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CONGENITAL DISLOCATION OF THE HIP.

B. E. McKENZIE, B.A., M.D.

Surgeon to the Toronto Orthopedic Hospital; to the Out-patient Department of Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association.

Congenital dislocation of the hip is a displacement of the femur in its relation to the acetabulum, existent at the time of birth. The former is commonly found lying behind the acetabulum, but several cases have been reported where the displacement was forward and upward.

FIG. 1.

Shows the shallow acetabulum and the capsule drawn across it, and carried upward on the side of the ilium. (Copied from E. H. Bradford, Trans. Congress Amer. P. and S., 1897.)

Of all congenital dislocations that of the hip is the most frequent. Of the various cases of deformity presenting themselves, probably not more than one per cent is thus affected.

While it is a comparatively rare affection, yet it is not so uncommon as many suppose. Cases that I have seen had generally passed unrecognized, previously. Some had been treated as hip disease, one, because of the lordosis, had been wearing plaster jackets, and still others had an unrecognized cause of lameness.

Without, at this time, touching fully upon the pathological anatomy of this affection, it may be stated that there are many causes which produce this condition. Different observers have laid stress upon different sets of phenomena to explain the clinical and anatomical conditions found present.

It is generally conceded that true congenital dislocation is an affection of uterine life. It is not a defect of development like hare-lip, but a malposition of bones with resulting structural changes in the soft parts, as in club foot. The affection, for some unknown reason, is more common in girls than in boys.

In the Transactions of the British Orthopedic Society, for 1896, is published, by Mr. Jackson Clark, the report of an infant specimen tending to show that intra-uterine pressure is an important cause, the thighs having been flexed for so long a period, without extension, as to cause contraction of the anterior portion of the capsule, which in extension would act as a fulcrum and result in throwing the imperfectly formed head out of the acetabulum.

My own observation is strongly confirmatory of that of some others, pointing to the probability that there is some general cause at work, at least in many cases, producing defects in the skeleton. Taylor reports the examination of an adult pelvis showing double congenital dislocation and imperfect development of the whole pelvis. There was marked shallowness and irregularity of the acetabulum, flattening of the femoral heads, while the whole pelvis was very light, and in some parts of egg-shell thinness, and the vertebral arches of the sacrum were incomplete. This writer calls attention to an article by Wolff, who describes the case of a nine year old girl with bilateral congenital hip luxation, and presenting other features of special interest. There was a fixed dislocation of the left tibia forward, a similar dislocation of the right knee, which could be replaced by the patient at will, and marked laxity of nearly all the joints of the body, in several of which luxations or subluxations existed.

In my own observation, one girl of eleven years, seen with Dr. G. A. MacCallum, of Dunnville, had, at birth, strongly marked genu retrorsum, with absence of the patella on the same side. As the backward displacement of the knee had been corrected, and she still walked with a slightly marked limp, further explanation was sought and found in the fact that there was a congenital luxation of the hip of the same side. Another case was that of a child in whom both tabiæ were congenitally absent. This boy had congenital luxation of one side, one testicle only found in the scrotum, and hare-lip with cleft palate.

There seems no good reason for trying to assign all cases to one general cause. It is certain that we must look upon these cases as dependent upon many various causes, imperfect development, intra-uterine pressure, laxity of ligaments, and traumatism before or at the time of birth.

The pathological anatomy is well known. The most important changes are those of the capsule, which is not ruptured as in ordinary traumatic dislocation, but is gradually stretched. As the child's weight increases

the upward ascent of the head is increased and the capsule is of necessity dragged with it. The shape of the capsule is changed from that of an irregular globe passing from the rim of the acetabulum to its attachment to the neck of the femur, becoming like an empty purse-bag glued to the iliac bone, the lower portion covering the acetabulum, the free portion enclosing the femorae head while there is a constricted portion or neck lying between.

This capsule stretched across the acetabulum and adherent to it becomes one of the chief obstacles in the way of successful reduction.

When the upper end of the femur has thus been allowed to lie upon the dorsum ilii for several years the soft structures become greatly shortened, and thus another obstacle is found to be in the way of satisfac-

tory rectification of the displacement. The pelvi-femoral muscles, especially the adductors are much shortened; so also are the pelvi-crural muscles.

These changes in the soft parts constitute the chief obstacles in the way of successful reduction.

When once a case of this kind has been carefully observed diagnosis, afterward, is comparatively easy in all such cases. In the adult and in larger children the attitude and gait are characteristic. In walking, if the luxation exists on both sides, the patient waddles like a duck; if on one side only, then at each step the body lurches to that side and is lowered as the end of the femur glides upward in its relation to the pelvis. There is marked lordosis if the luxation be double and on the dorsum ilii: if single there is less lordosis but the end of femur may be found as it projects into the soft tissues over the external iliac fossa.

Evidence well nigh conclusive is obtained when the patient lies upon the back, and the affected limb is carefully pulled downward and then shoved up again while the hand or the eye traces the gliding movement of the femur on the pelvis. In this manner the femur can be pulled down or shoved up again through a space of from one to two inches. In very many cases the head of the femur may be distinctly felt by digital examination.

The condition is seldom recognized till efforts to walk are made. The late walking and the insecure and unusual gait calls attention to some abnormality which may now be easily recognized. Seeing that so much attention has been given to this subject in the last decade, cases are likly to be recognized hereafter at a much earlier time.

The affections with which it is most likely to be confounded are, coxa vara, distortion following infantile paralysis, separation of the epiphysis, deformity following arthrthritis of infancy, traumatic dislocations, and disablement following hip disease.

In coxa vara (neck of femur bent downward) there is not the characteristic gliding motion of femur on the pelvis, and there are likely to be other evidences of the previous existence of rickets. The head of the femur is not out of the acetabulum. There will be less atrophy of the limb.

In cases afflicted with lameness from infantile paralysis, the femoral head will be found in the acetabulum, and generally some groups of muscles may be easily recognized as presenting disablement from paresis.

An early separation and absorption of the epiphysis, either through traumatism or arthritis of infancy, cannot be distinguished from congenital dislocation except through attention to the history.

In this connection the following cases are instructive:

CASE 1.—Jan. 15, 1891. C. C. male, 4 years. Had scarlet fever in the spring of 1890, had always been a healthy boy previously, active and perfectly formed Made a tedious recovery, having had several abscesses, one in front of the ear, one over the larnyx, and one over the trochanter of the left side. Did not commence to walk again till the autumn. The gait acquired at this time is described by the father as "waddling." As he stood and as he walked about, his appearance and movement were typical as pointing to double congenital dislocation-marked lordosis, bulging of the end of the femur under the glutei, the gliding movement easily evident to the eye or the hand. Diagnosis, separation and absorption of upper femoral epiphyses.

Taking into account the history and the present condition diagnosis, seemed to me very plain. As the father was greatly disappointed, discouraged and dissatisfied with my diagnosis and prognosis, I referred the case to another surgeon, who agreed as to the condition present, but thought it uncertain whether the case was one of congenital dislocation or one due to an arthritis with destruction of the upper epiphyses. In the future dealing with this case he admitted the correctness of my diagnosis.

CASE 2.—Nov. 18, 1893. W. F., 11 months, male. When two months old had much tenderness about the right hip, with swelling and fixation of the joint. This condition continued for two months, but at no time was there any discharge. Now the child seems healthy and strong. There is no difference in the length of the legs, no atrophy, no limitation of motion at the joint, no riding upward of the femur. Will not use the leg in standing, showing no disposition to bear any weight on this limb, but uses it freely, kicking it about when lying down. There seems a little flattening of the right natis. No definite diagnosis made.

Feb. 11, 1897. Walks with a limp characteristic of congenital dislocation of right hip. Femur glides freely on the side of the pelvis. Length of right leg from the anterior superior spine, 18 inches; of left leg, 19¼. On right side the tip of the great trochanter was on the same level as the anterior superior spine. Right thigh is slightly atrophied.

Diagnosis in this case is clearly a gliding femur upon the pelvis resulting from an acute epiphysitis when the child was two months old. When examined at eleven months old the femur still retained its normal position in its relation to the plevis, but as soon as the child began to place the body weight on that limb the displacement of the femur occurred, as the femoral head had disappeared, because of arthritis.

This child passed into the hands of another surgeon who had not had the advantage of seeing it at an earlier time, and who considered the case one of congenital dislocation.

Traumatic dislocations have been considered very rare in children. It is quite certain, however, that they do occur. The history should afford help. Mobility in this case is sure to be much less than in congenital dislocation.

If attention be given to the history, this affection should not be confounded with hip disease, nor with its results; yet, this has often been done. It is only in the very late stage of hip disease when the femoral head has been absorbed or removed, that gliding of the femur upon the pelvis can be observed.

The amount of resulting disability varies greatly in different subjects. As a rule, children are not much inconvenienced thereby. The limp is, of course, always strongly marked. The child generally tires easily, and long walks or violence applied through accident, sometimes causes pain. Persons of great weight, and those of weak muscles suffer most.

Treatment by purely mechanical means may be dismissed with a very few words. Though many attempts have been made, it may safely be said that none have succeeded.

Hoffa, of Würtzburg and Lorenz, of Vienna, are justly entitled to more credit than any other surgeons for placing the treatment of this affection upon a scientific and successful basis. Operative measures were resorted to at an earlier date by Poggi and Marjory, and by Paci at a later date; but the many cases treated by Hoffa and Lorenz, and by Delanglade, in France, enabled them to elucidate the obscurity of the pathological anatomy, thus laying the only secure foundation upon which to erect surgical success.

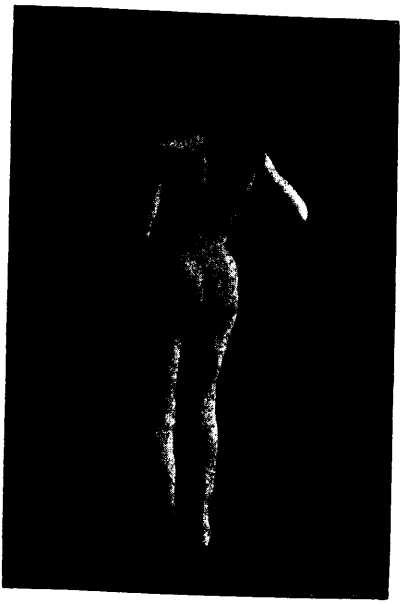
The first successful cases were reduced after incision, the cutting of shortened muscles, the opening of the capsule and deepening of the acetabulum. At this time many fatalities resulted, and there was not a little prejudice against operative interference; but increased knowledge of technique brought about, not only better results, but safety also.

In cases treated by operation, the incision is made to extend from the anterior superior spine downward and backward, crossing just below the tip of the trochanter, running along the outer border of tensor fasciæ femoris downward to the level of the trochanter minor. Muscles are retracted, and fascia incised till the capsule is reached. The capsular ligament is now freely incised and the femoral head and trochanteric line freely exposed. If now the attachment of the ligaments to the femur be completely severed, the head may be pulled outward and the acetabulum, covered by the capsule stretched across it, may be deepened with the curette. After the acetabulum has been prepared for its reception, the head is brought into position. It is important to see that the soft structures are sufficiently divided to enable the head to stay easily in the cup prepared for it, and that the latter is deep enough to present a good rim which may serve to retain the replaced head in position.

In dressing, the utmost care is required; and, in fact, throughout the whole procedure, the aseptic precautions must be most rigid. As the wound is a deep one, and may easily be shut in in its deeper parts by muscular contraction or the closure of layers of fascia, drainage is important.

The limb should be placed in a flexed and abducted position, and thus retained by a gypsum dressing extending from the axillæ to the feet.

It is now certain that these cases can be cured by an operation such as that just described. In a case reported by Delanglade, a child of three years died from measles six months after operation, and the femoral head was found resting securely in the socket. Hoffa and Lorenz especially have reported excellent results with but little shortening, good motion, and slight lameness. When suppuration results, as it has in a good many cases, there is sometimes ankylosis or limited motion. This condition, however, still represents a great gain, as a gliding femur rest-



ing upon the side of the pelvis is one of the most serious disabilities; and secure anchorage, though with ankylosis and some shortening is a great gain.

In younger children, say under seven years, incision is now seldom found necessary. The experience gained in reducing the dislocation where incision was made has so familiarized the surgeon with the pathological conditions present that successful reposition can be secured in young children by a bloodless method.

Strong traction on the affected limb must be made so as to stretch the soft structures and produce abduction. The anatomical conditions present are quite different from those found in ordinary dislocations. It has been pointed out, and is shown in fig. 1, how the capsule is stretched across the acetabulum preventing the femoral head from entering. In order to stretch this portion sufficiently, it is necessary to employ abduction, extension, circumduction and traction with great force, so that the

narrow portion of the constricted purse-like capsule may permit the passage of the femoral head. Unless the attached and narrowed portion of the capsule can be so stretched as to permit the passage of the head the operation must be unsuccessful, and incision becomes a necessity.

Even when successful reduction has been effected, the tendency to slip out again is very great, and the limb must be retained in a strongly abducted position, and the patient allowed to walk about so as to cause pressure upward and inward, thus securing not only the retention of the head, but also deepening the acetabulum, and thus preparing the way for the secure retention of the femoral head when the limb has been restored to its ordinary position.

Briefly to epitomize the present status of surgical knowledge and practice upon this important subject:

1. The dislocation exists at the time of birth.
2. The proportion of cases to the whole number of children born is very small.
3. It usually passés unrecognized till the time when the child is learning to walk.
4. The anatomico-pathological conditions are quite different from those present in ordinary dislocations.
5. The insecure relation of the femur to the pelvis causes very marked disability and limp.
6. In children under six or seven years, bloodless and successful reduction can be effected producing ideal results.
7. In the case of older children, and if the more conservative method fail, in younger children reduction and cure can be effected by incision.

12 East Bloor St., Toronto.

Removal of Biliary Calculi from the Common Duct by the Duodenal Route.—McBurney *(Annals of Surg.,* October, p. 481) has performed this operation successfully six times. When a calculus is situated at the extreme lower end of the passage, and when it cannot be dislodged to a place higher up in the duct, its removal without opening the intestine is a matter of great difficulty and not a little danger. Removal by the duodenal route is indicated; the only objection is that the intestine is necessarily incised. But suture of duodenum is much easier than suture of the common duct, and if properly done will heal rapidly. The writer believes that the operation has a much wider application; he would prefer it for the removal of a calculus situated at almost any point in the common duct. He has found the orifice of the duct very easily dilatable, and it may be freely incised for at least half an inch with safety. The operation is quicker, cleaner and safer than the usual one. It has also the advantage that, by the introduction of a probe, the bile duct can be examined for a long distance upward towards the liver, and also when the orifice of the duct is dilated to a large extent there is far less likelihood that overlooked fragments of gall-stone, granular material, or thick bile will be retained and cause further obstruction.

PROGRESS OF GYNAECOLOGY.

BY A. LANTHORN SMITH, B.A., M.D., M.K.C.S., ENGLAND,

Fellow of the American and British Gynaecological Societies, Professor of Clinical Gynaecology in Bishop's University, Gynaecologist to the Montreal Dispensary, Surgeon in Chief of the Samaritan Hospital for Women, Surgeon to the Western General Hospital.

GYNAECOLOGY AT THE EDINBURGH MEETING OF THE BRITISH MEDICAL ASSOCIATION.—On the way to the meeting I had the pleasure of hearing an address by Martin, of Berlin on the Progress of Ovarotomy in the last twenty years. It was a remarkable paper by a remarkable man. He has adopted the vaginal route to a great extent, and he closed his papers by giving the results of 131 vaginal laparotomies for diseased ovaries and tubes and for retrvoersion, ovarian cysts and small fibroids, etc. Out of these 131 cases he lost two. Since my return from Berlin I have performed a number of these operations at the Samaritan, Western, and at my private hospital with most gratifying results. These will be reported in full later on but in the mean time it is of interest to note that all the patients operated by the vaginal route made a much quicker recovery than those by the abdomen. Although they included pus tubes, tubal pregnancies, retroversion with fixation cystic ovaries, and closed tubes which were opened, yet not one of the patients died. Another striking advantage was the absence of the abdomenal scar and the pain from the incision, which these patients generally suffer from very acutely was absent. In fact most of these patients did not require any anodyne whatever. During the discussion at the recent meeting of the British Gynaecological Society, a gentleman reported a number of cases by the vagina with bad results and the other speakers all pointed out with great stress that the vaginal route is not suitable for large tumors of any kind whether fibroids or collections of pus, because it is almost impossible to deal with the adhesions which are so often present in these cases In properly selected cases I feel sure that the vaginal route has immense advantages over the abdominal one.

One of the most interesting figures at the meeting was Doyen, of Paris, who showed two new instruments; one for automatically holding open the abdomenal incision, and the other, his instrument for arresting hemorrhage without ligatures by means of an enormously powerful crushing machine. The broad ligaments with the ovarian artery is seized and compressed for a minute with such force that it is completely crushed and when it is taken off no blood flows. I was told in Paris that it was not to be depended upon as several times secondary hemorrage had followed. I would prefer to trust Dr. Skenes electric clamp which dessciates the artery. One of the most interesting features of the meeting was a cinematographic representation of an abdomenal hysterectomy given by Doyen in one of the large halls of the University, at which there were six hundred doctors present. He is a very rapid operator and has devised a new method which only requires four minutes from the first incision until the whole uterus including the cervix is in the dish. The salient features of his method is to put a clamp on the two ovarians and then to catch the cervix through an opening in the vagina in Douglas cul de sac and draw it up forcibly, tearing it away

from its connections laterally and to the bladder in front. The uterine arteries are thus distinctly brought into view and clamped. His only takes two or three minutes for removing the uterus and some eight or ten minutes more are used in tieing the arteries and closing the opening in the pelvic peritoneum. I had the pleasure of being one of the eight or ten who saw Doyen do two total abdominal hystorectomies for fibroid in Prof. Simpson's service at the Royal Infirmary and he did one of them quite as quickly as the six hundred saw him do it by the cinemetograph.

Another interesting figure was Morrisanne of Naples, a gentleman very short in stature, about three feet six, but a giant in intellect, who gave an address on Symphiseotomy in French, who was followed by Dr. John Moir of Edinburgh, ninety-five years of age, who told of the improvements in obstetric and gynaecology in his life time.

The hottest discussion of the meeting was on Dr. Milne Murray's paper on the use and abuse of the forceps, and incidentally Dr. Japp Sinclair's excellent paper read at Montreal last year condemning the too frequent and too early use of the forceps came in for a great deal of abuse.

Dr. Sinclair stated that the forcep was responsible for a great deal of injury to women who were confined in the neighborhood of Manchester. It was evident that the majority of those present at the meeting were general practitioners who used the forceps to save time and did not want to be reproached for causing puerperal lesions.

There were several interesting papers on the proper time for removing pus tubes, and the general feeling was that it was safer to operate during the interval than during the attack as is also the case in appendicities. There was also a very warm discussion on the relative advantages of the abdominal and vaginal route for removing pus tubes, and the general feeling was that it was easier and safer to remove them by the abdomen. As disease of the vermiform appendix frequently complicates pus tubes, it was pointed out that the possibility of having to remove it in any case was a sufficient reason of itself to induce us to operate by the abdomen. Dr. Macan of Dublin, laid great stress on the importance of making a careful bimaninal examination under narcosis before deciding upon the vaginal route. Landan of Berlin, was strongly in favor of the vaginal route even for bad pus cases, and he has the courage of his convictions for I saw him removing the uterus and both tubes and ovaries by the vagina in a very bad case while I was in Berlin. One thing was very evident on this occasion, that while it is difficult to remove large pus tubes even after the splitting of the uterus in two and consequently sacrificing it, it is well nigh impossible to remove them through an opening in either the anterior or posterior vaginal vault without removing the uterus. Some years ago I attempted to do this and was compelled to abandon it by the vagina and to complete the operation by the abdomen. This combined operation by the vaginal and abdomenal route was the subject of a long discussion at the December meeting of the British Gynaecological Society. Dr. Arthur Giles summoned up the general opinion very concisely by saying that the raison d'etre of the vaginal operation was to obviate the necessity of opening the abdomen, and that there was nothing that was done by the combined

method that could not be done by the abdominal alone; consequently it seemed to him that to open the abdomen after beginning an operation through the the vagina was practically a confession of failure, it meant that the operator had found himself unable to carry out his original intention.

It was not his experience that abdominal operations for pyosalphix had a specially high mortality, for it happened that a rather large proportion of his cases of abdominal section had been for pyosalphix and so far there had been no death among them. I might add that my own experience agrees with Dr. Giles, as I have often been agreeably surprised to see patients recover from the most serious operations for pus tubes when neither the assistant or myself has thought it hardly possible.

Conservatism in Gynaecology has been receiving a good deal of attention during the last few months. Up to within a year or two ago it was the custom to remove both tubes and ovaries whenever one tube was diseased, even though the other tube and both ovaries were apparently healthy. When this was done in young women the artificial menopause brought on so suddenly was accompanied with great inconveniences, so much so that many of these young women declared that they regretted having had the operation performed. This led to remove only the tube and the ovary on the affected side and although we occassional were reproached for not making a complete cure by removing both, mostly in cases of sclerotie ovaries, yet these cases were much fewer than those who complained of the miseries of the premature menopause. More attention was then directed to the matter and now we frequently leave both ovaries in even where we have to remove both tubes for suppuration. Nearly a year ago such a case came under my care; a young lady who was infected by her fiancee with gnorhoea leading to two very large pus tubes. He so regretted his crime that he was anxious to make amends by marrying her and she begged that I might leave her ovaries. The pus tubes were therefore removed without tying the ovarian artery or otherwise hurting the ovaries except that the adhesions were stripped off them and they were carefully cleaned. This patient made a splendid recovery and is now very happily married. She menstruates regularly and normally and has all her womanly feelings and attributes. As I used catgut to tie off the tubes at the corner I would not be surprised to learn that she had become pregnant. In many other cases I have removed three-quarters of one or both ovaries and and a part of one tube with very satisfactory results. As many of these were done during the last few months it is too soon to expect them to become pregnant, but there is no reason why this should not occur. Since beginning this article I have operated on a lady for retroversion with fixation who was most anxious to have children. I found both tubes closed and imbedded in adhesions, the result of a severe attack of pelvic peritonitis from which she nearly died eight years ago. Both ovaries and tubes were torn almost to shreds by the enudations and nearly an hour was spent in patching them up with fine silk; but finally a good tube was left through which a prob could be pressed into the uterus. She is making a remarkably pleasant recovery from the operation and I have yet hopes of her becoming pregnant.—250 Bishop Street, Montreal.

THE MODERN TREATMENT OF UTERINE FIBROIDS.

BY W. A. NEWMAN DORLAND, A.M., M.D., PHILADELPHIA.

Perhaps there is no question more interesting, and certainly none more practical, than the treatment of fibroid tumor of the uterus. It is plain to be seen that no hard and fast rule can be laid down whereby each and every case as it presents itself can be acceptably disposed of. In the first place, such a course would assume the aspects of a dogmatic empiricism, and would place at a discount diagnostic distinction. There is as great diversity in the nature and complications of fibroid tumors as there are variations in the personal characteristics of the patients bearing them, and the truly scientific and successful abdominal surgeon is he who studies his case before stating the proper course of treatment to be pursued. There is now sweeping over the country, and, in fact, over the entire surgical world, a strong reaction against the indiscriminate employment of the knife that has been so popular during the last decade and a half, and this conservatism is as noticeable in the treatment of uterine fibromata as in the so-called conservative treatment of the uterine appendages. It must be remembered, however, that the pendulum has frequently swung as far to one extreme as it previously had done in the opposite direction, and that there is a radicalism that is more conservative than the strongest conservatism.

This brings us, therefore, by natural sequence to my next aphorism, namely, that an ability to accurately diagnosticate a given case is vastly more important than a knowledge of the use of the various surgical implements at our command. It was a dictum of my lamented teacher, the late D. Hayes Agnew, that a good physician may make a good surgeon, but a good surgeon must be a good physician. By analogy I may remark that a good diagnostician may develop into a good operator, but a good operator must be a good diagnostician. Acknowledging, therefore, the importance of being able to recognize at a glance the clinical features of a given tumor whereby we may determine what would be the most suitable plan of treatment to adopt in that case, it behooves us to group, as far as is practicable, the various forms of the tumor and their respective indications for treatment.

As we glance over the entire field of treatment, we find the subject naturally arranging itself into three distinct groups, as follows: (1) The medicinal treatment; (2) The use of electricity; (3) Operative procedures, which may be conservative or radical.

THE MEDICINAL TREATMENT OF UTERINE FIBROIDS. Until recently all gynecologists have regarded the administration of drugs to arrest the growth of a fibroid tumor as useless in most instances, and worse than useless—dangerous in many cases. It is claimed that by resorting to such a course of treatment often valuable time is lost, because of the progressive decline in the patient's strength, due to the repeated hemorrhages, and the general wear and tear upon the system attendant upon the presence of the tumor. In addition, the friction produced

between the tumor, when it has gained an appreciable size, and the surrounding viscera results in the formation of strong adhesions whereby subsequent surgical procedures will be rendered materially more difficult or even impossible without grave injury to vital structures. This course of argument is largely based on sound principles, and it should be stated at once that probably the vast majority of cases of fibroid tumor will be best treated by early resort to some form of operation. It is recognized, however, by even the most radical of the gynecologists, that circumstances arise when operation should be longer postponed, and a palliative treatment instituted. Such circumstances are the early approach of the menopause, when the tumor is not of excessive size, and has not been productive of urgent symptoms, or when such symptoms are manifestly diminishing in severity with the progressive oncoming of the climacteric; the absolute refusal of the patient to submit to operative interference; and the association of some depressing general disease, as pulmonary tuberculosis, renal inadequacy, or a grave cardiac lesion, whereby any operative procedure would be contraindicated.

Recognizing this truth, we as progressive men, whose main duty it is to consult the health and well-being of our patients, must now add some other indications to those already mentioned. It is at this point that our therapeusis may be radically influenced by the pathology and etiology of the disease. Two very suggestive papers have been published during the past three years, which have been somewhat obscured by the immense amount of literature which is daily appearing in support of surgical removal of the growths. While these papers, as I have said, are strongly suggestive, they have not as yet been fully substantiated by clinical proof and, therefore, cannot be brought forward as authorative in their statements. They do, however, open up new avenues of treatment in those cases in which for obvious reasons more radical measures cannot be adopted. The first of these by Byford,* of Chicago, suggests the microbic origin of fibroid tumors, and recommends a course of treatment tending to the destruction of these irritating agents. He claims that were Cohnheim's theory of neoplastic formation true, fibroid tumors of the cardiac muscle should be exceedingly common, while in point of fact they are exceedingly rare. On the contrary, the uterine muscle, which is not subjected to such constant strain as is the heart-muscle, but is essentially exposed to invasion by bacteria of all kinds, is a very common seat of these new-formations. Arguing from such a basis Byford suggests the following anti-microbic treatment: Curettement, to remove the germs; the application of electricity to still further destroy bacterial action; and the administration of ergot to diminish the vascularity of the parts, and thereby produce an environment less conductive to germ-growth.

The other theory of the formation of the tumors is advanced by A. Aubeau, and is also irritative in nature; it ascribes the growth to an old specific (syphilitic) infection, which, originating in a placental inflammation, gives rise to a tumor-formation upon the placental graft; this

*North American Practitioner, March, 1898

spreading outward through the uterine wall may attain the size of a walnut, or even a mandarin orange, and materially alter the size and shape of the uterine body. This tumor, Aubeau states, passes through three successive phases: "First, a phase of induration (hardened gumma), corresponding clinically to pure metrorrhagias; second, a phase of softening (melting of the gumma), corresponding to a gummous hydrorrheic flow, alternating with metrorrhagias; third, a period of fibrous or sclerotic organization (fibromyoma), whose symptons are the same as in fibrous tumors." The tumor is, then, at first inflammatory in nature, then fibromyomatous, and then sclerotic (fibroma). It necessarily follows, that with such an origin, an antisyphilitic treatment should be adopted and persisted in for some time. Under such a course of treatment Aubeau claims to have seen tumors of large dimensions melt away gradually before his eyes.

There is still another medical course of treatment which demands most careful consideration on our part. I refer to the influence of organotherapy on uterine fibroids. Jouin, first called attention to the close relationship existing between the thyroid gland and the pelvic organs. In addition to the influence exerted by the uterus, especially at the time of the menopause, upon the size of goiters, he was the first to observe a diminution in the size of a fibroid tumor under the administration of thyroid extract given to reduce obesity. Since then numerous clinicians have substantiated his observation in many instances, and thyroid extract, or thyroidin, is now beginning to hold a prominent position in the therapeusis of uterine fibroids as well as of other pathologic conditions.

In addition to the foregoing triad of medicinal courses in the treatment of fibroid tumor there are other remedies which may be used merely as palliatives. The old theory of the value of ammonium chlorid, as taught by Goodell and the older school of gynecologists, does not receive much endorsement by the younger men of to-day. Ergot in small and repeated doses, ammonium or potassium bromide, the frequent use of salines, the fluid extract of hydrastis canadensis, and the judicious employment of iron and other tonics and hematinics may have a gratifying effect in diminishing the amount of hemorrhage and leucorrhœa. These should be supported by absolute rest, if possible, and the administration of the best nutritious food, in order to atone for the tremendous drain upon the system.

2. THE ELECTRICAL TREATMENT OF FIBROID TUMOR.—The use of electricity in the management of fibroid tumors, I am fully convinced, should be relegated to the limbo of the medical past. I have personally seen a tumor of moderate dimensions, and one that could have been readily, and I believe safely, removed by the surgeon transformed into a suppurating mass of corruption as a result of a few weeks' electrical puncturation, with sinuous tracts communicating with the vagina and rectum. It is surprising, when the corollary is noted, and we find the patient succumbing from septic poisoning, subsequent to the surgical

operation that was performed under protest by the consultant as a *dernier ressort*? In the treatment of uterine fibroids, at least, electricity has been weighed in the balance and found wanting.

3. OPERATIVE MEASURES.—It is undoubtedly true, that sooner or later the vast majority of these patients pass under the hand of the operator. Too often, I fear, is he insufficiently skilled in his art, and hence the unnecessary high death-rate in the statistics of many surgeons. not only are such operators wronging their patients and the public, but they are bringing down unmerited reproach upon the profession at large and the form of operation in particular. A thorough and comprehensive course of instruction in every surgical detail should precede any attempt at operation. A few years since a physician in attendance at a post-graduate course in this city, remarked to me, that he had now seen twelve abdominal sections, and upon his return to his home in the East, he intended to perform the operation upon two of his patients, who were suffering from pelvic disease. I replied, that before I performed my first section, I had assisted in over 200 similar operations. I cannot emphasize too strongly my original assertion, that the ability to diagnosticate truthfully is far more valuable and commendable than is the ability to wield skilfully the scalpel.

A momentous sign of the times is the reactionary wave of conservatism in all surgical procedures, and especially is this to be noted in the surgery of the pelvis. It is now recognized as obligatory upon the surgeon to the public at large. Where formerly abdominal hysterectomy alone would have been thought of, to-day myomectomy or the ligation of the blood-supply will be performed in suitable cases. It is not my intention, nor would I have time or space, to enter into a full detail of the history, growth and technic of these various surgical performances. All that I can attempt will be a mere outlining of the indications and scope of each. Glancing, then, at the conservative measures that are now being largely adopted in the treatment of operable fibroid tumors, the following scheme presents itself: 1. Curettement; 2. Myomectomy, original or abdominal; 3. Morcellation and avulsion; 4. The ligation of the blood-supply. The radical procedures that become obligatory in a certain percentage of cases are: 1. Castration; 2. Supravaginal hysterectomy: 3. Total extirpation.

CURETTEMENT.—The pronounced histologic changes that occur in the uterine mucosa, as a result of the presence of a fibroma in the wall of the womb, result in the development, sooner or later, of a very intractable form of endometritis most commonly of a hemorrhagic nature. The pathology here consists in a vast overgrowth of the interstitial connective tissue with resultant occlusion to a greater or lesser degree of the deeper blood-vessels, and a corresponding congestion of the more superficial portions. Hemorrhage, therefore, is of frequent occurrence, and thus is produced the most common sympton of uterine fibroma. It stands to reason that the removal of the congested and pathologically spongy mucoso will temporarily relieve this distressing symptom. Hence curettement finds a place in the conservative operative procedures for the relief of this neoplasm.

The special indications for the operation are repeated and excessive hemorrhages, especially when associated with the presence of a submucous fibroid, which shows a tendency to become pedunculated. Not only will the hemorrhage be considerably lessened, but the removal of the surface tissue will favor the spontaneous euncleation of the tumor from its bed and its final cure. If the tumor has become distinctly pedunculated curettement must give place to a more radical procedure, to be mentioned directly. Curettement also finds a field in the treatment of the endometritis that persists after the removal of the uterine growth by some other or more rapid method, such as myomectomy, supra-vaginal or from below. It must be remembered, however, that the operation of curettage is by no means the simple and the harmless procedure that we have been led to believe. If not properly performed it may be attended by a dictinct mortality, averaging two per cent, as was stated at the recent meeting of the American Medical Association at Denver—greater, as you will perceive, than that attendant upon properly performed abdominal section for the removal of the appendages. This mortality results primarily from sepsis, and secondarily from perforation of the uterine wall, which is distinctly softened and attenuated in spots as a result of the long-standing metritis and endometritis.

MYOMECTOMY.—Myomectomy is *par excellens* the operation to-day. It is right here that one may especially see the conservative tendency that is rapidly invading the field of abdominal and pelvic surgery. Where three years ago nothing short of a hysterectomy would have been performed, to-day the less radical method of eradication of the morbid growth with conservation of the healthy uterine tissue is the ideal method. This has very properly been pronounced at once the most radical of the operative procedures for the cure of this tumor and the most conservative. Unfortunately, it has not yet been generally adopted, even by some of the most expert of the gynecologic surgeons, partly because of the satisfactory results that have attended the more radical operation, but largely because of the timidity of the operator, who for some occult reason fears to *incise* where he would boldly *excise*. The present growing popularity of the operation is largely due to the manly stand taken by the prince of operators, Kelly, of Baltimore, who has demonstrated its practicability even in the presence of multiunclear involvement of the uterus. The operation may be performed according to the exigencies of the given case, either through the vagina, or through an abdominal incision.

Vaginal myomectomy may be employed in the case of submucous fibroids which have not become pedunculated, the mucous membrane being incised and the tumor enucleated and removed by means of traction with volsellum forceps. The accompanying hemorrhage is controlled by the use of antiseptic gauze tampons. Care must be observed not to open up the peritoneal cavity in these intra-uterine operations. A preliminary dilation of the os is necessary in most instances. The vaginal operation may also be employed to remove small sub-peritoneal growths that are attached to the uterine wall close to the cervix, an anterior or posterior

kolpotomy being performed as the preliminary operation. The great dangers of the operation are hemorrhage and sepsis, both of which must be prevented by appropriate precautionary measures.

Abdominal myomectomy is rapidly supplanting abdominal hysterectomy in a large percentage of the cases of extensive fibroid involvement. Not only by such a procedure are the uterine appendages preserved, and the patient thereby saved the intense suffering of the induced menopause, but the uterine body itself is frequently left in a practically intact condition, and even serviceable for the child-bearing function. Not only can one immense fibroid nodule be enucleated without much difficulty, but even twenty or more smaller growths scattered throughout the organ may be safely extirpated and a useful uterus left. Especially valuable is the operation in the case of a single tumor involving one or other of the uterine walls, from which it may be entirely removed, the capsule being but lightly adherent to the growth, the limitations of which are always well-defined. After such an operation a rapid involution is induced in the hypertrophied uterine tissues, which in a remarkably short space of time return to their normal condition. It would be untrue to state that this operation is easier in performance than is the hysterectomy. Like all conservative processes the technic is more delicate and intricate, and the operation proportionately more tedious.

The *technic* consists in the incising of the abdominal wall to a sufficient extent; the freeing of adhesions and lifting the uterus and tumors through the incision, so as to shut off the peritoneal cavity as far as possible from the seat of operation; and the enucleation of the tumors *seriatim*, by making appropriate incisions through their capsules. In the case of pedunculated growths the flaps are made close to the point of attachment to the uterus, while the capsules of sessile and larger growths are opened on the summit, and the tumors shelled out by means of special spatulæ. Hemorrhage is then controlled by deeper or more superficial satures, according to the size of the excavation, any superfluous tissue being trimmed away, and extreme care being taken to bring the parts accurately together. If need be, tiersuturing may be employed, the deeper parts being united by fine chromcized catgut, and the more superficial by fine silk.

The special *indications* for abdominal myomectomy are: First, cases occurring in young women, under 35 years of age, in which the symptoms are becoming troublesome and the tumors are not deeply situated in the broad ligaments; secondly, cases occurring in sterile women, who are in hopes of future conception; and thirdly, cases in which, even in the women near the menopause, there is a special aversion on the part of the patient to the loss of her generative organs. Provided the uterine structure has not been largely destroyed, the mere multiplicity of the tumors does not contraindicate the operation. The dangers of the operation to be borne in mind, as indicated by Bland Sutton, are: 1. Severe primary hemorrhage and subsequent oozing. 2. The greater risk of sepsis. 3. The protracted operation. 4. A resultant sinus in the uterine

wall, with danger of subsequent rupture. 5. A protracted convalescence. After the menopause the operation of hysterectomy without removal of the appendages is probably the better operation to perform.

MORCELLATION AND AVULSION.—These operations, the former of which has been very graphically described under the term of "piecemeal surgery," are applicable only in one class of fibroid tumor, namely, in pedunculated submucous growths. If after dilatation of the os uteri, the fibroid polyp be found on examination to be but loosely attached to the uterine wall by means of a more or less elongated and slender pedicle, it may be grasped by a pair of avulsion forceps and twisted off. Practically no hemorrhage follows this operation, and should such occur, the mere introduction of a tampon of antiseptic gauze will control it.

MORCELLATION (morcellement) on the contrary, is not only a hemorrhagic operation, but is also unsatisfactory and tedious. It should only be adopted when vaginal myomectomy is out of the question, and only in the case of moderately pedunculated growths. The operation is sometimes supplemented by division of the anterior wall of the cervix and the uterus for a varying distance with ligation of the uterine arteries.

LIGATION OF THE BLOOD-SUPPLY.—This operation may be performed in one of two ways. Either the abdominal wall may be incised and the broad ligament exposed from above, the blood supply being arrested by ligatures applied to both of the ovarian arteries and to one uterine artery, as first performed by Byron Robinson, of Chicago; or the vaginal vault may be incised and the uterine arteries ligated from below, as was suggested simultaneously by Franklin H. Martin, of Chicago, and S. Gottschalk, of Berlin. The objects of these procedures are two-fold, namely, to control the hemorrhage, and to induce an atrophy of the fibroid growth by depriving it of the nourishment through the blood-channels, as well as by altering the nutrition of the uterus by interfering with the nerve-supply.

The advantage claimed for Martin's operation are its low or absent mortality; it does not open the peritoneal cavity; it does not unsex the woman; there is no external incision and subsequent scar-formation; it may be employed in those grave hemorrhagic cases in which more radical procedures would immediately prove fatal; and it may be safely resorted to in the grave intra-ligamentous cases in which the shock of a more radical operation would be very severe, or even fatal. The indications for the operation are as follows: 1. Interstitial fibroids of moderate size associated with hemorrhage and rapid growth at about the time of the climacteric. 2. All forms of hemorrhagic and rapidly growing fibroids of moderate size in which the patient refuses any more radical procedure. 3. All bleeding or growing interstitial fibroids which have not yet become a source of danger from their bulk, and which from their situation must be mainly nourished by the uterine arteries. 4. Small subperitoneal fibroids springing from the lower uterine segment, and not adherent to adjacent structures, through which adhesions considerable nourishment may be obtained. The operation should not be performed: (1) In the

case of pedunculated tumors of the submucous or subperitoneal form; (2) in tumors of excessive size, for fear of inducing rapid degeneration of the growths; (3) in tumors already the seat of degenerative processes, malignant or otherwise.

The *technic* consists in careful vaginal asepsis; dilatation of the cervix with tamponade of the uterine cavity; opening of the lateral vaginal vaults by semicircular incisions and freeing of the bases of the broad ligaments; double ligation of each uterine artery with division of the vessel between the ligatures; irrigation of the wounds and closure by means of continuous catgut sutures. The *dangers* of the operation are: 1. The possibility of ligating or otherwise injuring a ureter. 2. The difficulty occasionally experienced in findingthe blood-supply. 3. The danger of causing necrosis or caries in the tumor. Should the operation not prove successful a subsequent hysterectomy may be the more readily performed.

CASTRATION.—Castration, salpingoöophorectomy, or Battey's, Tait's or Hegar's operation, as it is variously known to gynecologists, is the lesser of the more radical procedures that have been resorted to in the effort to arrest the growth of uterine fibromata. Its object is precisely that of the method just considered, namely, to lessen the blood-supply from above, plus the early production of an artificial menopause with the atrophic changes that supervene at that momentous epoch in the woman's life. The *indications* for such an operation are: 1. Cases in which the tumor occurs in young women, and is showing a tendency to become hemorrhagic, or to assume a rapid growth. 2. Small fibroids that show a tendency to become intraligamentous. 3. Cases in which it is not deemed advisible to remove the entire growth, because of extensive bowel-adhesions, or on account of the depressed condition of the patient. The *contraindications* are: 1. The presence of urgent pressure-symptoms, as in fibroids of the lower uterine segment, whereby it becomes impossible to wait for the slow shrinkage in the bulk of the tumor. 2. Excessive size of the tumor, for fear of the production of necrotic changes. 3. Symmetrically developed myomatous tumors, which probably get their main nourishment from the uterine blood-vessels. 4. Edematous or telangiectatic tumors. 5. Subserous growths, which can better be removed by the operation of myomectomy. The disadvantages of the operation are the early production of the menopausal symptoms, the prevention of the possibility of subsequent conception; and the possibility of failure, because of the continued blood-supply from below. The technic is that of simple abdominal section with removal of the appendages.

SUPRAVAGINAL HYSTERECTOMY.—Supravaginal hysterectomy with extra peritoneal treatment of the stump, or the Baer or Stimson-Baer operation, as it has been designated, is an ideal operation of its kind, and is only losing ground because of the increasing tendency to conservatism in surgery. It was my good fortune to assist Dr. Baer in the first forty odd operations of the kind performed by him, and I am, therefore, in a position to state that in the suitable cases it is by far the best operation that has

been proposed. Today, however, its limitations are much greater than they were three years ago, and justly so. In order to avoid all the unpleasant sequences of castration, in order to reduce the mortality of abdominal section in general, and in order to favor the further propagagation of the race, it is but proper that the operation of hysterectomy be restricted to those cases in which any other procedure is contraindicated.

The *indications* for the operation are, therefore: 1. Cases in which there are urgent pressure-symptoms. 2. Cases in which other methods, including the more conservative operations, have failed. 3. Tumors of excessive size, which are becoming or have become intra-abdominal. 4. Tumors that have undergone degeneration, malignant or otherwise. 5. Large intraligamentous growths. 6. Where there is associated grave disease of the uterine appendages. The technic of the operation consists in the making of an abdominal incision; the freeing of all adhesions and the lifting of the tumor through the abdominal incision; ligation of the ovarian arteries on either side with preservation, if possible, of the appendages; division of the broad ligaments upon either side; ligature of the uterine arteries in the broad ligament tissues all about the level of the internal osuteri; the formation of two peritoneal flaps, one from the anterior and the other from the posterior aspect of the uterus; a wedge-shaped division of the cervix from before backward; closure of the cervical incision by a transverse line of sutures, thus shutting off the cervical canal; approximation and suturing of the anterior and posterior peritoneal flaps; suturing of the broad ligament on either side; irrigation of the pelvis, and closure of the abdominal incision.

Finally, *total extirpation* of the uterus by vaginal section for fibroid tumor is, as has been tersely stated by A. H. Goelet, both unnecessary and unjustifiable, since tumors which are sufficiently small to permit of removal in this manner, either need not be interfered with at all, or may be treated by one of the less radical operative procedures.

Luxation of Eye from Blowing the Nose.—Schanz (*Beiträge zur Augenheilkunde*, Heft 34, 1898) reports the case of a glass-blower who, while blowing, had the gas jet blown into his face, which caused him to sneeze and violently blow his nose; the eye became displaced forwards out of its socket, but was replaced, with some force, by a fellow workman. He consulted Shanz. who expressed some skepticism as to his story; he then blew his nose, and the eye became proptosed. Shanz pressed it back; the lids were tense with air and crackled when touched. The air could be partly expressed. In a week the emphysema had entirely subsided, and some inflammation of the disc had also disappeared, and vision was normal. The patient had always been accustomed to inflate his cheeks, and thence expel the air in the process of blowing glass, and not directly from the lungs. This had led to an increase in the patency of Steno's duct, so that the parotid gland became inflated at the same time as the cheeks. Examination of the nose failed to reveal where its walls were perforated.

EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Indurative Mediastino-Pericarditis in an Infant, North-Eastern Hospital for Children: under the care of Dr. J. H. Sequeira. Notes by Dr. Blumfield (*Lancet*, Dec. 31, p. 1765.)—The following case is an excellent example of a rare condition which has received but scanty recognition. The first case seems to have been described in 1854 by Griesinger, and up to the present about 25 cases have been recorded. Their etiology is uncertain, though it is not improbable that many are associated with tubercle. It is possible also that some originate from a septic mediastinitis.

A male infant, aged 15 months, was admitted October 1st, 1896. In August there had been bronchitis and in September swelling of the face and legs. The case was sent to hospital as one of meningitis owing to a peculiarity in the child's cry. The infant was pale but otherwise apparently healthy; he cried constantly unless he was nursed but he did not appear to be in pain. The temperature was 99° F., the pulse was 80, regular, and of fair size, and the respirations 20. The tongue was clean.

The area of cardiac dulness was enlarged upward reaching to the upper border of the second left intercostal space; it extended also beyond the middle line of the sternum except over the manubrium. The heart sounds were normal. The feet and legs felt cold and pitted slightly on pressure. There was no albuminaria. The infant took his food and slept well. He usually sat up, while sleeping he lay on his back.

The condition remained unchanged, except that on some days there was blueness of the lips and ears, until November 3. There was then an obvious amount of fluid in the abdomen, the arms and legs were cold and blue, and the legs were considerably œdematous. Distention of the veins of the neck was noticed. On the 10th the edge of the liver was palpable $2\frac{1}{2}$ inches below the costal arch, and on the 23rd there was extreme ascites with much œdema of the abdominal wall. The urine contained phosphates and about $\frac{1}{8}$ albumin. On the 30th there was much diarrhœa, and on December 2 the infant died with all the symptoms of cardiac dilatation.

The necropsy showed the mediastinal tissues greatly thickened and adherent. The anterior mediastinal glands were enlarged and presented foci of caseation. The left lung was adherent to the chest wall at the apex and over the posterior surface of the lower lobe was some thickened and adherent pleura. The pericardium was about three-quarters of an inch thick, fibrous, and adherent everywhere to the heart, and the fibrous tissue spread upwards around the great vessels. Firm adhesions united the pericardium with the thickened anterior and posterior mediastinal tissues. The left pleura was adherent to, but separable from the pericardium. Both ventricles were dilated and hypertrophied. There was no

evidence of tubercle. The abdomen contained four pints of ascitic fluid. The liver was large, "nutmeg," and fatty; the kidneys and spleen showed changes due to venous engorgement.

Dr. Thomas Harris in 1895 published a monograph on mediastino-pericarditis. The youngest patient mentioned was a child, aged 2 years. The diagnosis is difficult. In the present case, except an increased area of cardiac dulness and an occasional lividity of the extremities there was nothing for weeks to lead anyone to suspect any affection of the heart.

Acne, Lupus, and Leprosy, and their relation to the Nasal Fossæ.—Dr. Sticker (*Wien. Med. Presse*, 1898, No. 42, col. 1660) lays stress on the frequency with which many diseases affecting the lymphatic system of the face have their starting point in lesions of the nasal mucous membrane. The tendency of erysipelas to originate in such a manner is well known, and glanders in animals has a similar starting point. In leprosy it is the rule to find ulcerating lesions of the anterior nares in the great majority of cases (80 per cent.), and it is legitimate to believe that this constitutes the seat of primary inoculation. The occurrence of lupus vulgaris in the nose is also well known, but a similar manifestation in lupus erythematosus is a more novel assertion. The writer recounts two cases in which ulceration of the nasal cartilages occurred in this disease, and in which tubercle bacilli were found in the lesions. [It may perhaps be permissible to doubt whether these cases were not rather instances of the superficial form of lupus vulgasis to which the name "erythematodes" has been applied. Such unusual cases would need very close examination before they could be admitted as proof of the tubercular nature of lupus erythematosus.] The occurrence of ulcers of the nares as a source of acne is also a somewhat novel discovery. The writer lays stress on the importance in all these cases of attention to the condition of the nose, from which the mischief starts, and states that by antiseptic irrigation of the nostrils, he has succeeded in curing cases of acne which had proved rebellious to all other treatment. He finally suggests that it may some day be found that measles, scarlet fever, smallpox, etc., are diseases primarily of the lymphatics of the skin, starting in the mouth or nose, and not general blood diseases, as they are usually considered, just as enteric fever has its main localisation in the intestine, the bacilli not passing into the general circulation.

Peculiar Cardiac Physical Signs in Phthisis.—J. Burnet, M.A., M. B. (*Lancet*, November 19, p. 1323; December 10, p. 1548; and December 31, p. 1816).—Attention has recently been called to the presence of cardiac impulse and sounds on the right side of the chest, although on post-mortem examination the heart was found in its normal position. In the cases referred to there existed cavity formation at the upper part of the right lung, with consolidation of the lower lobes. At first sight it seems difficult to account for the peculiar phenomena observed. It is a well known fact that during respiration cardio-pneumatic sounds are often produced which simulate closely organic cardiac murmurs, and, indeed, are often mistaken for these. They may be heard either in

cardiac systole or in cardiac diastole, and at times during both movements of the heart. Where there exists a cavity in the lung the sounds produced in that cavity may give rise to similar cardio-pneumatic murmurs In the cases already referred to the cavities present were situated close to the cardiac organ, and, moreover, had, so to speak, a bridge of consolidated lung connecting the heart with the cavity. In this way the cardio-pneumatic murmurs were conducted downwards from the cavity to the intercostal space on the right side over which they were audible. In a similar manner the impact of the heart was rendered visible and palpable on the right side of the chest by this combination of cavity and consolidation. It would appear that the presence of consolidated lung cannot of itself cause this conveyance of cardiac impulse, else it would be observed in cases of lobar pneumonia; there must also be cavity formation present above the consolidated area. It is the presence of a cavity that is one of the *sine quâ nons* of cardio-pneumatic murmurs in phthisis, and it is likewise the essential in the conveyance of cardiac movement to the right side of the chest. During the stage of cavity formation in phthisis he has frequently discovered the presence of these so called cardio-pneumatic sounds not only in the region of the cavity, but at an entirely opposite part of the chest, and have always observed that in such cases there was a well-defined bridge of consolidated lung substance existing between the cavity and the area, other than that of the cavity itself, over which these murmurs were audible. The cardiac impulse is conveyed in a similar manner, the transmission being due to the peculiar combination of cavity and consolidation in direct proximity to the heart.

Emphysema from Malignant Disease of the Sigmoid Flexure.—H. Kerr, M.A., M.B. (*Lancet*, November 26, p. 1391).—A demented woman, aged 66, in good health, and well nourished, vomited and appeared to have epigastric pain. She looked pale and ill. There was extensive emphysema over the whole of the left side and back, extending from axilla to ilium. Some swelling was noticed over the sigmoid flexure, which disappeared on manipulation, and was supposed to be due to intestinal gas. On the second day the emphysema was more extended, and the swelling was more pronounced. The pulse was 120, and temperature 101°. The skin over the lower part of the chest and back was red and indurated. During the next four days she became worse; she vomited once or twice, and died on the seventh day. The necropsy showed air in the tissues of the chest, and diffuse suppuration. In the left iliac region was a cavity containing liquid, fæcal matter, and gas, with a small opening leading to the intestine. The sigmoid flexure was adherent to the abdominal wall and the malignant stricture. The large intestine was much diluted.

The Nature of Erysipelas.—Hutchison (*Archives*, viii., p. 1,) states that there are many details respecting the nature of erysipelas which are but ill understood. Though undoubtedly contagious, it is probable, from clinical evidence, that a great number of cases originate without any introduction of contagious matter from without. it is probable that the

micrococcus, having once gained access to the cutaneous tissues, never afterwards leaves them, and may remain there completely latent for indefinite periods, ready at any time, on provocation, to manifest its activity. Also, it is probable that the micrococcus often exhibits its powers not alone, but in association with other microbes, or in a sort of partnership with the proclivities of the patients' cells. There is no one malady which, in reference to the total of its clinical symptoms, can claim the name erysipelas exclusively. We know well what we mean by the word when applied to typical forms, of which there are two or three at least; but there are a number of others which, whilst standing in close relationship, are not typical. In recognition of this, he prefers to speak of "erysipelatous inflammations" rather than "erysipelas." From the clinical standpoint, an inflammatory process is "erysipelatous," whenever the lymphatic spaces are involved in a rapidly spreading inflammation, which produces œdema, advances by a congested border, and quickly subsides in the part first attacked. Œdema vesications and a spreading edge are the features which characterise it. His suggestion does not conflict with the generally accepted doctrine of a specific microbe. But he does not regard the physical demonstration of this as materially helping the problems of the clinician, who has still to ascertain the conditions which limit and modify the activity of these germs, and the special character of the very varying symptoms.

The characteristics of erysipelatous inflammation are by no means always present together. In rare cases the florid congestion may be wholly absent. He has seen œdema without any trace of congestion spread from an operation wound, and run almost over the whole cutaneous surface, followed by speedy subsidence and subsequent desquamation. In every feature these cases simulated typical erysipelas, except in the dilatation of blood vessels. He has long recognised these forms under the name "white erysipelas." There is also another form, in which blood staining rather than congestion takes place, and the erysipelatous area is brown. It is not at all infrequent to witness erysipelatous dermatitis without vesications. The abruptly-defined border, a most valuable character in diagnosis, must not be overrated. It may be but slightly marked, or it may be present at one part of the edge and absent at others. Œdema is absolutely essential, but it may very much in amount and character. One attack of erysipelas does not prevent others, on the contrary, it predisposes.

Constitutional Effects of Superficial Burns.—Bardeen C. Russell, M.D. (*Johns Hopkins Hospital Reports*, vol. vii., No. 3, p. 137, 1898).—In the cases of five children so severely burned that they survived only a few hours, the pathological changes were swelling of the liver and kidney, softened and enlarged spleen, and above all, swollen lymphatic glands and gastro-intestinal lymph follicles; the hyperæmia of the thoracic and abdominal organs was moderate. In the blood the most striking change was a considerable fragmentation of the red corpuscles; many cells containing fragments of red corpuscles were seen in the spleen,

and some in the liver; thrombi, except in the skin, were uncommon The lymphatic glands from the thorax and abdomen showed œdematous swelling and focal changes in and about the germinal centres.

But little attention has been paid to the lymphatic glands in superficial burns. Russell found that wherever lymphocytes were, from the small nodules in Glisson's capsule of the liver to the largest lymphatic glands, these alterations appeared; apparently the first stage was œdema, followed by swelling of the lymphocytes in the germinal nests with vacuolation and nuclear changes. The germinal centre by this means expands until it reaches a size large enough to be visible to the naked eye. The protoplasm of the cell breaks up, certain endothelial cells in its neighbourhood act as phagocytes taking up the fragments of protoplasm and nuclei. In the Malpighian corpuscles of the spleen, the same changes are to be recognised.

How are these changes to be explained? Russell assumes that toxines elaborated by the destruction of the superficial layers of the skin, pass into the circulation, and, carried by the blood into the lymphatics, escape into the plasma towards the centre of the follicle where the arteries of the lymph glands break up into capillaries; this rapid flow of plasma gives rise to the œdematous swelling and tends to sweep the lymphocytes into the perifollicular lymph sinuses. Nearly identical changes have been found in the lymphatic glands of children who have died from various infective diseases, and similar lesions can be produced in animals by the injection of ricin, abrin, and similar complex organic poisons. Death evidently is the result of an acute toxæmia.—J. G. Adami, *Montreal Med. Jour.*

Pyrexia and Hyperthermia.—Meissen (*Berliner klin. Wochenschrift*, Nos. 23 and 24, 1898,) reports a case of remarkably high temperatures. A woman, aged 23, entered the institution at Hohenhonnef on account of what was presumably early phthisis. The most annoying symptom was a constant dry, irritable cough. Tubercle bacilli were not found, though there was impaired resonance at the left apex. On account of slight rises of temperature rest in bed was ordered. After this the temperatures recorded were abnormally low. The patient, however, had been taking her own temperature, but when this was done by, and under the constant observation of, her medical attendants, the thermometers, which were reliable instruments, frequently rose to over 110·6° F., whether they were placed in the axilla, mouth, or rectum. The general condition was but slightly disturbed, though sometimes there was anorexia, headache, or slight delirium. The type of fever was intermittent. Nothing except the dullness at the left apex could be found, and there were no malarial parasites in the blood. After going to her own home the family attendant found on one occasion a temperature of 114° F., which was accompanied by unconsciousness and delirium. After quinine had been taken for a time the fever suddenly ceased, the cough gradually disappeared after being present for a year, the general condition improved, and the physical signs in the lungs became perfectly normal.

The patient, though rather excitable, was not of a typical hysterical type. Still Meissen believes the cough and the high temperature were hysterical, the latter from a disturbance of the central thermotaxic mechanism. He proposes to call such rises of temperature, not depending on the introduction of toxic material, and not accompanied by the usual symptoms of fever, hyperthermia, as opposed to true pyrexia.

The Outlines of the Abdominal Organs.—Pichler (*Centralbl f. innere Medicin*, No. 36, 1898,) states that the shadow of the lower border of the normal liver may be seen under favourable conditions moving with respiration: (1) the patient must be in the dorsal position; there must be a good light coming from the head of the bed; (3) the abdominal walls must not be too thick or tense; (4) there must be no flatulent distension of the upper part of the abdomen; (5) the patient must breathe deeply. The outline of the right lobe is seen more plainly than the left. The outlines of the greater, or even of the lesser, curvature of the stomach, of the spleen, and of the intestines can also be observed under certain circumstances. Clinically the sign is valuable, if palpation or percussion are impossible owing to tenderness. Litten (*ibid.* No. 40,) stated that he had observed this liver shadow before he discovered his "diaphragm phenomenon," and had published an account of it in 1892. He considered that the lower edge of the liver could frequently—not occasionally, only as Pichler supposed—be seen to move with respiration, and, together with the diaphragm phenomenon, made an exact estimation of the size and mobility of the liver possible. Stern (*ibid.*, No. 43,) confirms Pichler's observation, that the outlines of the gastric curvatures may be seen to move with deep respiration, and considers this fact to be a great diagnostic help. Thus, if the outline of the lesser curvature of the stomach be seen, it is certain that the stomach occupies an abnormally low position, and dilatation can be at once recognised.

Severe Sporadic Cretinism without Amenorrhœa.—Byrom Bramwell, M.D., F.R.C.P. (*Lancet*, December 10, p. 1547).—This is the only case of the kind known to the writer. The patient was a woman aged 36, who showed typical and severe cretinism. Her height was thirty-six inches, and her body was very broad; the back was markedly curved in the lumbar region, and the abdomen was very large and prominent. The face was swollen and full; the skin of the eyelids was translucent; the nose was squat and broad, pug shaped; the ears were rather large; the mouth was large; the lower lip was pouting, but the lips were not much swollen; the tongue was not protruded between the teeth; the teeth in the upper jaw were all wanting; and the palate was very broad and flat. The head was covered with a profusion of dark brown, coarse hair. The neck was very broad. Enormous fatty swellings were present above the clavicles. There was also some fatty swelling in the anterior fold of the left axilla. The forearms were colossal, and the tibiæ were somewhat bent inwards. The hands were enormously broad and large. The nipples and areolæ were somewhat developed, and there was a fulness in the position of the breasts. Since the age of twenty-five

years the patient has menstruated every month. On one occasion (a year and a half ago) the discharge stopped for three months. There were no public hairs. She was naturally of a very cheerful disposition, fond of fun and company, but her intellectual development was that of a child of five or six years.

What is Tabes Mesenterica in Infants?—In the *Lancet* of December 17, p. 1662, Dr. Walter Carr very trenchantly exposes a prevalent error. He says: "I fully agree, therefore, with the statement in Ashby and Wright's 'Diseases of Children,' that 'mesenteric disease is much more frequently diagnosed than discovered post mortem,' but if so what is the real nature of the thousands of fatal cases of so-called tabes mesenterica in young children? Simply, I believe, marasmus, the result of chronic gastro-intestinal catarrh. An infant is brought up by hand; its food disagrees, it gets gastro-intestinal catarrh, which leads to distension of the abdomen, griping pains, chronic and very intractable diarrhœa, and occasional vomiting. Of course, the child wastes steadily; it has perhaps irregular pyrexia (though I suspect that the temperature is not as a rule very systematically taken in these cases). The mother suggests that the child has 'consumptive bowels,' the medical practitioner agrees; it is the simplest way out of the difficulty, and saves the necessity of taking much further trouble in treatment, and after death he writes 'tabes mesenterica' on the certificate. It is an attractively impressive term, and no doubt conveys much consolation to the afflicted parents. These cases are to be seen of course, by the hundred at any children's hospital, but they are not tuberculous—the necropsy proves that I have notes of nearly 100 post mortem examinations on such cases, all children under two years of age. In only one was any abdominal tuberculous lesion present, and that was merely early caseation in the mesenteric glands, and one nodule in the intestine, yet in very many 'tabes mesenterica' might have been diagnosed with much confidence but for the wholesome corrective of pathological experience."

Treatment of Sciatica.—Castro (*Revist. de Med. y Cirugia practicas*, November, 1898, p. 498).—A curious treatment of sciatica is advocated in this paper, namely, cauterisation of the helix of the ear of the opposite side. It was suggested to Dr. Castro by a patient who had heard of it as successful in veterinary practice, and after a search through medical literature, in which he discovered allusions to such a treatment by a few writers (Grisolle, Soulier), he felt justified in putting it to the proof. Very remarkable success was obtained in a series of cases, of which four are quoted, showing that patients who had been martyrs to sciatica for long spaces of time and had exhausted all recognized methods of treatment, were almost instantaneously relieved by this simple means. Patients who had been incapable of ever standing alone were able immediately after the application of the cautery to walk from the room. In one case a recurrence of pain in the opposite leg to that first affected was cured by cautery of the other ear. The author admits that he can give no explanation of the cure effected. The operation was apparently

performed without an anæsthetic, the thermo-cautery being employed, heated to a white heat; a single incision was made through the central part of the cartilage of the helix, and an antiseptic dressing was afterwards applied.

Diaphragmatic Pleurisy.—Zuelzer *Münchener med. Wochenschrift* November 22, 1898) gives a description of pleurisy as it occurs between the diaphragm and the lung; a form which is very apt to give rise to localized encapsuled empyemata. There are certain special characteristics which enable the diagnosis of this condition to be made even in the absence of physical signs. These consist chiefly in certain tender points. The first is round the base of the thorax at the level of the insertion of the diaphragm; the second is in the posterior triangle of the neck where the phrenic nerve lies on the scaleni muscles; and the third is found where an imaginary line prolonged in the direction of the tenth rib cuts the parasternal line. It was first described by Guéneau de Mussy and named by him the "*bouton diaphragmatique.*" The presence of tenderness and pain in this position is most important, and is almost pathognomonic of diaphragmatic pleurisy, more especially of the localized suppurative form. De Mussy and most writers since him have considered this to be the tender point of the phrenic nerve, though von Ziemssen disputes this on the ground that the function of this nerve is entirely motor. Other peculiarities of this variety of pleurisy are:—

(1) The pain is abnormally violent and diffuse. (2) Movement is almost suppressed in the hypochondrium and base of the thorax on the affected side. (3) Physical signs may be absent, or consist in a limited tympanitic resonance at the extreme base, and *minus* breath sounds, owing to the compression of the lung by the effusion. (4) Occasionally there is pain on swallowing as the food passes the diaphragm, (5) Hiccough may be present, either from direct irritation of the diaphragm, or possibly of the vagus or phrenic nerves.

It is important to remember that these effusions, when near the centre of the diaphragm, are out of reach of the exploring syringe, One of the cases seen by the writer is a striking illustration of the value of de Mussy's point in diagnosis. A woman, aged thirty, fell ill with fever and pain in the breast. There were no abnormal physical signs in the lungs, and an exploratory puncture gave a negative result; the phrenic nerve in the neck, however, was tender and the *bouton diaphragmatique* extremely painful, and by these symptoms alone Dr. Bouveret, of Lyons, diagnosed suppurative diaphragmatic pleurisy, and immediately handed the case over to the surgeon. An encapsuled empyema was found and evacuated. The woman recovered.

Acute Mania Complicated by Pneumonia.—Rosenthal (*Münchener med. Wochenschrift*, October 18, 1898) reports a case of a woman who was first treated for bronchitis one Feb. 7 The same day she developed acute maniacal symptoms with hallucinations, and was removed to an asylum on February 10. Fron the 13th she was fed with the tube, as she refused all nourishment. On the 15th the temperature rose to

100° 4 F., there were *râles* over the right lung and a pleuritic rub. On February 16 she died. *Post mortem.* Lobar (but not fibrinous) pneumonia of the right middle and lower lobe, with patches of consolidation in the right upper and left lower lobe. The exudation was of a peculiar mucoid character. Double fibrinous pleurisy. Acute hæmorrhagic pachymeningitis, and acute purulent leptomeningitis. Slight recent acute inflammation of chronic granular kidneys. The nature of the pulmonary alveolar exudation could not be decided. Cultures taken from it produced copious colonies of Friedländer's bacilli, streptococci, and diplococci, which were probably Fränkel's pneumococci. The streptococci were chiefly located in the interstitial tissue, the bacilli and diplococci in the alveoli. Pure cultures of the same streptococcus, same as present in the lungs, were obtained from the meningeal exudation. The meningitis affected chiefly the cortical psychic areas, and had spread from thence apparently a short time before death.

Rosenthal believes that in this case the bacterial inflammation of the meninges directly irritated the underlying cortex. If so, it is the only known case of meningitis with purely psychic symptoms. He gives the probable order of events as follows: (1) Bronchitis, on which was grafted a (2) general infection with streptococci; (3) insidious progress of the septicæmia from the chief focus on the surface of the hemispheres, with psychic symptoms without fever; (4) as exhaustion supervened, an atypical pneumonia followed from a mixed infection secondary to the bronchitis. He admits, however, the possibility that the psychosis and the infective disease were simply coincident, the meningitis arising later as a complication.

Pretuberculous Enlargement of the Spleen.—Tedeschi *Riforma) med.*, Nos. 18-20, 1898) has studied the relations between the spleen and tuberculous infection in the hospital of the Naples prisons, which are said to be saturated with tubercle.

Hitherto we have known that in acute miliary tuberculosis the spleen may enlarge as it does in typhoid fever. In the more chronic form of tuberculosis atrophy of the spleen is more common than hypertrophy, especially when tuberculous diarrhœa is present. The writer's researches have put him in a position to prove that there is a form of splenic hypertrophy which precedes tuberculosis, and which, whether of toxic or infective origin, represents a defective reaction of the organism in the struggle against the parasitic invasion.

Bilateral Acute Labyrinthitis.—Dr. Percy Webster (*Intercolonial Medical Journal of Australasia* of October 20th, 1898) relates the following case. A healthy lad, aged 10 years, one day looked pale and ill. He vomited, became delirious and complained of pain in the head; he had to be held down in the bed. The acute delirium lasted 11 hours, after which he was quiet but lay muttering. He called out with pain when touched; moving the limbs seemed to cause great suffering. A times he would lie with his back arched and his head retracted. He was

ill for about two months and became very thin. He had giddiness, and after his recovery staggered at times, especially in the dark. Deafness was noticed before he recovered from the delirium, and remained permanent; it was total both for bone and aerial conduction. He complained of pain and constant buzzing in his ears. The fundi were normal, the knee-jerks were active, and there was neither ankle clonus nor paralysis. As the history was only obtained from his friends it was impossible to say whether the labyrinthitis was primary, or associated with meningitis, pneumonia, typhoid fever, or one of the exanthems, or whether it was secondary to otitis media.—*Lancet.*

Sulphonal Poisoning.—Dr. Lovell Gulland (*Lancet*, December 17, p. 1638).—An alcoholic man, aged 39, took 30 gr. of sulphonal nightly for insomnia—in all 1,200 gr. A week before death his gait was staggering and his speech was thick, which was attributed to alcoholism. He was stupid and sleepy though easy to rouse and intelligent when spoken to; motor power was greatly enfeebled and articulation imperfect. The urine was deep claret coloured. He died suddenly.

The necropsy showed that the liver was chocolate coloured, the kidneys not cirrhotic but congested, the spleen diffluent, the walls of the heart very fatty, the blood chocolate coloured, and the brain congested. Microscopically the liver showed no great change, but fatty infiltration at the periphery of the lobules and hyaline degeneration of the walls of the portal vein. In the kidneys the secreting epithelium was only affected, the cells being shrunken into masses of granular protoplasm; the spleen was full of "shadow corpuscles" and the suprarenal capsules showed some columns in which the cells were small and shrivelled. The blood showed poikilocytosis.

As regards the symptoms co-ordination may be affected for weeks by a single dose. In chronic poisoning gastro-intestinal symptoms generally first appear, then nervous symptoms, ataxia, paralysis of the facial muscles, general convulsions, coma, etc. The urine contains hæmatoporphyrin as well as unchanged sulphonal. This case usually ends by heart failure. In acute cases the symptoms may come on suddenly; the sleep may be for days; hæmato-porphyrinuria seldom occur in such cases. The prognosis is, as a rule, good in acute but not so in chronic cases. Sulphonal is not readily soluble, and so may long remain in the intestinal canal or in the blood, as it is not easily excreted by the kidneys. The constipation which is usually present would assist in this accumulation. Sulphonal may cause death without producing hæmatoporphyrinuria. The cause of death is probably uræmia (using the term in its widest sense). In acute cases as the poison is slowly absorbed the stomach should be emptied at once and a purgative given. The kidneys should be encouraged to act freely. Large enemata of warm water have been found useful. In chronic cases the same remedies may be employed as well as large doses of alkalies to render the urine alkaline and so stop the formation of hæmato-porphyrin. The maximum daily dose for a man should be from 15 to 30 grs. It ought never to be given in tabloid

form. Hot alcohol (as whisky toddy) was the best vehicle. Patients ought to be kept under observation during the whole time the drug is being taken.

Addison's Disease in Children.—*Klin. therap. Wchnschr.*, Sept. 18.) Three cases occurred in children in Variot's clinic during the past year, and as the disease is rare in young children (only forty-eight cases have been recorded), the following account of the symptoms is interesting:—

In nearly every case tuberculosis of the suprarenal capsules was found. The symptoms were as a rule at first indefinite; the children appeared weak and apathetic, and disinclined for play; and in many the true diagnosis was further rendered difficult by tubercular manifestations in the lungs, kidneys, bones, joints and other organs. In many children the commencement of the illness was heralded by vomiting and diarrhœa, but in the great majority of cases the most important symptom was extreme and gradually advancing asthenia, the child avoiding the least movement, and even refusing to answer questions. Usually there was anorexia and nausea, and in many cases severe vomiting. Pains existed generally, sometimes in the back, sometimes in the abdomen, sometimes in the head, or in the bones of the extremities. The discoloration of the skin was generally slight at first, and seldom attracted much notice; but as the disease advanced, the pigmentation became darker, and was most apparent on the exposed parts of the body, face, hands, and neck, and also where there is pigment normally, such as the naval, genitals, and axillæ. Brown patches were also frequent on the mucous membranes. As a rule there were periods of remission and of renewed activity in the progress of the disease, which usually terminated within a year. Death was generally due to extreme weakness or to some intercurrent disease, and was often preceded by epileptiform convulsions, with rapid pulse and rise of temperature.—*Edinburgh Med. Jour.*

Food Poisoning (Atriplicism).—Matignon (*Medical Reports of Chinese Maritime Customs*, 1898) describes a form of food poisoning which he has named "atriplicism," of which he narrates twelve cases. It is produced by the consumption of the shoots of a kind of spinach (atriplex serrata). It appears to arise only in people who eat the herb uncooked and without being washed. It may therefore be due to toxic products secreted by a minute parasitic insect, colonies of which are often found at the top of young shoots. The disease is more common in women than in men, and is seen only in May, June and July, when the herb is edible. The symptoms come on within ten to twenty hours of ingestion. The first stage, which takes from fifteen to twenty hours to develop and lasts for from three days to a week, is that of infiltration. It usually commences with painful numbness, perhaps associated with formication of the hands. Œdema soon supervenes, with irritation and often cyanosis of the nails and finger tips. The distribution of the œdema is curious and characteristic; it is limited to the hands, forearms and face. On the forearms it affects the anterior and postero-external portions only; the elbow is free. The face is even more swollen than in Bright's disease, and is of an

earthy color. The hands are practically useless from the swelling and pain, their tactile sensibility is diminished, but that to heat and light is greatly increased, so that cases may be diagnosed by the way in which they are wrapped up for protection from the sun's rays There is no albumen in the urine, the pulse is slow, sometimes as infrequent as 52 per minute, and the temperature may be subnormal, In the next stage ecchymoses form on the affected areas, probably from rubbing and scratching. They vary in size and almost always ulcerate. The patient's general condition is worse, and there may be slight fever. In fairly healthy subjects this is followed by desquamation and resolution, but in the debilitated the ulceration is very persistent and terminates in cicatrisation, often with the formation of keloid. There were no complications except dry gangrene of the fingers in one case. The treatment consisted in a saline purge during the first two days of the disease.

The writer points out an analogy with erythromelalgia and Raynaud's disease. It is like the latter in sexual incidence, parts affected, and many of the symptoms; on the other hand, atriplicism spares the feet, and is not intermittent Laveran suggested that it was due to actual contact with the herb, since the exposed parts are alone affected, but Matignon has disproved this experimentally.—*Brit. Med. Jour.*, Dec. 3.

Fatal Chronic Constipation from enormous Dilatation of the Sigmoid Flexure.—By Peverell S. Hichens, M.A., M.B., B.Ch. (*Lancet*, October 29, p. 1121).—The patient was a young man aged 20. From the day of his birth to the day of his death he suffered from constipation, and his bowels were apparently never opened without recourse to artificial means. For the first week of life he was exceedingly ill, passed nothing but blood and water, and was not expected to live. He then began passing fæcal matter, but the motions were never those proper to an infant, consisting almost entirely of scybalæ, and they were passed with much pain and screaming. They were only obtained by ½ oz. doses of castor oil, which often had to be repeated two or three times in twelve hours. As the child grew the bowels were only opened by drugs, and with increased difficulty, and at the age of 12 months ½ pint enemas of soap and water were used. Later enemas of a whole pint had to be given, and very often had to be repeated two or three times. Later the bowels used only to be opened at intervals of ten days or a fortnight, and only after repeated enemas. A very large scybalous motion was then passed, which was generally succeeded by several loose motions in the next two or three days. The motions could only be passed by the help of gravity—i.e., squatting down over a chamber in the position which, as Dr. Lauder Brunton has pointed out, is the natural and proper one for defecation. The patient very often felt slightly sick before the bowels were opened, and was very much collapsed afterwards, so much so that he often had to go to bed for the rest of the day. His abdomen was always greatly distended, so that he could never button the bottom button of his waistcoat or the top button of his trousers. About a month before he died he was taken ill with influenza. Five days before death

he was seized with pains all over his body and slight swelling of the legs. He was treated for rheumatic fever. The night before he died he passed a fairly large motion. On the following morning he was seized with a severe pain over the heart, shortly afterwards he went to bed feeling fairly comfortable. During the night he suddenly got out of bed and fell down dead.

The body was brought to the hospital and a necropsy was made. There was very slight œdema over the feet and shins, but enormous general distension of the abdomen. The abdominal cavity was occupied by a tense shining viscus, presenting the appearance of a sac rising out of the pelvis and passing under the ribs, where it doubled on itself and returned to the pelvis again—the enormously distended sigmoid flexture. At the point where the sigmoid flexture left the descending colon it turned on itself and passed directly up the left side of the abdomen. The summit of the viscus then passed behind the ribs and xiphisternum with a gentle curvature and descended along the right side of the abdomen to the pelvis to join the rectum. Some little distance above the junction with the rectum, the viscus showed a distinct constriction. The remaining abdominal viscera were entirely concealed by the sigmoid flexture, which pushed the liver upwards and backwards, compressed the lungs and rotated the heart upwards and outwards. It contained an enormous amount of gas and a large quantity of semi-liquid fæces. The total length of the sigmoid flexture when it was opened and laid flat was 22½ inches. Fourteen inches from its upper end was a large cicatrix formed by an almost healed ulcer, probably stercoral in origin, which had caused the constriction above mentioned. The circumference of the flexture above the ulcer was 14 inches, at the ulcer it was 7¾ inches, and below 10 inches. These measurements, of course, represent the circumference of the flexture at its period of least distension, and they also show that the constriction at the site of the ulcer was merely a relative one and could have made no difference, or very little, to the onward passage of the fæces. The walls of the sigmoid flexture were uniformly greatly thickened. This thickening was shown on microscopical examination to be almost entirely due to great hypertrophy of the circular and longitudinal muscular fibres. There was also slight thickening of the submucosa. The small intestine showed no lesion, and was not at all distended. There was slight general distension of the cæcum and of the ascending, the transverse, and the descending colon. There was no sign of a fibrous band, kink, or constriction anywhere except at the ulcer above mentioned. The lungs were small and compressed by the abdominal distension, and were slightly œdematous and engorged. The heart was somewhat displaced, but was otherwise perfectly sound, as also were the liver and spleen.

This case appears to come under so-called "idiopathic dilatation of the colon." Dr. Hale White, in "Allbutt's System" (vol. iii., pp. 967-972), mentions that only 12 cases have been recorded in the last forty years, and he provisionally groups them under two heads—those in elderly patients and those in young children due to some congenital

inertness of the bowels. Whatever may be the initial cause—a temporary kink, as Rolleston and Haward (*Transactions of the Clinical Society of London*, vol. xxix, 1895) suggest, or the length of the sigmoid in children readily allowing kinking, as Jacobi (*Archives of Pediatrics*, vol. x.) suggests, or mere constipation and distension with wind or local spasm of the rectum, as Gee (*St Bartholomew's Hospital Reports*, vol. xx.) suggests, the attempted remedies in this case probably increased the disease. The patient moved in a vicious circle, and the sigmoid, already distended, was ever being more distended by the successive enemas. So far as could be judged from the post-mortem appearances the only possible treatment which could have had any permanent success would have been lumbar colotomy.

Aneurysm in a Boy.—S. H. Berry, M.B., (*Brit. Med Jour.*, December 10, p. 1,745)—A boy, aged 15, whilst playing, suddenly fell down unconscious. He was at once brought to hospital, but life was extinct. The pericardium was distended with blood clot. Below the line of reflexion from the ascending aorta was a transverse tear in the aorta, and below this was a large fusiform aneurysm, four inches vertically and three inches transversely. At the place of rupture the tunica média was thickened. There were no signs of syphilis and there was no history of rheumatism.

The Etiology of the Œdema of Bright's Disease.—Reichel (*Centralbl. f. inn. Medicin*, October 15, 1898) in a former paper concludes that an actual physical alteration of the tissues is brought about by the toxic subtanses retained in the blood owing to the insufficient action of the kidneys. This alteration leads to œdema on the one hand, and to a rise of arterial pressure on the other due to increased peripheral resistance. From this follows the hypertrophy of the heart

The writer is now able to confirm this theoretical view by actual experiment. He injected physiological sodium chloide solution hypodermically in cases of nephritis without œdema, and found that the artificial œdema thus produced was not absorbed for 5 to 10 days, while if the same were done in non-nephritic cases, even when heart disease was present, it disappeared in a few hours, or in three days at the latest. This proves that the absorptive power of the subcutaneous tissue is much restricted in Bright's disease.

According to Koranyi the normal transudation and absorption of the tissue fluids is regulated by the renal activity. It is, therefore, to be expected that absorption should be disturbed in cases of nephritis.

"Liver-Cough" an Undescribed Symptom of Hepatoptosis.—In the *Journal de Médecine Interne* of Oct. 15, 1898, M. Louis Vène relates the following case: A woman had suffered from cough for 18 years, which since she came under observation (in 1891) was dry and incessant. Drugs were useless. She was examined by a laryngologist and by a number of physicians, including Professor Simon Duplay. The diagnoses of nervous cough and of hysterical cough were made. She happened to break her

clavicle, and a bandage was applied for a month, which compressed the thorax and upper abdomen. During this period the cough was never heard, which was attributed to pre-occupation. M. Vène's attention was attracted to a peculiar symptom—the patient never coughed at night. She said, "I sleep very little, perhaps two or three hours a night; but whether I sleep or not I never cough lying down whatever be my position in the bed." Examination showed that the liver extended to the level of the umbilicus in the right hypochondriac region. Hepatic dulness began at a lower level in the upright than in the recumbent posture—at the seventh rib, The thorax was compressed with a flannel bandage, extending from the nipples to the umbilicus. The effect was remarkable. The patient had not a single fit of coughing. This result was maintained by bandaging from the pubes to the nipples with rigid material—cotton or flannel—but corsets and complicated elastic belts proved useless. In none of the various observations on hepatoptosis is cough mentioned as an important symptom. But since Hippocrates "liver-cough" has been known, and, curiously, in 1831, when hepatoptosis was unknown, J. B. de Larroque, physician to the Necker Hospital, in a work on "Certain Abdominal Diseases which Simulate, Provoke, and Maintain Diseases of the Chest," distinguishes "liver-cough" due to hepatitis and "liver-cough" coming on in the standing position caused by the weight of the organ. As to the manner of production M. Véne suggests that as the liver is (according to Faure) suspended from the vena cava, which is connected with the diaphragm, excitation of the latter produces the cough. He concludes that before making a diagnosis of hysterical cough the absence of any pathological reflex from the abdominal organs in connection with the diaphragm, and particularly the liver, should be ascertained.

Oleaginous Cathartics in the Treatment of Appendicitis.—Dr. Terry, Surgeon-General of the National Guard, New York (*Medical Times*), states that out of 51 cases under his personal supervision, 44 were successfully treated without operation. His method consists of at first giving cathartic doses of castor-oil with olive-oil, followed with hot water, until the bowels are thoroughly emptied. This is followed by enemas of glycerine and olive-oil. Flax-seed poultices soaked in olive-oil are applied to the abdomen. The diet is restricted to very light, easily digested foods. Dr. Terry says the oil treatment relieves the friction of the inflamed tissues and relaxes them during resolution. To prevent a return of the inflammatory process, after the original treatment he gives ½ oz. of olive-oil, followed by a glass of hot water before each meal for several weeks.

The Treatment of Whooping Cough.—G. A. Stephens, M.D., B.Sc. Lond. (*Lancet*, December 3, p. 1,471) in a number of cases syringed the ears night and morning with warm boric "lotion," or water, and painted the meatus with—hydrochlorate of cocaine gr. 23, glycerine 4 drachms, solution of perchloride of mercury m. 20, water to an ounce. "In every case the patient was benifited and the whooping cough was got rid of." He gives notes of eight cases which in a few days entirely lost the bouts.

of whooping cough, though in some bronchitis lasted for several days. His explanation is that the cough is an aural reflex from slight local inflammation of the meatus.

Two Cases of Whooping Cough Treated by Aural Medication.—S. Glanville Morris, M.D. Edin (*Lancet*, December 24, p. 1,702).—The following two cases were treated according to the method recently advanced by Dr. G. A. Stephens in the *Lancet*.

Case 1.—The patient was a boy, aged five years. He had been suffering from whooping-cough for one week. There was a discharge from both ears, very considerable from the left one. The face was puffy. He vomited with the cough, and passed very bad nights. His ears were syringed with warm boric lotion, and the meatus and membrana tympani were painted in accordance with Dr. Stephen's method. The first night the child slept well: the vomiting ceased, and he did not whoop again. By the fifth day the child appeared to be well.

CASE 2.—The patient was a boy, aged 6 years. He had suffered from whooping-cough for one week. The appetite was poor, there was vomiting with the cough, but no pain or discharge from the ears. The ears were syringed and painted. On the next day there was no improvement. The treatment was continued. On the third night the child slept much better and whooped less. By the fifth day he was well.

The Treatment of Earache.—Sprague (*Atlantic Med. Weekly*, August 20, 1898) asks "What is the general practitioner to do in cases of earache?" The pain may indicate (1) otalgia, reflex or local, with no sign of inflammation; (2) otitis media; or (3) otitis externa. The pain is in itself the most important symptom, and the physician must, therefnre, carefully ascertain its character, duration, and location. as well as make a thorough examination of the ear. In otalgia there is no disturbance of hearing and no change in the appearance of the ear or the drum-membrane The pain is reflex in character, and comes usually from carious or uneruped teeth, ulcers in the throat or nasopharynx, tonsilitis, anæmia, neuralgia, hysteria, etc. In otitis media there is almost always deafness from the beginning. There is more or less hyperemia and bulging of the drum-membrane, according to the character of the inflammation —catarrhal or purulent—and the amount of fluid present. The application of heat, either dry or in the form of a douche, accompanied by diaphoresis and a saline cathartic, will abort most cases at an early stage. The instillation of various drugs into the external ear has sometimes a good effect, due apparently to the heat of the fluid instilled. If the drum is much distended it should be incised in its posterior lower quadrant, after the external ear has been thoroughly cleansed and sterilised. After incision the ear may be cleared by a Politzer's bag. But this should not be done unless the nasopharynx has been first cleansed, so that the infectious matter shall not be blown up into the ear. If there is much nasal discharge this had best be omitted. After all discharge has ceased and the membrane has healed, the air-douche should be used for some days to prevent adhesions.

Young children are often unable to localise the pain in earache, and so in all cases of indefinite pain in the head the membrane should be examined. If this were regularly done many serious complications would be avoided. Local measures should be tried for only a few hours, and then if they do not give relief, and the membrane is bulging, it should be incised without further delay. After incision the ear may be irrigated every few hours, according to the character and amount of the discharge, with hot boracic acid or hot bicarbonate of soda solution, and the mastoid region should be watched for signs of extension of the trouble to the cells of this bony process.—*Medical News.*

Loss of Appetite in Children.—Künkler (*Allg. Med. Central Zeit.*, January 4, 1899, p. 1).—Loss of appetite is liable to occur in delicate children and in convalescents from acute diseases. It is often difficult to overcome the dislike of food in such cases. Dr. Künkler recommends the new drug, *orexin tannate*, as a good stimulant of the appetite, and recounts a series of cases showing its good effects. The dose is 0·5 grammes (about 8 grains) two hours or so before meals twice a day. It may be given as powder, being without taste or odour, or in the form of chocolate lozenges. No food or drink, except water, is to be taken between the medicine and the next meal. Several days (5 to 10) may elapse before the effect of the medicine is apparent.

Prolapse of Vaginal and Rectal Mucous Membranes in an Infant with Spina Bifida.—Pérignon, of Sedan (*Journ. de Sc. Med. de Lille*, June 4, 1898), has seen a rare case of congenital vaginal and rectal prolapse. The mother sustained two injuries during pregnancy. There was a sacro-lumbar spina bifida. The lower limbs were quite paralysed. There was double club-foot, valgus on the left side, varus on the right. The anal orifice was gaping, and its mucosa prolapsed, and through the vulvar orifice a cylindrical tumor protruded, which carried on its surface an ulcerated area. It was at first thought that this mass was the uterus; but further examination proved it to be the prolapsed vaginal mucous membrane with its characteristic transverse rugæ. The cranial sutures and fontanelles were wide. The infant showed no other malformations, and lived for some weeks. There was difficulty in the evacuation of the bowels, and the fæcal matter was hard. The vaginal prolapse was first noticed on the third day of life. There was also a certain amount of true prolapse of the uterus, the cervix being nearer the vulvar orifice than usual.—*Brit. Med. Jour.*

The Treatment of Dysphagia in Laryngeal Tuberculosis.—Eugene S. Yonge, M.D. (*Brit. Med. Jour.*, October 22, p. 1250).—If ulceration is absent, and discomfort is felt only at meals, a spray of cocaine (5 or 10 per cent.) or a pastille of morphine and cocaine, administered before nourishment is taken, may prove successful.

In mild cases of ulceration injections of menthol and guaiacol have both a soothing and a curative effect. Donelan advocates the submucous injection of guaiacol into the floor of the ulcer, combined with sprays of that drug, as the quickest means of relieving the dysphagia in both mild

and severe cases. Ransome has found a spray of nitrate of silver very soothing after the first irritation has passed off, a film being formed which protects the loss of tissue from further injury. Anti pyrin is said to last longer than cocaine, but in the writer's experience it acts best mixed with cocaine, when he has observed fairly complete anæsthesia to result, lasting in some cases up to 5 hours. It is well known that food in a semi-solid condition is swallowed with greater facility when there is dysphagia than either liquids or solids.

In more distressing conditions of suffering, consuming the food in the position recommended by Wolfenden may be of value; it also tends to prevent coughing on the ingestion of nourishment. A 5 to 10 per cent. solution of cocaine may here again be useful; but sometimes the application itself causes distress, then a sticky mixture of hydrochlorate of morphine, mucilage of tragacanth, glycerine and water, taken in sips before meals, has proved extremely soothing. Iodoform and morphine are very old remedies, and, in certain cases, of value.

As to the recently introduced local anæsthetics. Holocain does not contract the blood vessels or produce cerebral excitement, the taste is less unpleasant than that of cocaine, and given in moderate doses it has not produced any toxic symptoms; its anæsthetic qualities are well marked. Orthoform appears to be the most valuable remedy for the dysphagia of laryngeal tuberculosis. It is strongly anæsthetic, is non-toxic, its effects are lasting, and it is appreciably antiseptic.

Arytenoidectomy and epiglottidectomy have been proposed for the relief of dysphagia when the pain and difficulty in swallowing are such as to bring the patient to the brink of starvation; the writer would prefer to use the œsophageal tube or feed by the rectum.

Hot Water Treatment of Gonorrhœa.—Dr. C. S. Murrell (*Mas. Med. Jour.*) advises prolonged hot water irrigations in both acute and chronic gonorrhœa. A soft catheter is passed to within an inch of the prostatic urethra. It is then connected with a "gravity apparatus" containing warm water, and in which the water is gradually heated. The stream flows through the catheter, and then back between the carther and mucous membrane. Several quarts of hot water are used at a time; some patients having a "tolerance point" as high as 180° to 190° F. The advantages claimed for this method of treatment are;—The course of the disease is shortened by at least two-thirds, making the average of the stoppage of the discharge nearer one week than three. The discharge immediately becomes non-purulent and reduced to a very small quantity. There is absence of chordee and pain on micturating. Stricture as a sequel is improbable. The usual inconveniences of the disease are done away with.

Gastric Troubles in Early Phthisis.—Croner (*Deutsch. Med. Woch.*, December 1, 1898, p. 757).—Dyspeptic symptoms may occur not only in advanced stages of tuberculosis of the lungs, but also among the early manifestations of the disease; indeed, occasionally gastric trouble is the first thing complained of. Observers have arrived at very different

results in examining the condition of the stomach in such early cases, and Dr. Croner gives the results of his own observations. He was unable in his series of cases to find any constant alteration in the secretory or motor function of the stomach. The acidity and peptic power of the gastric juice were practically normal; there was no increase of mucus to suggest gastritis, nor was there discoverable delay in the propulsion of the gastric contents. He does not accept the theories previously advanced, that the dyspepsia of phthisis is due to the fever accompanying the disease, or to the toxines of swallowed tubercle bacilli. He is apparently content to call the condition "functional."

The Significance of Leucocytosis during Digestion.—Marchetti (*La Settimana Medica*, No. 46, November 12, p. 541).—The appearance of an increased number of leucocytes in the blood during digestion has been studied by many observers, and attempts have been made to make use of this phenomenon as a means of diagnosis in diseases of the stomach. It has been contended, for instance, that in cancer of the stomach this leucocytosis never occurs, and that thus a strong confirmation of our suspicions may be obtained in doubtful cases of this disease. Recent researches, however, do not support this view, and the observations of Dr. Marchetti seem fairly conclusive on this point. He examined, altogether 40 patients, suffering from different diseases of the stomach, and found that the existence of leucocytosis after a meal of milk and eggs depended entirely on the digestive activity of the stomach and the consequent absorption of peptones into the circulation. He is thus in agreement with Pohl and Hofman, who had previously arrived at the same conclusion. In cases of cancer the leucocytosis may or may not be present, according to the degree of impairment of peptic capacity. All that can be said is that the presence of this phenomenon is of more weight in excluding the existence of cancer than its absence is in proving the presence of malignant disease.

Death after Mercurial Inunction.—(*Lancet*, Nov. 26. p. 1422).—The medical officer in charge of a workhouse in Belgium has recently been compelled to make his appearance in the law courts. He instituted a routine treatment on the admission of all infirm inmates to free them from vermin. This consisted in the inunction of a compound of two parts of strong mercurial ointment with three parts of vaseline, followed an hour later by a bath. The average quantity of ointment used was a trifle more than a drachm. Out of 630 thus treated 30 got mercurial stomatitis, 17 of these were obliged to remain in their wards, 3 had to be taken into the infirmary, and 1, an old man, aged 67, died a month afterwards. A necropsy was made, and the opinion given, that the mercurial inunction was responsible for the death. The medical officer was charged with manslaughter. Several medical men gave evidence that the treatment was proper. The court found that "it was not proved that the death was due to mercurial poisoning, as it did not take place for a month after the inunction, and there had been periods of improvement, and that though the ointment might have caused the stomatitis,

this became "ulcero-gangrenous," assuming a serious and unexpected character in consequence of organic conditions which induced special morbid phenomena independent of the original cause." A fine of 15 francs was, however, imposed, as the court considered that such heroic measures were not suited to all persons, and that such a strong preparation should not have been ordered indiscriminately or without a medical examination of each person. The judgment, when brought into the Court of Appeal, was not sustained, and the defendant was finally acquitted

Melanoplacia of Mucous Membranes and the Diagnosis of Addison's Disease.—Schultze (*Deutsche Medic. Wochenschrift*, No. 46, p. 725).—Pigmentation of mucous membranes is generally considered diagnostic of Addison's disease, but it seems to be found under other conditions. It appears to occur in some cases as a mere accident without obvious cause: it may also be associated with chronic gastric disease, such as carcinoma; and a similar condition, along with general pigmentation of the skin, was described by Parkes and Harley (*Lancet*, 1858) in a case of cirrhosis of the liver. Professor Schultze describes two cases of abdominal disease, in which this pigmentation was found on the mucosa of the mouth. In the first case the diognosis lay between cirrhosis of the liver and chronic peritonitis; in the second there was cholangitis due to gall-stones, with tubercular disease of the lung and testicles. In neither of them could Addison's disease be absolutely excluded, but the group of symptoms by which it is distinguished did not occur. Nor can the occurrence of this group be relied on as a sure indication of disease of the suprarenal bodies, for the author relates a case in which weakness, anorexia, anæmia, vomiting and diarrhœa were all present, but the autopsy showed only chronic gastric catarrh without any affection of the suprarenals. In this case there was no pigmentation.

Death from Septicæmia through the Bite of an Insect.—(*Lancet*, Oct. 8, p. 967).—On Sept. 27, Mr. George Hart, M.R.C.S., aged 38, died at Bolton from septicæmia and septic pneumonia, the results of an insect bite. He was in his usual health up to about ten days before he died, when he complained of a sharp pain near the right eye, the skin over which afterwards began to swell, and a small pustule to form. He had a rigor followed by extensive cellulitis in the neighborhood of the pustule and the development of pneumonic symptoms. Septicæmia was diagnosed and anti-streptococcic serum was resorted to, together with free incision, but he succumbed.

The Proteus Vulgaris in Acute Gastro-Enteritis Produced by Eating Pork.—J. Campbell M'Clure, M.D. (*Glasgow Medical Journal*, December, p. 431).—A household of eight adults partook of fried pork. Six hours later one man was seized with abdominal pain and diarrhœa, from which after a purgative he recovered. On the next day all suffered from severe diarrhœa, nausea, and vomiting. One of the men died on the following day. The others recovered, but a man and a woman were

very ill and confined to bed for a few days. The pork was described as "American chilled pork," and it was said that previously there had been one or two attacks of diarrhœa after eating it.

A specimen of the fæces was very offensive. It yielded cultures of a bacillus having the characters of proteus vulgaris. This organism has been noticed in several instances in connection with acute gastro-enteritis. Levy (*Archiv. f. exp. Path. u. Pharmak*, Bd 34, 1895), published a case which was one of eighteen which occurred after a meal in a restaurant. At the bottom of the ice chest where the meat was kept was a layer of filth from which pure culture of the proteus were made. Booker says that cholera infantum is in a considerable number of cases due to this organism. Intravenous injection in dogs produces rapidly fatal hæmorrhagic gastro-enteritis.

Formation of Subcutaneous Gummata.—Philippson (*Giorn. Ital. delle Mal. Ven e della Pelle.*, 1898, Fasc. iv. p. 409).—According to Dr. Philippson the formation of subcutaneous gummata is determined by the occurrence of proliferation of the endothelial lining of a vein (endophlebitis obliterans) and consequent thrombosis. An accumulation of round cells takes place around this obstructed vessel forming a "Granuloma," and the central portion of the mass soon undergoes "coagulation necrosis" and dies. This dead tissue acts as a foreign body, and quantities of leucocytes accumulate and penetrate the mass; ulceration of the overlying skin takes place and the well-known syphilitic ulcers are formed. The writer describes peculiar changes in the fat cells of the subcutaneous tissue, not previously recognised, by which the fat is broken up into droplets and absorbed, while the cell body is converted into one of the large giant cells found in syphilitic, as in tubercular, lesions. He considers that the vascular thrombosis is the primary cause of the formation of a gumma, but differs from other writers on syphilis in that he finds that the veins rather than the arteries are the main seat of the morbid process.

Mucous Patches on the Posterior Pharyngeal Wall.—Bergeat *Münchener med. Wochenschrift*, November 22, 1898) has seen two or three cases of syphilitic mucous patches situated on the posterior wall of the pharynx, and describes one in detail. There were five parallel *plaques* running vertically in wavy lines. They were of the typical bright grey colour and raised slightly above the surface of the pharynx, which elsewhere was a deep red. Their upper limit could only be seen by posterior rhinoscopy; below they terminated opposite the epiglottis. The writer was able to compare these patches with undoubtedly syphilitic *plaques* on the soft palate in another case, and to note their exact resemblance. No history of infection could be obtained, and there were no other symptoms of syphilis, but they disappeared under mercurial treatment in a fortnight. Possibly *plaques* in this position often escape diagnosis owing to their remarkable resemblance to streams of mucous running down from the posterior nares. Still, they must be very rare, since, though they are mentioned by Lewin, Schech states in his textbook (3rd Ed. 1890) that

he has seen them but once (Bergeat quotes him wrongly as, like Zeissl, never having met with them), and Moritz Schmidt does not refer to the subject.

Salol in Pleurisy.—Jegorof (*Nouv. Rem.*, xiv., 238, after *Vratch*) finds that salol in doses of 12 to 42 gm. is of great service in cases of pleurisy, increasing the diuresis and promoting the absorption of the effusion, without producing any of the ill effects previously observed from alkaline salicylates, such as digestive derangements, palpitation, and dyspnœa, which have been so generally followed in these cases as to lead many authorities to interdict the use of these salts.

THERAPEUTICS.

The Use of Morphia in Heart Disease.—F. S. Toogood, M.D., Lond. (*Lancet*, November 26, p. 1898).—In those distressing cases of heart disease (mainly of mitral incompetence) where digitalis and its allies, strophanthus and convallaria, appear only to excite persistent vomiting and where the stomach retains practically nothing, where the heart is extremely irritable and irregular in rhythm and the pulse in volume, where intolerable from exhaustion and insomnia, and where there may also be often an ever-present dyspnœa renders the condition of the patient œdema from a failing circulation and scanty albuminous urine, the writer has seen the hypodermic injection of morphia effect the most gratifying results. The pulse has become steady, strong, and regular, the œdema has disappeared, the dyspnœa has been relieved, and the urine, instead of being scanty, and containing albumin, has become normal in amount and character, and the albumin has become much less or has entirely disappeared.

A man, aged 50, had been confined to his bed for two months. He was suffering from urgent dyspnœa, which had prevented sleep for many days. His legs were œdematous, and his urine was scanty, loaded with urates, and it contained one-tenth albumin. His pulse was 120, small, easily compressible, and irregular in time and volume. His heart was enlarged, the apex beat being in the sixth space one inch outside the nipple line. There was a systolic aortic murmur. Every drug which had ever been suggested as of use in cardiac cases had been tried, and had proved of no avail. Hypodermic injections of $\frac{1}{4}$ gr. of tartrate of morphia produced a marked effect from the first. He slept quietly and comfortably, the heart came down to 80, the urine increased to 70 ozs., the albumin cleared up, and the œdema disappeared. He became free from dyspepsia, except slight paroxysmal attacks, when the effect of an injection was wearing off. He gradually improved and resumed his occupation.

In a case of aortic regurgitation, anginal pain and dyspnœa, which did not yield to liquor glonoini or amyl nitrite, were relieved by 10 minims of liquor morphiæ and $1\frac{1}{2}$ minims of liquor atropiæ every four hours.

A woman, aged 24, had mitral regurgitation without evidence of hypertrophy or dilatation The action of the heart was quick and irregular; 5 minims of tincture of digitalus were ordered, and she improved slightly. Her condition then became alarming. The action of the heart became tumultuous, there was great pain, and a presystolic murmur developed. The pulse was almost imperceptible, and she was apparently dying. Only 16 ozs. of urine was passed in the 24 hours, and there was incessant vomiting. The digitatis was omitted, and ¼ gr. of morphia was injected hypodermically every 12 hours, she slept soundly, which she had not done for several days. She immediately began to improve; the vomiting ceased, the urine became normal in amount, and the tumultuous action of the heart subsided, and she recovered.

The Treatment of Neuralgia and Rheumatism by Currents of Hot Air.—W. R. Taylor, M.D., F.R.C.P., Ed. (*Lancet*, November 26, p. 1,385) has invented an apparatus for this purpose. It consists of two glass tubes one within the other connected with a chamber containing a fan. The air is heated by passing an electric current through a wire coiled on the inner tube. The fan revolves at a rapid rate and sends through the tubes a current of air which in its transit becomes heated and leaves the mouth of the outer tube in a condition suitable for direct application to the affected part. Intermediate between the source of electricity and this apparatus is placed a lampholder supplied with lamps of such calibre as to interpose a suitable resistance to the electric current. By means of these the temperature of the heated air can be suitably regulated. (If the voltage be from 100 to 130, as in many parts of London, two 16 candle lamps may be introduced into the circuit. If the voltage be 230, as in Edinburgh, two 32 candle lamps may be used.)

The movement of the air whether hot or cold is an important factor in the effects. Thus a beafsteak can be cooked in 33 minutes in a still temperature of 260°, but if the air be blown on the meat by bellows it can be cooked in 13 minutes.

In treating neuralgia Dr. Taylor often finds thermal anæsthesia present; blisters may result. A woman, aged 22, who had suffered from facial neuralgia for 13 months, was cured. Toothache was also cured by five minutes' application. For the treatment of lumbago, torticollis and painful affections of the knee joint and other large surface, he uses a much larger apparatus. In this the air is blown in a much stronger current. The glass tube is from 14 to 18 in. long and 1¼ in. in diameter. It is adapted for the full voltage of the electric supply without the intervention of resistance lamps, and is effective in these diseases as well as in those cases of herpes which are accompanied and followed by persistent pain.

A Case of Hæmophilia Treated by Inhalation of Oxygen.—Mr. W. H. Brown (*Lancet*, December 3, p. 1474).—A boy, aged 13, was admitted into the General Infirmary, Leeds, on November 6, 1897, with a large swelling on the outer side of the right thigh. A fortnight before he had "sprained" his thigh whilst getting into bed. He had six brothers who, according to the mother, all died from bleeding. His

maternal uncle died from bleeding from the stomach. A maternal aunt had a son who died at the age of 14 years from bleeding. The patient had had many swellings in his joints following slight injuries. He had bled from the gums and nose many times. He had been an in-patient on three former occasions—namely, in 1894 for bleeding from the roof of the mouth following a prick with a pin, in 1896 for bleeding from the gums after a fall, and early in 1897 for hæmorrhage into the knee-joint from a slight accident. He was a fairly well-grown boy, but very anæmic. On the outer side of the right thigh there was a large tender, fluctuating swelling; the skin was red and very thin. As it seemed not unlikely that the skin would give way about 4 oz. of bloody fluid were withdrawn by aspiration. During the next three weeks the aspirator was used several times, but the swelling refilled. A small incision was made, and a quantity of clot and some purulent fluid escaped. Firm dressings were applied, but they quickly became soaked through, and the oozing kept on in spite of packing and pressure, and the administration of astringents. The boy grew rapidly weaker, his digestive powers failed, and vomiting was continuous. Bleeding from the nose and gums took place. The pulse was about 140, and the temperature was subnormal. As ordinary treatment seemed useless, it was decided to try the inhalation of oxygen. This was given in large doses, and within twenty-four hours the vomiting and bleeding had ceased, and the boy was able to take milk freely. The inhalation was continued for a week, and no medicine was given. The wound healed, and the boy recovered.

Treatment of Erysipelas with Metacresol-Anytol. — Koelzer (*Deutsche Med. Wochenschrift.* No 43, October 27, p. 677).—The principles anytin and anytol are derivatives of ichthyol: the substance called metacresol-anytol consists of 40 per cent. of metacresol with 60 per cent. of a 33⅓ per cent. watery solution of anytol. A 1 to 3 per cent solution of this mixture is employed. Experiments on animals showed the value of this remedy in erysipelatous inflammations, and the author records five cases in which it was used on patients suffering from erysipelas. Excellent results were obtained, a cure resulting in every case but one; and even in this a considerable improvement occurred. The method of application was by painting the solution over and around the affected area, the applications being made for 10 minutes at a time at intervals of two hours.

The Treatment of Articular Rheumatism by Heat. — Wilms (*Deutsche med. Wochenschrift*, No. 23, 1898) has devised a simple apparatus for the continuous application of heat to joints, which in principle resembles Leiter's tubes. Flexible metal tubes are coiled several times round the joint, a thin layer of plaster of Paris being first applied to protect the skin. A constant stream of water, at 175° to 195° Fahr., is maintained through the coil by syphon action. In practice the water is used as hot as it can be borne. The writer has had very good results with this method of treatment in cases of chronic articular rheumatism. In gonorrhœal rheumatism especially, the cure was completed in a shorter time and with less restriction of movement than with other methods.

Reliable Medical Suggestions

How to Treat a Cough

In an able article under the above heading in the *New York Medical Journal*, Edwin Geer, M. D., Physician in Charge of the City Hospital Dispensary; also Physician in Chief, Outdoor Department, Maryland Maternite Hospital, Baltimore, writes:—

"The object of this brief paper is not to try to teach my colleagues how to treat a cough, but simply to state how I do it, what good results I get, and to call their attention to those lighter affections of the throat and chest the principal symptom of which is an annoying cough, for which alone we are often consulted. The patient may fear an approaching pneumonia, or be anxious because of a bad family history, or the cough may cause loss of sleep and detention from business. What shall we do for these coughs? It has been my custom for some time to treat each of the conditions after this general plan: If constipation is present, which is generally the case, I find that small doses of calomel and soda open the bowels freely, and if they do not, I follow them with a saline purgative; then I give the following:

℞ Antikamnia and Codeine Tablets, No. XXX.
Sig.: One tablet once every four hours.

"The above tablet contains four grains and three-quarters of antikamnia and a quarter of a grain of sulphate of codeine, and is given for the following reasons: The antikamnia has a marked influence over any febrile action, restores natural activity to the skin, and effectually controls any nervous element which may be in the case. The action of the codeine is equally beneficial, and in some respects enforces the action of its associate. The physiological action of codeine is known to be peculiar, in that it does not arrest secretion in the respiratory or intestinal tracts, while it has marked power to control inflammation and irritation. It is not to be compared with morphine, which increases the dryness of the throat, thus often aggravating the condition, while its constipating effect is especially undesirable."

The London Lancet's Endorsement

"Antikamnia is well spoken of as an analgesic and antipyretic in the treatment of neuralgia, rheumatism, lagrippe, etc. It is a white powder of a slightly bitter taste and alkaline reaction. It is not disagreeable to take, and may be had either in powder or tablet form, the latter in five-grain size. It is described as not a preventive of, but rather as affording relief to, existent pain. It appears to exert a stimulating rather than a depressing action on the nerve centers and the system generally."

The Prompt Solution of Tablets

We are glad to know that the Antikamnia people take the precaution to state that when prompt effect is desired the Antikamnia Tablets should be crushed. It so frequently happens that certain unfavorable influences of the stomach may prevent the prompt solution of tablets, that this suggestion is well worth heeding. Antikamnia itself is tasteless, and the crushed tablet can be placed on the tongue and washed down with a swallow of water. Proprietors of other tablets would have had better success if they had given more thought to this question of prompt solubility. Antikamnia and its combinations in tablet form are great favorites of ours, not because of their convenience alone, but also because of their therapeutic effects.—*The Journal of Practical Medicine.*

The Canada Lancet

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EDITORIAL.

THE BACTERIAL SYSTEM OF SEWAGE DISPOSAL.

In the purification and disposal of sewage, a most important branch of preventive medicine, science has not lagged much behind other branches of medicine, even surgery. The bacterial system of purification now seems to have practically disposed of this long unsettled and troublesome question. It may be made applicable to large cities as well as to smaller towns and country residences.

The purification is all accomplished by bacterial action. The first process, that of complete liquification of the sewage, is most simply accomplished by anaërobic bacteria, in what is termed the "septic tank." The tank is made, preferably, long and shallow, and of such capacity as to hold a twenty-four hours' outflow of sewage. It is tightly covered to exclude air and sunlight as far as possible, and it is not allowed to get full.

The solids of the sewage, after this has entered the still water of the tank, below the surface, are in a measure set free, some floating, some sinking to the bottom of the tank, according to their specific gravity. All are at once attacked by the micro-organisms present and are soon dissolved, the heavier particles settling to the bottom. A sort of leathery scum is formed on the top of the sewage. Gaseous bubbles are formed from the organic particles at the bottom of the tank, which rise, carrying up solid particles, squeeze through this thin scum and soon burst, under the cover of the tank. The solids so carried up being thus set free, settle to the bottom again, and the air-bubble process is repeated until the whole of the organic matter has been disposed of, and all that remains is inorganic ash at the bottom of the tank, on which bacteria cannot feed.

The liquified sewage, practically clear and greatly purified, flows out gradually, as it is allowed to flow in, but at the opposite end of the tank. It may be turned into a stream or lake, or may be further purified by being allowed to flow in thin sheets over flat surfaces as it issues from the tank; or by land irrigation.

Another good plan is by upward filtration of the sewage through "cultivation filters," consisting of coke or gravel, giving a large surface to the air. In this, the purification is accomplished by aërobic bacteria, which require oxygen for their work. The sewage in this way is purified to about the same degree as in the septic tank.

PATHOGENIC BACTERIA AND AUTO-INTOXICATION.

The bacterial origin of many diseases is now generally recognized as not any longer a theory but an established fact. Yet a few high authorities hesitate to accept it as such; that is, as the origin of the diseases. As in the beginning Ziemssen said in respect to the tubercle bacillus,—"Various points in the subject of tuberculosis seemed, from the standpoint of the bacillus theory, to be beset by almost insuperable difficulties" (Clinical Lect., Doherty's Trans.).

In no disease probably has the bacterial origin been more generally accepted than in that of enteric fever, in which Eberths bacillus is regarded as the cause. For a long time it was contended by high authorities that this bacillus was nothing more than the usually benign bacillus coli communis transformed into a virulent pathogene by its environment. Eventually Klein and others appeared to set this at rest by showing apparently distinct and permanent differences. Now, Dr. McWeeney, at the Royal Academy of Medicine, Ireland (*Brit. Med. Jr.*, Feb. 11, '99), describes the "peculiar behavior of a strain of typhoid bacilli which he had isolated by the usual methods from the bile of a fatal case of typhoid," present there in great numbers. It had the cultural characters of Eberths bacillus, but with the distinctive peculiarities of extreme slowness of growth on gelatine plates, with fewness, delicacy and shortness of flagella. Although it was actively mobile during the first twelve hours, "it died down by the end of twenty-four hours to a waggling movement hardly distinguishable from the bacillus coli." Tested side by side with several typhical cases "it proved markedly resistant against agglutinating influences." These two races of undoubted typhoid bacilli, Dr. McWheeney states, "gave directly opposite serum-diagnostic results."

At a meeting last month of the London Pathological Society (*Brit. Med. Jr.*, Feb. 20) on the subject of Pseudo-Tuberculosis, Dr. G. Sims Woodhead, who introduced the subject, said,—"In compartively recent times we had passed from an anatomical pseudo-tuberculosis to a pseudo-tuberculosis bacillus." A "serious question," he said, had come up by the discovery of Frau Rabinowitch in milk, cream and butter, of a bacillus which morphologically and in its staining reactions, but in little else, was identical with the tubercle bacillus." There were two positions from which it was absolutely necessary to extricate ourselves: On the one hand, pseudo-bacilli which had the morphological and staining characters of the true tubercle bacillus, but which pathologically, appeared to be widely separated from it (why, if not by the condition of its "host" ?); on the other hand, there were a whole series of lesions which presented certain superficial resemblances to tubercle, yet with certain specific differences, which, most important of all, were not induced by the action of tubercle bacilli. The protean forms of tubercle made it difficult to describe any single form as typical. They varied at different stages and under different conditions. And almost every new tissue, at some period of its development, might be said to be like some stage of a tuberculosis process.

Professor Sidney Martin mentioned the well known case of Flaxner, of the Johns Hopkins Hospital, in which in a negro aged 70 years, there were areas of consolidated nodules in the lungs, some of which were calcified. There was too, in this case, nodular disease of the perineum, indistinguishable from tubercle in its general characteristics. But there were no tubercle bacilli; inoculations gave only negative results.

Dr. Washbourn said there were many organisms of a widely different character which produced similar anatomical lesions to those produced by the tubercle bacillus. He mentioned several of these: one, the bacillus pseudo-tuberculosis liquefaciens, causing tubercles in the human peritenum, and in mice. A form of mould, the aspergillus, had been described, he said, as causing a tuberculosis lesion in the human lung.

On the other hand, a number of cases have been recorded of the presence of tubercle bacilli in considerable numbers in the air passages with no indications of tuberculous lesions, or indeed of any other diseased condition.

Farquharson says (Ptomaines and Other Animal Alkaloids),—"The relations of bacteria to diseases are not sufficiently well defined to exclude the possibility that even pathogenic microbes are not the primary cause of

certain affections, but that antecedent changes have been in operation in the organism, and that these constitute the first step toward the disease, developing conditions necessary to the growth of the bacteria."

Jacourd (*Brit. Med. Jr.*, Feb. 20, '97) divides "microbial diseases" into two distinct classes: those which are of extrinsic origin; and those of intrinsic origin, because the microbes may exist in a healthy living organism without injury to the latter, "becoming noxious only in consequence of changes undergone in the organism itself." And, "in almost all diseases morbid autogenesis by changes in the organism itself is the rule.

In view of these facts; of the great deal we yet have to learn in respect to bacteriology; and of the known effects of auto-intoxication, faith in the bacterial *origin* of diseases may be naturally enough shaken. And it is perhaps not surprising that we occasionally see items and articles on the "passing of the bacillus."

The Prophylaxis of Puerperal Fever. — Starzewski (*Prezeglad Lekarski*, Nos. 25 and 26, 1898) investigated the action of Marmorek's anti-streptococcus serum in preventing rises of temperature during the puerperium in Prof. Cyzewicz's clinic in Lemberg. 288 women received consecutive numbers on admission. Those with odd numbers received no injection, the first 56 of the even numbers were given an injection of 5 grammes, and the rest (88) 10 grammes of serum directly after being delivered. They were all under observation for 12 days, and every rise of temperature above 99°.5F. was noted. The following results were obtained:—The temperature was raised in 17.36 per cent. of those who received no injections; in 7.14 per cent. of those who received 5 grammes; in 5.68 per cent. in those who received 10 grammes of serum. It was also observed that jaundice was less frequent in the children of those women who had had injections.

Fever from Coitus during the Puerperium.— Dr. Frances H. Lee (*Woman's Medical Journal*, August, 1898; *Medicine*, November) reports the case of a quintipara in whom each confinement had been followed by chills and fever about the fifth day. In the confinement for which Dr. Lee attended the patient the temperature and pulse were normal until the fifth day, when the patient began to have chills in the morning. The temperature was 103°.5F., the expression anxious, abdomen slightly distended and tender, and the patient complained of headache. On enquiry it was ascertained that the patient had had coitus on the night of the third and the morning and night of the fourth day—thrice in thirty-six hours. Interdiction of coitus reduced the temperature, and the patient recovered. It was found that coitus had taken place on the third and fourth days after each confinement, and that the chills and fever followed.

EPITOME OF CURRENT LITERATURE.

SURGERY.

Aneurysm of the Common Carotid Treated by Ligature and Extirpation of the Sac: Recovery.—De Castro y Latore (*La Correspondencia Medica, Madrid.* November 8, 1898, p. 327.)—The patient was a lady, 24 years of age, who suffered from an aneurysm of the left common carotid artery as the result of a fall. Treatment by pressure and rest had been tried successfully, and symptoms of dyspnœa and nausea were complained of. When she came for treatment the tumour, which had recently much increased in size, was situated in the left carotid region, and measured 3 centimetres in length. It was intensely painful on the slightest pressure, which also produced dyspnœa, pallor and nausea. Pulsation in the facial and temporal arteries on the affected side was much diminished. At the operation chloroform was used as the anæsthetic. Skin, platysma, and cervical fascia were in turn divided, and the tumour exposed. It was livid red in color, and was crossed at its lower extremity by the omohyoid muscle. Silk ligatures were passed both above and below the sac at distances of 1 centimetre. Extirpation of the sac was rendered somewhat difficult by reason of adhesions to the vagus nerve and other neighboring structures, but was successfully carried out. No cerebral symptoms occurred after the operation, and the coldness complained of on the side of the face had passed off by the fifth day. Slight giddiness was experienced by the patient on first attempts at assuming an erect position, but passed off under the influence of coffee. On the sixth day the patient was able to take driving exercise, and convolescence proceeded without incident. The nausea and dyspnæa from which she had suffered were no doubt due to implication of the trunk of the vagus in the adhesions formed around the aneurysm. Dr. Castro y Latorre has performed the operation of ligature upon the carotid arteries seven times in all, and states as the result of his experience, that in chronic cases, such as aneurysm, there is little or no danger of cerebral complications. On the other hand, in emergency operations for wounds of vessels, the danger is considerable. He advised that in the case of aneurysms operation should be postponed as long as possible, and some pressure made over the tumor, in order that the collateral circulation may be fully established before the artery is ligatured. In this way the risk of evil consequences is very much diminished.

Rupture of the Gall Bladder.—Editorial (LANCET, December 31, p. 1773).—Rupture of the gall bladder, unassociated with injury to the liver, is rare, and, in a case recorded by Dr. J. M. H. Martin, of Blackburn, in which rupture of the gall bladder occurred in a boy, aged nine years, who was run over by a heavy cart, distension of the abdomen followed, and though no jaundice was present, the stools were clay-coloured. On opening the abdomen it was found that a large quantity of bile-stained fluid was free in the peritoneal cavity; five pints of this fluid were evacuated and a drainage tube was inserted. Complete recovery followed.

Death Caused by Swallowing Needles. — Philippi (*Münchener Med. Wochenschrift*, November 1, 1898), was consulted by an unmarried Jewish woman, aged 22, for chlorosis. Two months afterwards she complained of constant gastric pain extending into the right hypochondrium, and a gastric ulcer was diagnosed. Two months later a periodical abscess formed, and ten days after incising it, a sewing needle was removed from its cavity. This was followed by abscesses, which appeared (1) on the right side of the abdominal parietes, containing fully $1\frac{3}{4}$ pints of pus; (2) below the umbilitus ; and (3) over the right iliac bone. A long rusty broken needle was removed from the bottom of the sinus left after opening the large abdominal abscess, three months after the first incision, a third, rusty darning needle three inches long, worked its way through the skin in the splenic region, and a fourth was removed through an incision in the left hypochondrium.

The girl was under the writer's observation from February 20, 1892, to April 16, 1895, and the first needle was discovered in the perirectal abscess on June 19, 1892. She died a few months after Philippi had saw her of inanition and exhaustion. During the whole time she was often in great pain, and morphine was injected : she always suffered from great tympanites and constipation, and her whole appearance gave the impression of hysteria. She would give no explanation of how the needles came to be in her body, and declared that though she had once swallowed one by mistake, she had found it again in the stools. The writer thinks there can be no doubt that the needles were introduced by the mouth, and intentionally, the girl being hysterical. The only other tenable hypothesis, besides hysteria, is that she took them with suicidal intent, and was afterwards afraid to acknowledge it.

Obstruction of the Pylorus Diagnosed by the Rontgen Rays.— Drs. Boas and Dorn (*Elec. Rev.*, August 17) report that they have found that if an ordinary gelatine capsule filled with metallic bismuth is swallowed, its course through the alimentary canal may be outlined by the Röntgen rays. In cases of obstruction, the capsule, is arrested. They have made this observation by tests on 14 patients, and recommend it as an excellent means of diagnosis.—*Amer. X-Ray Journal.*

Local Anæsthesia by Rendering the Tissues Bloodless.—Oberst induces local anæsthesia by the combination of cocaine in small amount and the elastic tourniquet. Dr. Kofmann, of Odessa (*Centralbl. f. chir.*, Leipzig, October 8, 1898) has tried the effect of rendering the tissues bloodless without the addition of cocaine. The tourniquet was applied round the upper arm in a case of ganglion. When the skin had been sterilised the hand was of a death-like pallor and insensitive to touch or pain. The ganglion was dissected out without the patient's knowledge. She complained only of the pain caused by the tourniquet. The second patient was a woman with a needle embedded in the hand ; a deliberate dissection was carried out with a like freedom from pain. A series of cases of abscess, whitlow, etc., were treated with similar success. If the patients could not see they did not even know when the operation com-

menced. Complete anæsthesia depends on the thoroughness of the elastic constriction of the vessels, and on a sufficient interval being allowed to elapse after the application of the tourniquet. In operating on the fingers or toes, the writer has found it better to apply the constrictor above the wrist or ankle as he has seen gangrene from applying it to the base of the finger or toe. He regards his method as an improvement on Oberst's, as it obviates the pain of injecting the cocaine, and the risk of poisoning. It is applicable to any operation below the elbow or knee. For the thigh, upper arm, trunk, and head, he employs Schleich's method of local anæsthesia, and has reduced the use of general anæsthetics to a minimum.—*Edinburgh Med. Jour.*

Removal of Large Portions of Intestine. — Editorial (*Lancet*, December 31, p. 1773),—Mr. Frederick Treves has published a case in which the tolerance shown by the human body to the removal of large portions of the alimentary canal was strikingly manifested. A little girl, 6 years of age, had been the subject of idiopathic dilatation of the colon from birth, and the interference with the onward passage of fæces was so great that Mr. Treves made an artificial anus, and 9 months later he removed the whole of the descending colon, sigmoid flexure, and rectum, and brought the end of the transverse colon down to the anus, where it was secured. The child made a speedy and excellent recovery. Another interesting case in which much large intestine was removed was that of a woman, 33 years of age, from whom Mr. R. Lawford Knaggs successfully removed the cæcum and the ascending and transverse colon for malignant disease of the colon extending from the ileo-cæcal valve to the splenic flexure.

The Radical Cure of Reducible Hernia by Kocher's Method of Invagination, with Lateral Displacement of the Neck of the Sac.—By J. Lynn Thomas, F.R.C.S. The method described in Kocher's *Operative Surgery* (English translation by Stiles) is fairly well known and is gaining in popularity; the surgeon who has practised it will appreciate the advantages of the modification. There was a potential peritoneal sheath or pouch in the displaced neck in the older method, but in the present there is none.

The hernial sac is separated in the usual manner; the free end of the hernial sac is taken hold of by the long curved forceps used in Kocher's operation and the sac invaginated upon itself into the general peritoneal cavity, carrying the point of the forceps along the anterior abdominal wall until it is nearly opposite the anterior superior iliac spine of the same side, The point of the forceps is now pushed against the abdominal wall and a small incision made through the abdominal muscles down upon it, then the forceps carrying the hernial sac is pushed outwards, the sac is caught and pulled out through the wound after liberating the herniating forceps. The sac is made quite taut, its neck is secured to the parietal peritoneum and transversalis fascia and the remainder is cut off. A suture closes the wound in the muscles.

The hernial sac, it will be observed, is turned outside in, and it is its peritoneal lining that is seen at the extrusion through the abdominal muscles.

The same condition is obtained by Macewen by his well-known method of folding the hernia sac upon itself like a fire-cracker: Kocher's method is much simpler, and leaves nothing to give rise to a possible necrosis such as Macewen's pad has been known to do. Kocher's method can be adapted to any hernia with a separable sac, and probably it will in time be the only method for the radical cure of femoral hernia. The essentially new point in its application to an inguinal hernia is the displacement of the neck of the hernial sac *internally* to the internal abdominal ring, instead of *externally* to its outer border (older method); the closure of the inguinal canal is the same as formerly, and the dressings of the wound are confined to a strip of gauze kept on by collodion.

Four months ago, Mr. Thomas operated upon a large double inguinal hernia by the above method. Sixteen days later the patient walked a quarter of a mile without any external hernia support, and at present the scar is as linear as if the patient had been in bed all the time or had worn a light (useless ?) truss.

Incision of the Prepuce as a Substitute for Circumcision.—Current literature is the proper subject matter of the "REVIEW" but we shall always be pleased to summarise articles which though not recent are of value, and not likely to come under the general notice of the profession. Prof. Jas. M. Holloway, of the Louisville Medical College, has kindly forwarded by request a paper on the treatment of phimosis, published in the *Louisville Medical Monthly*, March, 1894. The important point is the substitution for circumcision of a simpler operation—incision of the prepuce. He performs circumcision only exceptionally, when the redundency of the prepuce is extreme. The incision is performed dorsally with a grooved director and scissors or bistoury. When preputial adhesions do not obstruct scissors alone may be used. When they are firm the skin is incised with the knife and the mucous membrane is cut with the scissors as it is stripped away from the glans. The frænum is untouched, and the slight hæmorrhage easily checked. Sutures are not always necessary, but should be employed at the angle of the incision when gaping occurs, and at either corner when oozing does not cease promptly. In children chloroform was the anæsthetic, in adults cocaine (8 per cent. solution), and was injected in the track of the proposed incision.

The result is exactly the same as from circumcision. The redundant tissue gradually shrivels. After a time it is difficult to say which operation has been done.

Œsophageal Stricture Cured by Retrograde Dilatation.—Roemheld, of Vierordt's clinic (*Münchener Med. Wochenschrift*, November 15, 1898) reports the case of a boy, aged 4 years, who was admitted into hospital owing to an impermeable stricture of the œsophagus, which had formed since swallowing a solution of caustic soda six months before.

He was able to swallow liquids, but vomited immediately even soft solids, and was wasted to a skeleton. On attempting to pass the œsophageal bougie, it came upon a resistance, impassable even for the smallest size, 8 inches from the alveolar margin, and therefore just above the cardiac opening. The boy's general condition improved on liquid diet, but all attempts at dilating the stricture from the mouth failed, partly because they brought on attacks of vomiting lasting several days, partly on account of the child's intractability. Prof. Vierordt, therefore, decided on gastrostomy, which was carried out by Prof. Lossen. Some months later a fine bougie was successfully passed through the stricture from the gastric fistula, and eventually this was done every day. When the stricture had become more easily permeable, and the boy less unruly, a specially constructed conical dilator was fastened to the lower end of the bougie. Traction was made on the upper end, which had been passed up through the mouth, by which means the dilator entered the stricture further every day, until at last it could be drawn through it. The procedure was then reversed, the dilator being passed by the mouth and traction made from the gastric fistula. After the stricture had been dilated up to the normal size of the œsophagus at that age, Lossen closed the gastrostomy wound, and the patient was discharged cured 2½ years after admission, though it is proposed still to pass the bougie at intervals. Hacker's method of leaving a permanent œsophageal catheter in the stricture was rejected as being impossible with an unruly child.

The reported cases of œsophageal stricture cured by retrograde dilatation are few, and apply mostly to adults.

OBSTETRICS.

Hypodermic Injections of Saline Solution in Eclampsia.—Poucet and Vinay (*Sem. Méd.*, June 1, 1898).--A woman in the sixth month of pregnancy had eclampsia; her general condition was extremely serious. There were complete coma, suppression of urine, high temperature, etc. Abortion was produced, the fœtus was born dead; 5¼ pints normal saline solution were injected hypodermically, and recovery was rapid and complete.

A New Device for the Arrest of Post-Partum Hæmorrhage.—Arndt (*Münchener Med. Wochenschrift*, No. 43, 1898, p. 1390) proposes a new treatment for atonic uterine hæmorrhage. Though deaths from post-partum flooding are not so common as formerly, now that the manual expression of the placenta has been limited to suitable cases, Dührssen's statement that in Prussia alone there is probably one death a day from this cause, shows the need of a reliable method of treatment. Dührssen's tamponade is valuable, but is not without danger.

Arndt's treatment consists in seizing the flaccid lips of the os with one or two bullet-forceps, and forcibly but slowly drawing the uterus downwards as far as possible. This is repeated three or four times, until all hæmorrhage has ceased, and the uterus is firmly contracted.

This mechanical device acts, firstly, by rendering the uterus anæmic. This has long been known to operating gynæcologists. Winter, Hegar, and others have proved that panhysterectomy, of even the gravid uterus. for cancer can be performed without danger from hæmorrhage if this precaution is taken. Secondly, it not only arrests bleeding at once, but stimulates the uterus to contract, and prevents its further relaxation: partly by the irritation of the automatic ganglia in the middle layer of the uterus, and by stretching the uterine nerves in the broad ligament, partly because anæmia of the uterus is one of the strongest stimili to contraction.

The great advantages of the method are its certainty, simplicity. and—with the most elementary precautions—avoidance of sepsis.

Post-Partum Hæmorrhage Treated by Rectal Injection.—F. de Jersey, M.B., Ch.B. (*Lancet*, December 17, p. 1628), was called to a woman 1½ hours after the birth of her thirteenth child. She was utterly collapsed and blanched, and the pulse was imperceptible. The placenta had not come away. Two pints of hot saline solution were injected into the rectum. In a few minutes the pulse returned. The placenta was removed under chloroform anæsthesia.

We have published another article on the value of saline injections in severe hæmorrhages and in puerperal convulsions ("REVIEW," p. 30, Vol. I., and p. 2, this Vol.). Intravenous or subcutaneous injection is usually recommended. But it has always seemed to us that for the emergencies of general practice rectal injection was far the best method. No special instruments are required. The theoretical advantage that intravenous injection acts more rapidly than rectal is more than neutralised by the greater time required in preparing for and performing the former operation.

Embolism Following Placenta Prævia. — Zorn (*München med. Wchnschr.*, 1898, No. 18).—A multipara had placenta prævia. Podalic version was performed after perforation of the placenta. The operation was performed without much loss of blood, and she rallied well, but symptoms of collapse appeared three hours after delivery. She improved after the administration of stimulants, but the collapse reappeared twice at short intervals, and she died after four hours.

The necropsy showed considerable quantity of air in the uterine vessels and the right side of the heart.

The writer found only five cases recorded.

Severe Flooding in New-Born Children.—Doléris (*Bull. et Mém. de la Soc. Obstèt. de Paris.* May 12, 1898) records a kind of epidemic of this affection in the Hôpital Boucicaut. Five new-born infants were seized with bleeding from the vulva, as well as hæmorrhages from other parts, especially the naval and skin. There was great debility without fever. 3 died, 1 was lost sight of, 1 only recovered. All the mothers were healthy, suckled the patients, and had not sore nipples. The cause could not be found. The patients were washed in running warm water, with sterilized wool, under the superintendence of the midwives. The

discussion did not bring to light any positive results. Bar had observed 15 or 16 cases in Paris hospitals. These were mostly, he declared, due to infection. Loviot was of the same opinion; he noticed that the breasts of the mother or the umbilicus of the patient might be at fault. Charpentier had seen milder cases, where three or four attacks precisely resembling flooding or menorrhagia occurred in new-born female infants, recovery following. In two well-nourished male infants severe intestinal hæmorrhages occurred, but both recovered.—*Brit. Med. Jour.*

Acute Œdema of the Cervix of the Gravid Uterus. — Martha Sommer (*Correspondenz-Blatt f. Schwiez. Aertze*, November 1) reports an example of this complication. A woman aged 25, pregnant for the third time, and about at term, experienced pain over the sacrum and tenesmus after lifting a weight. Suddenly a swelling appeared outside the vulva with some red discharge. There was a dark red elongated tumour (about 4 inches long), with a smooth, easily-bleeding surface, projecting from the vulva. It was flattened antero-posteriorly, and had a narrow neck at the introitus vaginæ. *Per vaginam* it could be made out to be continuous with the anterior lip of the cervix. The buttocks were elevated, and the tumour wrapped in cotton wool. Next morning it had vanished, though *per vaginam* the anterior lip was still soft and swollen. Ten days later labour commenced, and turning was necessary for an arm presentation with prolapsed funis. Some weeks later the uterus and cervix were normal. The diagnosis of this condition is often difficult. In this case, if it had not been for a previous examination some months before, when no abnormality was found, the writer would have taken it for a chronically hypertrophied anterior lip of the cervix with secondary œdema due to pregnancy. Such swellings suddenly appearing during labour have been mistaken for the placenta, for large polypi, inversio vaginæ, or (when the whole cervix is œdematous) prolapsus uteri.

The prognosis is good. The treatment consists in rest in the dorsal position. The etiology is obs ure. Geyl attributes it to an unknown vaginal bacillus. At any rate, it is not due to pressure of the fœtus as in chronic œdema. since it has been observed in an early stage of pregnancy before any great pressure could arise, and in the above case the pelvis was particularly large and the presentation oblique, so that pressure by the fœtal head on the anterior lip was out of the question.—*Brit. Med. Jour.*

Continued Irrigation of the Uterus in Acute Puerperal Septic Metritis.—Horace Manseau (*Montreal Med. Jour.*, July, 1898), reports seven cases of acute puerperal septic metritis which were treated successfully by continued irrigation of the uterus, and holds that this method of treatment, preferably preceded by curettage, if persisted in, may prevent recourse to the severe operation of hysterectomy.

His method is shown in the following case. The patient on the fourth day had a rigor; temperature 103°.5; pulse 126. Vaginal and intrauterine douching proved ineffectual. The temperature on the fifth day was 104°.5, pulse 135. On sixth day, continued irrigation with sterilised

water, was begun and continued for twelve hours at the rate of about seven or eight gallons per hour. On seventh day the temperature was 100°, pulse 115, and general condition improved. Irrigation was stopped, the temperature rose higher than ever. On eighth day irrigation was resumed, and maintained for twenty-four hours; temperature fell to 99°5. the midwife stopped the irrigation, and on the tenth day the temperature was 106°.5, the pulse was 180. The patient had several rigors, was delirious and had tympanites. Irrigation was resumed; seven to twelve gallons of water per hour being passed into the uterus for forty hours, with four intermissions of an hour each; the temperature fell to 100°. Even during the intervals the temperature rose, and on the twelfth day after a few hours there was a slight rigor, and the temderature rose to 101°. Irrigation was again commenced, and kept up for three days, with intermissions of not over three hours, when convalescence was established. Over 2,200 gallons of water were passed into the uterine cavity in ten days. The recovery in this case is the more remarkable, as pneumonia developed on the tenth day.—*Edinburgh Med. Jour.*

Tubal Fœtation.—Mandl and Schmit (*Archiv. f. Gynâkologie*, Bd. 56, Heft. 2) find from experiments on animals that, when the Fallopian tube had been ligatured close to the uterus directly after conception, no tubal fœtation results. They conclude (1) that closure of the tube is not sufficient to produce a tubal pregnancy, and (2) that the tubal mucosa is not, as a rule, capable of forming a decidua. In the second part of the paper the writers describe in detail 77 cases which were operated on in Schauta's clinic in Vienna. It is remarkable that a great number (27) of these tubal fœtations occurred in women suffering from gonorrhœa. Out of 67 cases where the pregnancy was interrupted in the first four months, it was due in 11 cases to rupture, in 56 to tubal abortion, and in 4 to both simultaneously.

GYNÆCOLOGY.

Ectropion of the Female Urethra.—By Isaac Mossop, F.R.C.S. Ed. (*Brit. Med. Jour.*, October 1, p. 988).—Ectropion or prolapse, of the female urethra is not often seen, and is, in children, usually ascribed to irritation from intestinal worms, especially ascarides, less frequently to vesical calculus and other conditions. The urethral opening is visible in the centre of the rounded projection, complete disappearance on reduction, and reappearance when the support is withdrawn. The symptoms are frequent and painful micturition, with occasional bleeding on straining. A well-nourished girl, aged 9, had frequent and painful micturition, and passed blood for 2 or 3 weeks. A small rounded dark-red swelling, the size of a cherry, was seen around the orifice of the urethra, the meatus being in its centre. It was very tender, and bled slightly. Careful examination revealed that it could be reduced. It was, repeatedly, by means of a small piece of cotton wool on sinus forceps. The swelling immediately returned as soon as the pressure was removed. The urine

was normal. There was no calculus. Astringent lotions were ordered, which slightly altered the character of the swelling; it became more flattened, smaller, lost its congested appearance and resembled a rosette.

Under chloroform an eliptical portion was removed from either side of the prolapse, and the opposing surfaces were stitched together.

There was no difficulty of micturition after the first day, no pain, and the frequency diminished. There was complete relief three weeks after the operation. A point of interest is that there was no assignable cause.

The Topical Use of Quinine in Leucorrhœa.—W. Hardwicke, M.D., M.R.C.P. (LANCET, January 7, p. 126).—Quinine topically applied to the mucous surfaces of the cervix uteri and vagina was suggested by the good effects accidentally manifested by this drug when used in the form of pessaries. A patient, the mother of six children, who had been a sufferer from the above complaint for some years, having used the various remedies usually prescribed in such cases but with only temporary benefit, her trouble sooner or later recurring, adopted the use, from prudential motives, of what proved to be quinine pessaries. Since using them not only had her leucorrhœa disappeared but her general health had improved. I have since used quinine topically in several cases of simple lucorrhœa always with great success—in fact, I do not know of a single instance in which it has failed or in which quinism has been produced. It may be used in the form of douche or pessary. I adopt the latter form as being obviously the better one; the drug has a better chance of closer and more continuous contact with the congested membrane. I prescribe three grains of the hydrobromate in a half-drachm pessary in combination with oleum theobromatis, but the pessus quininæ of the "Extra Pharmacopœia" containing the hydrochloride answers just as well. One insertion a day is generally sufficient.

Hypertrophied and Pendulous Mammæ in Young Woman.—Hutchinson (*Archives*, viii., p. 32) relates the case of a girl, aged thirteen, thin and weakly, whose breasts began to enlarge at thirteen. At fifteen they became so large that they had to be removed in consequence of aching and encumbrance. The right weighed four and one-half pounds and the left two pounds. Examination showed that they consisted of hypertrophied fibrous tissue and gland elements. There were no cysts. The patient improved much in health and mensurated for the first time six months after the operation.

The disease usually begins about puberty, is progressive and attended by emaciation and some degree of cachexia Not infrequently mensuration is suspended. Mr. Hutchison's explanation is as follows:—The female breast is, of all the organs, the one in which developmental and functional changes show their widest range, and whose nutrition is to the largest extent under the control of reflex influences. At puberty, in association with ovulation, the breasts naturally enlarge. This enlargement may be supposed to be in some measure controlled and limited by mensuration. In these cases perfectly natural growth fails to submit

itself to influences which should control it, and continues without restraint. Other but less common cases take their origin from the normal influence of pregnancy. Thus, in its initiation, the hypertrophy is an evidence of weak nutritional control and of disturbed or exaggerated reflexes. It is also probably concomitant with weak tissues, and the over-grown gland does not receive that support from its ligaments and overlying skin which it needs unless artificial means are carefully u-ed. Thus the principle—*vires acquirit eundo*—so important in pathology, as in physics and morals, comes into play.

The Diagnosis of Double Uterus.—J. Bastian (*Rev. Méd. de la Suisse Rom.* October 20, 1898), publishes two cases of this malformation, one a uterus bilocularis with a double cervix and vagina, the other a uterus bicornis with a single cervix and an incomplete vaginal septum. He believes such deformities to be much commoner than is usually supposed, being frequently overlooked. One of his cases bore out Meurer's statement that in such cases the pelvis is abnormally large owing to the sacrum being widerand more curved than usual. The symptoms may, in the absence of careful examination, simulate metritis. Thus if both sides of the uterus mensurate together, as in one of Bastian's cases, a physiological menorrhaghia results; if alternately, there appears to be metrorrhagia. There are three chief varieties, the uterus bilocularis, the uterus bicornis, and the uterus didelphys. A diagnosis can be made by methodical examination: (1) The labia minora must be separated to see whether the vagina is septate or not; if it is, a uterine malformation must be suspected. (2) A uterus bilocularis appears on bimanual examination to be of normal shape, though abnormally large. On passing two sounds simultaneously, one to the right and one to the left, it can be felt that there is a septum dividing them, and by moving them about whether it is wanting in places, as, for instance, when there is a single cervix (uterus bilocularis unicollis). They are found in 32 per cent. of double uteri. (3) The uterus bicornis is the most frequent variety, forming 55 per cent., and may occasionally be diagnosed by bi-manual examination alone. More often it is necessary to bring the cervix down to the vulva with volcella forceps, and then to explore the posterior surface of the uterus from the rectum. Two sounds should be passed, when one learns whether the cervix is double or not (uterus bicornis unicollis). (4) The uterus didelphys is the rarest (14 per cent.) Passing the sounds simultaneously shows that there are two diverging cavities, more or less independently movable. In one in ten of all cases there is atresia of the, usually in such cases rudimentary, vagina or uterus on one side, leading to lateral hæmatocolpos, which simulates vaginal cyst, or lateral hæmatometra, which simulates a swollen tube. These cases are very difficult to diagnose.

A Pessary Retained in the Vagina for Two Years.—Frank (*Münchener Med Wochenschrift*, November 1, 1898) was consulted by a woman who had been given a ring pessary 5 years before for prolapse. For 2 years it had not been removed at all. On attempting to extract it manually, a considerable hæmorrhage occurred, and it was found to be firmly

imbedded in the left side of the vagina by a cicatrix, which formed a kind of tunnel for it. Frank did not cut through this cicatrix, considering that by doing so the benefit derived from the contraction of the cicatrix, and consequent shortening of the vagina would be lost. After failing to cut through the pessary with scissors, he divided it with a small saw, then broke it in half, and removed the two halves separately. That he was right not to divide the cicatrix was proved by the prolapse not returning.

The Influence of the Kidney on the Circulation.—Tigerstedt and Bergman (*Scandinav. Arch. Physiologie*, viii. 4 and 5, p. 223)—The researches of these writers have been directed to the investigation of the "internal secretion" of the kidney. They found in the kidneys of the cortex of rabbits a substance which, when injected into a vein, produced a rise of blood-pressure lasting some twenty minutes or more. The substance is soluble in water in weak saline solutions and in glycerine, but not in alcohol. It is not dialysable, and is destroyed by boiling. The rise of blood pressure which the injection produces is not affected by division of the spinal cord, but as the effects of the depressor nerve can still be elicited in spite of its presence in the circulation, they infer that the substance exerts its effects through the medium of a peripheral nervous mechanism, and not directly on the vessel walls. Nor does it appear to have any direct action upon the heart itself. So that (in a few experiments) injection of blood from the renal vein was found to produce a rise of blood-pressure in animals whose kidneys had recently been extirpated, the writers consider that the internal secretion is constantly passing from the kidneys into the circulation. They conclude by discussing the possible connection between the existence of this internal secretion and the high blood-pressure found in many cases of renal disease.

The Chemistry and Action of the Thyroid Gland, a further paper. —Dr. Robert Hutchinson (*Journal of Physiology*, No. 3, Vol. 23) finds that the dried colloid matter contains on an average 0·309 per cent. iodine. The products that result from the digestion of the colloid matter are described in detail. Of these, the peptone, which is practically iodine-free, was found to be inactive; the albumoses contain a little iodine, and are feebly active. Most of the iodine is contained in the proteid free residue of digestion, and this is the most active part of the colloid. Its relation to iodothyrin is discussed. All these preparations were tested on a case of myxœdema. Seeing that the colloid matter can easily be made to take up ten times as much iodine as it normally contains without having its activity at all increased, the conclusion is thereby arrived at that it is the form in which the iodine is combined, and not the iodine itself, that is the important feature of the colloid matter. The writer finds that the fall of blood pressure, which has been observed to follow intra-venous injection of thyroid extract, is to be attributed to the "extractives." and not to the active ingredient. This statement is based upon the effects observed after the injection of the different

ingredients of the extract separately. The clinical facts of the enlargement of the thyroid during pregnancy, of alteration in the size of goitres at the menstrual period, etc., lead to an experimental investigation of the relationship between the reproductive glands and the thyroid. It was found that previous castration or ovariotomy in dogs and cats did not in any way affect the results that usually follow complete thyroidectomy. The conclusion is drawn from this that the reproductive glands do not act in any antagonistic way to the thyroid or parathyroid. Whether there is any supplementary relationship between them is left undetermined. The writer has found that neither the administration of ovarian substance nor of fresh parathyroid glands has any curative influence in myxœdema.

The Percentage of Hæmoglobin and the Numbers of the Red and White Corpuscles at Different Ages and Under Normal Conditions.—Schwinge *(Archiv. f. d. Gesammte Physiologie,* p. 299, October, 1898).—This very elaborate paper contains a large number of observations on the blood of healthy human beings, under various conditions of life. the hæmoglobin was estimated by the Fleischl-Miescher Hœmometer, and the corpuscles by means of the Thoma Zeiss instrument. The chief conclusions of the writer are as follows:—

The amount of hæmoglobin and of the corpuscles is different at different ages.

The red corpuscles and hæmoglobin are highest just after birth, soon after which they sink to a minimum, but gradually rise again as growth proceeds, and remain fairly constant from the time of full develepment till towards the close of life, when they again fall off.

The white corpuscles, on the other hand, diminish steadily from birth till full development is reached, after which they rise again to a slight extent.

During the active reproductive period of life females have fewer corpuscles than males, but after the climacteric the numbers tend to become equal again.

The writer attributes the differences in the number of the corpuscles to variations in the concentration of the blood rather than to actual differences in the numbers of the corpuscles themselves. The high percentage of leucocytes in fœtal life is probably due to their more rapid formation during that period of existence.

Acute Poisoning by Different Alcohols.—Baer (*Arch. f. Anatomie und Physiologie,* October, 1898).—The writer administered definite quantities of the different alcohols to rabbits by means of an œsophageal tube and observed the effects produced. Three degrees of intoxication were distinguished according to their severity:—slight paralysis of motion and sensibility; (2) total paralysis of motion with almost complete abolition of sensation; (3) coma, often ending in death.

It was found that the toxicity rose with the boiling point of the alcohol, methyl being least toxic, and ethyl coming next, while propyl was twice. butyl three times, and amyl four times as toxic as ethyl.

The addition to ethyl alcohol of 4 per cent. of an alcohol of higher boiling point increased the toxicity of the former to a marked extent. The addition of 2 per cent. was much less powerful, while 1 per cent. had practically no effect in increasing the toxicity.

He concludes that the symptoms of acute alcoholism are *not* due to impurities in the ethyl alcohol, but leaves it an open question whether these may not have some share in producing the more chronic results of alcoholic excess.

Deficiency of the Gastric Secretion.—Prof. Ewald (*Bristol Med. Chir Jour.*, Dec., 1898).—Recent work has demonstrated that patients may remain healthy and maintain nutrition in the presence of great deficiency of the gastric secretion, so long as the motor power of the stomach is sufficient to promptly carry on its contents into the intestine. If, however, this fails, dilatation is gradually established and increases, and all the consequences of retention and abnormal fermentation follow.

The Nutritive Importance of the Intestinal Bacteria.—Schottelius (*Munchener Med. Wochenschrift*, September 6, 1898, p. 1155) states that for the digestive ferments to act efficiently, they must be aided by the intestinal bacteria and their products. By rendering hens' eggs absolutely sterile, and by incubating them in a chamber, which with its contents was perfectly sterile, he obtained aseptic chickens. These were fed on sterile food; they did not thrive, however, and were all dead by the seventeenth day. Other chickens hatched at the same time, from eggs of the same weight, but fed with ordinary food, did well and gained weight rapidly.

Nuttall and Thierfelder came to an opposite conclusion from similar experiments, which, however, were vitiated by the fact that they were unable to render the brood-eggs absolutely sterile.

NEW REMEDIES.

TERPINOL IN BRONCHIAL DILATATION.—Rabow (*Bull. Gén. de Thérap.*, cxxxvi.) thus prescribes terpinol in pills or capsules: Terpinol, sodium benzoate, of each 1 gramme; sugar, *q. s.* Divide into 10 pills or capsules, and take one every hour or every second hour. Or, terpinol, 10 centigrammes; olive oil, 30 centigrammes, in a gelatine capsule, to be taken every two hours.

OXIDIZED CHRYSAROBIN IN SKIN DISEASES.—Unna (*Bull. Gén, de Thérap.*, cxxvi.) employs oxidized chrysarobin, obtained by the action of sodium peroxide on chrysarobin suspended in water, in eczema and other cases where the action of ordinary chrysarobin is too irritating. It is applied in the following ointment: oxidized chrysarobin, 2 to 5; vaseline and lanoline, of each 25.

TRIBENZOYL-GALLIC ACID.—This is a new astringent obtained by shaking an alkaline solution of gallic acid with benzoyl chloride and purifying the resulting product by crystallization, after boiling with

water. The compound is odourless, tasteless and colourless. It is not decomposed by substances with which it may come into contact in the mouth or stomach. An easy but complete separation of the gallic acid only takes place in the rectum, where all the specific properties of the astringent come effectively into play. The acid melts at 176° C.—*Zeit. d. allg. oest. Apoth. Ver.*, li. 859.

CITRIC ACID IN WHOOPING COUGH.—A 10 per cent. solution of citric acid in simple syrup is stated by M. Tilho to be a useful remedy in the treatment of pertussis. It is employed locally in swabbing the periglottic region of the larnyx. It also proves to be an efficient prophylaxis against infection. He has succeeded in preventing the disease in many children living with others infected by this means, or merely by the administration of small quantities of citric acid lemonade.—*Boston Med. Jour. Surg.*, cxxxviii., 626.

CREOSOTE IN CHRONIC CONSTIPATION.—Commencing with doses of single drops increased to 7 or eight drops in a glass of milk or beer after lunch and dinner. Vladimer (*Semaine mèdicale*) has found creosote to be a valuable remedy in chronic constipation. Its use is not accompanied by any pain or discomfort, and it appears to act by neutralizing an intestinal toxine which causes the malady by paralyzing the digestivè canal. *Bull. Gén. de Thérap.*, cxxxv., 15.

METALLIC IODINE IN SYPHILIS.—Bouveyron recommends the treatment of syphilis with metallic iodine, which is prescribed thus: Iodine, 1 gramme; potassium iodide, sufficient to dissolve; glycerin, 5 to 10 grammes; citric acid, 5 grammes; simple syrup, to 1 litre Two teaspoonfuls are taken to commence with, the dose being gradually increased to 6 or 9 teaspoonfuls. These are taken on an empty stomach half an hour before a meal.—*Bull. Gén. de Thérap.*, cxxxv., 799.

MERCURIAL OINTMENT INTERNALLY IN SYPHILIS.—The treatment of syphilis by the internal administration of mercurial ointment finds many followers in continental practice. It is stated that the metal is better absorbed in this form. L. Silberstein prescribes it in pills thus: Mercurial ointment with lanolin basis, 4·5 grammes; powdered liquorice root, 5 grammes; glycerin, 5 drops; mucilage of acacia *q.s.* to mass. Divide into 60 pills; each pill contains 0·025 gramme of mercury —*Therap. Monats.*, xii., 397.

ALKALIES IN SKIN DISEASES.—P. G. Unna (*Monatsh. f. Prak. Dermat.*, 898, 27, 65), commenting on the increasing use of alkalies in dermatology prescribes the following formula for a caustic paste: Potassium hydroxide, lime, soft soap, and water equal parts), to be made into a paste. This may be diluted with glycerin, so as to modify its action. Water should not be applied to the parts while this dressing is being used. Apply with a small piece of cottonwool, over which a bandage moistened with water is placed. To moderate the pain caused by the first application 5 or 10 per cent. of morphine alkaloid may be incorporated with the paste. This is found to be more efficacious than cocaine or encaine.

PUBLISHER'S DEPARTMENT.

BOOKS RECEIVED.

" The Americal Year Book of Medicine and Surgery," " Clouston on Mental Diseases," " Dunham s Hystology, Normal and Morbid."

BOOK NOTICE.

The question as to whether physicians live on the miseries of their fellow men has ever concerned the thought of many reflective members of the profession. *The Coming Age* is a purely literary magazine, but upon above subject, Prof. John Uri Lloyd, the author of "Elidorhpa," will contribute an article in the April number of *The Coming Age.*

NOTICE.

The annual meeting of the Trinity Medical Alumni Association will be held in the Theatre of the Normal School building on Wednesday, May the 31st, 1899. The programme of the meeting will include the names of men well known to the profession from the United States, as well as from our own Province.

The annual banquet will be held in the evening, at which the gold medal offered by the Association for the Thesis of most distinguished merit, written by a member of the Association and read at the general meeting, will be presented to the winner. The papers must be in the hands of the Secretary, Dr. George Elliott, 129 John street, Toronto, not later than May 1st next, and can be upon any subject pertaining to modern medical science.

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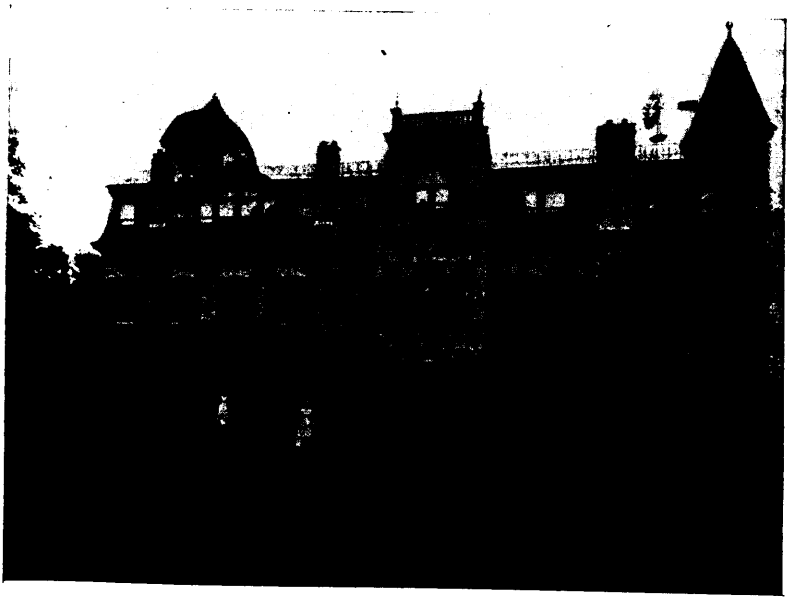

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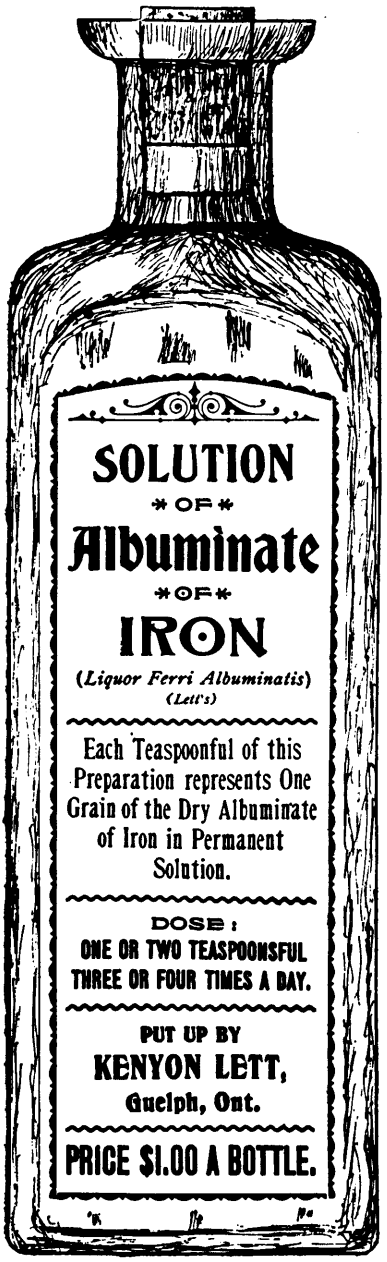

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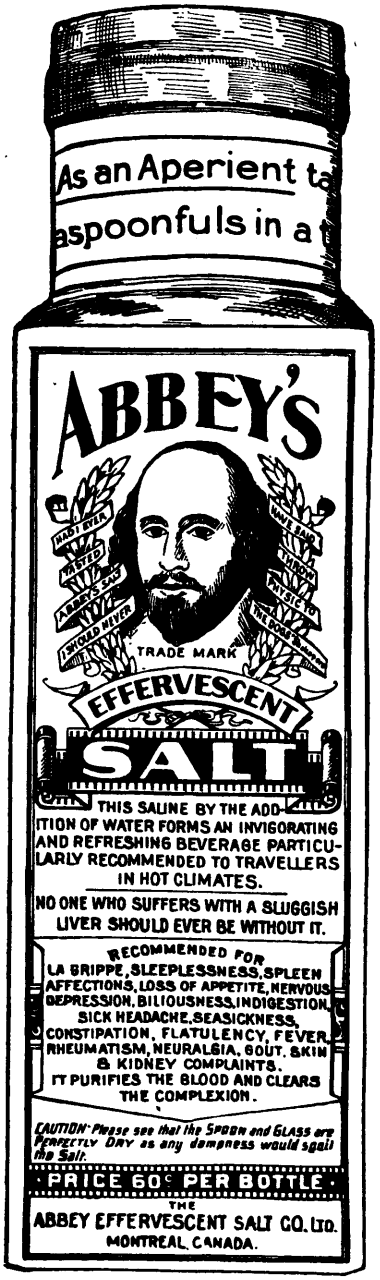

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PHARMACEUTICAL PRODUCTS

SOMATOSE (Trade Mark.) A tasteless, odourless nutrient meat powder; it contains all the albuminoid principles of the meat in an easily soluble form. It has been extensively employed and found to be of the greatest service in Consumption, diseases of the stomach and intestinal tract, Chlorosis and Rickets. It is of great value in convalescence from all diseases. SOMATOSE strengthens the muscles and stimulates the appetite in a remarkable manner. SOMATOSE has been found to act as a most efficient galactogogue. Dose for adults: a level teaspoonful three to four times a day with milk, gruel, coffee, etc.

IRON SOMATOSE (Ferro-Somatose). A first-class tonic, containing the albuminous substances of the meat (albumoses) organically combined with iron. Special indications: Chlorosis and Anæmia. Daily dose: 75 to 150 grains.

MILK SOMATOSE (Lacto-Somatose). A strength-giving food containing the albuminous matter (albumoses) of the milk. Daily doses for children: 1 to 2 teaspoonfuls; for adults: 2 to 3 tablespoonfuls.

TRIONAL (Diethylsulfonmethylethylmethan). A most reliable and quickly-acting hypnotic of the Sulfonal group. Dose: 16 to 20 grains, in a large cup of hot liquid.

IODOTHYRINE The active principle of the thyroid gland. It is most efficacious in Strumous Diseases, Myxœdema, Obesity, Rickets, Psoriasis, Eczema, and Uterine Hæmorrhages. Dose: 5 grains two to eight times a day for adults; 5 grains one to three times daily for children.

LYCETOL (Tartrate of Di-Methyl-Piperazine). Anti-Arthritic, Uric Solvent. Has a marked effect on the diuresis. Dose: 16 to 32 grains daily.

ARISTOL (Dythymoldiiodide). A Cicatrisant which is an excellent, odourless substitute for iodoform and highly recommended for Burns, Wounds, Scrofulous Ulcerations, etc.

EUROPHEN (Isobutylorthocresoliodide). A perfect substitute for Iodoform. Odourless and non-toxic. Has a covering power five times greater than iodoform. Especially useful in Ulcus molle et durum.

PROTARGOL A new silver preparation. Most reliable in cases of Gonorrhœa. Antiseptic wound healer. Excellent results in cases of Gonorrhœal Ophthalmia. Solutions of ¼ to 2 % Ointments.

LOSOPHAN (Triiodometacresol). Particularly efficacious in the treatment of all kinds of cutaneous disorders caused by animal parasites.

TANNIGEN (Triacetyl of Tannin). An almost tasteless intestinal astringent. Most efficacious in Chronic, Acute and Summer Diarrhœas. Adult dose: 8 grains every three hours.

TANNOPINE (A new intestinal astringent). (Formerly "Tannone"). Special indications: Tuberculous and non-tuberculous Enteritis, Typhus. Dose: 15 grains, three or four times daily.

SALOPHEN (Acetyl of Para-Amidosalol). Specific for Influenza, Headache, Migraine, Acute Articular Rheumatism, Chorea, Sciatica. Dose: 15 grains, four to six times daily. In powders, etc.

ANALGEN (Ortho-Ethoxy-ana-Monobenzoylamidoquinoline). A specific for Malaria. Highly recommended in Acute Rheumatism of the Muscles, Sciatica, Facial Neuralgia, etc. Malaria: before the paroxysm of fever 20 to 30 grains; between the fevers 15 grains every 3 hours. Rheumatic affection and Sciatica: 15 grains, 4 to 5 times daily. The use of ANALGEN is accompanied by a reddish coloration of the urine, which, however, is not produced by the presence of blood corpuscles. The red color of the urine may be avoided by taking alkaline waters.

PHENACETINE-BAYER (Acetyl of Para-Phenetidin).

PIPERAZINE-BAYER (Diethylenediamine).

HEROIN (Di-acetic ester of morphine). An excellent substitute for codeine. In doses of 0.005 gramme, 3 to 4 times daily, it has given excellent results in cases of Bronchitis, Pharyngitis, Laryngitis, Catarrh of the Lungs in phthisical persons, and in Asthma Bronchiale. In the latter two cases, the dose may be increased to 0.01 gramme.

CREOSOTAL (Creosotum carbonas puriss). A mixture of the phenol carbonates of creosote. Most valuable in tuberculosis of the lungs. Doses of ½ to 5 drachms per day, in wine, brandy, or cod liver oil.

DUOTAL (Guaiacolum carbonas purius). Great success in cases of Pulmonary Phthisis. Doses of 8 to 96 grains per day.

SULFONAL-BAYER (Diethylsulfondimethylmethan).

SALOL-BAYER (Phenyl Ether of Salicylic Acid).

Samples and literature may be had on application to the

DOMINION DYEWOOD & CHEMICAL CO., TORONTO.

Sole Agency and Depot in Canada for all "BAYER'S" Pharmaceutical Products. (Wholesale only.)