be carried out artificially in a variety of ways. The foundation of all artificial feeding must necessarily be the breast feeding; and yet in this natural method we find the greatest diversity in the quantity and quality of the food, tending to give equally brilliant results. We have a limited number of studies upon breast-fed infants which tend to show that as to quantities one infant will take only 89 caloric equivalents daily, another 126 caloric equivalents, and yet both infants be equally well nourished (Heubner). Thus, we cannot always fix upon absolute quantities. Again, it has been well established by Meigs and others that the proteids of the breast milk are constantly low, 1 to 1.5 per cent. The fat, however, varies largely in the same milk and in the milk of various breasts, and yet the children of each breast thrive. If we turn to cow's milk, we have a more difficult problem. We must not only dilute the milk, but there is a large waste even in thriving infants of the proteid constituents of the milk. This is manifested by an increase in the phosphorus in the excreta (Knöepfelmacher). Thus, it is not enough to simply construct the infant's milk on the breast proportions, but we must take into account the above waste and also the necessity of dilution.

As to dilution the leading minds differ. Budin, Chavaune, Comby, Drapier and at one time Escherich employed simply undiluted sterilized milk. Gauchas, Marfan, Heubner, Jacobi, dilute the milk. Others, such as Meigs, Rotch, Escherich and Gaertner reconstruct the milk into proportions equal to that found in human milk. And yet in the vast number of infants outside of hospitals good results are attained by these

clinicians, else they would not laud their methods. The truth is that with healthy infants mixtures of the most diverse nature will give results if the food is clean and the dilution carried to a necessary extent. Given, however, an infant suffering from ever so slight a gastrointestinal disturbance, it becomes a difficult problem to feed that infant. We have an *infection* added to the difficulties. It follows that in all our work we should sharply divide the well from the sick infant, and the infant that is slightly ill from the severely ill infant.

That the gastrointestinal diseases, both mild and severe, are, in the vast number of cases, infections is the key note of my theme. This is as true of the gastrointestinal disorders which occur to a mild degree during the winter months as of those that prevail to a startling and decimating extent during the summer season. We must no longer look upon the care of this large number of helpless sick as a problem of infant feeding simply. The time is ripe and the additions to our knowledge decisive enough to warrant the view that in treating the infants of our large cities during the summer months for gastrointestinal disorders, we are face to face with the problem of the treatment of infectious diseases just as much as we would be in the face of an epidemic of typhoid fever, measles, scarlet fever or diphtheria. Nay, our responsibilities are greater, for the mortality and suffering are much greater than in any of the above disorders. We teach the doctrine of isolation and disinfection and prophylaxis in the above infectious diseases, but it does not occur to the average physician to teach the ignorant mother that an infantile movement even of a normal character is infectious; that personal cleanliness on part of the mother in her maternal duties to her offspring is essential to its well-being and health. The food of the bottle-fed infant if contaminated by the hand of the mother is a frequent source of danger. How many physicians have ever warned the average mother to wash her hands after the baby's toilet is completed and before preparing the bottle for the baby's consumption? Few, I dare say. How many men who are daily thrown in contact with infants ill with diarrhea make a distinction even in their minds of the simple and very infectious forms of bowel complaint? Even in institutions here in America where infants are taken care of, but little attention is given to the scientific examination of the infants' diarrheal movement before treatment is inaugurated. And yet our progress has been so great in the simple clinical diagnosis of the bacteriological characteristics of the infantile movement, that to-day it is an aid to the proper and rational treatment of these diseases that such examinations be made. Prognostic value is very great if we know to-day that streptococci are absent from a diarrheal movement and treatment is not necessarily as laborious in the simple diarrhea of the coli variety as in the severer forms of streptococcal infection. A distinction is in fact imperative to-day not only for the sake of our sick charges outside of our institutions but in institutions themselves to protect the healthy infants or those only mildly ill. This brings us to our present methods of caring for those infants in the summer months who are ill with diarrheal disease. We have two great methods of caring for these infants. The ambulatory method and the hospital or sanitarium method

By the ambulatoriums I refer to the great number of dispensaries and out-door services where these infants are treated. I think that the ambulatory treatment of summer diarrhea is thus far the most satisfactory. It does not presuppose conditions which I will show are conducive to increase rather than diminish the death rate. The sickest infants, those suffering from the severest forms of diarrhea, can be rescued by this mode of taking care of these infants. The large mass of sick is divided up among many institutions. The infants, to reach the dispensary, must be taken in the open. This tends to the good of the little patients who can be carried even in a febrile state out of doors without detriment. Let me describe the facilities of a large ambulatorium which for the past fifteen years has been under my own immediate supervision. When an infant suffering from diarrhea is brought to this institution it is undressed and examined carefully, the movements are studied grossly and examined microscopically and bacteriologically in a small laboratory in connection with the service. After such examination the little patient is then taken into a second room, which is well equipped with all apparatus for the treatment of gastrointestinal disorders. The treatment over, most careful directions are given as to diet for the succeeding twenty-four hours. The mother is told to bring the patient again. When the patient is convalescent to a degree as to permit the use of milk, it is given a proper food from the laboratory in connection with the service. This laboratory, now in its tenth year, feeds fully two hundred infants daily all the year round. The principles on which it is conducted are calculated to meet the greatest number of cases possible. The milk from which the food is constructed is as flawless as possible. Cleanliness is the all-pervading feature.

The effect of the food on the patient can thus be closely observed, and the food may be altered, or any other food substituted if the same disagrees with the patient. The mother is encouraged to persist in treatment by weighing the infant from time to time in order to demonstrate the improvement. The most important element in the modern management of these dispensaries for the treatment of summer diarrhea is this department for infant feeding, which I think should be established in connection with every dispensary service. It is not enough to give the patient a prescription and directions to go and get a food at some station or depot, and then leave the little one to the tender mercies of the mother and the bottle of sterilized, pasteurized or any other food. This, it seems to me, is a very rapid way of getting rid of much work, but it does not aid if it does not harm the patient. The feeding laboratory should be on the spot or easily accessible to the clinic, and the physician can thus in person supervise the quantity and quality of the food, weigh the infant from time to time, noting progress. Healthy infants as well as sick infants are harmed by the unrestrained use, uncontrolled by the physician, of food, no matter how good. The prescription laboratory method in direct conjunction with a clinic or infantile diarrheal disease is the only true method of obtaining any definite results. Nor should any infant either in health or disease, obtain food at any station, except upon a physician's order. I have frequently found it impossible to suc-

cessfully carry out the treatment of sick infants, because the mother would insist upon supplementing my milk quantities with milk obtained elsewhere. The infant thus was harmed by over-feeding. In my clinic we go as far as to furnish the water, in separate portions or bottles of six ounce capacity necessary for the preparation of simple albumen water in cases in which the infant is unable to take milk. In this way even an ignorant mother is impressed with the importance of attention to detail, even in such a simple substance as water. I mentioned the clinical laboratory; let me point out to those outside of this distinguished body, who may read my words, that the clinical bacteriological examination of the faeces of sick infants taught to us by Booker, Escherich and their pupils is one of the greatest advances in the true understanding of the clinical aspects of these cases. It is not simply a fad, it is of great value, if the movement reveals the absence of bacteria of a known virulent character such as streptococci. It also aids us in returning to a milk diet if we see the gradual disappearance from the dejecta of these dangerous elements.

The dispensary service should be equipped with apparatus which will enable the physician to acquaint himself with the above practical facts. A great advantage in the ambulatorium, even of large size, is that there is rarely a crowding or heaping up of serious infectious cases such as I will show must necessarily exist in hospital services. The rapid treatment of a large number of serious infectious diarrheas in a hospital even if carried out with greatest care is sure to result in infections being carried from the serious to the mild cases, either through the hands of the nurses, assistants or instruments. In a dispensary it rarely happens that the serious cases are in great numbers. The mass of cases are mild, the serious cases can easily be separated and treated with care, leisure and cleanliness. Thus among hundreds of small dispensaries a great number of infectious diarrheas can be treated without danger of infecting each other and with much better results than in one large institution. The absence of hospitalism is also a great factor.

In the summer the sickest infant is much better off on the street, taken daily to the ambulatory clinic if the clinic is equipped as above, than lying in the most elaborate hospital ward alongside of other infectious diarrheas. The heaping up of infections is the great danger element. Septic diarrheas with pneumonia seem in my hands to have done very well with the ambulatory treatment. In a brochure by Paul Ignard, Paris, 1899, we see that the mortality of gastrointestinal disorders treated in the hospital wards of Paris was very high, the cases almost all of them died. The ambulatory dispensary cases, speaking more especially of atrophy with chronic gastrointestinal derangement, did much better. The tendency in the hospital ward is to develop septic complications, such as bronchopneumonia or of a simple diarrhea to rapidly develop streptococcic features.

One of the most interesting brochures in recent years bearing upon the great dangers of the crowding together of nurslings in wards of hospitals is that of Heubner, of Berlin (*Sauglingsernährung und Sauglingsspitäler*, 1897: Berlin). Those who fondly think that the problem

of the treatment of these bottle-fed infants suffering from gastrointestinal derangement is solved by the food question alone, either in the sterilization or pasteurization of the milk, should read this very carefully elaborate monograph. Heubner shows that cleanliness in the feeding, separation of nurses into classes, by which the nurse who performs the infant's toilet is not allowed to feed the baby, has reduced the previous mortality of 80 to 90 per cent. to 65 or 70 per cent. But it must be noted that here there is a halt. Why such a great mortality of 65 to 70 per cent., which in some months Heubner shows even mounted higher? It was the crowding together of infection and infectious cases. By isolation of very sick diarrheal cases, by the construction of barracks in which fewer infants were treated and more nurses attended to the infants, he hoped to reduce the mortality still more. And there we leave this painstaking clinician battling with a difficult and discouraging problem. Why treat these infants in hospitals or sanitariums at all? I think many will answer that there are a number of destitute infants who for some reason or other must be treated in this way. Their mothers, on account of the severity of the struggle for existence, cannot leave work and attend to their offspring at dispensaries. I think this problem of mortality will never be solved as long as the present hospital ward system exists. I have seen discouraging results in sanitarium in which wards accommodating only four or six infants existed. There was every improvement, every facility that money could obtain and science suggest, and yet the infants lay in their cribs and the charts showed a daily loss of weight. How will this problem eventually be solved? To my mind, and I have given the subject thought and study, it can never be solved except on the colony or cottage or camping system, very much in the same manner that pulmonary cases are treated. I can conceive of a colony of huts, with plenty of air and light, each holding two beds and in bad cases one bed, separated from each other by sufficient ground spacing arranged on a high tableland, not necessarily near the sea, but on the contrary inland, where the air is not harsh but free from the heat of the city streets. Such small, primitive huts can be taken apart, disinfected and put up anew with each season. They should be arranged over acres of land around a central administration building, in which the physicians and nurses live and in which the food is prepared. The laundry should be built apart from all else. The mothers should live in the huts and conduct themselves much as they would in their homes; take their infants out into the open if ever so ill. At fixed times they can come to the central station and obtain their food and that of their infants, as at a dispensary. At a stated hour the doctor and his assistants will be at the main building, and once a day the infant can be locally treated and prescribed for and the mothers taught to give the food and medicine and also cleanliness in the toilet and handling of food. In this way the herding together of very sick infants is avoided and the ambulatory system is imitated as much as possible. Very sick infants, of whom there may be one or six a day, are to be especially looked after. If an infant is improving, it should not be held too long in such a colony, certainly not over a week or ten days. It is then sent home to be treated at the dis-

pensary. In all this I have in mind the breaking up of the ward system and the substitution of the cottage or hut or camp system, and this of the most primitive character. I have made it a colony for sick infants. I think the system in some of our cities of taking two or three healthy children with a mother and one sick infant into sanitariums is wrong, and open to objection. I have seen the healthy infants in such places develop a dangerous diarrhoea from a house infection, having come to the sanitarium in a healthy condition. As to the nursing, it would be more of a supervisory than of an active character. The mothers would be taught by competent nurses how to wash their hands after caring for the diapers and to give the bath, food, etc. In this way the mother is educated and is the nurse for her infant and feels she is doing something for it. She would not be introduced, as she is to-day, into a barrick-like room full of beds, with other mothers, with the depressent features of such a place. Her cabin or hut would have every comfort in a primitive way; a small stove for a wood fire in damp, cold weather. The drainage must be from high ground and well planned, so that among the adult population no typhoid fever or dysentery may arise. The vicinity of the seaside is not necessary, in my mind. I am not an enthusiast for the damp, bleak days at the seaside which cause little epidemics of bronchitis and pneumonia among the infants when, as the natives say, the air is "too strong." Inland, even if somewhat warmer, on high ground, with plenty of shade trees, seems to me to be preferred in cases of weak infants as a site for such a camp. In such a camp I also presuppose that the physicians in their equipment have a clinical laboratory and the feeding will be conducted on principles laid down in the ambulatory treatment. The old method, in some places the present way, by which a dozen or more infants are placed in a ward, even if the infants be practically out of doors in a piazza enclosure, must certainly have been very discouraging to those of us who have had occasion to attend such a service. The infants do not seem to thrive. They seem to infect each other either through the nurses or assistants. They lose in weight and baffle all our efforts at progress.

An advantage of the camp system is that, should any infant develop measles, scarlet fever or diphtheria, it is by the system itself at the time in a condition of isolation and need not be moved, nor need others be disturbed or the business of the camp interrupted. And now let me say, that all the above is in the sense of suggestion. I am anxious to have the opportunity to see this system tried. It has the advantage of simplicity; it inculcates the principles of isolation of cases from each other, not by ward space alone but by sunlight and air. It allows of the application of our most advanced ideas to individual cases and is not as expensive as elaborate hospital pavilions, which do not aid us but rather increase our difficulties.

I will not take up the care of healthy infants in this address except to say that personally I am not in favor of housing healthy infants in large numbers in-doors any more than sick infants. Diarrhoeas are sure to crop up no matter how great the care observed. Thus, it does not aid us if, in order to treat a sick infant, we must take into an institution

the mother and one or two healthy young infants who may develop diarrhea of a dangerous character in the institution. We may improve the sick, but we endanger to an extent the healthy.

There are many more minor methods of caring for the sick and even healthy infants in our large cities during the summer months. I have only written of those lines of work into which fate has thrown me. I have endeavored to awaken an interest in new channels:—To inculcate the importance of gross differentiation of forms of diarrhea, of isolation of these various forms, of cleanliness, of the dangers of overcrowding, and the evils of bringing the sick and healthy under one roof.

And here let me close, hoping that the future will open up a new scientific era in the management of the summer disorders of infancy among the poor which will contrast favorably with the discouraging history of the past.—*Archives of Pediatrics*.

THE TREATMENT OF RHEUMATISM, ITS PROPHYLAXIS AND CARDIAC COMPLICATIONS.*

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I must first of all acknowledge the great honor, which I feel it to be to be requested to make some final remarks in conclusion of this discussion and I will mark my sense of that honor by being as brief as I can consistently with due respect to the number of very able and eminent speakers who have preceded me. I think, after hearing the remarks of some speakers at the last meeting and still more after the remarks of most speakers of this meeting, that we may fairly say that the profession are certainly prepared to accept, if not to welcome, the arrival of a microbe as representative of the rheumatic disease provided that it be duly accredited to us by scientific investigation. I am bound to say that although we have been well prepared for the possible advent in some saprophytic form of such an organism by the most elaborate and able Milroy Lectures of Dr. Newsholme to the Royal College of Physicians of London, the points of which have been given to us so carefully by Dr. W. Ewart, yet these arguments, meteorological, bacteriological, epidemical, or clinical, do not, I think, do more than lend color to a preconceived hypothesis, however scientific it may be, of the possible existence of such a microbe. The position most likely occupied by such an organism has been placed near the surface of the soil. It is presumed to dwell in certain localities and even to lurk about certain houses; its avenues of entry have been defined as through the tonsil or possibly the air-passages or digestive tract, but beyond these statements with regard to the organism we cannot say that we know anything whatever about it and it has never been demonstrated to us. It does not, however, follow that it may not appear, and that soon. We can have no quarrel with any hypothesis which leads to so practical a therapeutical suggestion as that initiated by Dr. T. J. Maclagan—viz., the introduction of the salicyl compounds in the treatment of rheumatic fever.

There have been certain organisms discovered in rheumatic fever alluded to by Dr. Ewart—viz., the staphylococci, the streptococci, the pneumococci, and I think a few others—which have been found by certain observers more particularly in those cases in which the rheumatic fever has been associated with tonsillitis, and an interesting paper was read by Dr. P. S. Abraham before the Clinical Society last June in which he speaks of cases of rheumatic fever associated with throat affection. He divided these cases of rheumatic tonsillitis into two forms—faucial erythema, with which we meet as part of the rheumatic illness, and tonsillitis proper, the latter including follicular tonsillitis and ordinary quinsy. Dr. Abraham found these organisms in the secretions and sections of the tonsils, in the blood, in the urine, and I think in the joint fluids. Dr.

*The reply to the debate on the Treatment of Rheumatism at the Chelsea Clinical Society delivered on March 20, 1900.

Abraham's observations are to my mind of great interest, but I venture to doubt whether they really throw much light on the point which he was trying to introduce—viz., the possible result of rheumatism from these causes. Dr. Abraham alluded to eleven cases, all of which were children except one, and from other facts mentioned in the paper I gather that almost all his throat cases were cases of follicular tonsillitis. I am not surprised at these organisms being found in the follicles of the tonsils and in the blood in the case of follicular tonsillitis, for follicular tonsillitis is a disease which is always regarded as one suggestive of at least a mixed infection, and one never sees a case without careful inquiry as to drains and sanitation. It was interesting to me to remember the occasional occurrence—I have only met with two cases—of infective endocarditis as a process arising in the course of primary acute rheumatism, and the fact of finding such organisms in association with acute rheumatism would lead one to see how perilously possible the occurrence of infective endocarditis may be in such cases.

With regard to the blood, however, but little has been said. There is a characteristic sign and a diagnostic sign almost, one might say, of a remarkable increase of fibrin in rheumatic patients only equalled by that found in pneumonia; the red corpuscles are notably decreased and the white corpuscles are increased. The total acidity of the blood is increased, or it is better, perhaps, stated that the total alkalinity of the blood is diminished. The acidity of the blood led many years ago to the lactic acid hypothesis of rheumatic fever which, I think, has been trenchantly criticised by Dr. Pye-Smith as an exploded idea. Whether this increased acidity be the result of some modified local metabolism or of some disordered intestinal secretion leading to the production of some ferment or to the advent of the bacterial ferment, which has been so largely supposed in the present discussion and in the current literature of the day, I am quite unable to say. On these points we must wait with due reserve for the further researches which are sure to be made and the enlightenment which will surely come to us.

It is a curious fact that the nervous system has been almost entirely forgotten in the present discussion and yet some will remember how lively a discussion took place twenty-five years ago as to the origin of rheumatic fever as a neuropathy, in which Dr. T. Buzzard took a very prominent part. When one considers how very closely allied the nervous system and arthritis are one cannot be surprised at such a hypothesis having arisen. We know perfectly well that rheumatic athritis is almost invariably a disease preceded by some appreciable nervous shock, agitation, or prolonged anxiety, and Charcot's neuro-arthritis cases are well known. Hyperpyrexia in rheumatic fever is almost the only possible way of people dying in this disease except from direct cardiac lesions. Hyperpyrexia is a paralysis of the thermic control centres and is closely associated with the recedence of the proper rheumatic manifestations, although it is found in other diseases as well. Again, chorea is a disease of rheumatic and of nervous manifestation, and I must say that it was ingeniously and attractively disposed of by Dr. A. E. Garrod by saying that it was a sequel of rheumatic fever just as diphtheritic paralysis and

such nerve lesions may be sequels of diphtheria arising from the specific action of toxins on the nerve centres.

With regard to the prophylaxis of the disease I do not think anything is to be said. Dr. Ewart asked many questions about the prophylaxis of rheumatic fever and he proposed to use a good many conundrums, but he did not answer them so far as I know. If one may criticise Dr. Ewart's paper in a kindly spirit I should agree with Dr. A. E. Sansom's remark that it was a little too arthritic. Arthritis is an essential feature of rheumatism even in children. You rarely meet with a child with "cardiac rheumatism" who has not exhibited pains called by the friends "growing pains" sufficient to hamper the liveliness of the child. The peculiar arthritis in acute rheumatism is a part of the disease, it is as ephemeral as the rose spot of typhoid fever with which to my mind it is closely analogous, and the duration in each joint is about the same. When it lasts longer in one or more joints one finds that the disease is not a pure disease but a mixed disease, such as gonorrhœal rheumatism or a rheumatism in association with hæmophilia, or possibly complicated by tubercle.

Still greater difficulty have I in regarding rheumatism exclusively from the cardiac side. Dr. D. B. Lees says it is a cardiac disease with arthritic complications. Dr. Lees deserves our gratitude for the clearness with which he puts before us any hypothesis he may have. There is no doubt whatever as to what he means; he briefly and frankly states the whole case from his point of view. With regard to cardiac dilatation in rheumatism, he regards cardiac disease not necessary as endocarditis, but as a gradual affection leading to the dilatation of the organ, and I think it is an interesting thesis for discussion. I confess that I had not observed this dilatation of the heart as a constant effect in rheumatism. It is possible that I have overlooked it. One examines patients, but looking back no one can say that he has examined all the cases with sufficient accuracy with regard to this one point to be able to exclude it. In anæmic cases, and especially in anæmic young women, who so commonly come into hospital with rheumatic fever, one frequently, of course, observes some cardiac dilatation. One may meet with cardiac dilatation in any febrile condition, and one is accustomed to regard it as attributable to that condition of muscle present in association with high temperatures to which pathologists give the delightful term of "cloudy swelling." I do not know quite what it means, but it is attended with a somewhat less distinct outline of the elements of the muscle and an increased softness of the tissues and is a condition that is very compatible with the possible yielding of the muscle before the blood pressure. Myocarditis we meet with as a cause of the enlargement of the heart, and fatty degeneration is a rare cause of sudden death in rheumatism. But these facts will not at all explain Dr. Lee's findings with regard to the heart in acute rheumatism; there is, so far as I can gather, scarcely any way out but that the heart must be partially paralyzed by some definite poison affecting it, such a poison as Dr. Lees describes as an undue acidity of muscular texture. Then, again, the rapid diminution in the enlargement of the heart under treatment is another point observed by Dr. Lees. Dr. Ewart

at a meeting of the Clinical Society of London endeavored to explain these cases by saying that there was some temporary effusion into the pericardium, but Dr. Lees will not admit this; and I can conceive no explanation except that which Dr. Lees expounded, only I think that he would fully expect that his observations would be received with a respectful scrutiny on the part of those to whom it was first presented. As regards the description, the definition of rheumatism, I should much prefer the very accurate definition which was given us by Dr. Archibald Garrod that it is "a systemic disease with arthritic and cardiac manifestations," a definition which is accurate and which is safely within the limits of our knowledge of the actual causes at work in acute rheumatism.

In my second Lumleian Lecture two years ago I ventured to sum up in a sentence the current treatment of acute rheumatism, which has drifted down to us from the experience of many years past. Such patients should be treated by "absolute rest in bed in woolen wrappings, a free relief of the bowels, and the administration of salicylate of soda in efficient doses in combination with such alkaline remedies as the condition of the urine may suggest," and I have been interested to see how far this ordinary routine treatment has been exemplified or departed from by those who have spoken. The object of the treatment is to diminish suffering, to lessen the duration of the disease, and to protect the heart. It is, of course, absolutely unnecessary in an assembly of practical men such as this is to speak of the necessity of keeping rheumatic patients in warm wrappings in a comfortable, well-ventilated room, and of securing a free relief of the intestinal secretions. I do thoroughly approve of the diet of patients being strictly liquid, and mainly milk for a good many days. Dr. Burney Yeo's remark was a valuable one and one apt to be forgotten in hospital practice, and that is, "Let the patient have a good drink of water if he wants it." One sees in hospital wards the careful manner in which water is given as if it were a potent medicine instead of a soothing drink. With regard to rest in the treatment I feel bound to linger a little, although less to-night as so much has been said. I do think that the profession have not yet fully grasped the exceeding importance of absolute and prolonged rest in the treatment of rheumatic fever, especially, of course, when the heart is involved. The inadequacy of treating the patient by rest has largely affected the statistics of the salicylate treatment. A practitioner will give salicylates to a patient and in two or three days the patient is free from pain and does not see why he should not get up. Determination is required to make him keep at rest. The salicylate treatment relieves the symptoms of the disease and subdues many of its important features, but it does not cure the rheumatic illness, it does not shorten the duration of that illness. You cannot get out of the rheumatic illness under four or six weeks, and if because the patient is relieved of pain he begins to move about he nevertheless is still a patient with latent rheumatic fever and may have a relapse and in all probability a relapse with cardiac complications. With children the slight joint affection often mislead the practitioner and the rheumatism may not be detected, with the consequence that relapses occur with cardiac complications. Dr. R. Caton was very emphatic about the import-

ance of rest in the treatment of rheumatism. I may venture to say that I think a good deal of Dr. Caton's great success in the treatment of rheumatism is due to his having so early recognized the extreme importance of continued long rest throughout the rheumatic illness. Dr. Sibson, who was the first advocate of the rest treatment in rheumatic fever, was curiously inadequate in his directions in regard to it, and his directions were that the patient should be kept quiet in bed "for a period of several days after the complete disappearance of the local inflammation of the joints." The point in the treatment of rheumatism is that so long as the tongue is coated the urine is loaded, and so long as there is a trace, even the slightest trace, of pyrexia people must be kept rigidly in bed in warm clothing and also for a period of a good many days afterwards even in the complete absence of any cardiac affection.

There is one little point in regard to temperature that is important. One so often hears it said that a patient has no fever of any consequence, that the temperature only runs up to about 99° F., or a little below, and you are told he is not feverish. But 99° in the mouth or the axilla is a morbid degree of temperature, and taken in association with the history of recent rheumatism or a slight endocarditis it is an absolute sign of the importance of preserving complete rest. As Dr. MacLagan said, inflammation of the valves of the heart is very slow to subside, and it is not a mere surface inflammation but affects the fibrous texture of the valves, which are ever in function; and when diminished in resisting power by recent inflammation the extra strain upon them of several thousand impulses per day involved by the patient changing from the position of absolute rest to the upright posture, or sitting or moving, is enough to keep up the inflammation and to cause a deforming valvulitis. I remember well Sir William Jenner's memory-clinging words when he used to say in the clinical wards, "Children do not grow out of heart disease, they grow into it." That statement was mainly founded on the treatment of rheumatic fever in our hospitals and especially in children's hospitals where at that time particularly, rest, complete rest, for a sufficient length of time was not observed. I do not know whether the rest treatment can be observed fully in children's hospitals; the want of it is an explanation to my mind of that statement.

Again, I would venture to say from clinical experience that those two most grave cardiac affections of rheumatic origin, mitral stenosis and aortic regurgitation, or valvular lesions which are scarcely ever met with in primary rheumatic illnesses—They are almost always found in those cases which have left the hospital after a primary attack of acute rheumatism and have returned some months later. These two lesions are the consequences of subsequent slow deforming valvulitis from strain put upon the valves before they have completely recovered from the primary rheumatic lesion. In my experience, and in that of many of those who have spoken to-night, primary endocarditis is a curable disease in a large number of cases if taken in time and if the patient is retained at rest for a sufficient time to allow the valve to make recovery before the extra strain or function is put upon it.

With regard to salicylates, if they do not do all that which was orig-

inally claimed for them their usefulness cannot be gainsaid. Those who remember the controversies of some 30 years ago, when the relative values of alkalies, blisters, iron, mint-water, and cotton-wool wrappings were discussed, will agree that there was no very marked advantage in the treatment of the disease by any of them. As already said, it is the universal experience that salicylates do no affect the duration of the rheumatic illness, but they do reduce the temperature and relieve the joint affections. It would be idle to discuss the mode of action of the remedy with which we are after all somewhat imperfectly acquainted which neutralizes, although it does not extirpate, the rheumatic poison, a poison of which we know absolutely nothing. The salicin compounds are certainly remote antiseptics of considerable power. Those who have watched patients taking considerable doses of salicylate will have noticed how long the urine can be left standing exposed to the air without undergoing decomposition. It is said that statistics prove that cardiac complications are more frequent in those who are taking salicylate and that relapses are more to be feared than under the alkaline treatment. I think that Dr. Ewart hit on the fallacy of the inference from these statistics when he remarks upon "the indirect risk that arises that we may be misled into over-estimating its anti-rheumatic powers and relax to early both treatment and diet."

It is said again, that salicylates have no influence upon hyperpyrexia in rheumatism, I do not know that any drug has an influence on hyperpyrexia when it is established, but in my experience hyperpyrexia has enormously diminished as a complication of rheumatism since the introduction of the salicylate treatment. Dr. W. E. Wynter has been kind enough to look through the records of the Middlesex Hospital for the last 30 years. In the years from 1870 to 1876—that is, before the period of the salicylate treatment—there were 952 cases of rheumatic fever with 30 deaths, that is to say, there was an average of 136 cases of rheumatic fever every year with an average death rate of four and a quarter. In this period there were 11 cases of hyperpyrexia, of which one case recovered. In the remaining 21 years, from 1877 to 1897, all within the period of treatment by salicylate, there were 2,552 cases of rheumatic fever admitted into the hospital with 27 deaths, or an average of 121 cases instead of 136 cases per year, and with a death-rate of one and a half in 121 as against four and a half in 136. In that period there were only six cases of hyperpyrexia, all of which occurred in the first two years and four of which recovered. There has been no death from hyperpyrexia in the hospital since 1889. My impressions have been thus borne out by the hospital records. Then, again, in the treatment of hyperpyrexia I have made it a rule after reducing the temperature by cold to adhere to the salicylate treatment. I think it will be found that where hyperpyrexia occurs in a considerable proportion of the cases the salicylate treatment has not been pushed very vigorously.

Pericarditis is spoken of as a common complication of rheumatic hyperpyrexia. My experience, and I should like to know if it is the experience of others, is to find in high temperature that it is common to hear a pericardial friction sound or a rough murmur at the base of the heart,

which is found to disappear when the temperature comes down nearer to the normal range. I have come to regard with great suspicion such adventitious sounds when presented in cases with a temperature above 104° and wait till the temperature is lower, looking upon them as often due to some temporary dryness of pericardial membrane or some changed hæmic state.

There have been various statements as to the unfavorable effects of the drug, some maintaining that these effects are rather imaginative. I must confess that I do not agree with this opinion. I have observed a distinct case of renal hæmorrhage associated with salicylate treatment and I think Dr. Pye-Smith mentioned some cases also. Then, again, the occurrence of great slowness and great feebleness of the pulse is sometimes met with in people taking salicylates, so notably met with as practically to interrupt the treatment by salicylate. Now and again one meets with delirium with a falling temperature coming on in the course of rheumatic fever: that is in my experience always an untoward consequence of salicylate treatment and requires the treatment to be interrupted. With regard to the dosage various opinions have been expressed. I for my part shall say that a 15-grain dose is better than a larger dose, but it should be repeated at sufficiently short intervals to get the patient under the influence of the drug. When too large doses are given at first the drug is apt to cause vomiting or other disagreeable symptoms. I fully agree with Dr. C. C. Gibbs that the influence of the drug should be maintained.

The effect of the discussion will be to rehabilitate alkalies in our good graces. The alkaline treatment was tried in its thoroughness many years ago and was found wanting, and although it still lingers as a tradition in some London hospitals, yet it has come to be softened down and to be mingled with the more efficacious salicyl treatment. Alkalies seem to be called for by the symptoms of rheumatic fever, but I should very much question whether they can have much influence upon that acidity which is said to be so potent in producing paralytic cardiac dilatation. For we must remember, at least I think I am right in saying, that the blood is never acid even in acute rheumatism; it may be less alkaline than is normal. As regards the sweat I have never observed the sweat of a patient to be rendered alkaline by the alkaline treatment even in cases where the urine is strongly alkaline. The urine is readily rendered alkaline, but I doubt whether it is of any advantage to make the urine, which is normally acid, alkaline in the course of the treatment of rheumatic fever. I should regard the usefulness of alkalies rather as increasing the oxidation of the tissues and promoting the elimination of morbid materials, whatever they may be, from the blood and should be inclined to give them in moderate doses.

With two exceptions, Dr. Donald Hood and Dr. Burney Yeo, opium has not been touched upon. It was at one time an important remedy in acute rheumatism. We do not now require to give opium to any great extent—it is useful for the first 24 hours for the relief of pain—but in myocarditis, in grave forms of endocarditis, and especially in pericarditis, the opium treatment is of immense value, its object being to cause organic rest, so far as organic rest can be given to an automatically moving organ,

by diminishing the rapidity of the pulse and quieting the restlessness and agitation of the patient.

With regard to blisters very much has been said and I should attach much importance to Dr. Caton's views after 19 consecutive years' observation. The idea of treating the surface nerves which have reference to the inner organs, the area of distribution of which has been so ably pointed out by Dr. H. Head, is an attractive one. The possibility of producing a reflex vaso motory control of the affected valves is a very attractive hypothesis, but I still think it is rather straining physiological therapeutics to the extreme point. An ounce of fact, however, is worth a pound of theory, and Dr. Caton has found the application of small blisters useful in acute rheumatism, and one can only suggest its further trial. We all agree on the little value of digitalis in the acute cardiac affections of rheumatism. The treatment of the more chronic affections of the heart in rheumatism referred to by Dr. Sansom by regulated exercises and by saline baths seem scarcely to come within the range of the discussion. I believe he should agree with me that these therapeutical measures are unsuitable in the treatment of acute or subacute rheumatism with any active trouble in the valves.

I fear my remarks have been discursive, but I would say that for my own part I have derived the greatest possible interest and advantage in carefully watching this debate through and I think it is a discussion which will be of extreme practical help and value. It is a most important function of clinical societies, in my belief, occasionally to bring forward questions of this kind, to be discussed from a large point of view, collating the experience of many observers in order to formulate some efficient and valuable treatment of such diseases which are the more important because they are very common.—Gaillard's Med. Jour.

ONTARIO MEDICAL ASSOCIATION.

The twentieth annual meeting of this association was held in the Normal School Buildings, Toronto, on Wednesday and Thursday, the 6th and 7th of June, 1900.

The meeting was called to order on the morning of the first day at 10.30 a.m. by Dr. Adam H. Wright of this city, the first vice-president, who stated that owing to the death of their president since the last meeting, it would be necessary for the association to elect his successor.

Dr. Wright then vacated the chair, which was voted to Dr. R. A. Pyne, who called for nominations for the position of president.

Dr. Adam H. Wright was unanimously elected president, amidst much enthusiasm and after expressing his sincere thanks for the honour, called upon the secretary to read the minutes of the last meeting. These were unanimously adopted.

The report of the committee on papers and business followed. It was presented by the chairman of that committee, Dr. A. A. Macdonald. Adopted.

Dr. Allan Baines, the chairman of the committee of arrangements, presented a verbal report setting forth the entertainment provided for the members of the association during the progress of the meeting.

READING OF PAPERS AND DISCUSSIONS THEREON.

The use of Morphia in Puerperal Eclampsia.—Dr. David Hoig, Oshawa, read a paper on this subject, stating that his experience with eclampsia dated almost from his first obstetrical case in practice, and in this he was forced to use morphia from the severity of the convulsions, and with very gratifying results. He recited the history of eight cases, in three of which there was no history of any renal insufficiency. The case of a young woman in the eighth month of pregnancy was cited, in which the bromide and chloral treatment was first tried but failed. He then used $\frac{1}{4}$ of a gr. of morphia, but this also failed. The temperature was 104 and the pulse 150. Delivery was effected. Severe haemorrhage followed, succeeded by two very severe convulsions, both of which were fully controlled by $\frac{1}{2}$ gr. injections of morphia. Dr. Hoig has always made it a practice to examine the urine from time to time and he has frequently noticed albumen present, and no convulsions. He instanced another case where twins were born, no doctor being present. Ten minutes thereafter the woman was dead, without convulsions to account for it.

Dr. John Ferguson began the discussion of the paper. It was now generally recognized that you may have puerperal convulsions even of a severe type without the presence of albumen in the urine; and that you may have the occurrence of albumen for the first time known in the history of the patient, in fact abundance of albumen, without the occurrence of convulsions. You may also have a successful pregnancy in an old albumenuric, in chronic disease of the kidney without convulsions.

Dr. J. L. Bray, Chatham, speaking of the treatment, did not think that morphia alone was sufficient, as his experience with morphia has not been successful. Free elimination and chloroform has done more for him than morphia. He did not think that anyone really knew the cause of these convulsions. Another thing that Dr. Bray had noticed in his experience was that when he had a case of convulsions appearing before labor commenced, the prognosis was generally unfavorable; but when the convulsions came on after delivery, his prognosis had been favorable. He would lay great stress on free elimination. Give elaterium or croton oil. He further stated that in venesection he had found that often it was not possible to get the blood to flow at all freely. He mentioned one patient who had thirty-three convulsions after delivery and she got well.

Dr. E. Clouse, Toronto, stated that he had recently attended a case of confinement with advanced kidney disease. Saw her first about a month after conception, with swollen limbs and characteristic pasty complexion, and passing large quantities of albumen, about 25 per cent. of the urine. On consultation with two other physicians she was permitted to proceed to her confinement and she got along very well indeed without any convulsions and gave birth to a well-developed female child. A point of interest in this case was that about four or five days after the child's birth, there was a discharge from it corresponding with the menstrual discharge.

Dr. K. C. McIlwraith, Toronto, stated he had seen five of these cases during the past year, one case in particular being mentioned where the urine was almost solid with albumen, accompanied by great ascites and anasarca, the labor was good and no convulsions whatever. In another case, the urine had been examined one day and no albumen found, but the next day she had a convulsion and albumen was found afterwards. Speaking of the treatment, he has found that small doses of morphia had usually no effect, but $\frac{1}{2}$ gr. in his experience, generally had controlled them.

Dr. Barrick took issue with Dr. Bray in regard to unfavorable prognosis where the convulsions came on before delivery. In half a dozen cases which he could then call to mind, only one of them died, where the convulsions appeared before delivery. He further stated that those who recovered had no trouble in succeeding pregnancies. Referring to bleeding, he mentioned a case where chloroform would not control the convulsions, bleeding was resorted to, a half pint was drawn from the arm, the fits ceased immediately, and did not again occur.

Dr. Harrison, Selkirk, stated he had seen a great many cases of eclampsia, in an experience of fifty years, and his experience is exactly opposite to Dr. Bray's. When convulsions take place before delivery, you can deliver; and the chances were not so good when the convulsions came on after delivery. He had lost patients after and before delivery; but he has always regarded those coming on after delivery as the more dangerous. In properly selected cases, he would bleed.

Dr. Hoig in reply: he quite agree with Dr. McIlwraith that there was no use in giving small doses of morphia. He has had no experience in bleeding, but could readily believe that in properly selected cases, it might be of value. He referred to the debilitated state the patient was left in.

after these attacks and thought that the long loss of albumen was responsible for many of the sudden deaths that had occurred.

Discussion in Surgery—Appendicitis, its Recognition and Operative Interference.—Dr. Luke Teskey opened this discussion. One of the most important conditions in the study of this disease is the recognition of many varieties, or perhaps better, degrees of inflammation which attack the appendix, and also various conditions which may be left by a severe attack. One may be prepared to find any degree, from the slightest chronic catarrhal appendicular colic, to the most acute and rapid gangrene. He divided this affection into three classes: 1—Chronic catarrhal appendicitis; 2—acute circumscribed appendicitis; and 3—the fulminating, or gangrenous appendicitis.

Speaking of the first variety, it is not difficult to recognize, when there are frequent repeated slight attacks of pain in the appendiceal region, coming on after slight exposure to cold, or after slight exertion, or sometimes without any well-defined cause, lasting a few hours or an hour or two, with possibly slight rise of temperature, or no rise of temperature, and the patient able to go on with his work the next day. In many instances the pain is not referred to the appendix, but frequently to the epigastric region. Other symptoms, symptomatic or general, such for example as symptoms of chronic indigestion, in effect, a loss of power in the digestive function throughout the alimentary tract, associated with marked loss of body weight, were very important. These sometimes caused this form of appendicular disease to be mistaken for a chronic tubercular affection of the abdominal viscera, and sometimes for chronic indigestion. In relating one or two cases before him of recent date, Dr. Teskey stated, that in these cases which were often looked upon as chronic indigestion, when an operation was performed for appendicitis this simple catarrhal condition was found, without any foreign body in the organ, but with enlarged lymphatic glands in the vicinity of the appendix. These attacks never caused the patient to lay up in bed, at most only colicky pain existing for a few hours. Invariably, the patient had lost, in these cases, in body weight. The symptoms had resembled tuberculosis. In these cases, little or no invasion of the abdominal cavity. After operation in these catarrhal conditions, the recovery of the patient was most complete and perfect, so much so, that within two or three months they gain back their body weight and usual power of digestion and usual health and strength; and that is the essence of the complete proof of the beneficial effects in that particular class of cases. The most reliable means of diagnosis in such cases is careful palpation of the abdominal wall in the iliac region. In some you may be able to palpate the appendix, but you cannot always feel it, and even when you do feel it or think you feel it, you do not know whether it is the appendix or not.

In reference to the second class,—acute circumscribed appendicitis,—that is the form of affection in which nature has succeeded in organizing adhesions, sufficient to incarcerate the disease to a limited area. This is perhaps the most frequent form. The attack begins with acute pain, perhaps most frequently epigastric pain; a rise of temperature; furred

tongue; indigestion; the abdomen becomes more or less resistant over the right iliac region; and tumescence on palpation, is found on the right side. The symptoms continue, with some tympanites, when on the second or third day, there is distinct tumescence to be felt in the appendicular region, and circumscribed suppuration has taken place. The recognition of this form of the disease depends largely upon the tendency of the symptoms to localize in the right iliac region. This form of appendicitis is not difficult to recognize after it has gone on for a short time. When the disease is low down in the pelvis however, you may not succeed in discovering it by palpation, and you must then depend largely upon general symptoms. If you cannot find tumescence, you will be able to get a degree of resistance, whether low in the pelvis, or up towards the liver. This degree of resistance together with general symptoms, will lead you to a diagnosis.

The third class of cases,—the acute fulminating or gangrenous appendicitis. Here reference is made to the greatest degree of intensity of inflammation, produced by the greatest degree of infection, which has created the inflammatory action, so that gangrene is invariably found in some form or another. At times it may not be localized in the appendix but in the adjacent structures. To this class, Dr. Teskey gives the name,—acute fulminating, or gangrenous appendicitis. Severe symptoms may be expected from the commencement onwards. Here the attack is so intense from the infection, or so virulent, that nature makes but an imperfect attempt to circumscribe the abscess. There will be great pain and acute rise of temperature; early tympanites; brown furred tongue; some resistance and rigidity of the abdomen; in fact symptoms of septicæmia. The characters of this variety of appendicitis, because of the acuteness and the intensity of the symptoms, render it not so very difficult of diagnosis. Sometimes, the amount of tympanites that exists, causes the physician or the surgeon, to overlook the localized condition. The patient almost invariably commences by vomiting, severe vomiting. Because of this, acute gastritis has been diagnosed. Palpation is interfered with from the marked tympanites which comes on. Very often the inscription on the death certificate is written,—acute peritonitis. These acute forms can also be recognized by the general symptoms, possibly by the previous history in connection with some difficulty in that region, and careful palpation before tympanites has become marked. After that occurs you are more or less in the dark.

Conditions which follow an acute attack: In a large number of instances, the result of an acute attack uninterfered with, is that various sinuses have been formed, imperfectly draining abscesses in the abdominal cavity, to various surfaces, perhaps most frequently to the intestinal surfaces. Discharge of pus through the intestinal tract may go on and recovery result, or a chronic discharge into some of the hollow organs of the body or to the surface of the body may result. When that chronic suppurative condition is imperfectly drained into some of the internal organs, it may become very difficult to diagnose the case in after years. Dr. Teskey here mentioned a case suffering for two years.

Operative treatment. Taking the first class of cases,—simple appen-

dicular colic,—shall we operate or not? When we have made a diagnosis, Dr. Teskey has no hesitation in pronouncing in favor of operation in all such cases. His reason is this, that the death rate should be nothing. The recoveries should be 100 per cent. A limited incision is all that is essential,—an inch to an inch and a half at the very outside. There should be no death rate from that operation; and you have relieved the patient from a constantly recurring painful condition. This simple form of appendicitis in many instances leads onwards to the more severe forms.

As to the second class of cases, shall we operate and when shall we operate? This is the one in which discussion has been rampant. Calmel and opium has been used a multitude of times; and there is no doubt of the possibility of the patient getting well. The physician says we will not submit the patient to operation, but we will trust to the process of nature, assisted by specific remedies. That is wrong practice. The physician who has taken that ground has taken a mistaken ground. In all instances he has jeopardized the life of his patient. If he can diagnose the condition within twenty-four hours, carefully feeling for the resistance, which one always finds in localized inflammatory conditions,—it may not be easy to find it at first, but practice will soon get one to recognize the resistance which is not usual, and which indicates appendicitis,—and as soon as he gets this located, and appendicitis exists, that is the moment for operation, and in all instances you should operate. If you do not operate and wait until abscess has formed, you can open the abscess and the patient recovers. Very true, but what follows? The patient has absorbed a large amount of septic material into his system. Already there may be an abscess in the liver. Abscesses may be set going almost in any part of the body, and then there is a localized abscess, and the intestines and omentum are entangled, and serious chronic trouble apt to follow, for many years in most instances. But if you operate immediately before all that, you have saved the patient and you have run no greater risk so far as the preservation of the patient's life is concerned.

And third, in the acute fulminating or gangrenous appendicitis, the only hope for life is an early operation.

Dr. George Bingham: Dr. Teskey's views in reference to the treatment and diagnosis of this subject correspond so closely with his, that he has scarcely anything to add thereto. In reference to classification of this disease into forms, there was a difficulty, for the simple reason that unfortunately any given case, may be in class one to-day and in class two to-morrow. He was pleased to hear from Dr. Teskey that he does not claim to palpate the normal appendix. He referred to the vomiting which he thought occurred almost invariably. Examination per rectum had also been of use to him in the diagnosis. He dwelt on the importance of the interval operation considering it to be the ideal operation, and thought that the fatality here should be nil. In the case of the circumscribed variety, he was exceedingly glad to hear that Dr. Teskey approved of an early operation.

Dr. H. A. Bruce: He agreed in the main with the observations of Dr. Bingham and with those of Dr. Teskey. He took a little exception to the classification. In the second class he would put the simple acute,

and then under the heading of acute appendicitis, the particular variety which may be present in the case you may be dealing with, the name of perforative. He did not think we could say positively, before opening the abdomen, whether the appendix is in a gangrenous condition or not. Dr. Bruce made further reference to the diagnosis particularly dwelling on that between appendicitis and tubercular disease of the same region.

Dr. George Peters: The creed set forth seems to be, appendicitis,—operation. He could not quite agree to that. He thought most of the members present had seen cases of appendicitis get well and the patient remain healthy; perhaps only have a single attack. He thought all had even seen cases of more than one attack with recovery. Nor could he go as far as to say that every case of operation for appendicitis in the catarrhal stage would be followed by recovery, because one cannot always tell what condition the patient is in constitutionally as regards, diabetes, Bright's etc. Reference was made to the length of the incision advised by Dr. Teskey, and Dr. Peters though there were many cases in which you cannot remove the appendix through an incision an inch and a half long, as for instance in a patient with much adipose tissue in this abdominal wall. In regard to the diagnosis, he thought in the great majority of cases it was an easy matter, but whilst a good many cases escaped diagnosis, there were also a good many cases diagnosed as appendicitis that were not appendicitis at all. He did not believe you could feel the normal appendix, except in a very few cases, and then how can you tell you are not feeling a fold of the intestine. If however, it is diseased and thickened, you can feel it through a thin abdominal wall.

Dr. Wm. Oldright: With regard to operation or no operation he was strongly of the opinion that if a person has had a second attack of appendicitis, we should operate. With regard to the cases operated on between the attacks, the statistics are 98 per cent of recoveries; and although we cannot say positively that the patient will recover, the mortality may be put down at nil. Dr. Bruce has referred to finding grape-seed bodies in the appendix. This reference he considered unfortunate. He had never seen grape seeds in the appendix, and thought their occurrence there were very rare.

Dr. N. A. Powell spoke in regard to symptoms. In reference to the location of the pain, he thought not occasionally but uniformly, the pain is referred to the epigastric region; then it become umbilical, and then reaches the appendical region. He was glad that the point had been brought out, a medical point of great importance—that intestinal indigestion is antecedent to the attacks of appendicitis; not gastric, but intestinal. Then one should not pin his faith too much on a single symptom. He considered that nausea always and vomiting usually were present. Another symptom he would lay stress upon, was that of rigidity of the right rectus. Dr. Powell thinks it useful to divide the attacks into periods of the first twenty-four hours, the second twenty-four, etc. If you get over three complete days, and if the case is not getting along well, you are likely to have to deal with pus. 1 and $\frac{1}{2}$ in. incision is too short in fat people. He further stated that Dr. Osler says there is no medical treatment of appendicitis.

Dr. Watson, Agincourt, spoke of the diagnosis and recited his experience with appendicitis. He thought it important to watch the breathing and the pulse. Examination per rectum, he had always found of benefit. Referring to the question of grape seeds, in one of these cases an enema had brought away a large faecal mass in which was embedded between forty and fifty of these bodies, but of course he could not say that any of them had been lodged in the appendix.

Dr. Parfitt, Toronto, referred to the differential diagnosis of what might be called typhoid appendicitis, appendicitis and gallstone colic, and the importance of examining the blood in appendicitis, to ascertain the number of leucocytes.

Dr. A. A. Macdonald, thought that by and by we could come to have the courage to operate at once on every case of appendicitis; he looked forward to the time when the physician would say to his patient, you must be operated on now within twelve hours.

Dr. John Ferguson: If the case is a very mild one, and doubtful if it is appendicitis, but some distress in that vicinity, and the patient well and about his business in two or three days, he would not counsel operation in that case. He would advise the patient to keep himself under his physician's watch and care, and should there be a return of symptoms, he would then advise operation at once.

Dr. Teskey in reply: With regard to waiting for the interval, if you are called so late to a case that it is already resolving, and the symptoms are abating, of course wait for the interval. Dr. Bruce thought perforation should be included in one class as a variety. Perforation is always associated in the second class when it goes on to extensive abscess. He never removes a gangrenous appendix. He considers it a dangerous process to interfere with imperfect adhesions which nature seeks to form as a limitation to the process. Palpation in the rectum he has found of very little value. It may be of value when you find a chronic abscess low down in the pelvis. Early operation was considered justifiable because it would lessen the death rate,—and that was everything; lessen the death rate.

Adjournment.

AFTERNOON SESSION.

President's Address:—At the opening of the general session on the afternoon of the first day, Dr. Wright delivered a very interesting and able address upon "The General Public and the Medical Profession," which was very cordially received by the members of the Association present. He referred to the progress of the profession and the stand it held in the community at the present day. The opinions of Mr. Gladstone and the Marquis of Salisbury were given, both of whom were on record as having said some very flattering things of the profession of medicine. Jealousies in the profession came in for his condemnation, and he thought it would be particularly happy for all if this was kept out of the profession as much as possible. The importance of attending the annual meetings of the Association was dwelt upon and emphasized, and a feeling reference was made to the death of the founder and recent president of the Association, Dr. J. E. Graham.

Dr. Wright was accorded a hearty and unanimous vote of thanks for his unusually interesting address to which he replied appropriately.

Discussion in Medicine—The Future of Therapy.—Dr. Lewellys F. Barker contributed an erudite paper on this subject, which was easily seen to be written in choice and elegant diction. He was thankful to have the opportunity and pleasure to return to Toronto after an absence of eleven years and to be accorded the honour of reading the Address in Medicine before the Ontario Medical Association. Although the title of his paper would lead one to expect considerable information about what the future held in store for therapy, it proved more to be a masterly review of historical character down the long line of the centuries. The history of therapy was intimately linked with that of medicine, and the past was rapidly reviewed until scientific study in the use of the microscope in histology, pathology and bacteriology was reached. The essayist dwelt upon organo-therapy, serum-therapy, climate-therapy and all and everything that one could bring to bear upon the treatment of disease. The stupendous advances being made in scientific medicine, and the vast amount of experimental and research work going on throughout the world now rendered it essentially necessary to emphasize the importance of a division of labor in the profession of medicine as well as in other walks of life. Dr. Barker was accorded a very flattering vote of thanks on the conclusion of his exceedingly able review.

Dr. McPhedran congratulated Dr. Barker upon his unusually able address. It was he said exceptionally brilliant. It was very gratifying to have one of our own students come home and contribute such a paper. He thought that the therapist of the future would be the man skilled in science, in all its bearings.

Dr. J. L. Davison considered the paper of Dr. Barker, a mass of erudition, but would have liked had he referred to the action of drugs. Whilst we had been brought up on drugs and fed on drugs, it was difficult to understand how the belief in drugs was going to pass away. He further referred to the action which one disease has in curing another, and thought this feature together with how drugs acted was still a very interesting side of the question. Referring to the question, what is disease, he stated, disease to be a condition of unstable equilibrium, while health was a condition of stable equilibrium. Electro., hydro., and other therapies were also alluded to.

Inter-Provincial Medical Registration.—Dr. J. A. Williams, Ingersoll, introduced this subject in a clever address. He detailed the history of the agitation for the reform of our laws so as to permit of legislation for this purpose, and then proceed to deal with the details of the proposed Bill now before the profession throughout the Dominion of Canada and which Dr. Roddick, M. P. proposes introducing at the next meeting of the House of Commons.

Dr. Thorburn in a brief speech said that the proposal had his heartiest endorsement.

• Dr. Britton thought the proposed Bill as a whole a good one. He took exception to the appointment of one member of the Dominion Council by the Governor-General in Council. He thought that feature

objectionable as it might tend to make the body partly at least political.

Dr. Herod, Kingston, spoke at some length in the main concurring in the proposals as set forth in the Draft Bill.

Dr. Roddick, M. P., went into the subject exhaustively and asked for the unanimous support of the Ontario Medical Association as he believed that with the influence of such an important body behind him that it would go far towards bringing the matter to a successful issue. His burden was to get the legislation passed through parliament now; any minor details could be arranged afterwards. The provision of the Bill are now so well known that any synopsis would be superfluous, although Dr. Roddick explained it very clearly to the meeting.

Dr. Williams made a brief reply.

Adjournment.

EVENING SESSION.

The evening session was held at McConkey's where one of the most enjoyable—if not the most enjoyable, banquet, in the profession here, was held. Dr. Allan Baines the chairman of the committee of arrangements was indefatigable in his efforts to make this function a pronounced success, and he must have slept happy and contented that night, because his efforts were crowned with supreme success. Dr. Wright presided. The usual toasts were drunk, and the following gentlemen made speeches: Drs. Sheard, Williams, Bray, Burt, Barrick, O'Reilly, Harrison, Bruce-Smith. Songs and music and an exceptionally fine and dainty menu were thoroughly enjoyed.

SECOND DAY—MORNING SESSION.

Acute Suppuration of Mastoid Cells.

Chronic Suppuration of Mucillary Antrum and Anterior Ethmoidal cells of 30 years' duration.

Dr. P. G. Goldsmith, Belleville, read notes of these cases, and presented the patient in the latter case. In the first three cases which came under his notice during the past year were noted. The first was a man fifty years who during a bad cold felt something snap on blowing his nose. Immediate pain in the ear followed. On examination perforation was found in the membrane, but in spite of proper treatment the mastoid became involved, and he was referred to Dr. James MacCallum, Toronto, who concurred in the diagnosis and agreed that operative procedures were advisable. This was done and the discharge stopped at once and the patient made a good recovery. In the second case the patient died, but on P. M. examination, the brain was not found involved. In the third case, recovery was noted.

The case of chronic suppuration of the antrum of Highmore occurred in a man aged 38 years. It began at the age of eight, after a severe attack of neuralgia of the face by a yellowish discharge from the right nostril which has persisted ever since. The anterior ethmoidal cells were scraped with a great deal of relief to the patient. Then the antrum was drained in the usual way. Complete relief was noted for a few weeks, but the discharge returned, and Dr. Goldsmith now proposes to curette the cavity. Drs. L. L. Palmer and Price Brown discussed these cases.

The Committee on Credentials here brought in their report, which was adopted. The following were elected members of the Association: C. J. Copp, Toronto; R. K. Anderson, Milton; W. D. Scott, Peterboro'; J. H. Watson Toronto; John Grant, Woodville; A. L. Danard, Rocklyn; G. W. Clendennan, W. T. Junction; Murray McFarlane, Toronto; W. Thompson, Toronto; John D. McNaughton, Glenallen; L. G. McKibben, Toronto; W. C. Herriman, Hamilton; C. Lang, Owen Sound; C. S. McKee, Toronto; A. H. Perfect, Toronto Junction; C. D. Partitt, Toronto; P. McG. Brown, Camlachie; J. D. Berry, Hastings; A. Carmichael, Sundridge and F. W. Young, Michipicoten Harbour.

Exploratory Incision in Obscure Brain Lesions.—Some points in the *Surgical Treatment of Meningocele.*—Dr. L. W. Cockburn, Hamilton, reported two cases of obscure brain symptoms without any definite diagnosis, both occurring in young men. In the first, no treatment being of avail, an exploratory incision was advised and accepted. The dura and brain were both found healthy; the patient recovered completely from his symptoms thereafter. He considered this case as well as the second recorded to be one of cerebral neurasthenia. In the second case there was the history of a head injury in early life. Incision was also advised here, but up to the present time has not been accepted. His remarks on meningocele referred to an operation on a child with resultant death 13 days after the operation. He thought operation the proper method of treatment in these cases, and condemned the injection of any fluid such as Morton's. Dr. J. T. Duncan, Toronto, Dr. McKinnon, Guelph, Dr. Peters, Dr. Ferguson and Dr. Lett spoke to this paper.

Removal of Tubercular Testicle, Vas Deferens and Vesiculae Seminales, at one Sitting.—Dr. George A. Peters reported this case, exhibited the pathological specimen, described the difficulties of the operation, and the final results.

Total removal of Vas Deferens and Vesiculae Seminales for Tuberculosis.—Dr. J. Alexander Hutchinson, Montreal, by invitation presented this paper. It reported the excision of the right organ for secondary tubercular affection. It may be primary or secondary, but usually the latter. The first operation of this sort was done in 1890; and the first excision on this continent was performed by Weir of New York in 1895. The assaist described three chief methods. The method he had adopted and which he would recommend was that of Roux of Rosanne, the perineal route. The subject upon whom he had operated was a young man of 28 years, with a sinus in the right scrotum. It transpired that he had been operated upon for left testicular trouble with recovery. Recovery was noted and the patient had returned to England in good health to resume his work. Dr. Cockburn, Hamilton, and Dr. E. E. King discussed these two papers and their respective cases. Dr. Hutchinson closed the discussion.

Transplantation of Ureters into Rectum by Extra-Peritoneal method—Further Report of Case with Exhibition of Patient.—Refer to reports of Canadian Medical Association for notes of this case. The boy is now six years of age, and is in a healthy condition, able to play and run about with his playmates. He is able to go for eight hours

through the night without soiling the bed, if he does not drink very much before he goes to bed. He retains urine for two or three hours during the day. So far there has been no ascending infective trouble in the kidneys. The operation was performed extra peritoneally, and for this Dr. Peters claims priority and originality. Dr. W. Britton and Mr. Cameron discussed the case and congratulated Dr. Peters upon the results he had achieved.

Army Medical Arrangements for the War in South Africa.—Dr. J. T. Fotheringham, by means of interesting charts was able to deliver an admirably instructing address upon this now very lively topic. The Medical Service was exhaustively gone into and carefully and lucidly explained from the time the soldier was wounded in battle until he rested quietly and peacefully on board a hospital ship, the hospital at the base, or was invalidated home.

Dr. Nattress followed, confining his remarks to first aids on the field of battle.

Dr. F. LeM. Grasett gave a highly interesting account of bullet wounds and what knowledge had been obtained in regard to this matter from South African experiences. He deplored the fact that Canadian surgeons had not been given a fair chance to participate as consulting surgeons, although this Dominion had supplied a very acceptable quota to the "sinews of war." Dr. Peters also participated in the discussion.

Cancer of the Rectum—Illustrations by Lantern Slides.—Dr. E. E. King gave an admirable exhibition on this subject. He presented two patients for examination by members of the Association, described his cases fully and concluded with statistics on the subject. Reports of these cases have already been published in the Toronto journals.

Observations upon Blood Pressure.—Dr. R. D. Rudolf, Toronto, contributed one of the features of the meeting. By means of the lantern, slides were exhibited, showing blood pressure in dogs under different conditions, together with the effects of drugs as chloroform, atropine, etc., upon the circulation and respiration. An interesting canvass picture was that referring to the new drug chloretone. The animal received a dose of .275 per kilo of the body weight, and ten minutes after the administration of the drug the animal was in the condition of anæsthesia, with regular pulse and regular respiration. Another chart showed the animal some hours later. That animal never recovered; and in the act of dying the respirations became lowered; the pulse has gone on very small; and the point was indicated on the chart showing where the animal died. The temperature fall was marked, the lowest being 82.4 Fh.

The Adaptation of Patient to Climate in cases of Phthisis.—Dr. N. A. Powell addressed the meeting on this subject. He considered mistakes are being constantly made although we were all honestly seeking for light and for guiding principles in this matter. In trying to adapt the patient who is stricken with pulmonary tuberculosis or who shows a tendency towards that disease, we have to consider, first, the patient, then the form of the infection, and then the climates available; we have also and very seriously to consider financial conditions of the patient. We are satisfied

that the very best results accrue from climatic treatment. Take these patients away from dust-laden and moisture-laden localities; put them upon dry soil, and keep them in the open air, and we will get for them prolonged and useful lives. The early case promptly removed and systematically treated, gives a very large proportion of recoveries,—extending up to 90 per cent. of recoveries. It is best to do this in the pre-tubercular stage, where we are not able to say by the physical examination that the lung is involved at all. There are certain clinical varieties which we meet with. First: the acute inflammatory type with high temperature and invasion of a large part of the lung tissue; they do badly anywhere. Then there are the classes characterized by early hæmorrhages. Of these, cases were instanced from his own practice. The cases of early hæmorrhages sent to moderate elevations, are ones which give us excellent results. Reports with regard to them from Colorado are not so encouraging as those which come from more moderate elevations. 1,500 to 3,000 feet seems to be much better in the hæmorrhagic class. Then we have the class of cases where the pleura is the point first affected. These do excellently in Muskoka. Speaking of the laryngeal cases, Dr. Powell did not think it advisable to send patients affected with this form of tuberculosis away from skilled laryngologists. We should never be content in sending a patient to a good locality, but we should send him to a good man in a good locality. If there is a sanatorium there, he considers it advisable to make use of it. As to cases of fibroid phthisis, in our Rocky mountain region and in our Muskoka region, we have places that will benefit them materially. He instanced cases now under his care that have made the best gain during the winter months. They will gain more in January, February and March than in any other three months of the year.

As to climate, we have practically only four varieties: the cool-moist and the cool-dry: the warm-moist and the warm-dry. Long ago we sent patients to Florida. They enjoyed it while there, but they came home and they died very speedily. There is a universal repugnance in the profession to-day toward sending patients to a moist warm climate. As regards the cool-moist climate, on the Atlantic sea-board, in the Lake Ontario, and Lake Huron areas, we find that as we pass inland from these that the cases of tuberculosis diminish. If we can take our patients to places of moderate elevations between 700 and 3,000 feet, take them into localities where we can have nearly or quite 300 days of bright sunshine in the year and where the rainfall is limited, and where the climatic changes are comparatively limited, we shall find ideal localities. In the mountain slopes of our North-West and in our northern regions we have an ideal climate. Dr. Powell concluded his address by emphasizing the necessity of placing these patients when they are sent away from home, under the supervision of competent, skilful and reliable physicians.

The relation of the Profession to Sanatoria for Consumptives.—Dr. P. H. Bryce, in presenting this paper, dealt with the recent legislation passed by the Local Legislature in regard to sanatoria for consumptives, the work which is now being done throughout Ontario in regard to the prevention and treatment of this malady, and proposed to move a resolu-

tion at another stage of the proceedings in regard to the formation of a Provincial Association for the prevention and treatment of tuberculosis.

Dr. John Ferguson, Dr. Wm. Oldright, Dr. Playter, Dr. Carveth and Dr. N. A. Powell spoke to this paper. The meeting here divided into sections.

SURGICAL SECTION.

Extensive Necrosis of the Skull. Dr. William Oldright presented the patient and photographs of the condition at different stages. A man aged 58 years, formerly syphylized, in whom the first appearance of the trouble was brought on about a year ago, after a slight injury, was exhibited to the members. The extent of the necrosis was a patch of four inches square, more or less. The dura could be seen in the opening.

Two Forms of Puerperal Infection. Dr. K. C. McIlwraith, Toronto, described two cases of puerperal infection in both of which a large piece of placenta had been left behind in the uterus. The lochia were collected by means of Doederlein's tubes, and cultures made therefrom. The importance of this procedure, was that the physician would know whether he was dealing with infection of a mild or more serious character.

Drs. Amyot, Kitchen (St. George), McNaughton (Glenallen), Machell and McKinnon discussed the subject after which Dr. McIlwraith replied.

The Removal of Septal Spurs—A Note Upon the Use of Carmalt-Jones' Spokeshave. Dr. D. J. Gibb-Wishart spoke of the advantages of this instrument in the removal of spurs of the septum, pure and simple, exhibited the instrument, and described its use.

Dr. Price Brown hardly endorsed its use.

Intusseption in Children. Dr. Primrose thought this was the most general cause of intestinal obstruction in children. He also referred to tumors as a cause of the condition. The symptoms were carefully gone over, and cases reported in which he had operated for the condition. He thought the trouble was much commoner in infants than was generally diagnosed.

Dr. McKeown spoke in regard to the medical treatment.

Drs. Bruce, Macdonald and Howitt discussed the paper and the cases, the latter gentleman referring to eight cases already reported in the literature, which he had had in practice, the children being all under one year, recovery noted in seven, and the chief symptoms dwelt upon. He was of the opinion that this occurred far oftener than was supposed.

The Treatment of Squint from the Standpoint of the Family Physician and Nasal and Post-Nasal Senechie, by Drs. J. T. Duncan and Price Brown respectively were taken as read.

Dr. Henry Howitt presided over this section.

MEDICAL SECTION.

Dr. Lett, Guelph, was elected to the chair.

The Aetiology of Acute Rheumatism. Dr. H. B. Anderson read a paper with this title. He spoke particularly in reference to Achalmé's bacillus, reporting one case in which he had found this organism post mortem associated with staphylococci.

In discussing Dr. Anderson's paper, Dr. Bryce asked if the presence or excess of uric acid had any effect in the growth.

Dr. Cassidy asked if the bacterium is hard to obtain. Dr. Anderson's statements were of great value. In reading, he had seen the statement that acute rheumatism may proceed from several causes: firstly, hereditary; second, chemical lactic acid; third, uric acid; fourth, all three previous. How does lactic acid play a part? By supplying the acid medium for the microorganisms.

Dr. H. H. Oldright reported two cases dwelling in the eyeball, one a case of adhesions, and asked if this location would bear out the germ theory.

Dr. Lett asked if you can recover the organisms before or earlier in the case.

Dr. Anderson in reply, stated that the growth was better in the the urine of arthritics. Anærobic cultures were not made as a rule; hence probably the bacillus would not have been found. This case died so soon after coming in that it was a good subject for examination. It has been found in the blood by Achalmé.

Differential Diagnosis between Pneumonia and Pleurisy with Effusion. Dr. H. H. Oldright presented a paper on this subject.

Dr. H. C. Parsons asked for physical signs and characters of expectoration in one case reported.

Dr. Rudolf, re-use of the needle; there was no risk in an adult with carefully sterilized needle.

Dr. Lindsay, Guelph, reported a case with a mishap. The needle failed for a number of times to reach the abscess, but finally found deeply in the lung. Removed portions of two ribs and evacuated. Absorption was increased and the man went down rapidly.

Reply: Foul smelling; chest was completely dull. Needle: pus organisms might be carried into the lung tissue.

An Unusual Case of Crossed Paralysis. Dr. D. Campbell Meyers read a paper on this case. It occurred in a man, aged 66 years, who has one child, a daughter, who enjoys good health. Last September the case came under his care with left facial paralysis and a history of a recent paralysis of the right arm. The family history of the patient was good. Previous history unimportant. The eyes are good and there is no paralysis of the tongue. Dr. Meyers considered that there were two lesions present in the case, one cortical, and the other peripheral. Under treatment, the patient was fully recovered in five weeks.

Dr. Ferguson asked as to lesions.

Dr. Meyers: There were none except some feelings of numbness.

Dr. Cassidy spoke of a case of facial paralysis in a young man with recovery in ten days.

Dr. Ferguson spoke of the double lesion in Dr. Meyers' case. He thought the facial lesion was peripheral; the arm lesion was evidently cortical. He thought there may be vaso-motor changes sudden in onset, and the production of paralysis may be only temporary.

Dr. Meyers replied. He thought Dr. Ferguson's vaso-motor theories quite possible, but difficult to prove. Thought Dr. Cassidy's case, a simple slight neuritis.

Erythema Bullosum. Dr. Graham Chambers contributed this paper. He defined this condition to be that form of erythema multiforme which exhibits in the highest degree the pathological change which is present in the latter disease. He looks upon the hyperæmic spot, papule, tubercle, œdematous nodule, vesicle and bulla, as lesions representing different degrees of the same pathological process. The forms of lesions are all inflammatory in origin, but there is always present in addition, more or less angio-neurotic œdema. Four cases were reported in all.

Dr. W. J. Wilson spoke of diagnosis between erythema bullosum and pemphigus. The latter sometimes follows vaccination as it did in two of the cases reported by Dr. Chambers.

Dr. Bryce spoke regarding the confusing preliminary remarks of smallpox, so important to recognize at present.

Dr. Chambers in reply: The classification of bullous eruptions is unsatisfactory. It is sometimes very difficult to differentiate them. Pemphigus is usually chronic; erythema bullosum, usually acute. Symmetry of lesions, multiformity of lesions. Thinks Dr. Wilson's point well taken.

Beds, their proper construction and care from the doctor's standpoint. Dr. Carveth read a paper with this title. The paper was discussed by Drs. Machell, Anderson, W. J. Wilson, Chambers and Bryce.

The Artificial Feeding of Infants. Dr. C. Sears McKee, Toronto, read a paper on this subject. He thought this subject was not given enough attention by the medical man as a rule. Cow's milk, and that alone, modified should be the only food in artificial feeding up to nine months. The various foods on the market were dealt with, and the modification of cow's milk given. Dr. Machell agreed with Dr. McKee regarding milk for children,—not patent foods. He gave a scheme for working out the proportions.

EVENING SESSION—GENERAL BUSINESS.

Dr. A. A. Macdonald in the chair.

Report of Nominating Committee. This was read by Dr. Macdonald, which was adopted.

President.—Dr. A. McKinnon, Guelph.

First Vice-President.—Dr. R. A. Pyne, Toronto.

Second Vice-President.—Dr. W. H. Jeffs, Havelock.

Third Vice-President.—Dr. A. S. Fraser, Sarnia.

Fourth Vice-President.—Dr. H. H. Sinclair, Walkerton.

General Secretary.—Harold C. Parsons, Toronto.

Assistant Secretary.—George Elliott, Toronto.

Treasurer.—Geo. H. Carveth, Toronto.

Next place of meeting, Toronto.

Report of Committee on Public Health. This was read by Dr. Gilbert Gordon, and adopted.

Under the heading of receiving the report of the Publication Committee, a discussion took place upon the desirability of having the proceedings printed in full. The matter was referred to the Publication

Committee and the Committee on Papers and Business to report at the first day's meeting next year.

The Special Committee on Inter-Provincial Registration not reporting, under this heading, a unanimous resolution was passed approving of the proposed Bill of Dr. Roddick.

The Ontario Medical Library was voted \$75.

Dr. W. J. Wilson read the report of the Committee on Hospital Abuse, which was adopted.

The General Secretary's report and the Treasurer's reports were here presented, received and adopted.

The Treasurer's report showed cash on hand of \$48.30.

Dr. Bryce read a resolution favoring the formation of a Provincial Association for the Prevention and Treatment of Tuberculosis, which was assented to by the Association.

Necrology Report was read by Dr. Cassidy in the absence of the chairman, Dr. J. L. Bray. It included Drs. J. E. Graham, James B. Campbell, London, Samuel Hagal, Toronto, Joseph Allen, Osgoode Station, and Dr. Corbett, Orillia.

A vote of thanks was unanimously passed to the Hon. the Minister of Education for the use of the Auditorium.

Another vote of thanks was unanimously passed to Dr. Adam Wright for the efficient manner in which he had conducted the meeting; to this Dr. Wright made a suitable and appropriate reply.

The usual honoraria were ordered to be paid the secretaries.

Dr. Wright then installed president-elect Dr. McKinnon in office. Dr. McKinnon accorded gracious thanks for the honour which had come to him unexpected and unsought.

TRINITY MEDICAL ALUMNI ASSOCIATION.

The eighth annual re-union banquet of this Association was held in the Temple Cafe on the evening of the 18th of May, many members being present, both from the city and different parts of the province. Dr. J. Algernon Temple, the president of the association occupied the chair, our worthy dean being placed on his right and Drs. O'Reilly and Dwyer, of the Toronto General and St. Michaels respectively, on his left. After an enjoyable repast was attended to, the president proposed the health of Her Majesty, which was honoured in the usual loyal and patriotic fashion. A special toast to the hero of Mafeking was drunk to a rollicking chorus. Dr. J. T. Fotheringham proposed the toast to Canada. Dr. Sheard replied in patriotic language, pointing out the proud position Canada was now occupying in Imperialistic politics. Trinity Medical College, proposed by past president Dr. E. Clouse, brought dean Geikie to his feet in a characteristic reply. The Alumni Association, proposed by the president, was responded to in reminescent speeches by Drs Farncomb, Newcastle; H. H. Graham, Fenelon Falls; and Dr. Keane of Brantford, all emphasizing the importance of the association and the need of continuing to work for its advance-ment and success. Capital songs were contributed by Drs. Newsome and Gilbert Gordon, which contributed much to the enjoyment of the evening.

ELECTION OF OFFICERS:—

President, Dr. Allen Baines, Toronto.

Vice-president for Toronto, D. J. Gibb Wishart.

Vice-president for Western Ontario, Dr. J. W. S. McCullough, Alliston.

Vice-president for Eastern Ontario, Dr. Farncomb, Newcastle.

Graduates' representative, Dr. F. C. Trebilcock, Bowmanville.

Sec-Trea., Dr. George Elliott, 129 John St, Toronto.

Assistant secretary, Dr. E. S. Ryerson, Toronto.

Auditor, Dr. Norman Anderson, Toronto.

The election of the vice-presidents for the other provinces was left left to the executive committee. Dr. Baines was then installed in the presidency by the retiring president, Dr. Temple. He thanked the association for the honour conferred and promised to make the next annual meeting a record breaker.

VOTE OF THANKS.—This was proposed to the retiring president by Dr. T. Millman, Dr. Temple replying, thanking the members for the compliment tendered him. The singing of Auld Lang Syne closed one of the most enjoyable reunions in the history of the association.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

LIST OF THE FINAL, INTERMEDIATE, AND PRIMARY RESULTS.

The following candidates have passed the examinations of the College of Physicians and Surgeons of Ontario:—

FINAL EXAMINATIONS.—D. H. Arnott, London; B. C. Bell, Chatham; J. Y. Baker, Summerstown; E. P. Bucke, London; W. G. Collison, Mitchell; Harriet Cockburn, Toronto; N. Colville, Leskard; G. L. Clarke, London; R. F. Carmichael, Strange; C. A. Campbell, Toronto; E. D. Carder, Toronto; G. W. Dowsley, Toronto; M. K. Dillane, Tottenham; J. Gow, Windsor; W. A. Hall, Kingston; H. G. Hargrave, Toronto; R. C. Hiscock, Kingston; A. C. Hendrick, Frankford; G. W. Howland, Toronto; Rowena Hume, Toronto; G. A. Holmes, Chatham; C. P. Johns, Kingston; E. A. Jones, Whitby; A. A. Knox, Toronto; W. A. Kerr, Seaforth; H. S. Kirby, Ottawa; T. M. Leask, Toronto; S. J. Morris, Crompton; W. A. MacDonald, Windsor; Margaret McCallum, Toronto; Helen MacMurchy, Toronto; A. J. MacKenzie, Lucknow; H. Mason, Toronto; James Moore, Brooklin; G. C. McGibbon, Arkona; G. H. McLaren, Hamilton; Kate McLaren, Toronto; Dorothea Orr, Whitby; J. H. Peters, Fergus; R. Y. Parry, Dunnville; W. G. Ratcliffe, St. Catharines; D. G. Revell, Tyrconnell; G. Ramsay, Toronto; W. O. Simpson, Toronto; A. T. Stanton, Pontypool; J. R. Stanley, Granton; H. R. Smith, Hamburg; Nellie S. Skimin, Hamilton; R. P. Vivian, Toronto; D. C. Wilson, Parkhill; G. C. Wagner, Toronto; H. C. Wrinch, Toronto; E. G. Weir, Toronto.

INTERMEDIATE EXAMINATIONS.—B. C. Bell, Chatham; R. F. Carmichael, Strange; E. N. Coutts, Harwich; C. A. Campbell, Toronto; E. D. Carder, Toronto; H. C. Cameron, Rob Roy; S. E. Charlton, Galt; H. L. Collins, Kincardine; H. G. Downing, Woodstock; H. Dittrick, St. Catharines; C. C. Elliott, London; E. Flath, Drayton; J. W. Fitzgerald, Peterborough; W. A. Hall, Kingston; H. G. Hargrave, Toronto; R. C. Hiscock, Kingston; A. C. Hendrick, Trenton; G. W. Howland, Toronto; C. P. Johns, Kingston; A. A. Knox, Toronto; H. S. Kirby, Ottawa; James Moore, Brooklin; A. J. MacKenzie, Lucknow; F. W. Marlow, Blackstock; A. S. Morgan, Kerwood; F. E. MacLaughlin, Hamilton; J. A. McClintock, Manchester; Belle C. Oliver, Ingersoll; A. R. Perry, Mount Forest; R. Y. Parry, Dunnville; H. P. Ross, Exeter; E. S. Ryerson, Toronto; W. E. Robertson, Milton; E. J. Stubbs, Stratford; G. B. Snyder, Abingdon; P. L. Scott, Paris; W. O. Simpson, Toronto; C. L. Taylor, Wardsville; F. C. Trebilcock, Bowmanville; S. Thompson, Strathroy; E. G. Weir, Toronto; J. Webb, Hamilton.

PRIMARY EXAMINATIONS.—Passed with Honors: E. J. Davey, Stony Creek; R. W. Irving, Ingersoll; O. Klotz, Ottawa; A. Moir, Dunnville; P. W. Saunders, Toronto.

Passed Primary: E. W. Allin, Bowmanville; G. M. Atken, Milverton; A. E. Archer, Freeman; E. A. Boyd, Jerseyville; A. Brown, Motherwell; J. Y. Baker, Summerstown; J. D. Chisholm, Toronto; Emma Connor, Chatterton; B. A. Cohoe, Grand Valley; F. A. Cleland, Meaford;

J. L. Campbell, Ridgetown; F. J. Doherty, Eglinton; G. F. Dalton, Kingston; H. E. Day, Kingston; G. W. Fletcher, Blenheim; A. Fisher, Stratford; T. S. Genge, Halliford; J. W. P. Gray, Toronto; J. N. Gunn, Ailsa Craig; J. E. Godfrey, Meaford; G. W. Graham, Toronto; H. B. Hutton, Dungannon; J. L. Huffman, Aylmer; W. R. Hunter, Smith's Falls; V. E. Henderson, Toronto; H. G. Hargrave, Toronto; E. T. Hoidge, Toronto; J. R. Irwin, Port Hope; E. P. James, Galt; A. A. Knox, Toronto; H. S. Kirby, Ottawa; R. W. Leader, Plattsville; J. J. Mason, London; S. A. Moran, Trenton; A. Murdock, Brucefield; J. W. Merrill, Ottawa; W. R. Mitchell, Perth; N. T. MacLaurin, Toronto; K. MacKinnon, Guelph; A. H. Montgomery, Brantford; Elizabeth McMaster, St. Marys; W. A. McCauley, Keene; A. D. McEachern, Glencoe; M. D. McKichan, Hamilton; A. F. McLaren, Lancaster; H. N. McCordick, Jura; D. McBane, St. Thomas; G. McNeill, London; J. M. Oswald, Janetville; H. R. Parent, Windsor; R. W. Rutherford, Chatham; G. W. Ross, Toronto; A. B. Rutherford, Owen Sound; H. E. Roaf, Toronto; W. O. Simpson, Toronto; L. L. Stauffer, Waterloo; F. Shortt, Elora; D. Smith, Embro; T. Turnbull, Stratford; S. Thompson, Strathroy; W. T. Wallace, Orangeville; A. B. Wright, Toronto; O. C. Withrow, Toronto; W. T. Yeo, Little Britain; W. D. Young, Toronto.

THE RESIDENT MEDICAL STAFF TORONTO GENERAL HOSPITAL.

The house staff of the Toronto General Hospital for the year 1900-1901 has been appointed as follows:—

From Trinity University—Drs. W. A. Kerr, Seaforth; George A. McLaren, Hamilton; A. T. Stanton, Toronto; H. A. Smith, Toronto; E. Weir, Toronto; Drs. James Moore and W. H. Marshall, alternates.

From Toronto University—Drs. E. D. Carder, Toronto; J. Gow, Windsor; Goldwin H. Howland, Toronto; A. C. Kendrick, Frankfort; A. J. McKenzie, Lucknow; Drs. C. A. Campbell and A. Knox, alternates.

ONTARIO MEDICAL ASSOCIATION.

The twentieth annual meeting of the Ontario Medical Association, held in the Normal School buildings, Toronto, on June 6th and 7th, was largely attended and was generally considered one of the most successful in the history of the organization.

The subject of a Dominion Medical Council came up for discussion, and with some slight modifications it is evident that the Bill introduced into the Dominion Parliament by Dr. Roddick during the last session meets with the general approval of the profession in Ontario.

The various sessions of the Association were well attended and the discussions were spirited and interesting. We believe if those members of the profession, who fail to identify themselves with the provincial association, and gain the advantages to be had from meeting and interchanging ideas with their professional brethren, knew what they lost by so doing, the attendance at the annual meetings would be greatly increased. Not only are these meetings valuable for the knowledge one gains, and the incentive to better work one receives, but their social aspect is by no means unimportant. They are a pleasant break in the tiresome routine of medical practice.

The president, Dr. A. H. Wright, and the different committees that assisted him are to be congratulated on the success that attended their efforts on this occasion.

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EDITORIAL.

PREVENTION OF SUMMER DIARRHOEA.

The approach of hot weather once more directs our thoughts to the infant population, upon whom the coming season tells so heavily. Happy that child whose daily bread is drawn by its own efforts from nature's source and is not dependant upon art for the staff of life. The disease is one which claims its greatest number of victims during their second summer, not because they are any the less resistant than a year before, or as is too frequently said are teething, but simply because they are too old to be nursed and have reached the period when their diet is changing and becoming more liberal and varied. With the decreasing number of *good* mothers the proportion of infantile diarrhoeas in the first summer is increasing, bearing witness to the fact that improper feeding is one of the main factors in the production of the disease.

The question of infant feeding is a very large one, and one which, time and space forbid we should enter into in detail here. During the first nine months of life, milk in some shape or form, should constitute

the child's *sole* diet and for the next two years the *main* article of food. But, be it remembered, milk is a two edged sword which, if scientifically handled has no equal, but if, placed without restrictions in the mother's hands may work the child's destruction. The successful feeding of an infant requires close attention to many details, and it is our duty to see to it, that they are fully understood and strictly carried out. To accomplish this it is useless to give directions verbally. The details should be carefully written out and explained to the person who is to prepare the food. A separate bottle should be provided for each feeding in the 24 hours and each one fitted with a rubber stopper. An ordinary 3iv medicine bottle is all that is necessary with two or three large nipples which will pull over the neck. The food should be made as soon as possible after the milk is received, each bottle containing just one feeding and all sterilized in boiling water for 10 minutes. The stoppers should be put in firmly immediately on removing the bottles from the stove, and after cooling the bottles should be put on ice or in a cool place till wanted, when one is to be warmed and given to the child. The proportion of fat, proteid and sugar are to be adjusted by the use of milk, cream, sugar and water in due proportions, varying them according to the needs and digestive powers of each child, remembering that fat and sugar are the most important elements for the child and that the caesin of cow's is more difficult of digestion than that of human milk. Cow's milk is usually acid and therefore requires to be neutralized by the addition of some mild alkali, such as sodium bicarbonate or lime water.

A popular fallacy, and one too which is frequently found amongst the profession, is that of "one cow's milk."

The mixed milk of a large herd is apt to be much more constant in its composition than is that from one cow, temporary indisposition of which materially alters the milk in a way that would not occur with the mixed milk. Absolute cleanliness of all bottles, corks, nipples, etc., is most essential and without it failure will be the result. A few simple rules should be given to the mother by which she could vary the proportions of the various ingredients of the food to meet slight disturbances of digestion at once and thereby save the child from perhaps serious trouble: If the motions become green or irritating, lessen the sugar; if curds appear in the motions or if there should be colic, lessen the milk; if the bowels are too loose but motions are natural, lessen the cream; if there be vomiting after feeding decrease the quantity of food. In following out the plan of preparing the whole days food at once there are many advantages, viz., 1st. It is easily and quickly done, which is very essential if directions are to be properly carried out. 2nd. The milk is

sterilized before changes have time to take place and is guarded against future contamination. 3rd. If a day's jaunt into the country or a trip by water is taken the required number of feedings is easily taken along and no variation of food is imposed upon the child's stomach. While the food must be our main consideration, there are other matters of importance to be attended to.

Perfect cleanliness of the child and its surroundings are most essential.

The daily bath, the temperature of which should be as cool as is consistent with the child's vigour and the state of the weather, must not be neglected.

The immediate removal of clothing soiled with motions and thorough washing and boiling of napkins before use must be insisted upon, as well as sponging of the buttocks after a motion. The clothing should be light during warm weather, but falls of temperature must be met by increase of covering, always remembering that a sudden drop in temperature is more apt to cause indigestion than is a rise.

Two or three cool days occurring suddenly after a hot spell, are frequently responsible for the disturbance of digestion which paves the way for more serious trouble when the hot weather returns.

To guard against chills at all times, even during the hottest weather, a light flannel binder should be worn, seeing to it that it is changed should it become damp either from urine or perspiration.

During the very warm weather the body should be sponged two or three times a day in addition to the morning bath, and the baby should be kept in a cool place and protected from the sun's rays.

A trip by water is most beneficial, but driving on hot dusty roads should not be sanctioned.

F. F.

CONSUMPTION SANATORIUM FOR THE POOR.

There are at least two great reasons for the establishment of such institutions as these: first in order that the poor may have placed at their disposal the great essentials for successful treatment of pulmonary tuberculosis—abundance of fresh air and nourishing food, and second that by proper isolation of the infected, patients suffering from other diseases may not be exposed to the dangers of acquiring consumption, as they are where both classes are received in the same wards of our general hospitals. The proper treatment of consumption is so expensive, as to place it quite beyond the reach of the poor, so that if they are to be properly cared for, the means, must be furnished either from private charity or at the public expense.

For the past two years there has been an agitation for the establish-

ment of such an institution near Toronto, and many of the medical men and others interested in the matter have contributed liberally to that end. A building, with present accomodation for nine beds, has been purchased at "High Fields," Deer Park, one of the northern suburbs of the city, and four patients are now under treatment,

The provisional Trustee Board consists of Lieut. Col. Mason, Ald. Davies, Mr. Robert Darling, Drs. A. J. Johnson, I. H. Cameron, and L. M. Sweetman, with Dr. Edward Playter, as secretary. The usual *per diem* allowance from the city and provincial government will be applied for, which, along with moneys received from pay patients, and donations from philanthropic persons, it is expected will suffice for the support of the institution. Properly administered we believe this charity will appeal to the support of both the profession and the charitable public.

EDITORIAL NOTES.

Canadian Medical Association.

The next meeting of the Canadian Medical Association will be held in Ottawa on the 12th 13th and 14th of September, and the local profession are making every effort to ensure its success. A number of distinguished visitors will be present and take part in the programme, including Mr. Edmund Owen of London, England, Professor Shattuck of Boston, Louis Gerster, of New York, Nicholas Senn, of Chicago, A. M. Hamilton, of New York and others. An address in Gynaecology will be given by Dr. Wm. Gardiner of Montreal. We are informed by the secretary, Dr. F. N. G. Starr, that the profession throughout the Dominion, signify their intention of demonstrating in a very practical manner, their sympathy for the misfortune that recently befell the capital, by helping to make this a record meeting of the association.

W. B. Saunders & Co.

Mr. W. B. Saunders, the head of the deservedly popular publishing house has associated with him in business Mr. F. L. Hopkins, manager of the subscription department, and Mr. F. T. Dagney, manager of the publication department, under the firm name of W. B. Saunders & Co.

These gentlemen have been connected with the house almost from its inception, and to them Mr. Saunders generously attributes much of the success that has attended his efforts, as a publisher, and takes this means of showing his recognition of the fact.

The Trade Book Department will be conducted under the management of Mr. W. D. Watson.

Guelph General Hospital.

On Saturday evening, June 9th, Miss Lilian Sheppard, Superintendent of the Guelph General Hospital, was presented with a gold watch, a purse and an address from the staff of the hospital to show their appreciation of her services since she went to that institution some six years ago. The address was read by Dr. Brock, the oldest member of the staff, and the presentation was made by Dr. McKinnon, the president elect of the Ontario Medical Association. Addresses were made by Drs. Howitt, O'Reilly, Stewart, Lindsay and other members of the hospital staff, all expressing, in very complimentary terms, their esteem for Miss Sheppard and their appreciation of her work.

This occurrence must be gratifying not only to Miss Sheppard, but to her friends who remember her excellent service, and her old time popularity when assistant Lady Superintendent in the Toronto General Hospital.

College of Physicians and Surgeons of Ontario.

We are glad to note that Dr. Wm. Britton has been elected to the presidency of the College of Physicians and Surgeons of Ontario. Dr. Britton's election will be received with satisfaction by the profession in general, for we know of no one capable of presiding over the Medical Council with more dignity, fairness and ability. The profession may rest assured in the wisdom of the choice of its official head for this year.

PERSONAL.

Dr. A. P. Scully, (Trin. '99), has been appointed resident surgeon at St. Alexis Hospital, Cleveland.

Dr. T. H. Middlebro', (Tor. '92), of Owen Sound, has recently passed both the primary and final examinations for the F. R. C. S. England. Dr. Middlebro' is to be congratulated in having taken this degree in less than a year—a record achievement, we believe. He was a house surgeon in the Toronto General Hospital in 1892, after which he began practice in Owen Sound, where he resumes practice on returning from Europe this fall.

Dr. Donald J. Armour, another old resident physician of the Toronto General Hospital, has received his F. R. C. S. degree. Dr. Armour is a Demonstrator of Anatomy in University College, London.

Dr. I. D. Archibald, of the retiring house staff of the Hospital for Sick Children, has left to assume his duties as Surgeon-Lieut. to one of the regiments stationed in the Bermudas.

Drs. E. E. King, Alex. McPhedran, J. J. McKenzie and H. P. H. Galloway attended the recent Congress of American Physicians and Surgeons in Washington, D. C.

Dr. J. R. Arthur, of Collingwood, was married on May 31st to Miss Katherine Robertson, daughter of Mr. Henry Robertson, of the same place. THE LANCET offers its congratulations.

Dr. Chas. S. Murray, of Laburnum Ave., Toronto, met with a painful accident recently. While wheeling he collided with another bicyclist, and being thrown heavily to the pavement, received a fracture of the left leg. Dr. Murray is now in the General Hospital and, we are glad to learn, is doing well.

Dr. Chas. H. Doherty (Trin. '99), has been appointed superintendent of the hospital at Nelson, B. C.

We regret to note that Corporal J. Jordan, Royal Canadian Regiment of Infantry, was wounded in the recent fighting before Pretoria. Mr. Jordan is a third year medical student in Toronto University, and formerly belonged to the Queen's Own Regiment.

Dr. B. Spencer of Bloor St., has gone on a visit to Europe

Major Nattress, A. M. S., has returned after a short visit to New York.

Dr. R. J. Dwyer, superintendent of St. Michael's Hospital, leaves at an early date to spend a year in Europe.

Drs. H. A. Bruce, B. L. Riordon, Arthur Small and C. R. Dickson, of Toronto, attended the recent meeting of the Association of Railway Surgeons in Detroit. Dr. Bruce was elected one of the vice-presidents of the Association. Drs. Radford, of Woodstock, McCarthy, of Niagara Falls, Jeffs, of Havelock, and H. H. Oldright of St. Catharines, were also present.

Dr. T. H. Blow, South Mountain, leaves shortly to spend a year doing post graduate work in Europe.

The many friends of Dr. Daniel Clark, Superintendent of the Asylum for the Insane, Toronto, will be pleased to know that he has quite recovered from his recent illness.

Dr. F. C. Walker, who recently graduated at Trinity University, has been appointed as house surgeon to the Ottawa Protestant Hospital.

Miss Snively, superintendent of the Toronto General Hospital Training School for Nurses, has been elected honorary treasurer of the International Council of Nurses, the headquarters of which are in London, Eng. Miss Snively is being congratulated upon receiving this high honor.

We regret to learn of the illness of Dr. Gilmour, Ex-M.L.A. and now Warden of the Central Prison, Toronto. Dr. Gilmour has a mild attack of typhoid fever.

COMMUNICATIONS.

THE TRAUMATIC ORIGIN OF CANCER.

To the Editor CANADA LANCET :

SIR,—In a recent medico-legal case the entire argument turned on the point, "can traumatism cause cancer," and if we take our text books we will find that every one of them says, "it is possible," but were they to add highly improbable it would be much nearer the truth. Not taking the individual merits of the case into consideration I would like, Mr. Editor, to discuss "the traumatic origin of cancer." We are prone when we do not know a thing to speak in general and indefinite terms about it, and according to the care with which we make our statements they last or are forgotten.

With respect to cancer this is exceptionally true and as we have no certain origin or sure cure it is a fit subject for every one to theorize on. The reasons put forward for cancer are legion. Under humoral pathology it was a dyscrasia of the blood.

Hereditary influences were called in and a third of the cases were accounted for.

Mental emotions have been accused, traumatism both simple blows and constant irritation.

Of late years the germ theories have been advanced, the Blastomycetes, cancerous parasites proven to be cell enclosures and so on. In fact any one who had the courage to make any definite statement as regards cancer origin had at once an army of observers after him to prove that he was wrong.

So, I say, it is only the broad indefinite statements with which our books are filled to-day that have lasted. Cancer is essentially the same in whatever part of the body or at whatever age it happens to come; whether it be in exposed places as the breast or lip or in a deeply seated organ as the pancreas; therefore I would hold that just as tuberculosis is always caused by the bacillus, so cancer must always have the same and as yet unknown origin.

Syphilis is quite as much a mystery as cancer as regards its first cause, but as we can control its symptoms by empirical medication we do not pay so much attention to its cause. But the bringing in of the anti-toxin treatment for sarcomas and for other diseases has given an impetus to the laboratory men to try to find something which will stay the ravages of cancer.

The desire to find a plausible excuse for one of our greatest and most terrible scourges has led, in my opinion the writers to say that one of the causes of cancer is trauma. An unfortunate woman comes with cancer of the breast, she hears the diagnosis and demands, why? Her adviser immediately asks, do your corsets irritate your breast? Have your parents or relations suffered from this disease? have you ever been struck? and according as he gets his answer it is written in the history and she is told that that is the reason.

It is because of our complete ignorance of the cancerous process that we are led to make such flimsy statements. The medical world would not believe Koch had discovered the tubercle bacillus until he had isolated it, inoculated it and grown it again and proved it beyond all doubt, but still it is put in our sheep-bound authorities that traumatism will cause a disease such as cancer.

We perform a surgical operation through an unclean field or with dirty instruments the result is suppuration, but the cutting and traumatism did not cause it, it was the pyogenic organisms introduced. This is proven by the wounds healing without pus in aseptic surgery.

A young man falls and hurts his knee, tubercle is developed, it was not the blow that did it, without the germs being there the blow would pass unnoticed.

Again continued irritation is brought forward as a certain cause and cancer of the lip is blamed on smoking clay pipes. I would ask is cancer of the lip more frequent among Irish laborers than others? I think not. We have all seen cancer of the lip in non-smokers. The most serious one I ever saw was in a man who had never used tobacco in any form.

Then the ostia of the body are quoted in this regard, but as tubercle has a preference for the lung, so this particular disease may have its sites of election.

Cancer is always essentially the same structure and kills in the same way, barring the mechanical constrictions of the bowels, etc., in which perforation may occur and peritonitis be the immediate cause of death. But in the main the cancer process kills by some subtle poison which we do not as yet understand, but without which carcinoma would be as benign as any of the tumors.

The most plausible of the theories, and to my mind most plausible because it is most unanswerable, is the Cohnheim rest theory as put forward by N. Senn, of Chicago, he says:—"Traumatism can no more cause cancer than suppuration can take place without micro-organisms. The trauma can only act as an exciting cause in stimulating a pre-existing matrix of embryonic tissue into active tissue proliferation. No one knows anything of, and no one has ever had the temerity or good fortune to describe these embryonic rest-tissue cells; in fact it gives one the idea that we all go through life with one of these miserable unlocated embryonic rests, which at the slightest injury or irritation will flame out into cancerous growth. Would it not be better to say we are as yet ignorant on this subject instead of perpetuating these mysterious and altogether unreasonable theories. Perhaps in the near future some researcher will happen on the true and invariable cause of cancer, but until then let our pathologists and laboratory men exercise patience and work, for once the certain cause is found we may hope for some sure antidote to the poisons of cancer. *My plea is, one disease one origin.*

M. W. COLEMAN, B.A., M.B., Tor., M.D.C.M.

BOOK REVIEWS.

PROGRESSIVE MEDICINE.

Edited by H. A. Hare, M.D., assisted by C. A. Holder.

The first volume of this very excellent serial for 1900, has appeared, and enhances the already high reputation the publication has secured. The table of contents includes Surgery of Head, Neck and Chest, by J. C. Da Costa, M.D. Infectious Diseases, by F. A. Packard, M.D. Diseases of Children, by A. D. Blackader, M.D. of McGill College. Pathology by Ludwig Hektoen, with chapters on Laryngology, Rhinology and Otology. The Volume is well worth purchase by any practioner were it only for the one article in which he is specially interested.

J. T. F.

PRACTICE OF MEDICINE.

A Manual for Students and Practitioners by G. E. Malsbary, M.D. and B. B. Gallaudet, M.D.

This is another in the series of pocket text books issued by Lea Bros. & Co., N.Y. and Phila.

One is prepossessed at once in its favor the "short, concise table of contents," a monument to the value of Bacteriology to the Nosologist who seeks to classify disease on lines of Aetiology rather than of clinical signs or course. But of the 388 pages of which the book consists, 167 are given to a single class. The Infections, in which one finds grouped all the diseases whose aetiology has been reasonably determined, from Scarlatina and Foot and Mouth Disease to Malaria and Trichiniasis. The very latest definite bacteriological findings seem to have been noted in this classification. The other chapters are on the diseases of the Organs of Digestion, Respiration, Circulation, the Blood, and the Genito-Urinary Organs. No mention is made of Nervous Diseases, even so ordinary a trouble as Chorea is untouched—but this of course must be part of the plan of the authors.

TIRARD'S MEDICAL TREATMENT.

A Text-Book of Medical treatment of disease and symptoms for the use of Students and Practitioners of Medicine. By Hestor Tirard, M.D. F.R.C.P., Professor of Principles and Practice of Medicine, King's College, London. Adapted to the U. S. Pharmacopoeia by E. Quin Thornton, M. D., of Jefferson Medical College, Philadelphia. In one octavo volume of 624 pages. Just Ready. Cloth, \$4.00 net. Lea Brothers & Co., Philadelphia and New York.

In the medical world, a healthy sign of the times is the renewed interest in the subject of practical therapeutics which has taken place and the number of excellent text-books upon the subject that is appearing. This is with the idea of bringing the treatment of disease in line with the advancement in other branches of medical science—particularly

in pathology. Following on the therapeutic scepticism and nihilism which resulted from too close attention to Nature's failures in cure, as illustrated by dead house pathology, this revival of interest in treatment must be particularly gratifying to the general practitioner.

Dr. Tirard's book is one of the kind to which we have referred. It is conservative in so far as it has retained the good things which the accumulated experience of years has endorsed in treatment, and it is progressive in that it deals with the latest advances in scientific therapeutics.

The work is one which will give satisfaction.

PUBLISHER'S DEPARTMENT.

The extensive use made of Heroin in clinical practice during the past one and one-half years, and the abundant literature that has already appeared on this new preparation, enables us to formulate some positive conclusions as to its definite status in the materia medica. One of the most striking features of this drug is its remarkable action upon the respiratory organs, its effect consisting in the reduction of the number of respirations, with an increase of their force. Besides this it exerts a sedative influence upon the air-passages, as evidenced by the alleviation of cough and irritation. Heroin has also been employed as a general analgesic, but it is yet too early to form a positive idea of its utility in this direction. It is worthy of note that in the literature thus far published very little reference has been made to after-effects, and these for the most part have been of mild degree and observed chiefly in cases where the dose has been excessive. Like any active remedy, heroin must be used with proper discrimination and in doses adapted to the age and to the indications present. Professor Manges (New York Medical Journal), who has made a most exhaustive clinical study of heroin, writes as follows on this point:—"The general conclusion is that these effects have occurred in a surprisingly small percentage of cases, when it is borne in mind that in so many instances the larger doses (one-sixth of a grain) have been employed. Even the effects which have been recorded are only relatively simple, and in no case was there any serious effect noticed. These after effects are decidedly of less frequent occurrence and of milder degree after heroin than those from morphine or codein." If attention is paid to these points no special precautions are necessary in the use of heroin, except such as apply to any remedy in the pharmacopeia. To obtain the best results it should be administered in much smaller doses than the opium alkaloids, and these may later be increased if necessary. Prof. Max Einhorn (Philadelphia Medical Journal) concludes on the ground of his experience: "It will be readily seen from the above that we possess in heroin a very valuable therapeutic agent. It principally allays cough and eases respiration, but it has also general analgesic properties which renders it of benefit in most painful affections. Except slight dizziness and occasionally dryness in the throat, which I found but rarely, I have never seen any unpleasant symptoms even from a prolonged use of heroin, and I can heartily recommend it as a very valuable remedy."

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It differs in its effects from all Analogous Preparations : and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt : It stimulates the appetite and the digestion ; it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy and removes depression and melancholy ; *hence the preparation is of great value in the treatment of nervous and mental affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of secretions, its use is indicated in a wide range of diseases.

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WHOLESALE AGENTS

MONTREAL

Intolerant Ulceration of the Rectum.

Dr. Sterling B. Taylor of Columbus, Ohio, read a paper in which he reviewed the surgical anatomy of the anal portion of the rectum at considerable length. In the early stages of intolerant ulceration physicians were inclined to discredit the presence of any severe pain, inasmuch as in its incipency it was merely a rent or tear in the mucous membrane. This was prevented from healing by the lodgement of small particles of fecal matter, which produced irritation and inflammation and eventually painful ulceration. The extreme pain made its appearance with the unhealthy granulations. Pain was not the only disagreeable accompaniment, as there was often annoying and sometimes dangerous hemorrhage, especially if the ulcer was located high. The usual seat of the ulcer was at the posterior commissure, and it was here that it was most painful. The anterior commissure was the next favorite seat of the ulcer. In the treatment the essayist recommended the method practiced by Martin, which he considered simple and effective. No general anæsthesia was required, but simply infiltration anæsthesia, which was effected by the injection of a few drops of a one-tenth of one per cent solution of eucaïne or cocaine around the ulcer. A slight incision was then made through the membrane and integument down to, but not through, the sphincter. The operator then packed with a small piece of iodoform gauze. The bowels should be kept open with some laxative, preferably a mineral water. Apenta water was both pleasant and efficacious. Several cases were reported in which the Martin method of treatment was resorted to. Dr. Taylor held that rectal ulcers could be excised under eucaïne anæsthesia without pain.—*Medical Record.*



Treatment of Post Febrile Conditions.

The convalescence following fever is often very tedious and unsatisfactory, and in none of the continued fevers is this more marked than in typhoid fever, resulting largely from the fact iron in the blood is below the normal standing. As a reconstructive in such cases nothing is more urgently required or produces better results than an easily assimilated salt of iron which will not constipate or upset the stomach and which can be administered for a considerable period without causing distaste, gastric disturbance or other unpleasant symptoms. These conditions are eminently filled by that elegant preparation "Lig Ferri Albuminates" (Lettes). So fully has this fact been appreciated that the Red Cross Society have sent a large shipment of it for the use of Canadian soldiers in the fever wards of the South African Hospitals. The shipment went forwarded by the S. S. Monterey landing at Cape Town, April 9.

Any druggist in Canada can supply it.