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## Original Articles

#### MASTOIDITIS IN INFANTS.

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Mr. Chairman and Gentlemen:-

I feel sure that I shall be called to task for making use of the above title in face of the fact that many authorities state that the infant has no mastoid process.

I plead in support of my choice, first, expediency, since the term conveys a certain topographical idea, that is that the disease is in the temporal bone behind the ear; and, secondly, I maintain that there are mastoid cells in infants of six months, and even less, although there may be no mastoid or nipple-shaped form to the bone externally.

Holden (and his statement is given almost verbatim in Quain) says: "The mastoid process begins to be developed about the second year, but its aircells do not appear until puberty."

Morris—page 48—says: "The mastoid process becomes distinct about the first year, coincident with the obliteration of the petrosquamous suture. It increases in thickness by deposit from the periosteum. Towards puberty, rarely earlier, the process becomes pneumatic. At birth the antrum is relatively large and is bounded externally by a plate of bone belonging to the squamosa. As the mastoid increases in thickness the antrum comes to lie at a greater depth and becomes relatively smaller."

Cunningham—page 118—says: "At birth the outer surface of the petrous part not only forms the inner wall of the tympanum,

<sup>\*</sup>Read at Canadian Medical Association, Toronto, June, 1910.

but is hollowed out behind and above to form the inner side of the mastoid antrum, the outer wall of which is completed by the post-auditory process of the squama."

Bruhl and Politzer say: "The posterior extremity of the petrous portion is formed by the mastoid process. In the new-born it is represented by a small prominence that contains no airspaces except the bean-shaped antrum. The antrum resembles in size and shape that of the adult (12 mm. long by 8 mm. high, by 6 mm. broad). At birth it lies immediately beneath the cortical portion of the squama, but as the meatus develops the mastoid cells develop and it assumes a deeper position. In the third year the mastoid cells reach their full development."

You can see here that there is quite a diversity of opinion among the anatomists, the more recent writers granting that there is a mastoid process at the end of the first year. Some obscurity is caused by speaking of the development of the pneumatic spaces as if these cells were essential, for while we all know that bone in most parts of the body generally becomes more pneumatic as age advances, yet there are individuals in whom the mastoid never becomes pneumatic, but remains diploctic. In all the cases comprised in the series I intend to speak of there was within the cortex cancellous bone, and in some of the cases the spaces were as large as in some adult mastoid bones.

During the two years ending April 28th, 1910, I operated on a series of fourteen cases of this nature occurring in eleven infants (the disease in three cases being bilateral), whose ages varied from four months to twenty months. I have arbitrarily selected twenty months as being the upper age limit of infancy, though I had several other cases whose age was not much over this limit. During the same period of two years I performed a total of 37 mastoid operations, so that the infantile cases numbered nearly 38% of the total—an unusually large percentage.

During the two years preceding April 28th, 1908, I did not have any infantile cases, although there were almost as many cases of all ages. I can offer no good reason for this sudden occurrence of these infantile cases. We all know that infants are especially liable to middle ear disease on account of the shortness of the Eustachian tube, its relatively large lumen, and the low level at which its pharyngeal orifice stands, but why there should be so large an outbreak of secondary bone disease is hard to explain except on the supposition that these babies who developed the bone disease were lacking in resistance.

A careful bacteriological examination of the pus from the bone

was made in each case, with the result that streptococcus was found to be far the most common cause of the disease.

In ten cases streptococcus was found in pure culture. In one case streptococcus was found mixed with staphylococcus and proteus.

In one case staphylococcus aureus was found.

In one case there was no growth, and this was probably due to delay in getting the culture tube over to the laboratory.

As regards race—the children were all of foreign parentage, and all Jews.

They all had a swelling behind the auricle and in most cases an actual abscess. I performed the same operation in every case, namely, a free incision of the soft parts behind the ear so as to expose the bone thoroughly. After this had been done a carious spot was usually to be seen in the latter, generally at a point above the level of the bony meatus and quite a distance behind the latter. This carious opening (or spot in some cases) was enlarged with great care and the diseased bone removed by means of a curette. It was surprising to find the large area in which actual pus could be found in the bony cells. The disease in many cases followed the line of the petro squamous suture. Special care was taken not to go too low in order to avoid the semi-circular canals and facial nerve. It is, of course, extremely hard to orientate oneself in these operations where the parts are so small that the important structures are all very close together. Of course the object aimed at was to do as little as possible.

I am glad to say that all the eases recovered and none of them had any damage done to the facial nerve or labyrinth. Three turned up with a recurrence of the abscess and were again operated as before, except that adenoid vegetations were removed as well—all making good recoveries.

A point worth considering is as to whether these cases would recover if one simply incised the abscess. I think that some would, but that the process would be much slower and not nearly so safe.

I believe the reason that the mastoid was involved was due to the poor general condition of the patients, they being of the same class that gives us suppurating cervical glands and phlyetenular disease of the eye.

## ON THE CAUSATION AND EARLY DIAGNOSIS OF UTERINE CANCER.\*

BY DR. A. C. HENDRICK, M.A.

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Associate Staff, Grace Hospital, Toronto.

Although this paper is intended to deal primarily with the early diagnosis of uterine cancer, still it is very important to survey briefly the prevalent ideas in regard to the causation of cancer in general, since, if one has some idea of the probable causation, one may be led the more reasonably to an early diagnosis of the condition.

First of all, we must realize that cancer is universal, all races of mankind and all vertebrates being liable to it.

Bashford states that the vegetarian castes of India are no more exempt than are those living on a mixed diet, though it has been stated that the Jews of East London become more liable to it after some years of living in England. Hence, the mode of living would seem to have little to do with the causation of the disease.

Again, the disease seems to have a predilection for certain regions of the body in different species, mammary cancer being common in the mouse, but rare in cattle.

Experimentally, there can be produced:

- 1. Local infiltration.
- 2. Systematic dissemination.
- 3. Terminal cachexia.

The transference is a true transplantation of living cells, infection taking no part. Hence, Ribbert's view of cancer is that it is a continuance of growth of cells which primarily were confined to a circumscribed area.

Age incidence: This has been shown to be the same for short-lived animals as for man.

Now, explanations of cancer must agree with:

- 1. That statistically, cancer is a function of age.
- 2. That biologically, cancer is a function of senescence, and, one may add, of immaturity.

The law of age incidence applies alike to individuals of a

<sup>\*</sup>Read at the Canadian Medical Association, Toronto, 1910.

species and individual organs and tissues. For example, (2) cancer of the breast before puberty is practically unknown.

Senescence, constitutional or circumscribed, is an endogenous predisposing factor. It is closely associated with its origin, but it is not necessary to its continuance. That is, the origin and the growth of cancer are separate phenomena.

Cancer is more prevalent in domesticated animals, because, on account of good care, etc., they reach the cancer age.

Exogenous causes:

1. Chronic irritations have nothing in common except causing prolonged attempts at repair. Hence, tissues subjected to such conditions are really primarily old, so to speak, or perhaps immature in some cases, and so are liable to cancer if they have reached the cancer age. Many examples of this are known; for instance, radiant cancer, or actinic cancer of the lip from smoking a short pipe, or from X-rays.

Again, distinct innate relations seem to exist between cancer of the same organ in different species and the connective tissues. For example, in the human breast it is scirrhus, in a dog breast cartilage, in the mouse angioma.

It is important to bear in mind that cancer may:

1. Arise locally in a circumscribed area.

2. Any part of the normal covering of the body may acquire cancerous properties.

3. And that more than one focus of origin in a circumscribed area may exist, or have origin of different ages; that is, extension by apposition.

Hence, one may assume an acquired local or constitutional predisposition. That is, an indirect etiological significance to chronic irritation, causing anaphylaxis.

Again, as to the morphology of cancer, it is to be borne in mind that there is an immense variety of carcinoma cells, all descended from normal cells, some of which pass into one another, whilst others do not, and are able to maintain their characteristics for a considerable period. Hence, apparently benign growths become malignant; for example, adenoma. Also by transplanting cells from individual to individual, and so maintaining them in the continuous or intermittent state of regeneration, it seems possible to perpetuate varieties of cells more capable of growth. Hence the origin of sarcoma.

Again, there are normal types of cells which are the prototypes of malignant cells; for example:

1. Bladder epithelium and carcinoma.

- 2. Decidual cells and sarcoma.
- 3. The mucous membrane of the outer end of the Fallopian tube, and malignant adenoma. Also columnar epithelium may become squamous; for example, psoriasis of the endometrium, or squamous cells become columnar, due, perhaps, to metaplasia.

Growth of Cancer: Growth of cancer cells is different from embryonic cells.

- 1. The cancer cell shows cyclic changes in the degree of differentiation of its histological characters.
- 2. It disobeys all the laws of growth of embryonic tissue. That is, it has the habit of growth minus the habit of function.
- 3. When transplanted, the blood vessels and supporting connective tissue scaffolding are supplied anew by a reaction elicited by the chemiotactic influences of the parenchymatous cells.
- 4. Cancer cells are specialized re growth, and not undifferentiated cells.
- 5. The cancer cell has no analogy with any known form of infective disease.

Continued growth takes place after inoculation of living cells into animals of the same species.

The metabolism of the cancer is a property of itself; that is, a vita propria, the propagated tumor having much the same relation of the fetus to the mother. That is:

- 1. There would seem to be no toxic properties injurious to the host.
  - 2. No disturbance in the cell metabolism.

Cyclical changes in cancer cells are shown by:

- 1. Rapid or slow growth.
- 2. Transitory cessation of growth.
- 3. Greater or less spontaneous immunization.
- 4. Variation in histological structure; for example, alveolar to acinous, and vice versa.

But we must remember the dosage and the soil are important factors.

Heredity.—Darwinism hardly applies here. That is, acquired cancer, etc., except, perhaps, in cases of metaplasia.

Weismann's theory that germ plasm is continuous from generation to generation, and that these germ cells have a potentiality of variation dependent upon environment. That is, oscillation in the nutrition of somatic cells may influence or cause variation in germ matter. Therefore there is heredity in disease, or, as Garrod, in his Croonian Lectures in 1908, states it: "Inborn errors of metabolism"; and since metabolism depends upon cellular enzymes,

so, in cancer, perhaps there is some innate error of metabolism, forming or altering the cellular enzymes, so causing increased tendency to cell proliferation, the actual growth activity being due to some accidental irritation.

It cannot be doubted but the processes of the body are largely influenced by heredity. For example, the endogenous toxins,

diabetes, baldness, or the abiotrophy of Gowers.

The Mendelian Law would seem to be applicable to such a disease as cancer, which has not yet been shown to be due to infection, as is, for example, tuberculosis.

By the Mendelian Law one means the law of segregation, the germ cells being a single structure and the animal a double structure, having received a series of elements from its father and a series also from its mother.

The Mendelian Observation.—When dissimilars meet in one individual, there is, on formation of the germ cells, a separation between the two characters which come in. That is, the dominant and the recessive. The animal is a combination of many natures. For example, height, color, form, and so on, separately transmitted. For example, in eye color, the presence of pigment is dominant. Color blindness and other deformities follow the law, so special resistance or special liability might follow the law; for example, resistance due to presence of something, as in color blindness, and liability to the absence or recessive qualities, as, for example, in alkaptonuria. So, with sex-limited diseases, as hemophylia.

Hence, as to causation, one may sum up:

- 1. No limitations as to species.
- 2. Diet and mode of living has little influence in causation.
- 3. Cancer is statistically a function of age of the individual.
- 4. Cancer is biologically a function of either immaturity or senescence, either constitutional or acquired; for example, immaturity when, owing to limitations of function, the growth habit alone is differentiated, the cell becoming purely vegetative, due perhaps also to some error of its metabolism. Then its faulty metabolism causes enzymes, which may cause adjacent cells to take on this vegetative habit, etc., due to chemiotactic influence; so one sees the different reactions of the surrounding tissues or stroma developed.

Or again, in repeated attempts at repair, the cells specialize the growth habit, and so become more strongly vegetative and unspecialized as to function; for example, metaplasia and anaplasia takes place, and so one finds abnormal new growths; for example, squamous cell epithelium arising from columnar cells, as in the uterus, gall bladder, etc.

Again, the normal intercellular antagonism of the body seems not to hold for the anaplastic cells—that is, the vegetative or rapidly proliferating cells—hence, metastatic growths are possible; for example, the mother cells of the thyroid to bone, causing adenoma.

- 5. The origin and the growth are separate.
- 6. Exogenous causes, that is, chronic irritations, are important predisposing agents.
  - 7. Cancer may arise locally anywhere.
- 8. There may be more than one focus of origin in a circumscribed area.
  - 9. The histology of cancer cells varies within wide limits.
  - 10. Cancer cells are specialized cells.
- 11. Heredity certainly plays a part in the predisposition to cancer.

THE EARLY DIAGNOSIS OF UTERINE CANCER.

The early diagnosis of cancer of the uterus is one of the most important functions of the family physician, for it is to him the patient usually appeals for relief; hence it is his bounden duty, by every means available, to make the diagnosis if possible. There are three sites for uterine cancer:

- 1. The vaginal portion, from the vaginal vault to external os.
- 2. The cervical portion, from the external to the internal os.
- 3. The uterine body, from the internal os to the tubal orifices. Now, cancer of the uterus develops in its mucous membrane, or immediately under the mucous membrane or its elements, that is, the glands of the cervix or the body. This classification is important because, not only the clinical picture of the cancer, but the methods of diagnosis, are quite different, depending on the starting point and extension of the disease.

There are certain symptoms which one may designate by the name of prodromes of uterine cancer. These are:

- 1. Bleeding in coitus—due either to engorgement or friction. It is very common and often the first symptom noted in cancer of the cervix, though it may occur in vascular erosion, endometritis, or polyps. It is always a suspicious sign.
- 2. Metrorrhagia, after the menopause; that is, some months after the menopause. This symptom may occur in fibroids and polypoid disease, but it is most often due to cancer. Irregular hemorrhages before the menopause are not so suspicious, but we must bear in mind the age incidence.

3. A sero-sanguinous discharge, resembling greasy dish water or beef brine, occurs in the early stages of cancer of the cervix, and is rare in other conditions. This modified cervical discharge is characteristic.

#### CLINICAL DIAGNOSIS.

The clinical diagnosis of uterine cancers depends upon two factors:

1. The presence of a neoplasm, either proliferation or infiltration.

2. Its degeneration. This leads to the characteristic friability of the tissue, which is of great diagnostic value. This friability is recognized by the finger or the sound. This property of breaking up into small pieces under pressure of the finger is very characteristic, and the only other tissue, perhaps, showing it is a necrosing fibroid.

The great tendency to bleed is understood when one recalls the histological structure. Hence, bleeding is characteristic of all three varieties of uterine cancer. But one finds hemorrhages in erosions, endometritis, chronic metritis, and polyps although less, so that diagnosis cannot be based on bleeding alone. When both features of cancer are present, namely neoplasm and degeneration, the diagnosis is easy; but if only one of these is present, difficulty arises. For example, there may be only proliferation; then inspection with a speculum aids; while any infiltration is found on palpation, whilst degeneration is found by both methods.

Cancer of the vaginal portion may be seen and felt through the speculum in the Sims posture, whilst palpation of body cancer may require dilatation.

#### VAGINAL PORTION.

Cancer here is the most easily diagnosed of all sites.

1. If of the polypoid variety, its surface is reddish in color and friable, that is, easily broken or crumbled down by finger or sound.

2. If of the flat kind, any bulging above the surface is

suspicious.

3. If of the infiltrating kind, a nodule is felt cartilaginous in consistence and altering the shape of the vaginal portion. If, however, the mucous membrane over the lump is intact, then there is trouble, though the surface of the nodule may be purple in color and spotted by yellow pits due to the cancer nests.

4. Ulcerating cancers are easily spotted. The jagged fissures, with soapy secretion, or reddish in color, with moderate induration, are quite characteristic, but often the microscope has to decide.

#### DIFFERENTIAL DIAGNOSIS.

The polypoid variety from:

- 1. Papillary tuberculosis may be made by careful inspection, finding the millet seed nodules or tubercle in the neighborhood; for example, the tubes, peritoneum, or a focus in other organs.
- 2. From mucous polyps. Inspection shows the surface mucous membrane intact, and the sound, that they originate in the cervix.
- 3. Cervical fibroid, with the pedicle, is distinguished by its intact mucous membrane and non-friability, unless gangrenous.
- 4. Follicular hypertrophy of the vaginal surface. Here the surface is not rough; the tumor is not friable, and it is covered by intact mucous membrane, through which the follicles may be seen.
- 5. Condylomata aluminata. Here there is only a papillary surface, with thick epithelium, no ulceration or infiltration. The color is a whitish red. Further condylomata may be found also in the vagina or vulva.

#### INFILTRATING VARIETY.

The differential diagnosis from:

1. Inflammatory infections—metritis colli; but inflammation usually affects the whole vaginal portion uniformly. The consistency is not so hard; the mucous membrane is intact, and follicles are seen. For example, in a case in hospital the microscope decided.

#### FLAT CANCEROUS ULCERATIONS.

Flat cancerous ulcerations have to be distinguished from:

- 1. Erosions, if developed upon a hard inflammatory base, or associated with ectropion, or the suri ice becomes rough on account of thick papillary erosions. Inspection decides; an erosion surrounds the external os evenly, and has a glistening, shiny appearance and bright red color, as it is covered by columnar epithelium, whilst a cancer is duller in color and rougher, even if ulceration is quite superficial. The erosion has no sharp border, but merges gradually into the squamous epithelium of the vaginal portion, outline irregular, and pits or follicular ulcers are often seen on the surface. But if the erosion has lost its epithelium the microscope decides.
- 2. Simple Ulcers, due to a prolapse or a pessary or cauterization or croupas processes, lack induration, and at the borders healing is often seen.

- 3. A tubercular ulcer is similar to cancer, but is very rare. It surrounds the external os. Its edges are undermined; the floor is granular, but not indurated; yellow miliary tubercles may be seen. Also, the disease is found elsewhere, or the microscope shows a tubercle structure.
- 4. Chancroids (soft sore) are usually small sores, becoming larger by confluence; have elevated borders; the floor has a croupous membrane, but is not indurated. Ulcers are multiple, and contact ulcers are found; also, ulcers on the vagina or vulva.
  - 5. Syphilitic Ulcers:
  - (a) Initial lesion.
  - (b) Degenerative papule.
  - (c) Gumma.

Degenerative papule is a solitary indurated and shallow ulcer, with indistinct border and dirty copper red color, with greasy exudate on its floor. The anterior lip is the favorite site.

- 6. Condylomata lata, or papulous ulcers, are elevated slightly and covered by a yellowish debris. They are multiple, and other papules may be found on the vulva.
- 7. Gummata are rare. The ulcers are elliptical, well-defined, shallow, and the floor covered by a pus-like exudate, which, on separation, leaves bleeding granulations. It is situated usually to one side of the external os, and extends by serpiginous border. One may demonstrate the lesion elsewhere; also, the Wasserman reaction, or the presence of spirochaete may be shown.

#### DIAGNOSIS OF CERVICAL CANCER.

This is more difficult, especially if the os is closed, but otherwise when the os is patulous. Then ulceration, the absence of epithelium, and especially friability on scraping with the curette is diagnostic.

#### INFILTRATING CANCER.

1. Here diagnosis depends on change in shape of the cervix and its consistency. The surface becomes distended on one side, perhaps, and the canal displaced. Its consistency is cartilaginous. If infiltration is high up in the cervix, a rectal examination may help; but the best plan is to remove a piece of tissue with the curette and examine histologically, or even to curette the body as well as the cervix, and vice versa.

#### DIFFERENTIAL DIAGNOSIS.

1. Metritis or endocervitis, but here the condition is uniform and the mucous membrane is intact.

2. Follicular hypertrophy, but here the mucous membrane is intact, and the follicles shining through may be punctured.

3. Interstitial myomata are more rounded; that is, better outlined and surrounded by soft tissue, while cancer, owing to inflammatory reaction is not. Ulceration favors cancer.

4. Chronic cervical catarrh, in old females. Here the mucous membrane feels rough, uneven and nodular, owing to the granular depression and the surrounding fibrosis, but the mucous membrane is intact, and the curette gets no tissue. The microscope decides.

#### CANCER OF THE UTERINE BODY.

Cancer occurs here about one-fifteenth as often as in the cervix, but is very important to diagnose, since most corporeal cancers arise after the menopause. Hence, there are two important signs:

1. Hemorrhages.

2. Simpson's pains, regular labor-like pains, lasting several hours and recurring at definite times of the day.

But there are no characteristic bi-manual palpatory findings in cancer of the body. The size of the uterus may be normal, or even atrophic. Later, it may resemble a fibroid or metritic uterus. Diagnosis is made by exploring the cavity.

1. By the sound, which distinguishes from retained decidua, or fungus endometritis, by presence of hard nodules or depressions, when cancer is present. If the interior seems smooth, cancer may be excluded; but if there are irregularities of the surface, the microscope is necessary. The microscope is the proper method of diagnosing early cancer of the body. Digital exploration may be employed if the os is open, plus curettage, but if the cervix is closed, curettage is employed, and if negative digital exploration is then used, but the latter is more dangerous, besides palpation is not so sure as the microscope.

#### DIFFERENTIAL DIAGNOSIS.

If the curette is used, the microscope decides; if a digital exploration, then one has to distinguish from:

- 1. Adenomyoma.
- 2. Sarcoma.
- 3. Degenerating fibroid.
- 4. Mucous polyps.

5. Remains of abortions.

6. Chronic metritis.

But cancer is distinguished by the two signs of neoplasm and

degeneration.

Although corporeal cancer occurs only about one-fifteenth as often as the other varieties, still it is more insidious in its mode of onset. It is more frequent in spinsters and barren wives than in multipara. This corresponds with the elinical experience that it is frequently associated with fibroids, and fibroids are a result of the barren or the celibate state. It is interesting to note that cancer of the body of the uterus has been found to follow double ovariotomy, and since this is practised occasionally for bleeding fibroids near the menopause it is worth remembering.

Again, sub-mucous fibroids are often associated with changes in the endometrium, which not only cause excessive bleeding, but set up also inflammatory conditions, giving rise to salpingitis, leucorrhea, etc., but may also render the mucous membrane more

susceptible to cancer.

Bland-Sutton (Burghard's System of Surgery, Vol. 4, p. 52) states that in patients submitted to hysterectomy for fibroids, over the age of fifty years, about ten per cent. will be found to have cancer of the corporeal endometrium.

Hence, one may sum up the early diagnosis of uterine cancer

by stating that:

1. The family history is important in discovering a predis-

position.

2. The personal history is important in deciding a predisposition. For example, cervical cancer is almost exclusively a disease of women who have borne children, or at least have been pregnant. Hence, there seems good reason to suppose that injuries and their sequelæ are predisposing factors. Again, corporeal cancer is chiefly the disease of spinsters and barren wives, and these are the patients who suffer from endometritis and fibroids.

3. Chronic irritations are important etiological factors, for example, lacerations in multipara, fibroids and endometritis in

nullipara.

4. The warnings, or prodromes, are: (1) The red flag of metrorrhagia after the menopause, and the Simpson pains in corporeal cancer.

2. The unusual discharge in cervical cancer.

3. The bleeding after coitus in the vaginal variety.

Since being forewarned is forearmed, the way to get an early diagnosis is:

- 1. To educate women as far as possible to regard any unusual hemorrhage or discharge after the menopause, or even before it, as a danger signal.
- 2. To submit all patients consulting one for these symptoms to a most careful examination.
- 3. To never temporize or delay, but, if necessary, to have an expert in consultation; or, if impossible, at least to use every available means to arrive at a diagnosis, and among these is a careful histologic examination of the curettage, or a piece of the suspicious growth, for after all the microscope is the supreme test in many of these cases.
  - (1)—The Lancet, Vol. II., 1909, p. 691.
  - (2)-Bergmann, System of Surgery, Vol. II., p. 592

Digalen - Speaking first of the disadvantages of digitalis, on account of its secondary effect, Worth Hale, Washington, D.C. (Journal A. M. A., January 1), takes up the claims of digaten, introduced by Cloetta in 1904, as doing away with these defects. He reviews the literature on the subject, and gives the results of biologic experiments made by himself on frogs, which led him to the following conclusions: "Digalen is not a uniformly stable preparation, as shown by the gross appearance of Sample 1, and by biologic tests of the five different samples. Biologic tests also indicate that digalen is relatively much less potent than corresponding amounts of crystalline digitoxin, but that it is of about the same activity as digitalein. The experience of clinicians indicates that digalen is much less effective than is claimed, and that the secondary action of the digitalis group appears equally often after its use as with the older and cheaper galenicals. Its use in cases of acute heart failure, whether by intramuscular or intravenous injection, seems open to serious objection on account of the pain, and danger of thrombosis, and it would apparently be better practice in such cases to use either strophanthin, given intramuscularly, or one of the preparations of the suprarenal glands by intravenous injection."

#### Medicine

Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

#### The Cure of Early Paresis. Charles L. Dana, M.D. J. A. M. A.

Dana cites a favorite proposition and lays down cases to prove his contention.

Syphilitic and parasyphilitic affections are, as we know, both due to the same cause.

Frequently brain diseases, syphilitic or parasyphilitic (a paresis) cannot be distinguished clinically early in their course, as they are often very similar in symptoms.

Therefore Dana denies the necessity for claiming a cured case to have been pseudo-paresis, but all parasyphilis was originally due to syphilitic pathological conditions. By careful treatment, many cases of paresis may be cured or assisted.

This is a remarkable theory, and the alienists will oppose it, but then clinical cases are nearly always advanced. Treat your cases, and be hopeful.

G. W. H.

Traumatic Neuroses from a Medical Point of View. By Archi-Bald Church, M.D., Chicago, Ill., Cleveland Medical Journal, April, 1910.

The classification of the traumatic neuroses to-day is traumatic neurasthenia, hysteria, hystero-neurasthenia, epilepsy and insanity. The litigation psychoses are combination of all of these.

Traumatic neurasthenia includes the symptom complex of neurasthenia with a traumatic etiology, and cerebroasthenia is merely the cerebral equivalent. Hysteria and hystero-neurasthenia bear the same relation to traumatic causation as to any other cause.

Epilepsy and insanity are comparatively infrequent as a result

of trauma.

Litigation psychosis includes symptoms of self-concentration, vindictiveness, moroseness, "they must pay for it" ideas, hopelessness and associated signs of the other neuroses.

G. W. H.

Syphilitic Diseases of the Nervous System. Joseph Collins. M.D.  $Journal\ A.\ M.\ Assn.$ 

Collins' article needs only its conclusion emphasized: Syphilitic diseases of the nervous system are largely, if not wholly, due to imperfect treatment by mercurials. Iodides are too largely depended cn, and pill treatment, even to ptyalism, does not prove saturation. The only safe test is the Wasserman, and it should be repeated at five-yearly intervals after the negative reaction presupposes cure.

G. W. H.

## Latent and Active Neurasthenia in Its Relation to Surgery. Stuart McGuire, M.D., Richmond, Va., J.~A.~M.~A.

McGuire discusses the relationships of functional nerve diseases to operative procedure, and concludes as follows: Hysterical cases are troublesome before, but successful after; neurasthenics are debatable; hypochondriacs are non-operable. In neurasthenia the occasion for operation must be definite organic disease, not a sore brain. The organic disease may cause the neurasthenia, and if so must be removed. Apprehension and nervous signs must be quieted off by long treatment before operation, as psychic shock is greater than traumatic shock, while, finally, prolonged post-operative care is necessary.

G. W. H.

## Meningitis and Conditions Simulating Meningitis. By Frank Sherman Meara. Archives of Pediatries.

Meara publishes an excellent paper, summarized as follows. Tuberculous meningitis in infancy is usually insidious, but may be acute. Its onset is characterized by irritability and listlessness, headache, vomiting and stupor, but the first and last of these may be the sole signs. The cardinal symptoms are apathy, tremor, irregular respiration, ocular palsies, while less frequent are the slow, irregular pulse, stiff neck, opisthotonos, Kernig, tache, and convulsions. The temperature is low, with marked excursions. Older children present more typically the disease in adults, the rarer symptoms mentioned occurring much more frequently. But most characteristic is the spinal fluid, which is clear, under pressure, forms a web on standing, containing TB. bacilli, has a raised albumen count, and shows a lymphocyte count up to 1,000 per cu. mm. The blood count is frequently high in leucocytes, 38,000 being reported in one case.

In epidemic meningitis, due to the diplococcus, we have an epidemic disease of acute onset, and similarly also in infections by other germs, as the pneumococcus, streptococcus, etc., which produce meningitis usually secondary to other focus. To distinguish these from tubercular disease of the meninges, we must depend mainly on the lumbar fluid, which is cloudy or purulent, with polymorphonuclear excess in high percentage, and a bacteriological examination will differentiate the germ.

In meningismus and serous meningitis, while the typical signs of a meningitis may appear, yet the spinal fluid is clear, devoid of TB. bacilli, and no rise in cell count of either lymphocytic or polymorphonuclear origin. Rare conditions to be guarded against, but having signs of their own apart from spinal puncture, are the meningitis associated with anterior poliomyelitis, and the infections

in jugular thrombosis, and colon disease in other viscera.

In this same journal, Ayer and Avery report a case of influenza meningitis, stating that only 24 have to date been collected, proven by culture. The course of the disease lasted over a month, the earlier signs being of mixed abdominal and meningeal types. Four days later the meningitis was marked (the dates in this paper appear to be incorrect.—G.W.H.), and cloudy fluid was withdrawn by puncture. A little over a month later death is stated to have occurred (?). Autopsy showed purulent meningitis; bacteriological examination, influenza bacillus.

G. W. H.

## **Experimental Poliomyelitis.** By Simon Flexner, M.D. N. Y. State Jour. of Med.

Poliomyelitis is due to a very small germ, since it passes the finest filters like the germ of yellow fever. It probably enters by the nose, and thence to the brain. It is communicable from one to another, and there probably are carriers. It is resistant to cold and drying, like rabies.

It has an incubation period of 4 to 33 days, and a period of onset of 1 hour to 40 hours, and it produces a diffuse encephalitis and myelitis, and not a poliomyelitis purely.

G. W. H.

#### Obstetrics

CHAS. J. C. O. HASTINGS, ARTHUR C. HENDRICK.

The Bohemian Pygopagous Twins. — (Editorial) — New York Medical Journal.

On January 20, 1878, there were born in Skreychov, Bohemia, the united twins, Rosa and Josepha Blazek. The mother, a secundipara of twenty-two years, who had, two years previously, given birth to a healthy, well-developed girl, was delivered of the twins by a midwife without any difficulty. Six months later, Dr. August Breisky, professor of gynecology in the German University of Prague, visited the twins and found them well developed. They were joined in the gluteal region. They had a common anus and a common vulva, but the two trunks, the organs of the pelvis, and the lower extremities were separate. In 1891 the twins were exhibited in Paris. Mr. Marcel Baudouin gave at that time a good description of the girls, then thirteen years of age, in the Semaine Médicale for July 8, 1891.

Their trunks were not parallel, as the spinal columns formed the letter V, each leaning to the opposite side at about 45°; each head was somewhat inclined to the inner side. The union of the two trunks took place posteriorly by the sacrum, which was common to both girls, and by separate iliac bones. The sisters were accustomed to lie on one side, Rosa on the left and Josepha on the right. When thus examined, only superficially, the twins seemed to possess only one urethra, one vulva, and one anus. There was, indeed, only one urethral orifice from which the urine could be seen to flow out. A sound was not introduced, but they must have had two different bladders, as their desire to urinate did not appear at the same time. Immediately in front of the urethra, in the median line anterioposteriorly, was a well-developed single clitoris, from which, on each side, toward the back could be seen rudimentary labia minora, while the whole was protected by a large, nearly oval "collerette" representing two labia majora, which thus formed a single vulva. But into this vulva, and this is important, discharged two vaginæ joined together like the barrels of a doublebarreled gun, entirely separated by a complete partition, and each possessing a hymen running crosswise. Between the vulva and

anus was a slender but well-developed perineum. The rectum must have been common up to a certain distance, as the desire to defecate was simultaneous, but, without question, there existed two large intestines. The twins possessed two entirely different characters, and lived independently of each other, as far as such a condition was possible; that is, while one might be asleep the other might be awake. They did not have the same tastes; one liked beer, the other wine; one was fond of salads, the other detested them; the heart beat differently and the radial pulses were not synchronous, etc. But this physiological examination was difficult, as the girls spoke only Czech, and Dr. Baudouin had to depend upon the translations of the manager.

So far Marcel Baudouin's report, published in 1891. The twins did not figure again in the medical journals, and many a reader of the description may have forgotten their existence, although they seem to have been exhibited to the public all the time, until there appeared in the same French paper, the Semaine Médicale for May 18, 1910, nineteen years later, the report that one of the twins, Rosa, had given birth to a healthy boy. Dr. C. Trunecek, of Prague, makes this statement in the French journal, while Dr. Basch, of Prague, reports the case in the Deutsche medizinische Wochenschrift. It seems that the sisters had retired to Prague and were living an uneventful life. Rosa became troubled with an abdominal swelling, and on April 15, 1910, they went to the surgical department of the General Hospital for advice. An examination followed, and when pregnancy was suggested the answers were "catégoriquement négatives." Dr. Pitha, professor of gynecology in the Bohemian University, was asked to make an examination, but before he could do so Rosa was, on April 17th, delivered of a healthy boy by a midwife. The father of the infant seems to have been the manager of the twins. We shall give here a condensed review of Dr. Trunecek's report:

When Professor Pitha examined the twins, on April 29th, the twelfth day after the delivery, he found that the twins were united posteriorly by the sacrum and the iliac bones. Only a few accurate measurements could be taken. The mammary glands were developed in both, and all four breasts secreted milk. The abdominal wall of Rosa was distended and showed lineæ albicantes, while this was not the case in Josepha. Usually the twins were lying on one side, Rosa on the left, Josepha on the right. In this position, when the legs were flexed upon the thighs and the thighs upon the pelvis, the view of the genital organs and anus was very good. The urethra was common only for a distance of three centimetres, when

it divided into two channels, each with a separate sphincter, leading to two bladders. The rectum bifurcated about five centimetres above the anus. The entrance to Josepha's vagina was much narrower than Rosa's on account of the accouchement. In Rosa the entrance to the vagina and the vagina itself were much dilated. Both vaginæ were well developed, but short. The septum separating them was much torn, and Josepha had suffered lacerations of the posterior wall of the vagina. The rugæ in Josepha's vagina were well marked, but nearly obliterated in Rosa's organ. Rosa's uterus was as large as one's fist, discharging bloody lochia, while Josepha's uterus was small, anteflexed, and of normal size. Rosa used her right foot in walking, the left leg being shorter, while Josepha used the left foot, the great toe of the right foot only touching the ground.

Treatment of Placenta Praevia. By Frederic Fenton, M.D., Toronto. The Canadian Practitioner and Review.

The writer enumerates four procedures for the treatment of placenta prævia, viz.:

- 1. Rupture of membranes, followed by vaginal packing.
- 2. Braxton Hicks' method.
- 3. Hydrostatic dilators, plus forceps; or version, with immediate extraction.
  - 4. Cæsarian section.

The first is limited to emergencies; the second the writer advocates when the child is dead, or not viable, and the third method when the child is living and viable.

The fourth method, viz., Cæsarian section for placenta prævia, has a strong advocate in the writer of the article, and he reports two successful cases.

The first was in a multipara, advanced to the seventh month. One month previous to operation, the patient was admitted to hospital in an almost moribund state. The H.C. was 15%, and the R.B.C. 1,000,000. It was determined to wait until a recurrence of bleeding, and then to terminate pregnancy either by Hicks' method or Cæsarian section, if the child reached the viable stage. There was no further hemorrhage for almost one month, so the child was nearing the seventh month, and viable, so section was done. The baby was delivered alive, but died in a few hours. The mother made a good recovery.

The second case was a III. para, had suffered two severe

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hemorrhages before admission, and was having some oozing almost continuously. She was a little over eight months, and in good condition. To save the baby, the mother consented to Cæsarian section, which was done, both making good recoveries, and leaving hospital in three weeks.

The points to be learned from the reports of these two successful cases are:

- 1. Cæsarian section should only be undertaken in hospital.
- 2. Caesarian section during the early stages of the symptoms is hardly justifiable, as the child is seldom saved.
- 3. Cæsarian section is really only justifiable when the pregnancy is well advanced, say the eighth month or more, and where there has been very little previous interference, such as vaginal examinations, tamponing, etc., or any severe recent hemorrhage. This narrows the number of cases of central placenta prævia suitable for Cæsarian section to a very small percentage indeed.

The treatment best suited for the majority of cases seems to me to be, as Herman states, early turning, slow extraction, antiseptics.

A. C. H.

### Ophthalmology

D. N. MACLENNAN, W. H. LOWRY.

Sedatives in Ophthalmic Surgery. John Henry Obly, M.D., Brooklyn, in American Medicine.

The paper is entitled "Remarks on the Need of Sedative Treatment in Ophthalmic Surgery." He points out the fear, anxiety and severe strain upon the nervous system of patients who require operations upon the eyes, before, during and after the operation. He speaks of the ordeal a patient goes through for the first 24 or 48 hours after operation with both eyes bandaged, and attempting to lie quietly on the back, which sometimes progresses into uncontrollable restlessness, raving and even dementia. To overcome these nervous manifestations he advocates the use of nerve sedatives and mild hypnotics to help the patient through this trying period. He uses bromides alone or with chloral or with the valerianates. speaks of a preparation called bromural in 5-gr. doses every four hours, with a 10-gr. dose at night, for four or five days before an intraocular operation, and for a few days afterwards. In cases where this is ineffectual he uses trional or veronal in 10 to 20-gr. doses

W. H. L.

## Rhinology, Laryngology and Otology

Geoffrey Boyd, Gilbert Royce.

Tonsil Removal. A New Method and Instruments. Ernest V. Hubbard, M.D., New York. New York Medical Journal.

In this paper the author questions the wisdom of so considerable a procedure as dissection of the entire tonsil and its capsule as advocated by some. Its dangers, those of prolonged operation, of hemorrhage and of subsequent cellulitis need not be invited. The electrocautery designed to diminish hemorrhage often fails of its purpose. The tonsillotome is usually inadequate and often powerless, even with the aid of counterpressure and a tenaculum. The various cold wire snares remain properly used and in expert hands they are now the first choice for our purpose. The laparotomy position of the patient he considers the best, as the upright position only adds to the strain on the heart.

G. R.

## The Sudmucous Resection of the Nasal Septum. Otto T. Freer, M.D., Chicago. Journal A. M. A.

In the writer's experience perforations of the membrane are oftenest made during the denudation of the bony part of the septum after the removal of the cartilaginous portion. This bony crest, which is composed of the incisor crest, the anterior end of the vomer and superior maxillary crest, often bends over into the nares of the convexity in varying degree. The periosteum covering the ridge is firm, vascular and envelops its upper border, crossing over it into the other nostril. It is, therefore, distinct from the perichondrial envelope of the cartilage of the sputum, merely blending with it. For this reason after the removal of the cartilaginous deflection the upper border of the ridge is not seen as bare bone, being covered with periosteum.

He describes a special instrument for separating the periosteum of the ridge.

G. R.

The Correction of Depressed and Irregular Deformities of the Nose by Mechanical Replacement. WILLIAM W. CARTER, M.D., New York. Journal A. M. A., Dec. 4, 1909.

In this paper the writer expresses the view that it is his belief, after an experience of over 300 submucous resections of the septum, that in the adult the septum as a vertical support takes no part in the preservation of the nasal arch. The upper edge of septum, however, which is wedged in between the lateral cartilages, is one of the segments of the arch and performs the important function of the keystone, and its displacement means the destruction of the arch.

The custom prevalent, especially among general surgeons, of placing straps of adhesive plaster across the nose and splints within the nasal cavities in cases of recent fractures is to be condemned as flattening is increased by the pressure of the straps, and the nasal chambers are broadened by the splints. Both influences tend to produce a flat nose. He proceeds to describe a special bridge and intranasal splint for the correction of depressed deformities.

G. R.

#### Anesthetics

SAMUEL JOHNSTON, M.A., M.D.

Jonnesco's Analgesia Method. By John J. Moorhead, M.D., Instructor in Surgery, Post-Graduate Medical School and Hospital, etc., New York.

Dr. Moorhead has an article with the above title in the *Journal A. M. A.* of January 22nd, 1910, a synopsis being given below.

Jonnesco, it appears, first read his article before the International Society of Surgery in Brussels, September, 1908, when he reported fourteen cases by a new method of general spinal analgesia by the addition of strychnine to stovaine.

Professors Bier, of Berlin, and Rehn, of Frankfort, at the same meeting declared there was considerable danger in injections higher than the lumbar region. Jonnesco said he expected opposition to so novel and hardy a method, but he requested that his critics do not condemn it on preconceived grounds, as he was sure that within a short time it would be universally accepted.

The article explains the method of preparing strychnine sulphate and stovaine, with dosage according to age and physique. He advocates two spinal zones for injection, a "superior" between the first and second dorsal vertebrae, and an "inferior" between the twelfth dorsal and first lumbar vertebrae.

The first produces analgesia of upper parts of the body, face and neck, while the second permits of operation on all parts below the waist line.

His total number of cases recorded by this method is 412, 117 high and 295 low.

He says after-effects were notably absent, nausea in 2.25 per cent., vomiting in 1.25 per cent., sweating in 2 per cent., headache in 6.25 per cent., transitory retention of urine in 4.5 per cent. Post-operative temperature did not reach 104, and he never saw any paralysis.

The analgesia in high injections lasted about 45 minutes, and in the low from  $1\frac{1}{2}$  to 2 hours. He gives a second injection if the operation is not completed before sensation returns.

He claims that when he failed to produce analgesia was either

when he failed to enter the arachnoid space in the mid-line, or because the patient moved when he felt the needle, thus deflecting it.

Analysis of an unfavorable case.—Jonnesco in a letter explains the unfavorable outcome of the high injection case at the Post-Graduate Hospital, stating that the patient was an epileptic and had a bad heart lesion.

This fit lasted throughout the operation, which explained the momentary cessation of respiration, but not of the heart, and a few minutes of artificial respiration brought him around again. Delirium also occurred afterwards, but he could not understand that anyone could attribute to the anesthetic what was merely an epileptic delirium.

Jonnesco's statements with regard to this case are in marked contrast to the report given by Dr. Aspinall Judd, who assisted Dr. Robert T. Morris at the operation.

Dr. Judd does not mention an epileptic fit which began at the time of the operation, nor did Dr. Moorhead, who was present, witness any such fit.

With regard to the "momentary cessation of respiration," it appears from Dr. Judd's report that the operation (removal of osteoma of left frontal region) lasted twelve minutes, and that respiration thereafter was very seriously interfered with, and that it required heroic treatment for twelve minutes before respiration was re-established.

Those who observed the patient after he left the operating table would hardly agree with Jonnesco in terming the case one of "momentary cessation of respiration," nor would he have any supporter in his statement that "... a few minutes of artificial respiration was enough to bring him around again. ..." This patient had a wild delirium an hour after, requiring a strait-jacket for two hours, the delirium occurring at intervals until the following morning. Jonnesco says that this was an epileptic delirium and ... cannot understand how anyone can think it was produced by the anesthetic. The consensus of opinion respecting this case was that the high injection was exceedingly dangerous, and that the analgesia was far from complete, and was responsible for the almost fatal collapse of the patient."

Jonnesco's method of high spinal analgesia has been unanimously condemned by all observers, their opinion being well-found that four out of the seven cases of high spinal analgesia resulted unfavorably. One of these was the Post-Graduate case mentioned above, another at New York (superficial chest operation) caused so much pain that the patient asked for chloroform; in a third case

Jonnesco was unable to obtain cerebro-spinal fluid after repeated trials, but did succeed in withdrawing blood; ether was finally given. In a fourth, reported by Dr. Edward Martin of Philadelphia (amputation of the breast), it appears that the patient "narrowly escaped death. . . Later ether had to be given to control the pain. . . . " Incidentally Dr. Martin states that there has been one death and one case of partial paralysis in his city following spinal analgesia by imitators of Jonnesco. With regard to lumbar analgesia, there is some division of opinion between those who would not use it at all and those who would use it when inhalation or local anesthesia was contraindicated.

Dr. Moorhead sums up the dangers as follows:

1. Danger of interference with a highly organized section of the nervous system, considering the possibility of (a) puncture of blood vessels, leading to (b) spinal hemorrhage and areas of (c) spinal selerosis, or (d) syringomyelia later.

2. Uncertainty of reaching the arachnoid space, and hence fail-

ure of analgesia.

3. Psychic shock incident to operations where patients are conscious and appreciative of the sights and sounds occasioned by the occurrence.

4. The advantages do not outweigh the dangers, known and unknown, in a yet insufficiently tried radical departure from older methods.

s. J.

#### THERAPEUTIC TIPS

Gastric U:cer.—In hemorrhage from gastric ulcers, Carnot recommends the following:

Gelatine	. 2.0	gm.
Acid. salicylici	. 0.25	gm.
Aquae coctae	100.0	

Give of this mixture one tablespoonful two or three times a day: in severe hemorrhages, a dose every hour.

Internal Hemorrhages.—Heddaeus says gelatine is the best hemostatic in severe hemorrhages, where the source of the bleeding cannot be reached. The smallest quantity that should be used, he states, is 30 grn. L. Grüneberg reports prompt action from gelatine injections in the hemorrhage diathesis of the new-born. For intestinal hemorrhage due to typhoid, K. Witthauer has obtained brilliant results from gelatine injections.

Furunculosis.—Bowen advises to keep the skin, as far as possible, sterile by washing with warm water and soap night and morning; then, when dried, applying a saturated solution of boric acid in water. The skin is then allowed to dry without wiping, and the individual furuncles dressed with the following ointment, spread on cotton or linen: Boric acid, precipitated sulphur, of each one drachm; carbolized petrolatum one ounce.

Constipation.—Schmidt, of Halle, and Martinet recommend agar-agar in the treatment of constipation. Slow passage of faeces is due to diminished stimulus and peristalsis, through reduced bulk. Agar-agar absorbs sixteen times its weight of water, and so increases bulk. Cascara is added to the agar-agar, and the substance is on the market as regulin. A tablespoonful is given at one meal each day, freshly mixed with stewed fruits of vegetables. As it is slow in action it should be continued some time. The bowels are taught to become regular.

Hay Fever.—Dunbar, of Hamburg, produced an antitoxin which is said to come nearer being a cure for hay fever than anything else. But the prevailing form of hay fever in Europe is of the vernal form. An antitoxin for the autumnal, or American, form is yet to be discovered. Probably the best relief is secured by the application of a weak solution of cocaine and adrenalin to the nose and eyes. Albert Bardes, New York, recommends an oil spray containing a grain of menthol and a drop each of pure carbolic acid and oil of eucalyptus to the ounce of albolene. This keeps the nostrils clear and relieves the soreness.

Poison ly Dermatis.—From personal experience, Richard Ellis, New York, recommends ice-cold compresses—carron oil, bicarbonate of soda—and the following prescription: Zinc oxide, two drachms; mag. earb., two drachms; thymolis iod., one drachm; aquae calcis, q.s. ad. four ounces. For external use.

Infantile Convulsions.—According to G. M. Pearson, South Africa, a high temperature either precedes or accompanies a fit, except in gross brain disease, and, in his experience, convulsions can be prevented or checked by keeping down the temperature. There is not much chance of convulsions with a temperature under 102°; above 103°, no matter what the illness, it should be lowered by the cold bath. A short bath is useless. The duration of the bath should be regulated by rectal temperature.

Appendicitis.—Do not treat your patient medicinally, says Maurice Chideckel, if Blamberg's sign is present. This is present in all cases of peritonitis. No applications of mustard, turpentine or hot water should be used; no food, not even water; nothing that will increase peristalsis of large or small intestines; and no drug which will paralyze nervous tone. When the patient is a child, no medicinal treatment.

Bee Stings for Rheumatism.—For elderly people, Maberly says, it is better to start with about six stings for the first three applications, and gradually increase up to one dozen, if required. Stings remain in a few minutes. Many months are required for long-standing cases. A forceps has been devised to hold the bees without doing them harm.

Buttermilk Feeding.—This practice began 150 years ago with the peasants of Holland feeding their infants buttermilk. Two physicians of that country brought it before the medical profession in 1902 and 1905, respectively. German physicians began using it in 1901. Babinsky recommends its use in acute dyspepsia after the starvation treatment and chronic diarrhea. Holt advises it in intestinal indigestion and diarrheal disease. He directs a quart be cooked for twenty minutes, with two tablespoonfuls of barley flour and four ounces of water, and then adds two teaspoonfuls of cane sugar. Instead of barley, wheat flour is used in Germany.

Vomiting of Pregnancy.—Menthol for this distressing condition is recommended by Meredith Young. It may be given either as validol, or fifteen grains may be dissolved in six drachms of rectified spirit, and made up in six ounces of water. Give a table-spoonful as required.

**Fistula.**—Beck's bismuth paste, made up as follows, has been successfully employed in treatment of fistulæ: Ten parts of bismuth subnit., ten parts each of paraffin and lanolin, and twenty parts of vaseline. The amount to be injected is five to twelve CC. Dressings need not be changed often, and suppuration is materially reduced.

Syphilis.—Ehrlich's new treatment of syphilis, although not yet brought to perfection, is said to be causing something of a furore in some parts of Continental Europe. It is said that one injection will arrest the disease as efficiently as one year's treatment by any other known method. It is claimed that one injection destroys all the spirochetes and does no harm to any tissue of the body. The cure is called "sterilisatio magna," and the medicine "dimethyldioxiarsenobensoldichlorhydrat," a compound of arsenic. Further investigation and experiment are required as to dosage, mode of administration, etc., before the product will be placed upon the market. It is known as "606."

#### Reviews

Diseases of the Genito-Urinary Organs. By Edward L. Keyes, Jr., M.D., Ph.D., Clinical Professor of G. U. Surgery in the New York Polyclinic Medical School; Surgeon to St. Vincent's Hospital; Lecturer on Surgery, Cornell University Medical School. 975 pages. Illustrated. Price \$6.00. New York: D. Appleton & Co.

In this very admirable work the author has adopted a new and more rational arrangement of the subject matter. Instead of the old-fashioned anatomical and, as the author says, "stilted procession from anomalies, injuries and inflammations, to stone, tuberele and neoplasm," we have here the much more satisfactory sequence beginning with physical examination, urinalysis, urethral instruments, etc., on to a most illuminating chapter on cystoscopy and ureteral catheterism; then one on the estimation of renal function. Then follow about two hundred pages devoted to the most exhaustive—or perhaps we should say the most satisfactory—discussion of gonorrhea and its complications it has ever been our privilege to read. This article alone, to our way of thinking, is worth the whole price of the volume. It is modern, scientific and eminently "common sense," which, after all, really means "uncommon sense."

Then follows chapters on the prostate and on cystitis; on the etiology, pathology, symptomatology and diagnosis of renal infections, renal and ureteral calculi, G. U. tuberculosis, diseases of the bladder, and so on through the whole gamut of this extensive train of pathological processes, finally ending up with several chapters devoted to the various operative procedures necessary from time to time, throughout the various parts of the genito-urinary tract.

It seems to us like a piece of crass impudence to attempt to give anything like a just, comprehensive critique of this most ex-

cellent treatise in the limited space at our disposal in this issue. One could devote considerable space to almost any one or two chapters in this work; imagine, then, the responsibility of reviewing the entire work! We do not care to indulge in fulsome adulation of this work—not that it does not merit it, but rather because Dr. Keyes is doubtless as modest as he is able, and so might not relish unqualified praise—but shall content ourselves with assuring our readers that it is one they should not only possess, but should earnestly study, with the full assurance that the author speaks as one having authority.

T. B. R.

Text-Book of Pathology. By Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Philadelphia General Hospital; Director of the laboratories of Henry Phipps Institute, Philadelphia. Philadelphia and London: W. B. Saunders Co. Canadian agents: The J. F. Hartz Co., Toronto.

This work, so well known to the profession through its first volume, speaks well for itself by the publication of a second edition so soon. This appears in an octavo of 856 pages with 437 illustrations, thoroughly revised and brought up to date. The author has eliminated many of the controversial points which so many of the other authors have published, and in so doing presents a concise treatise of the principles of general and special pathology in such a way that the fundamentals may be easily grasped by the student. The illustrations, consisting of gross photographs, microphotographs and some colored illustrations, are well done and show many of the pathological processes. Dr. McFarland in this publication has realized that the undergraduate in medicine with the present curriculum needs a text-book dealing with facts, and these he presents in such a way that they are easily read and understood. His chapter on progressive tissue changes is especially well written. The publishers have spared no expense in the preparation of this work. Students in medicine will find this one of the most useful text-books in their study of pathology. O. R. M.

Practical Dietetics. With special reference to diet in diseases. By W. Gilman Thompson, M.D., Professor of Medicine in the Cornell University Medical School; Visiting Physician to the Presbyterian and Bellevue Hospitals. Fourth edition, illustrated; enlarged and rewritten. New York: D. Appleton & Co.

Several authors on diet have introduced new editions recently, and Dr. Thompson has wisely brought his work up to date.

The work contains what every work on this subject does, and a little more; but its method of arrangement and the way it is written are more than usually palatable. The articles on milk, soured milk and all its forms, and other conditions of this daily food, are very satisfactory and up-to-date. Diet in various diseases is given unusual space, while an excellent chapter on food for the sick may be noted. The volume can be recommended as the best of its kind.

G. W. H.

Diseases of the Heart and Aorta. By Arthur Douglass Hirsch-Felder, M.D., Associate in Medicine, Johns Hopkins University. Philadelphia, London and Montreal: J. P. Lippincott Co.

Mackenzie presented the profession a few years ago with a book on the heart and its diseases that started us thinking, and now a well-trained Johns Hopkins man issues the result of some years' experience along a subject upon which he has published very numerous articles. The book is based both on scientific knowledge and on practical experience, and no first-class practitioner can fail to avail himself of its contents.

A brief but cogent physiological chapter is followed by chapters on Blood Pressure, Arterial and Venous Pulses, and Physical Examination, while, under these headings are included the description of and recent work on the instruments used for blood pressure, viscosity, sphygmogram, and, of course, the electrocardiogram, and finally the X-ray. Leaving the subject of physical diagnosis, the pathological physiology of cardiac work and failure is taken up, and then follows a modern discussion on treatment in general,

Under special diseases, the attempt is made to separate the diffuse and localized forms of heart disease, a proceeding which is questionably wise.

The disease of the heart and aorta are then taken up in an extremely methodical manner, and the reader has no difficulty whatever in finding what he wants for reference. This part of the work is excellent. In addition to being plentifully illustrated, the book has a most complete bibliography terminating each chapter

I can only add that it appears to me that this is one of the best works on heart yet published.

G. W. H.

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No. 3.

#### COMMENT FROM MONTH TO MONTH.

The Halifax Medical College and Bulletin IV. of the Carnegie Foundation.-In the Maritime Medical News for July, there is published a paper by Dr. D. A. Campbell, professor of clinical medicine in the Halifax Medical College, entitled "Medical Education in Nova Scotia." This paper was read at the fifty-seventh annual meeting of the Medical Society of Nova Scotia, held in Yarmouth on the 7th of July. The paper is a full and unanswerable reply to the report, so far as Halifax Medical College is concerned, and places that portion of the Bulletin No. IV. in an altogether unenviable light. The wonderful critic jumped into Halifax and jumped out again in four hours, and had not consulted with a single officer of Halifax Medical College-yet "knew it all." It is simply astounding that any body laying claim to scientific status should publish and circulate broadcast a report which may now well be considered of questionable value. amazing acumen fills one's soul with awe.

Before the final publication of Bulletin IV. a draft report was submitted to the President of Dalhousie University for "comment." "Comments" were sent back from Halifax, which "supplied considerable material facts for correction." These facts were ignored. What is one to think of an action of this character by a scientific body? The authorities of Halifax who "knew," and who apparently were anxious to have "facts" published, were side-tracked in favor of the "trained observer," who, in four hours, could "grasp the spirit, ideals, and facilities" of the Halifax Medical School. Amazing acumen!

The Medical Society of Nova Scotia placed itself on record as follows:

"The Medical Society of Nova Scotia, in session at Yarmouth, July 6th and 7th, 1910, having considered Dr. Campbell's criticisms of the Report of the Carnegie Foundation on the standing of the Halifax Medical College, finds that the report is prejudiced, inaccurate and misleading.

"The Society considers that the best answer to the Report is furnished by the good standing and success of the practitioners who received their education in Halifax.

"The Society believes that the Halifax Medical College has proved its efficiency, and that it serves a useful purpose in the Maritime Provinces and Newfoundland, and it strongly recommends that every effort should be made to ensure the continuance of a medical school at Halifax."

In making a choice of climate for the treatment of pulmonary tuberculosis cases, subjects of this disease should be plainly told there is no specific climate for tuberculosis. There are no "immune zones." That open-air life is the officer in command in the treatment is now generally accepted and understood. All other combatants are the auxiliaries. Open-air life is more pleasant in some climates than in others; and the salts in sea air, the ozone of forests, the rarefied atmosphere of mountains, typify outdoor life. As a routine procedure, advising change of climate is to be condemned. Each case is to be judged upon its own merits, and advice given accordingly. It is well before a patient is ordered a change of climate that as much knowledge as possible be secured of the health resort. To this end it will be helpful to know that the Journal of Outdoor Life, 2 Rector Street, New York, the official organ of the National Association for the Study and Prevention of Tuberculosis, has a "Service Department," which will willingly furnish information as to institutions for tuberculosis in the United States and Canada.

#### Mews Iltems

Dr. Egbert of Calgary is advocating a children's hospital for that city.

Dr. Montizambert, Ottawa, is making his annual tour of Pacific coast points.

Dr. I. Wood, Kingston, died recently from a stroke of paralysis.

Dr. E. C. Beer, Brandon, has been taking post-graduate work in Chicago hospitals.

Our readers will find our advertising pages well worth reading, there is always something there of interest to the physician and surgeon.

Manitoba Medical Council will not reduce the registration fee from \$125 to \$100.

Dr. W. A. Lincoln has been appointed Superintendent of the Calgary General Hospital.

When you are writing for samples or about some article advertised in the pages of this journal it will facilitate replies if you mention you noticed same in the Dominion Medical Monthly.

A NUMBER of Saskatchewan physicians are interested in promoting a sanatorium at a cost of \$60,000.

SIR WILFRID LAURIER laid the foundation stone of the Sas-katchewan University on the 29th of July.

Dr. E. S. Worthington, formerly of Montreal, will accompany the Duke of Connaught to South Africa as medical officer.

ALL our advertising is clean and reliable in every way. We see to it that our advertising pages are kept in as good order as our reading pages. Examine for yourself and you will find it so.

Dr. H. E. Tremayne, Prince Rupert, has been appointed medical officer of quarantine under the Dominion Government.

MISS ROBINA STEWART, graduate of the Johns Hopkins Hospital, is to succeed Miss Snively as Lady Superintendent of Toronto General Hospital.

Saskatchewan will erect the Manitou Lake Sanatorium at a cost of \$50,000. A mile frontage has been reserved by the government on Lake Manitou.

Between advertisers and practitioners there should be a cordial understanding. One cannot get along very well without the other; and advertisers are always anxious to give the physician just exactly what he wants.

LIEUTENANT-COLONEL CARLTON JONES, M.D., Director-General of the Army Medical Service, has been inspecting and lecturing in Vancouver and other western points.

A LOCAL medical journal is a necessity to every practitioner. Advertisers help largely to make local as well as all medical journals possible. Advertisers, therefore, should receive first call from the profession.

THE French Medical Association of America met in Sherbrooke, Que., in its fourth triennial session on the 24th, 25th and 26th of August, under the presidency of Hon. Dr. Pelletier.

THE reading matter is not all the valuable material in a medical journal. What one may be after is very likely to be found in the advertising pages. Therefore do not fail to look these carefully over each issue.

Advertising is the blood which keeps alive all sorts and conditions of journalism. A prime part of a newspaper or a magazine, it should appeal as well to the patrons of medical journals.

Dr. Roddick wrote the Manitoba Medical Council that the enforced postponement of the amendment to the Canada Medical Act was due to lack of consonance by the Medical Council of British Columbia.

## Correspondence.

August 11, 1910.

To the Editor of the Dominion Medical Monthly:

At the recent meeting of the Congress of American Physicians and Surgeons, held in Washington in May, 1910, a joint session of the American Orthopedic and American Pediatric Societies was held, and the subject of epidemic poliomyelitis was discussed. The

following resolution was adopted:

"It having been shown by recent epidemics and investigations connected with the same, that epidemic infantile spinal paralysis is an infectious communicable disease that has a mortality of from 5 to 20 per cent., and that 75 per cent. or more of the patients surviving are permanently crippled, State Boards of Health and other health authorities are urged to adopt the same or similar measures as are already adopted and enforced in Massachusetts for ascertaining the modes of origin and manner of distribution of the disease, with a view of controlling and limiting the spread of so serious an affection."

A committee, with Doctor Robert W. Lovett, President, Boston, Mass.; Doctor Irving M. Snow, Secretary, Buffalo, N.Y., was appointed to urge the various State and municipal health authorities to take up the work of investigation of the various foci of epidemic poliomyelitis, to study its epidemiology and to instruct the public that the disease is at least mildly communicable.

May we ask you to publish this letter and the resolutions in your journal, and also to allude to the matter editorially, urging the Health Commissioners of the various States of the United States and of the Provinces of Canada to follow the example of the Massachusetts Health Department in studying the epidemiology of poliomyelitis.

Respectfully yours,

ROBERT W. LOVETT, M.D., President. IRVING M. SNOW, M.D., Secretary. No. 476 Franklin St., Buffalo, N.Y.

Committee on Poliomyelitis, American Orthopedic and Pediatric Societies.

## Publishers' Department

THE ANTITOXIN TREATMENT OF DIPHTHERIA.—Again are we nearing the season when the problem of diphtheria and its treatment must be met and solved. The writer of this paragraph is forcibly reminded of the fact by the receipt of a modest but important brochure of sixteen pages bearing the title "Antidiphtheric Serum and Antidiphtheric Globulins." A second thought is that here is a little work that every general practitioner ought to send for and read. Not that the booklet is in any sense an argument for serum therapy. It is nothing of the kind. Indeed, the efficacy of the antitoxin treatment of diphtheria is no longer a debatable question, that method of procedure having long since attained the position of an established therapeutic measure. pamphlet is noteworthy because of the timeliness of its appearance, the mass of useful information which it presents in comparatively limited compass, and the interest and freshness with which its author has been able to invest a subject that has been much written about in the past dozen or fifteen years. Its tendency, one may as well admit, is to foster a preference for a particular brand of serum, but that fact lessens not one whit its value and authoritativeness. Here is a specimen paragraph, reprinted in this space not so much to show the scope and character of the offering as to emphasize its helpful tone and to point out the fact that its author was not actuated wholly by motives of commercialism: "Medical practitioners have learned that inasmuch as the main problem presented in the treatment of a case of diphtheria is the neutralization of a specific toxin, the true antitoxin cannot too soon be administered; moreover, that, antitoxin being a product of definite strength, a little too little of it may fail when a little more would have succeeded—hence larger or more frequently repeated doses are becoming more and more the rule. One more point: if the medical attendant is prompt, as he must be, and fearless, as he has a right to be, the full justification of his course will hinge upon the choice of the best and most reliable antidiphtheric serum to be had: for while there is little or no danger of harm ensuing from the use of any brand issued by a reputable house, the best results-which may mean recovery as the alternative of death—can only be hoped for from the use of the best serum." The brochure is from the press of Parke, Davis & Co., who will doubtless be pleased to send a copy to any physician upon receipt of a request addressed to them at their main offices, Walkerville, Ontario.

Frosst's Capsules contain the Glycerophosphates in accurate dosage, encased in the finest soluble gelatine—no alcohol, sugar, excess of acids or other additions, which in the elixirs and solutions are an objection.

Frosst's Capsules No. 69 afford an eligible form for administering these valuable salts. In ethical packages of 100

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CHARLES E. FROSST & CO.
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Prof. Philemon E. Hommell, Jersey City, says, "Glycerophosphates have evidently come to stay; they are frequently prescribed in the treatment of neurasthenia \* \* and seemingly give desirable results; they should obtain official recognition in an eligible form."

—Merck's Report for May, 1910.

To Relieve the Effect of Solar Heat.—Direct exposure to the sun's rays; employment in or living in hot and poorly ventilated offices, workshops or rooms, are among the most prolific causes of headache in summer time, as well as of heat exhaustion and sunstroke. For these headaches and for the nausea which often accompanies them, antikamnia tablets will be found to afford prompt relief, and can be safely given. Insomnia from solar heat is readily overcome by one or two antikamina tablets at supper time, and again before retiring. If these conditions are partly dependent upon a disordered stomach, two tablets, with fifteen or twenty drops of aromatic spirits of ammonia, well diluted, are advisable. For the pain following sun or heat-stroke, antikamnia in doses of one or two tablets every two or three hours, will produce the ease and rest necessary to complete recovery. As a preventive of and care for nausea while travelling by railroad or steamboat, and for genuine mal de mer, or sea-sickness, antikamnia tablets are unsurpassed.

CHROMIUM SULPHATE FOR ENLARGEMENT OF THE PROSTATE. "Ross (Med. Council) reports uniformly good results in the use of chromium sulphate in prostatic troubles. He gives details of one case of a patient seventy-three years old, with whom regular catheterization had been necessary for six months. Examination per rectum revealed a prostate as large as a walnut. The patient obtained considerable relief after taking for one week 4 grains four times a day. The dose was then increased to 8 grains three times a day, and strychnine sulphate, gr. 1-130, before each meal was added to the treatment. The improvement was rapid from that on. As a result, use of catheter was discontinued within a space of two This patient took the remedy for three months. strychnine sulphate was stopped at the end of the first month. Examination then revealed a prostate of very nearly normal size with no tenderness. Tyler (Physicians' Drug News) also reports a similar case in which the chromium sulphate gave an excellent result."—The Druggists' Circular, June, 1910. Charles E. Frosst & Co., Montreal, manufacture the following: C.T. 203, "Frosst," Chromium Sulphate Pure, 4 grs., C.C.T. 220 "Frosst," Chromium Sulphate Pure, 4 grs., Elix. No. 77, "Frosst," Chromium Sulphate Pure.

CHRONIC ILL HEALTH.—Scarcely a day passes in the life of the busy physician during which he is not consulted by at least one patient who is the unfortunate subject of chronic ill health, from one cause or another. The different factors responsible for long-



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continued invalidism are varied and diverse, but if we exclude organic disease, such as carcinoma, tuberculosis, syphilis, etc., the large majority are neurasthenics and dyspepties. Of course every physician realizes that the term "neurasthenic" is unscientific and that it is employed, for want of a better name, for the well-known group of symptoms most often noted in the city dweller, who has "burned the candle at both ends" or whose occupation and environment is such as to produce general as well as nervous devitalization. The chronic dyspeptic is usually a neurasthenic, in whom the digestive symptoms predominate, and who generally requires the same reconstructive treatment and regimen. Nerve tonics, stimulants, "pick-me-ups," etc., are usually not only useless, but harmful, and so-called "nerve foods" are but therapeutic "will-o'-the wisps." Nutrition and blood glandular re-enforcement is the essential indication, and there is no general reconstructive and reconstituent that shows more prompt and potent effects than Pepto-Mangan (Gude), a ferruginous and manganic restorative and blood-builder of proved and undoubted efficiency, entirely free from the irritant, corrosive, astringent and constipating effect of the ordinary preparations of metallic iron.

The Ideal Abdominal Binder.—One thing is certain, every physician or surgeon who has ever used a "Storm" Abdominal Supporter has been instantly impressed with its special possibilities in relieving prolapse of the viscera, to say nothing of its great utility as a support during pregnancy, and after laparotomies. Invented by a physician who has given the most extensive study and investigation to the subject, the "Storm" Binder comes more closely to meeting anatomical needs than any other supporter. Moreover, it is mechanically perfect in every detail, and thus retains its shape and efficiency, without the changes due to use and wear that make the ordinary abdominal binder worse than useless after a very short time.

Patients seem to derive more immediate comfort from the "Storm" Binder than any other form of support, and it is hardly necessary to speak of the sustained and permanent benefits invariably obtained. The simplicity of the "Storm" Binder is commendable, and doubtless much of its utility is due to this quality. It does not fret and annoy the most nervous invalid, and as voiced by a recent patient, profoundly neurotic, "I would never know I had it on, but I know when I leave it off."

In brief, the "Storm" Binder is the ideal abdominal supporter for men, women and children, and physicians who use it once will never allow their patients to use any other. It is in a class by itself

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We carry a complete line of PASTEUR Filters. The Pasteur was invented by the eminent French scientist, Louis Pasteur, and is the only germ-proof filter made. The filtering medium is a porcelain tube, the density of which is \$\frac{7}{276}\text{h\$\tilde{0}\$} at \$\text{of}\$ one inch, which prevents all micro-organisms from coming through.

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When milk alone is heavy and unsatisfying, Benger's Food made with milk, is appetising and nutritive.

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The "Briti h Medical Journal" says: "Benger's Food has by its excellence, established a reputation of its own."

Readers can obtain a 48-page Booklet. "Benger's Food and How to Use It." which contains a "Concise Guide to the Realing of Infants, and practical information on the care of Invalids, etc., on application to Benger's Food, Ltd., Otter Works, Manchester, England.

Benger's Food is sold in tins by Druggists, etc., everywhere.

in its special field of utility. Every physician should have a supply of diagrams for nicasuring, etc., and for these should address Dr. Katherine, L. Storm, 1612 Diamond, St., Philadelphia, Pa.—From American Medicine, March, 1910.

After an experience of nearly fifty years. I can say I have men with no remedies whose results were more satisfactory than those of Resinol Qintment. As an anti-pruritic, its effects are almost instantaneous. I have now a case of eczema of long standing in a person nearly 71 years of age, involving almost the entire body. In this case the atching was most distressing, but is at once allayed by the application of the Resinol.—A. M. Waddill, M.D. Rolling Fork, Miss.

A TIDY unopposed medical practice and property is for sale about forty miles from London, Onfario. It nets over \$2,000 annually and is situated in the finest country. The price is right and further particulars may be got by applying to us:

A.NCE \$3,500 medical practice is for sale in the County of Grey. It is unopposed, no property, and can be got clean.

A good three to four thousand medical practice is for sale in a nice yillag, about fifty miles east from Toronto. The price is right, and further particulars will be furnished by application to this affice.

ADVERTISING is a very important part of medical journals. Many a man has found good things in the advertising pages. If you have not examined these in the past it is time to commence and make it a routine practice.

MATERATY HOSPITM. -- Out-of-town, physicians referring cases for confinement in Toronto can get particulars of a nice, quiet, well-appointed home, in charge of a competent and experienced nurse, by addressing this office.

I have prescribed Resinol with excellent results, especially in eczema and all skin diseases, with prurities.—II. Remy, M.D., Biddeford, Maine,