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CHORIONEPITHELIOMA.

BY

F. A. L. LOCKHART, M.B., C.M., Edin., M.D., McGill.

Lecturer in Gynæcology, McGill University; Gynæcologist to the Montreal General Hospital and Protestant Hospital for the Insane, Verdun.

The French tell us "souvent femme varie, fol qui s'y fie." This certainly may be said with truth about the theories which we hear laid down in no faltering manner with regard to causes of disease. These are constantly changing and what we hold as absolutely proven to-day, to-morrow we find is quite wrong. Most of us in our student days were taught that the impregnated ovum rested upon the mucous membrane of the uterus, and that this membrane grew around the ovum and held it in position. Not only did the ovum become fixed in this way, but the maternal tissues grew up around the foetal villi, and so formed the placenta. We now know this to be false, and that the placenta is formed by the trophoblastic cells of the embryo penetrating into the maternal tissues, and so preparing the way for the villi to follow. These trophoblastic cells may be found lying not only in the mucous membrane of the uterus, but also in the muscular wall of that organ. These cells, the syncytium and Langhans' cells, are to be found in all uteri between the first and tenth week of pregnancy, and may even be discovered in puerperal uteri. They may disappear, and usually do so, but at times they persist, and form a new growth, the "Deciduoma Malignum" of Sänger or, as it is now universally called, "Chorionepithelioma."

Chorionepithelioma¹ is an extremely malignant growth arising in connection either with pregnancy or teratomata, and characterized, clinically, by its appearance during the puerperal state, by its very rapid growth, by intractable hæmorrhages and by visceral metastases which are propagated by the blood-vessels; and, histologically, by peculiar

cellular elements which differ in themselves from those of any other tumour formation.

The disease has only been recognized during the last twelve or fourteen years, cases before that time being diagnosed as carcinoma of the uterus. The earliest case is one reported by Wilton, in 1840, the disease occurring in a woman 37 years of age, who had been pregnant six times, the last pregnancy having terminated in hydatid degeneration. The patient died from rupture of the uterus and intraperitoneal hæmorrhage. Between 1840 and 1888 several undoubted cases were reported by Netzl,¹ Hoffmeier and others; but it was not until July 16th, 1888, that the disease was described as a separate entity by Sänger² in a paper read before the Gynæcological Society of Leipsic, so that our knowledge of the malady may be said to date from that time. He considered it to be a sarcoma arising from the decidua membranes, hence the name "Deciduoma Malignum," which he gave to it. Many other theories as to its nature have been put forward. Pfeiffer,³ Löhlein, Nové-Josserand and Zweifel consider it to be a decidua sarcoma, while Toupit and Hartmann hold that it is of foetal origin. Gottschalk looked upon it as a tumour of the chorionic villousities, and pointed to the frequency with which it followed hydatid mole. In 1895, Marchand⁴ stated that it was not a sarcoma, but that it sprang from the epithelium of the syncytium and Langhans' layer, that is to say, that it originated in the lining of the villi, thus consigning to the disease a double origin, viz., foetal, from its origin in Langhans' layer and maternal from the syncytium. This view of a mixed origin was supported by Resinelli, Bandler, Fränkel and Langhans, but, later, in 1898, Marchand⁵ modified his view by stating that the syncytium arose from the foetal ectoderm. To-day, the origin of chorionepithelioma from maternal tissue is denied by all observers, and the majority maintain the view of Apfelstedt⁶ and Aschoff, etc., that the disease springs from the syncytium and Langhans' layer, but that both of these have their origin in foetal elements.

To summarise, there are two principal views as to the origin of chorionepithelioma. One, and the oldest, is that of Sänger, Chiari, and others, that the disease is sarcomatous, while the second, supplied by Marchand and his followers, is that it is a special form of epithelioma of foetal origin.

Although, in the vast majority of cases, chorionepithelioma follows pregnancy; it does not always do so, instances having been recorded by competent observers where the disease occurred in old women past the menopause, in undoubted virgins, and even in males; but in all such

cases the presence of teratomata was either proven or strongly suspected. The fact has been emphasised by Schlegenhäuser⁷ and Wlassow.⁸ As examples of this may be cited the cases of Bostrom and Ritchie. Bostrom's⁹ patient was a man, 32 years old, who was operated on for a small cerebral tumour, which, on histological examination, showed decidua masses. Later on, the man died and the autopsy revealed metastases in the lungs and peritoneum, these metastases also showing evidences of chorionepithelioma. Ritchie's patient was also a young man, who died of a malignant tumour of the mediastinum. At the autopsy, a dermoid cyst was found, as well as another mass, which showed all of the microscopical characters of chorionepithelioma. These exceptions are sufficient to establish the fact that the disease *may* occur quite independently of pregnancy, but there is no denying the statement that but few cases are seen in which there has not been some evidence of previous impregnation.

Pathological Anatomy.—Examination in situ with the naked eye shows the growth to be an irregular, diffuse, fungous mass deeply implanted in the uterine wall by numerous prolongations which run between the bundles of muscular fibres. At other times, the surface is ulcerated, rough and coarsely ragged with villous vegetations. At the seat of the disease, the uterine wall may be almost or entirely eaten through. Solivij¹⁰ reports a case where the disease had penetrated into the parametrium. More rarely, the growth may be pedunculated or else the opposite condition may be present, nodules of tumour lying beneath the mucous membrane, which is apparently intact. The tumour varies considerably in size; it may be as small as a marble and almost never exceeds the size of a full term foetal head. In colour, it is usually greyish, with dark hæmorrhagic spots, but it may be either dark green or bright red. The growth is usually soft and friable in consistence, never being firm, as in fibroids, or hard, as one gets in ordinary epithelioma. The usual situation of the tumour is high up near the fundus uteri, but the vagina may be the primary site, and examples of this have been reported by Landau and Büsse. Landau's¹¹ patient was an unmarried girl, twenty years of age, who previously had enjoyed the best of health. She was admitted to his clinic on November 9th, 1900, having been last "unwell" in the middle of August. At the end of October, bleeding and pain in the lower abdomen came on. She was examined on November 5th, and the os was found to be closed. She was curetted but no diseased tissue was found. She suffered from repeated hæmoptysis. On November 9th, Landau found the internal organs of generation to be healthy, but he discovered two swellings

situated in the lower part of the left wall of the vagina near the introitus. One of these was the size of a bean, while the other was about twice as large. They looked like thrombosed veins, and the mucosa over them was ulcerated with blood at the base of the ulcer. No physical signs of pulmonary disease could be made out. The two vaginal masses were excised, and the patient was apparently quite well in February, 1902. Microscopic examination of these masses and uterine scrapings showed that the former were typical examples of chorionepithelioma, while the uterus was quite free from disease. Contrary to most uterine growths, secondary deposits occur both early and frequently in chorionepithelioma, and this fact may be considered as symptomatic of the disease. Extension takes place by means of the blood-vessels, and in many specimens one can see the tumour cells projecting into the blood-spaces or even lying loose there. A case reported by Lockyer, however, suggests the possibility of their transmissibility by the lymphatics as well. The patient was 26 years old, and had given birth to a full time child four weeks before coming under observation. Ten days after labour, she began to have dragging pains in the vagina, accompanied by a brownish discharge. About ten days later a lump appeared in the groin. The primary seat of disease was the uterus, with secondary nodules in the left groin, right labium majus and lungs. This inguinal swelling occupied the site of the inguinal glands and greatly resembled a mass of enlarged and inflamed glands. Although microscopic examination of these masses did not reveal any glandular structure, their appearance and situation, at least, are suggestive of invasion through the lymphatics. The lungs are the organs which are the more prone to be affected secondarily, thus accounting for the cough, dyspnoea, hæmoptysis, etc., so often met with. Next in order of frequency to be attacked by secondary deposits is the vagina. Here, the growth usually presents itself as a soft violet coloured nodule, which rapidly increases in volume, ulcerates, and bleeds profusely. Eirmann's statistics show 28 pulmonary to 20 vaginal metastases, while in my own series of 277 cases (including Teacher's) there are 103 pulmonary and 72 vaginal growths. The nervous system may possibly be affected, and, more rarely, the bones. As for the viscera, there are none but what have been attacked.

Histology.—Teacher¹² describes the most typical elements as consisting of (1) Small well-defined polyhedral cells with large vesicular nuclei closely packed together in masses without any connective tissue stroma between them. (2) Large multi-nucleated masses of protoplasm (plasmodia or syncytia) in which no definite cell boundaries are recognisable. (3) Large cells, sometimes mono-nucleated, sometimes

multi-nucleated, some of which present a resemblance to decidual cells, while others are identical in character with the multi-nucleated giant cells which occur in the decidua serotina. These, in some parts, are arranged in cell masses without intervening cell stroma, while in other places they are infiltrating and destroying adjacent tissues after the manner of sarcomata. The cells of the first class are those of Langhans' layer. When young, they are small, but they increase in size as age advances. Their nuclei contain a fine intra-nuclear net-work and are easily stained. They also contain glycogen. These cells of Langhans' layer constitute neither an important nor a necessary element in chorionepithelioma, and they may be completely absent in specimens from undoubted cases of that disease. The same statement does not hold good, however, in regard to the syncytial masses, which are always present in true chorionepithelioma. The plasmodia or syncytia are not true cells, but are simply ill-defined masses of protoplasm with one or more nuclei. Their protoplasm is usually homogeneous and opaque and takes the stain of eosin, etc., very strongly. The nuclei are small, oval or rounded, and are scattered throughout the mass without any attempt at order. They multiply by direct division, and may be vacuolated. The syncytium forms the boundary of the growth, *i.e.*, it is seen at its periphery. In the centre of the neoplasm, no vessels with true walls are seen, but the growth is nourished by means of lacunæ, the walls of which are composed of syncytial masses which penetrate the uterine wall. In doing so, they send long processes between the muscular bundles which run along the vessels and ultimately penetrate their walls. Before actually doing so, however, they cause a weakening of the walls, thus allowing of a localised dilatation of the vessel which gives it an appearance of being thrombosed, or varicose. After entering the vessel, these plasmodia actively proliferate and act in one of two ways. The mass in the vessel may form a thrombus, which may itself go to some distant part or it may give off cells or smaller portions which, in their turn, travel with the blood-stream and so give rise to new foci of disease. Or, the thrombus may form and remain where it is, becoming canaliculised and taking the place of the vessel wall. This infiltration of the vessel wall explains the manner of spread of the disease and also the hæmorrhages. Haultain¹³ thinks that many cases of cure may be explained by the blood being poured out around the neoplasm and cutting off its nourishment by pressure.

Marchand recognises three forms, *viz.*: (1) Typical, characterised by the presence of syncytial masses sending off branches in all directions, thus forming a net-work, the strands of which are covered with nuclei, and in whose meshes are clear cells which vary in number; (2) Inter-

mediary form, where the characteristics of the above two are blended. Nothing is known, so far, as to the relation between these different forms and the prognosis.

Clinical Process.—Chorionepithelioma may begin very insidiously by bringing out symptoms of some very different malady, as is seen in the case reported by Büsse.¹⁴ In this case, the patient had a fatal hemiplegia, and the autopsy revealed the presence of chorionepithelioma affecting the right Sylvian artery, with secondary deposits in the liver, spleen and right heart, the genitals being quite free from the disease, although the patient had suffered from a miscarriage six months previously. Usually, however, it is uterine hæmorrhage which first attracts the attention of the patient. This bleeding is marked by its severity and its resistance to treatment, curettage even being ineffectual in many instances. This blood-loss rapidly impairs the patient's health; she loses weight and her skin becomes waxy. Between the hæmorrhages there is a serous, sero-sanguineous or smoky discharge, which has a foul odour. Local pain is either absent or slight. The patient may have chills, fever, vomiting, cough, purulent expectoration, hæmoptysis, nervous affections, etc., produced by the metastases, or, in the case of the chills and fever, sepsis.

Examination of the patient reveals various phenomena. Bi-manually, the uterus is felt to be enlarged, but the amount of this enlargement varies, rarely, however, exceeding that of a full term foetal head. Its surface may be either nodular or else smooth and even. Per vaginam, the cervix may be felt to be soft and the os to be so patulous as to admit of the entrance of the examining finger into the uterine cavity, where one may find a mass of soft, spongy material, resembling placental tissue. This growth is usually situated on either the anterior or posterior wall of the uterus near the fundus. While exploring the cavity, the finger may remove a fragment of tissue for microscopical examination. Pigmentation of the skin, which is so often seen to accompany the usual forms of malignant disease, so far has not been recorded in connection with chorionepithelioma.

Etiology.—This disease usually occurs during the period of greatest sexual activity, but there are exceptions to this rule. One case in a patient over fifty-five has been reported, but none beyond that age. It may occur in girls before they reach puberty, but this is extremely rare. Teacher considers the average age to be about thirty-three, with a slight rise towards the two extremes of sexual life, owing to the tendency of old or immature uteri to produce abnormal conceptions, especially hydatid mole. "Out of 169 tumours, 6 occurred between the ages of

17 and 20; 73 between 21 and 30; 54 between 31 and 40; 28 between 41 and 50; 9 between 51 and 55; and 22 in women over 45."

In a series of 277 cases collected by myself, including Teacher's list, age was not stated in 19. Of the others, 4 were under 20; 105 were between 20 and 30; 80 were between 31 and 40; 57 were between 41 and 50; and 12 were over 50.

There can no longer be any doubt as to the influence which hydatid moles have upon the chorionepithelioma, and this is probably due to the extreme activity of the epithelium of the chorionic villi. Of 12 cases which occurred in women who were over fifty, 9 followed moles, with the exception of McCann's patient, who had not been pregnant for nine years.

Birmann reports that, out of 35 cases, 18 were preceded by hydatid moles. Ladinski¹⁵ collected 128 cases, of which 51 followed moles (expelled at the fourth month in 33 cases); 41 followed abortions; 21 followed normal labour; 4 followed premature labour; and 3 followed tubal pregnancy.

Metoz collected 98 cases, of which moles preceded 48.

In my own series, the nature of the previous pregnancy was only stated in 262 cases. Of these, 36.78 per cent. followed moles; 31.80 per cent. abortions; and 26.43 per cent. full time labours. Gebhardt states that hydatid mole develops once out of every 728 pregnancies, while Williamson gives the relative frequency to be 1 mole in every 2,400 pregnancies, and Berry Hart finds that 1 mole in every 1,000 becomes malignant.

The duration of time between the pregnancy and the appearance of the disease varies. Usually only two or three months intervene, but McCann reports a case with nine years' interval, Flieschman six years, and several with an interval of from two to three years have been recorded. My own case was delivered of her last ovum (an hydatid) three and a half years before the onset of symptoms. It may, however, develop during the course of pregnancy.

Another factor which may wield an important influence upon the etiology of this disease, is disease of the ovaries. In quite a large proportion of the cases of chorionepithelioma such a complication has been noticed. When it does occur, it is usually in the form of lutein cysts, the abnormal quantity of lutein cells which is present being supposed to have a stimulating effect upon the proliferating epithelium of the villi. While the connection between these lutein cysts and chorionepithelioma has not yet been proven, the two conditions are sufficiently often observed in the same patient to give some strength to the theory. As evidence of this, Hammarschlag reports five cases of chorionepithelioma,

in all of which lutein cysts were present. Even where the ovary appears to the naked eye to be healthy, careful microscopic study will often show an excess of lutein cells to be present.

Prognosis.—Chorionepithelioma is considered the most malignant tumour which can attack the uterus. If not interfered with, death usually supervenes in from a few weeks to two or three months, but, exceptionally, the patient may live for one or two years (Bacon). If discovered early and treated radically, the patient may recover, and the same happy result has been reported even when no treatment was carried out; but the diagnosis in these cases is doubtful. However, well authenticated cases have terminated favourably where part of the growth had been left in situ. In one of the cases reported by C. P. Noble, the disease had spread from the uterus to the bladder, and, although this infected area was left, the patient fully recovered. She was seen and examined 18 months after her operation, at which time the nodule could not be felt, and she was in excellent health.

Velits considers that spontaneous cure may result from necrobiosis, "as is shown by the lowered vitality and the disappearance of the cells of Langhans, and the appearance of wandering cells, which shows the separation of the syncytium." Cases somewhat similar to that of Noble, where the secondary nodules have not been touched, but hysterectomy has been performed and the patients have made permanent recoveries, have been reported by Albert, Kolomonkin, Marchand, and others.

Those cases which follow moles are less virulent than those which are preceded by ordinary pregnancy, and, of the latter, those ending in abortion appear to have the highest rate of mortality. In my own series, the mortality was: After moles, 52.85 per cent.; abortions, 63.75 per cent.; and after full term pregnancies, 54.32 per cent.

Notwithstanding the above-mentioned exceptions, the prognosis in chorionepithelioma is extremely grave.

Diagnosis.—Hæmorrhage after labour does not always mean chorionepithelioma, but in all cases where it is severe, continuous and difficult to check, one ought to be suspicious of serious trouble. In such a case, curettage with subsequent microscopical examination of the scrapings should clear up the diagnosis, but the tissue must be examined in as perfect a condition as possible if any valuable information is to be obtained.

It is very difficult to distinguish between the villi of an hydatid mole and those of chorionepithelioma, but where you see large degenerated cells you must be on the watch for malignancy. Where you have severe and obstinate hæmorrhage in a puerperal woman, and find evidences of

any abnormal growth in the vagina or a soft, villous mass in the uterus, you may rest assured that you have to deal with a case of chorionepithelioma, and the examination under the microscope of a small fragment will decide the diagnosis. Be especially watchful for masses in the vagina or vulva resembling varicose veins, as this disease frequently causes a species of false varicosity due to its attack upon, and consequent local dilatation of, the walls of the vein.

Treatment.—The treatment may be preventive, palliative or curative. The former consists of careful attention to the interior of the uterus after pregnancy, especially if this has terminated in abortion. Before we know how serious a condition may follow an apparently normal expulsion of an ovum, it was considered good treatment to leave an ovum the subject of a "missed abortion" in the uterus for some time in order to see if it would not eventually come away spontaneously. The same view was held by many in regard to a retained fragment of membrane or placenta. In view of our present knowledge, however, I think that this line of treatment will be abandoned for a much more energetic and radical method, and that these foreign and potentially dangerous bodies will be removed with great care and thoroughness as soon as discovered, in order to prevent placental grafting with its possible serious results.

The palliative treatment is only to be adopted in cases where the growth cannot be removed. Tonics are indicated by the debility of the patient. The uterus should be curetted, douched with an antiseptic solution and packed, and caustics or styptics may be applied to its cavity with benefit at times. All of the diseased tissue possible should be removed and the parts kept thoroughly cleansed. Pain and complications are to be combated as may be indicated.

Where there is any chance of curing the patient, early and radical operative measures are absolutely necessary. If the primary growth is in the vagina or labia, complete excision should be attempted. Where the uterus is affected, total hysterectomy is indicated. This may be carried out by either the vaginal or abdominal routes, the former being the favourite on account of the danger of infection of the peritoneum by the tumour cells. Where, however, the uterus is too large to be removed intact through the vagina, the abdominal is the method to be preferred. In such a case, it is well to thoroughly curette and douch out the uterus first (that is to say, if that organ is not too deeply diseased) and only to open the abdomen after the cervix has been closed by suture.

My own case, for which I have to thank Dr. F. C. Mason, of Massena, N.Y., is as follows:—

The patient was a married woman, forty-seven-years of age, and was admitted to the hospital on December 1st, 1904, with the following history: Four years ago, she was delivered of a uterine hydatid. In June last, she began to fail in health, losing strength and weight. At the same time, she began to have a discharge, which was bloody and without odour, from the vagina. This has kept up, on and off, ever since, and within the last two weeks she has failed rapidly. The discharge has had a disagreeable smell for the last few days. Puberty occurred when she was 16 years old; she was regular every 28 days, and the flow lasted for five days. It was moderate in amount and painless. Menstruation has been irregular for the last year, the intervals being longer than before. She has been flooding for the last five months almost continually. She was delivered of one full term child nine years ago, the labour being instrumental. Her only other pregnancy terminated in an hydatid mole four years ago, or about three and a half years before the first onset of symptoms of the present trouble.

She has never been troubled with leucorrhœa.

She has no interference or disturbance with the act of micturition except that the water flows more slowly now than formerly, as if the urethra was becoming smaller. Her bowels are constipated.

Examination of the genitals reveals a thin red, bloody discharge.

A greyish, ovoid swelling is seen to be attached to the anterior vaginal wall by a narrow pedicle, which extends from near the external urinary meatus to just below the cervix, leaving a small space of apparently healthy tissue between the two. This growth is the size of an ordinary hen's egg and slightly mobile. The cervix is soft, healthy and mobile. The fundus was slightly enlarged, hard, rounded, and mobility was present but limited in extent. To the left side of the uterus could be felt a mass the size of a hen's egg. A diagnosis of probable chorionepithelioma was made and the removal of the growth advised.

This latter was attempted on December 3rd, 1904, but on examination under ether the growth was found to extend to the mass at the left of the uterus. However, it was decided to remove as much as possible of the diseased tissue. The superficial mass was excised without difficulty, and as much as possible of the mass to the side was scraped away, in doing which the submucous tissue of the bladder was exposed. The cavity thus formed was closed by a continuous catgut suture in layers from below upwards. The cervix was then dilated and its cavity curetted, douched and packed with gauze. The curette brought away a considerable amount of tissue which strongly resembled carcinoma.

The patient made a good recovery from the operation and improved in health and strength after going home; but towards the end of

January she began to fail and rapidly go down hill, dying on April 2nd.

Dr. Mason informed me that, soon after her return home, a mass, the size of the first joint of the thumb, appeared in the right labium majus. On January 29th, two growths in the vagina were first noticed. One, situated over the lower end of the vaginal cicatrix, was as large as an egg at the time of her death. The second, about the same size, was placed to the right of the incision, but high up in the vagina, the two nearly filling the passage. On February 7th, a foul discharge began to flow from the uterine cavity and increased in amount up to the time of her death. This discharge was thin and bloody, but was quite free from clots or other particles. On February 14th, this labial growth broke down, discharging into the vagina and decreasing in size until it was only about half as large as it was originally. The uterus grew to be large enough to almost reach the umbilicus to the left of the median line. It was more or less smooth, firm and hard. To the right, was a nodule which was also smooth, firm and non-sensitive, while between this mass and the uterus was an elongated mass like "a small wrist," which was more soft, smooth, somewhat tender, and, at times, painful. In fact, most of the pain from which the patient suffered was in this region. Towards the end, the patient had a great deal of dyspnoea and cardiac palpitation, cachexia, malnutrition, and general constitutional disorder. There was no disturbance of micturition. Unfortunately, an autopsy was refused.

I have omitted the fact of there not having been any rise of temperature from first to last, except immediately after operation, when it hovered between 99 and 100 for the first three days.

The following pathological report was made by Dr. Gillics, of the Montreal General Hospital, to whom I am much indebted for the care and interest taken in its preparation:

Pathological Report.—The specimen submitted consisted of the tumour from the vagina and scrapings from the uterus. Of the latter, numerous pieces were hardened in alcohol and imbedded in paraffine and many sections were examined, but nothing abnormal was found in any.

The tumour from the vagina consisted of five pieces of tissue, all presenting the same characteristics in appearance, but varying in size. The largest was about 2 cm. square, and the smallest about the size of a bean. A description of the largest will apply to all. The under surface consists of the vaginal wall, while the upper one presents a shaggy appearance of a dirty brownish colour, resembling clotted blood. On cutting into the tumour, it can be seen to spring from the muscular wall of the vagina and to be intimately connected with it. It measures

between .5 cm. and 1 cm. in thickness and is adherent to the vaginal wall throughout its entire extent. The upper surface is friable and pieces, resembling blood-clot, are readily broken from it. Near the vaginal surface, the tissues are firmer and more resistant. Pieces were taken from each tumour mass for microscopic examination. They were hardened in alcohol and formaline and embedded in paraffine. The stains used were hæmatoxylin and eosin, hæmatoxylin and van Geisen and weak alcoholic fuchsin.

The sections from the different pieces show practically the same picture.

Springing from the muscular layer of the wall of the vagina are seen coarse villous prolongations, burrowing into a degenerated and necrosed loose tissue. In parts, this necrotic tissue shows a large quantity of fibrin, and in other parts cells, resembling those seen in the villi, can be observed irregularly scattered through it. The deeper surface of the tumour shows clotted blood, which can be readily recognized here as well as in other parts of the masses.

The cells of the villi are of several kinds, which greatly vary in their morphology. The main mass of these processes is made up of large mononuclear spheroidal cells with a clear protoplasm, and resembling epithelial cells in their appearance and arrangement. In certain of these cells the nucleii are vacuolated. Other cells, and these are especially striking in their appearance, consist of irregular large masses of protoplasm, which stain deeply and show a granular or reticulated structure. The shape of these protoplasmic masses varies, being at times flat and elongated or rounded or else branched at one end. They also differ in size. Lying within these masses are seen nucleii, which are either oval or rounded, and which vary in number from three or four up to twenty or more. The relation of these characteristic masses to the clear cells, spoken of above, is not always the same. At times, the former lie as narrow nucleated masses outside of or bordering on the clear cells, while in other places no clear cells are to be seen, and yet the plasmodia are abundant. One other form of cell deserves mention. It is rather large, stains deeply, and contains a large round single nucleus. These latter cells are scattered through the tumour mass, especially with the syncytial masses, but also in the necrosed portion. Numerous polymorphonuclear cells are present, and, at the edge of the growth, where it can be seen pushing up from beneath the vaginal epithelium and causing its destruction, are numerous small round cells.

With regard to the supporting tissue of the tumour, it is scanty in amount, and of a very loose structure arranged about and lying between

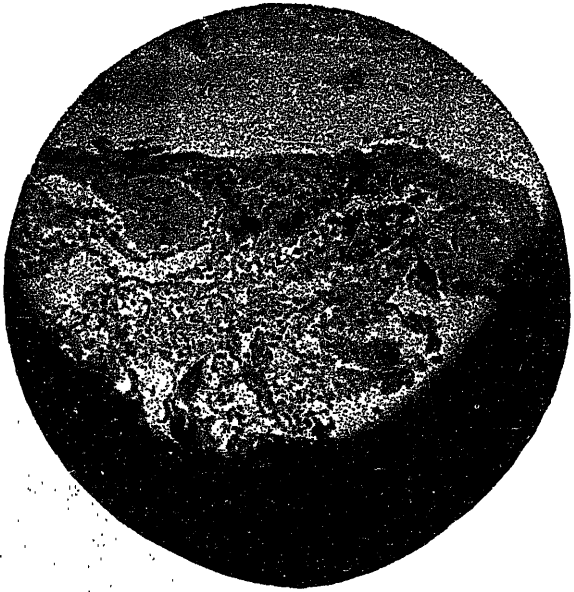


PROCESS CONTAINING SYNCYTIUM.
HIGH POWER.



VILLOUSLIKE PROCESS.
LOW POWER.

- 1 1 Blood spaces.
- 2 2 Syncytial masses.
- 3 Blood clot.
- 4 Cell of Langhans' Layer.



VILLOUS SURROUNDED BY BLOOD-CLOT.
(LOW PRESSURE.)



SYNCYTIAL MASS WITH BLOOD SPACE.
(HIGH POWER.)

large masses of the tumour cells. In many places no supporting tissue is seen, but only large syncytial masses and cells of Langhans, lying loosely arranged in necrotic tissue. Within this loose supporting structure are seen thin walled blood spaces and capillaries.

“The diagnosis of chorionepithelioma is made from the macroscopic appearance, but especially from the microscopic, which at once strikes one, from the cells present, that it is related to the placenta. The irregular arrangement of the various parts to each other, the proliferation of the cells of Langhans, and the fact that the tumour has arisen out of place, all point to its malignancy.”

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The tables which follow embody the results of a fairly complete examination of the literature which is extant upon the subject of chorionepithelioma, during the years indicated therein.

Date	Ref. and Report	Age	Pregnancies	Pregnancy Last	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1900	Arndt (G.), Beitrag zur Kent. des Malign chorio-epith.	33	Five	Full time child 4 years ago.	Pain, Bleeding.	Excision of part of nodule in vagina for diagnosis.	Death.	Uterus extending into right parametrium.	Cervix posterior wall, peritoneum and lungs.	Dead foetus remained in uterus for 5 months.
"	"	45	Seven.	Molar 9 months previously.	Pain in sacrum and right hypogastrium.	Curetage and then hysterectomy.	Death.	Uterus.	Lungs.	
1904	Burdzinski (T.A.), chorion-epithelioma.	27		5th month.	Small tumour, nidus of severe hemorrhage (Tumour hydatid).	Removal of tumour.	Recovery.	Anterior vaginal wall.		
"	"	44		2 weeks previously.	Hæmorrhages.	Curetage followed by vaginal hysterectomy.	Death in six months.	Posterior wall of uterus.	Vagina, left labium majus and lungs.	
"	"	32		Pregnant at present.	Tumour in left labium 3 weeks before delivery of mole.	Removal of local mass.	Recovery. Reported as well five years later.	Left labium.		
"	"	19		Abortion 5½ months ago.	Hæmorrhage and expulsion of pieces from uterus.	Curetage twice.	Death.	Uterus.		

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1904	Burdzinski (T.A.), chorion-epithelioma.	45	Nine.	Last a full time pregnancy 4 years previously.	Hæmoptysis for two years pain and uterine hæmorrhage.	Curettag.	Death.	Uterus (3 nodules)	Lungs, peritoneal glands and cervix.	
1903	Busse (O.), Ueber chorion-epitheliome die ausserhalb der Placentaust. Virchows, Arch., f. Path. Anat., etc., Berl.	39	Three.	Aborted 6 months previously.	Influenzal symptoms. Paresis, Pain all over body.	None.	Death.	Nothing in uterus.	Heart, liver, lungs, and spleen and brain.	Decidual cells found their nidus in uterine veins and spread from there.
1903	Busse, (Ibid.)	30	Seven.	Abortion.	Burning micturition. Pain in abdomen, back right side. Hæmorrhage and dyspnoea.	Not stated.	Death.	Post. vaginal wall and right parametrium. Uterus and ovaries healthy.	Neighbouring organs and lungs.	
1903	Castro Escalada (M.), Semaine Med., Buenos Ayres, 1903, X, 1204-1217.	32	Four.	Abort. ?	Hæmorrhage.	Hysterectomy per vaginam.	Died.	Uterus, ant. wall externally and post. wall internally.	None.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1903	Grossen & Fisch, Amer. Gynec., Jan., 1903.	48	Fifteen.	Molar at 4th month.	Blood-stained watery discharge commenting six weeks after mole.	Vaginal Hysterectomy	Recovery.	Left wall of Uterus high-up.	None.	
1900	Fiedler (O.), Beitrag zur Kenntnis der syncytialen Tumoren., Inaug. Diss., 20 pp., Keil, 1900.	25	Two.	Full term.	On 2nd puerperal week were hæmorrhages. Next period lasted 14 days; anæmia, loss of flesh anorexia, rapid pulse and swelling of abdomen.	Tapping of abdomen, 175 c.c. of fluid removed.	Sudden death.	Post. wall of fundus.	Ligament. hepaticum.	Cystic ovaries.
1903	Fleischmann (C.) Ubreine seltene von Typus abweichende Form des chorionepithelioms mit ungewöhnlichen Verlauf. Monat., f. Geb., und Gynak., Berlin, 1903.	30	Three.	Molar pregnancy 2½ years previously.	Amenor. for six months. Uterine enlargement and tumour at introitus vaginae.	Removal of tumour, curettage of uterus, which was perforated by curette.	Cure. Last seen 10 months after operation.	Uterus.	Vaginal wall.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases.	Remarks.
1903	Von Franque (O.), Ueber chorionepithelioma malignum Ztschr. f. Gebur. u. Gynak., Stutt. 1903	36	Three.	Miscar. at 6th week.	Bleeding with discharge of pieces of clot; sero-sanguin. discharge. Anaemia.	Hysterectomy.	Death.	Ant. wall of uterus.		
"	"	25	Two.	Full term labour.	Bleeding 8 minutes after labour. Enlargement of uterus.	Curettag, Injection of Ac. Carbolic followed by alcohol. Curettag repeated.	Cure. Was well in Jan., 1903	Post. wall of uterus.		Tissue removed at 1st curett. diseased, at 2nd normal.
"	"	46	Several.	Mole 6 weeks previously	Bleeding, masses in uterus.	Curettag, twice. Hysterectomy.	Recovery.	Uterus but when removed, this showed no trace of growth.		Both curettings showed chorionepithelioma.
1901	Gondre, (L.), De l'epitheliome ectoplacentaire (deciduome malin), These, Toulouse.	31	Two.	Abortion 3 years previously.	Anaemia, hemorrhage, uterine enlargement.	Serum injections. Vaginal hysterectomy.	Recovery.	Posterior wall of uterus.		

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1901	Gottschall, (P.), Einfall destruiren der Blasenmole mit Uebergang in Syncytioma malignum, Beitr., z. Geb. u. Gynak., Leipzig, 1901.	30	Two.	Molar.	Bleeding, enlargement of uterus, dyspnoea and rapid pulse.	Abdominal hysterectomy.	Death.	Uterus.	Right broad ligament near end of tube.	
1904	Grein (E.), Ein Fall vom chorioepithelioma malignum, nebst einigen Bemerkungen über Spontanheilung und Therapie bei dieser Erkrankung, Arch. f. Gynak., Berlin, 1904.	27	Three.	Molar at 3rd month.	Fainting, hæmorrhage, uterine enlargement.	Vaginal hysterectomy.	Recovery.	Solitary tumour size of cherry in anterior wall of uterus.		
1904	Hammerschlag, Klinische und anatomische Beiträge zur Lehre vom chorioepitheliom Zeit. f. Geb. u. Gynak., Stuttgart, 1904.	32	Seven.	Molar at 6th month.	Hæmorrhage, cystic ovary.	Hysterectomy and removal of adnexa.	Cured. Well 3½ years after operation.	Posterior of uterus near left tubal opening.	Probably ovaries.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1904	Hammerschlag, Klinische und anatomische Beiträge zur Lehre vom Chorionepitheliom Zeit. f. Geb. d. Gyna., Stuttgart, 1904.	35	Seven.	Abortion.	Hæmorrhage, uterine enlargement.	Curetage, Vaginal hysterectomy.	Recovery.	Posterior wall of uterus.	Ovaries.	Left ovary cystic.
"	"	40	Eight.	Abortion.	Hæmorrhage and discharge of pieces of flesh. Uterine enlargement.	Uterus, vaginal metastases and right ovary removed.	Death.	Posterior wall of uterus.	Vagina lungs and right ovary.	Ven us thrombosis pulm. art. pneumonia, pleurisy, and gall stones.
"	"	40	Eight	Abortion.	Bleeding, uterine enlargement, vomiting weakness, etc.	Removal of tumour.	Death.	Posterior wall of uterus.	Ovaries.	
"	"	47		Molar.	Fever.	Curetted.	Death.	Right side of uterus.	Broad ligament and right ovary.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1900	Henk (H.), Zwei Fälle von deciduoma, malignum. Vereins. d. pfälz. aertz., Frankenthal, 1900.	21	One	Labour at term.	Hæmorrhage, nodules in vagina.	Excision of uterus ovaries and vaginal nodules.	Recovery.	Uterine cavity.	Ovaries, and vagina.	
"	"	34	One.	Labour at term.	Hæmorrhage, passage of skinlike subst. and a uterine tumour.	Vaginal hysterectomy and removal of right ovary.	Death.	Right wall of uterus.	Brain, end of right tube.	
1903	Hoche (L.) & Briquel (P.) Les deciduomes vrais, Arch. de med. exper. et d'anat. path., Paris, 1903.	41	Six.	Labour at 8th month.	Expulsion of tumour three days after labour. Menorrhagia and metrorrhagia. Uterine tumour.			Uterus.		Mass expelled resembled chorioepith. Uterine tumour due to fibroids.
1904	Hörman (K.) Ruptur eines chorioepitheliome mit schwerer intraperitonealer Blutung Beit. z. Geb. und Gynak., Leipzig, 1905.	38	Nine.	Molar.	Severe bleeding, abdominal pain.	Abdomin. hysterectomy.	Death.	Uterine	Intestines.	At operation tumour was seen to be attached to the intestines.

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks
1904	Horrocks, Trans. of Obstet. Society of London.	48	Fourteen.	Abortion at 3rd month, 22 months previously.	Obstinate hæmorrhage; foul discharge; loss of flesh; cough and shortness of breath.	Vaginal hysterectomy.	Not stated.	Upper part of posterior uterine wall which was completely perforated.	Not stated.	
1904	Hinz, G. Zeits. für Geburts. und Gynak.	33	Five.	Tubal 39 days previously.	Bleeding.	Excision of cornu of uterus with growth.	Death in three months from onset.	Right cornu of uterus.	Lungs, liver and abdomin. and pelvic cavities.	
1903	Josselin de Jong, chorionepitheliom Nederl. Tijdschr. v. Verlosk. en Gynak. Haarlem, 1904.	45	First.	Abortion.	Bleeding, passage of tissue and enlargement of uterus.	Curettag, too late for more radical treatment.	Not stated.	Uterus, cervix.	Vagina.	
1903	Finkielkrant (B.) chorioepithel. mailg. Gaz. Warszawa.	26	Five.	Menses stopped 8 months ago (6th preg.)	Bleeding began 4 months ago, for which she was curetted.	Hysterectomy per vaginam.	Not stated.	Superior part of posterior wall of uterus.	Vagina.	
1904	Keilmann, chorionepitheliom St. Petersb., Med. 48. Wehnschr. 1904. XXIX.	48	Six.	Sept. 1901, pat. thought herself pregnant and to have aborted.	Hæmorrhage, which stopped temporarily, Anæmia, uterine enlargement.	Vaginal hysterectomy.	Death.	Anterior wall of uterus.	Vagina.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1903	Schunauch, (G.), Synecytioma Das maligne vaginale Zeits. f. Geb. und Gynäk., Stutt., 1903. XLIX.	25	Four.	Full term labour.	Severe hemorrhage after labour.	Rest in bed, curettage, vagina tamponed.	Death.	?	Metastases found all over body and no primary tumour.	
1904	Krönig. (B.) Deciduom. Deutsch. Klinik, Berl. u. Wien., 1904, IX.	34		Molar, one month previous.	Severe hemorrhage.	Abdominal hysterec- tomy.	Recovery.	Anterior wall of uterus.	None.	
1904	Littaver, (A.), Beitrage zur Frage der Malig- natir des chorionepithe- lioms. Arch. f. Gynäk., Berlin, 1904. LXXII.	26		Last menses July 20th 1903. Pregnancy ended in miscar- riage.	Hemorrhages. Uterus large and soft. Mass size of cherry on uterine wall.	Curetting twice, the second giving healthy mucosa.	Recovery.	Posterior wall of uterus.	None.	Disease non-malign. in this case.
1900	Macaggi, (I.) Un caso di deciduoma maligno, Rassegna d'Obstet. e Ginec Napoli, 1900, IX.	39	Nine.	Molar.	Respiratory troubles, Diagnosis on admission was retained products of con- ception, septic endometritis, pyemia and suppurative hepatitis. No nervous symptoms.	Curetting.	Death.	Anterior wall of fundus.	Lungs, liver, spleen, right ovary and brain.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1901	Marchesi, (P.), Sulla mola destruente. Arch. de ostet. e ginec., Napoli, 1901. VIII.	43	Nine.	Molar at 4th month.	Nausea, weakness, anorexia, ana- emia, enlarged abdomen and uterus. Brown hemor- rhagic discharge.	Plugging and digital emptying of uterus.	Death.	Right side of anterior wall of uterus.	Ovaries, ?	
1900	Marchesi, (P.), Sul corio-epith., e sui rapporti anatomici e clinici con la mola vesiculare, Ann. di Ostet. Milano, 1900, XXII.	45	Five.	Molar.	Amenorrhœa, followed by hæmorrhage.	Curetage, followed some time later by vaginal hysterec- tomy.	Recovery.	Uterus.	Anterior vaginal wall near urethral orifice.	
1903 1904	Nisot-Wuyto, Un cas de deciduome malin., Bull. Soc. belge de gynéc. et d'obstet. Brux., 1903-04, XIV.	37	Seven.	Missed abortion.	Pain in left iliac fossa, hæmorrhage, latter being uncontrollable.	Curetage. Removal of vaginal tumours.	Death after temporary improve- ment.	Uterus.	Vagina.	
1901	Nordentoft, (S.T.), Synchytioma Uteri. Hosp. Tid., Kobenh., 1901., 4 R., IX.	47	Sixteen.	?	Continuous vaginal hæmorrhage.	Cautery, excision of vaginal masses, plugging.	Death in 9 months from onset.	Uterus.	Vagina and gums.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Recovery.	Primary Tumour.	Metastases	Remarks.
1903	Berna, (N.J.A.F.), En geval von chorio-epith. malign. Nederl., Tijdschr. v. Genusk., 1903 2 R., XXXIX.	22	?	Mole.	Irregular hemorrhages.	Curetage followed by vaginal hysterec- tomy.	Recovery.	Posterior wall of uterus low down.	Extremity of right tube.	
1904	Roeb, (M.), Beitrag. zur Lehre des chorionepith. malign. nebst Bemerkungen uber Diag., Arch. f. Gynäk., Berlin, 1904. LXXI.	26	Five.	Abortion.	Hæmorrhage.	Polypus twisted off, curetage, and vaginal hysterec- tomy.	Death.	Posterior wall of uterus at entrance of left tube.	Lungs, tissue behind bladder and in the vagina.	Heart degenerated and spermatic veins full of clots.
"	"	46	Ten.	Abortion.	Hæmorrhage and expulsion of placental remains.	Hysterec- tomy.	Recovery.	Upper part of posterior wall of fundus.	None.	
1903	Von Rosthorn, (A.), Ein Bei- trag zur Lehre von chorioepith. Beitrag z. Geb. u. Gyn., Rudolf Chrobak, 60 Wien, 1903.	28	Three.	Not stated.	Hæmorrhage with anæmia, cardiac syst. murmur.	Excision with vaginal wall.	Death.	Uterangio- endothe- lioma glandulare supra- renale lateris sinistri.	Brain, liver, uterus, vagina. Bronchitis.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1903	Risel, (W.), Über die maligne chorionepithe- liome und die Wischerungen in Hodenteratomen, VI.	43	Ten.	?	Cough, paralysis of right arm and leg, headaches. Menses eight days too early. vomiting.	None.	Death.	Uterus.	Vagina, lungs, bronchi, lymphatics heart, brain, liver, kidneys, intestines, skin, thyroid, etc.	
1903	"	53¼	Twelve.	Hydatid mole.	Bleeding.	Hysterec- tomy.	Recovery.	Uterus.	None.	
"	"	24	Two.	Hydatid mole.	Severe bleeding.	Curettag followed by removal of uterus and part of the vagina.	Recovery.	Uterus.	Vagina.	
"	"	29	Two.	Hydatid. mole.	Intractable hæmorrhage.	Removal of uterus, ovaries and part of vagina.	Death.	Uterus.	Brain, lungs and vagina.	
"	"	37	Two.	Abortion.	Brown discharge, and bleeding.	Removal of uterus and upper part of vagina.	Death.	Uterus.	None.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
"	Risel, <i>Ibid.</i>	45	Six.	Hydatid mole.	Bleeding, headache and right paralysis.	Curetage.	Death.	Uterine mucous membrane	Brain, kidney and lungs.	No tumour in uterus or tubes.
"	"	48	?	Hydatid mole.	Hæmorrhage. Masses in uterus.	Curetage.	Recovery. Well 4½ years later.	Uterus.	None.	
"	"	26	?	Abortion.	Hæmorrhages and masses in vagina.	Curetage.	Recovery.	Uterus.	None.	
1903	Rosenblatt, (S.), <i>Syncytioma malign. uteri.</i> Sborn. protak. i. trud. Obstet., Kaluz. vrach., (1901-2), 1903. 43-47.	38	Five, last but one hydatid.	Full term pregnancy with adherent placenta.	Hæmorrhage, pain in the abdomen, vertigo, weakness.	Curetage, hysterectomy advised but refused by the patient.	Death in four months.	To the left side of fundus.		
1902	Schmidt (Johanna), zur kasuistik des chorioepith. malign. Inaug. Dis. 57 pp. D. 1. pl. 8., Strasburg. i. C., 1902.	27	Two.	Full term labour 10 months ago.	Hæmorrhage, weakness and swelling of genitals.	Excision of masses in the vagina.	Hæmorrhage from the vaginal wound. Death.	Region of ending of the right tube.	Vagina, ovaries, right tube, right lung, liver, right kidney, rectum and right parametrium.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy.	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
"	Schmidt (J.) Ibid.	39	Three.	Full term labour 4 weeks previous to onset of symptoms.	Severe bleeding and anemia.	Manual removal of uterine tumour. Curettage.	Death.	Cervix and posterior wall of fundus.	Vagina and lungs.	
"	"	42	Five.	Abortion. Last menses July 26th, 1900.	Began to bleed in Sept., 1900, and this was followed by foul discharge.	Curettage. Vaginal hysterectomy.	Death two hours after operation.	Posterior wall of uterus, and ends of both tubes.	None. (? F.I.)	Thrombosis of pulmonary veins.
"	"	39	Five.	Nature of last pregnancy doubtful.	Bleeding, followed by foul discharge.	Abdominal hysterectomy.	Recovery.	Posterior wall of uterus and right tubal ending.	Posterior commissure.	Ovum had remained in uterus throughout.
1902	Schmidt, (O.), Ueber einen Fall von chorion-epithelioma malign., Centralblatt fur Gynecolog. Leipzig, 1902, XXVI, 1100-1102.	23		1st pregnancy. Menses missed in Sept., 1901. Molar pregnancy.	Since middle Dec., 1901, patient had severe diarrhoea, albumen and hyaline casts in urine, heart murmur, oedema of feet; fever, headache, enlargement of uterus, bleeding from uterus.	Curettage, followed by vaginal hysterectomy some months later.	Recovery.	Uterus near internal os.	None.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1901	Siefert, (E.), Ueber die Hirismetastasen des sogenannten Deciduoma malignum. Arch. fur Psychiat. Berlin, 1904. XXXVIII, 1-21.	25	Four.	Full term.	Hæmorrhage beginning 9 weeks after labour. Hæmorrhage very severe. Headaches. Partial aphasia for two weeks.	Curetage.	Death in about four months.	Endo- metrium.	Lungs, spleen, liver, left kidney, brain, pia mater.	
1903	Simmonds, Uber einen Fall von chorion- epithelioma malig. Munchen, med., Wchschr., 1903, I. 136.	20		Abortion.	Severe hæmorrhages following abortion.	Curetage.	Death one month after operation.	One large and several small tumours in uterus.	Param- etrium, liver, spleen, and in bone marrow.	Ovaries cystic.
1903	Steidl, Ein Fall von Deciduom. Munchen. Med., Wochen., 1903, L. 972.	26	Five.	Full term.	Profuse hæmorrhage.	Removal of uterus and appendages.	Death 30 days after operation.	Uterus.	Vagina, stump, lungs and mesentery.	
1900	Kaufmann, Ein Fall von malig. chorionepithel. cor.-Bl. f. Schmitz Herze, Basel, 1900. XXX. 306-309.	31	Five.	Full term.	Cough, pain in breasts, prof. menstr., bleeding.	Hysterec- tomy.	Death 2 months after operation.	Corpus uteri,	Kidneys, spleen, ovaries, pleura and lungs.	Matastases passed through veins to other organs.

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1900	Schwitalski, chorioepithelioma malign. uteri. (decid. malign.) Przegł. lek., Krakow, 1900. XXXIX, 529, 545.	53	Nine.	Full term eight years ago.	Menses irreg. for some years with pain in abdomen and sacrum. Repeated hemorrhages.	Vaginal hysterectomy.	Recovery.	Posterior wall of uterus.	None reported.	
"	"	26	Two.	Hydatid mole six months ago.	Bleeding since birth mole.	Curettag.	Death.	Anterior wall of uterus.	Vagina, external genitals. Pouch of Douglas and left fornix.	Too late for radical operation.
1900	Wömpner, (M.), Ein Fall von deciduoma malign. Inaug. Diss. 15 pp., 2 l., Kiel, 1900.	30	Two.	Full term.	Severe hemorrhage five weeks after last labour.	Curettag.	Death.	Fundus uteri.	Lungs.	
1904	Von Zaborghi, (I.) chorioepithelioma esete. Gynaekol. Budapest, 1904, 71-74.	47	Nine.	?	Severe discharge mixed with blood.	Colpotomy.	Death half an hour after operation.	In corpus uteri, to the right and behind.	Vagina and both lungs.	"
1904	Vertel, (B. V.), chorioepithelioma J. akush i zhensk. St. Petersburg, 1904. XVIII. 906-916.				Hemorrhages several months after labour.	Repeated curettage followed by hysterectomy.	Recovery.	Uterus.	Vagina and probably appendages.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1903	Williams, Jour. of Gyn. and Obstet. of British Empire.	23	Four.	Hydatid mole 15 months ago.	Bleeding. Swelling in vagina for 5 months causing pain and discomfort, Dysuria. Last 10 days, cough, shortness of breath and expectoration.	None.	Death.	Uterus near centre of posterior wall.	Lungs and vagina.	Cystic ovaries.
1903	Malcolm & Bell, Jour. of Obstet. and Gyn. of Brit. Empire. Dec., 1903.	40	Four.	Hydatid mole 2½ months ago.	Hæmorrhage, fever, pain and vomiting.	Hysterectomy three weeks after expulsion of mole.	Cure.	Uterus.	None.	Cystic ovaries with twisted pedicle.
1904	Jaffé, Arch. für Gynäk. 1903.	39	Ten.	Mole at 5½ months.	Bleeding.	Hysterectomy.	Not stated.	Right horn of uterus.	None mentioned	Lutein cysts of both ovaries.
1902	Austerlitz, Monats. für Geb. und Gynäk., April, 1902.	23	?	Abortion six months previously.	Bleeding and cramping pains.	Vaginal hysterectomy.	Death 4 months later.	Fundus uteri.		
190?	Landau & Pick, Archives für Gynäk.	20		Abortion.	Cough, bleeding from uterus after 2½ months amenorrhœa.	Curetage and excision of masses in the vagina.	Free from disease twelve months later.	Left side of lower vagina.		Patient was unmarried.

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1904	Lockyer, (N.), The Practitioner, Dec., 1904.	26	Two.	Full term four weeks ago.	Dragging pain in vagina and brown dis- charge 10 days post-partum. Lump in groin 2½ days, post-part.	None.	Death eleven weeks after labour.	Uterus.	Right labium majus, left groin, lungs, both kidneys and an- terior vagi- nal wall.	Excess of lutein tissue in ovaries.
1904	McCann, (F.J.), Jour. of Obstet. and Gyn. of Brit. Empire, 1904.	35	Five.	Miscar. at 2nd month one year ago.	Hemorrhage. Loss of weight.	Hysterec- tomy.	Cure.	Upper part of posterior wall of fundus.		Well 2 years later.
"	"	46	Six.	Full term, 9 years ago.	Hemorrhage.	Douching.	Death in five months.	Uterus.	Lungs and vagina.	
1904	Savage, Brit. Med. Jour., 19/11/04.	50	Nine.	Mole.	Hemorrhage, commencing one month after delivery of mole.	Vaginal hysterec- tomy 11 weeks after delivery of mole.	Recovery.	Interior of uterus.	None.	Well at end of six months.
1904	Martin, Christ'r, Brit. Med. Jour., 19/11/04.	50	Fourteen.	Full term, 12 years ago.	Constant hemorrhage for 12 weeks; loss of flesh; shortness of breath and mitral systolic bruit.	Vaginal hysterec- tomy.	Recovery.	Uterus.	None.	

Date	Ref. and Report.	Age	Pregnancies.	Last Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
1904	Wilson, Thos., Brit. Med. Jour., 19/11/04.	22	One.	Mole 11 months ago.	Hæmorrhage, and increase in size of uterus and loss of weight.	None.	Death in 18 months from onset of symptoms.	Uterus.	Liver and lungs.	
1904	Windsor & Fairbairn, Brit. Med. Jour., 19/11/04.	24	One.	Full term, 8 months ago.	Hæmorrhage and weakness for several months.	Curettag, followed in 3 weeks by vaginal hysterec- tomy.	Death six weeks later.	Posterior wall of uterus.	Liver.	
1905	Condon, (A.P.), Med. Record, April 20th, 1905.	38	Nine.	Miscar. at 5th month 2 years ago.	Flowing, pain in lower abdomen, loss of flesh, nausea and vomiting.	Cauteriza- tion of vaginal wall.	Death in twenty days.	Left wall of uterus.	Lungs and vagina.	
1905	Lockhart & Gillies, Mont. Med. Jour July, 1905.	47	Two.	Mole 4½ years ago.	Metrorrhagia, loss of flesh and strength, and a tumour in the vagina.	Curettag. Excision of mass in vagina.	Death at end of four months.	Anterior wall of vagina near introitus and left para- metrium.	Lungs and vagina.	
1904	V. Toth. (S.), chorionepithel. Gynecologia, Budapest, 1904. 1-28, 2 pl.	22	Two.	Early abortion.	Severe hæmorrhage.	Hysterec- tomy.	Death four months later from cerebral embolism.	Uterus.	Brain.	

Date	Ref. and Report.	Age	Pregnancies.	Just Pregnancy	Symptoms.	Treat.	Result.	Primary Tumour.	Metastases	Remarks.
"	"	44	Thirteen.	Abortion.	Hæmorrhages.	None.	Death.	Uterus and posterior vaginal wall.	Lungs.	
1900	Vautrin., Decid. malin. Soc. de Med. de Nancy, C.-2, 1899-1900, pp. CXIII.-CXIV	32	Two.	Abortion.	Frequent and serious floodings.	Abdominal hysterec- tomy.	Recovery.	Uterus, supero- lateral wall.	None.	
1901	Vautrin, Decid. malin. Soc. de Med de Nancy, C.-2, 1900-1901. p. 122.	27	Three.	Abortion at fourth month.	Uterus soft, cervix open, fundus above pubes and painful.	Curettagé, followed two days later by vaginal hysterec- tomy.	Cure.	Posterior wall of uterus.	None.	
1904	Von Velits, (D.) Über histolo- gische Indicien des chorioepithel. "henigum." Zeits. für Geburtsh. u. Gynäk., Stuttgart, 1904, LII., 301-355, 2 pl.	39	Eight.	Abortion.	Hæmorrhage.	Removal of uterus and right ovary per vaginam.	Recovery.	Whole length of posterior wall of uterus.	Right ovary.	

UNITY, PEACE AND CONCORD.

A Farewell Address delivered to the Medical Profession of the United States

BY

WILLIAM OSLER, M.D.,

Regius Professor of Medicine, Oxford University,

On this occasion I have had no difficulty in selecting a subject on which to address you. Surely the hour is not for the head but for the heart, out of the abundance of which I may be able to express, however feebly, my gratitude for the many kindnesses I have received from the profession of this country during the past twenty-one years. and from you, my dear colleagues of this state and city, during the sixteen years I have dwelt among you. Truly I can say that I have lived my life in our beloved profession—perhaps too much! but whatever success I have had has come directly through it and my devotion is only natural. Few men have had more from their colleagues than has fallen to my lot. As an untried young man my appointment at McGill College came directly through friends in the faculty who had confidence in me as a student. In the ten happy years I lived in Montreal I saw few but physicians and students, among whom I was satisfied to work—and to play. In Philadelphia the hospitals and the societies absorbed the greater part of my time, and I lived the peaceful life of a student with students. An ever-widening circle of friends in the profession brought me into closer contact with the public, but I have never departed from my ambition to be first of all a servant of my brethren, willing and anxious to do anything in my power to help them. Of my life here you all know I have studied to be quiet and to do my own business and to walk honestly toward them that are without and one of my chief pleasures has been to work among you as a friend, sharing actively in your manifold labours. But when to the session of sweet, silent thought I summon up the past, not what I have done, but the many things I have left undone, the opportunities I have neglected, the battles I have shirked, the precious hours I have wasted—these rise up in judgment.

A notable period it has been in our history through which we have lived a period of reconstruction and renovation, a true renaissance, not only an extraordinary revival of learning, but a complete transformation in our educational methods; and I take pride in the thought that, in Philadelphia and in this city, I have had the good fortune to be closely

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associated with men who have been zealous in the promotion of great reforms, the full value of which we are too close to the events to appreciate. On the far-reaching influence of these changes time will not permit us to dwell. I propose to consider another aspect of our work of equal importance, neither scientific nor educational, but what may be called humanistic, as it deals with our mutual relations and with the public.

Nothing in life is more glaring than the contrast between possibilities and actualities, between the ideal and the real. By the ordinary mortal, idealists are regarded as vague dreamers, striving after the impossible, but in the history of the world how often have they gradually molded to their will conditions the most adverse and hopeless! They alone furnish the *Geist* that finally animates the entire body and makes possible reforms and even resolutions. Imponderable, impalpable, more often part of the moral than of the intellectual equipment, are the subtle qualities so hard to define, yet so potent in everyday life by which these fervent souls keep alive in us the reality of the ideal. Even in a lost cause with aspirations utterly futile, they refuse to acknowledge defeat and, still nursing an unconquerable hope, send up the prayer of faith in face of a scoffing world. Most characteristic of aspirations of this class is the petition of the Litany in which we pray that to the nations may be given "unity, peace and concord." Century after century from the altars of Christendom this most beautiful of all prayers has risen from lips of men and women, from the loyal souls who have refused to recognize its hopelessness, with the war-drums ever sounding in their ears. The desire for unity, the wish for peace, the longing for concord, deeply implanted in the human heart, have stirred the most powerful emotions of the race, and have been responsible for some of its noblest actions. It is but a sentiment, you may say, but is not the world ruled by feeling and by passion? What but a strong sentiment baptized this nation in blood, and what but sentiment, and deep-rooted affection for country which is so firmly implanted in the hearts of all Americans, gives to those states to-day unity, peace and concord? As with the nations at large, so with the nation in particular, as with people so with individuals, and as with our profession so with its members, this fine old prayer for unity, peace and concord, if in our hearts as well as on our lips, may help us to realize our aspirations. What some of its lessons may be to us will be the subject of my address.

UNITY.

Medicine is the only world-wide profession, following everywhere the same methods, actuated by the same ambitions and pursuing the same

ends. This homogeneity, its most characteristic feature, is not shared by the law, and not by the church, certainly not in the same degree. While in antiquity the law rivals medicine, there is not in it that extraordinary solidarity which makes the physician at home in any country, in any place where two or three sons of men are gathered together. Similar in its high aims and in the devotions of its officers, the Christian Church, widespread as it is, and saturated with the humanitarian instincts of its Founder, yet lacks that catholicity—*urbi et orbi*—which enables the physician to practice the same art amid the same surroundings in every country of the earth. There is a unity, too, in its aims—the prevention of diseases by discovering their causes, and the cure and relief of sickness and suffering. In a little more than a century a united profession working in many lands has done more for the race than has ever before been accomplished by any other body of men. So great have been these gifts that we have almost lost our appreciation of them. Vaccination, sanitation, anæsthesia, antiseptic surgery, the new science of bacteriology, and the new art in therapeutics have effected a revolution in our civilization to which only can be compared the extraordinary progress in the mechanical arts. Over the latter there is this supreme advantage, it is domestic—a bedroom revolution, which sooner or later touches each one of us, if not in person, in those near and dear—a revolution which for the first time in the history of poor, suffering humanity brings us appreciably closer to that promised day when the former things should pass away, when there should be no more unnecessary death, when sorrow and crying should be no more, and there should not be any more pain.

One often hears as a reproach that more has been done in the prevention than in the cure of disease. It is true, but this second part of our labours has also made enormous progress. We recognize to-day limitations of the art, we know better the diseases curable by medicine, and those which yield to exercise and fresh air; we have learned to realize the intricacy of the processes of disease and have refused to deceive ourselves with half knowledge, preferring to wait for the day instead of groping blindly in the dark or losing our way in the twilight. The list of disease which we can positively cure is an ever-increasing one, the number of diseases the course of which we can modify favourably is a growing one, the number of incurable diseases (which is large and which will probably always be large) is diminishing—so that in this second point we may feel that not only is the work already done of the greatest importance, but that we are on the right path, and year by year as we know disease better we shall be able to treat it more successfully. The united efforts of countless workers in many lands

have won these greatest victories of science. Only by ceaseless co-operation and the intelligent appreciation by all of the results obtained in each department has the present remarkable position been reached. Within a week or ten days a great discovery in any part of the world is known everywhere, and, while in a certain sense we speak of German, French, English and American medicine, the differences are trifling in comparison with the general similarity. The special workers know each other and are familiar with each other's studies in a way that is truly remarkable. And the knowledge gained by the one, or the special technique he may devise, or the instrument he may invent is at the immediate disposal of all. A new life-saving operation of the first class devised by a surgeon in Breslau would be performed here the following week. A discovery in practical medicine is common property with the next issue of the weekly journals.

A powerful stimulus in promoting this wide organic unity is our great international gatherings, not so much the International Congress of the profession, which has proved rather an unwieldy body, but of the special societies which are rapidly denationalizing science. In nearly every civilized country medical men have united in great associations which look after their interests and promote scientific work. It should be a source of special pride to American physicians to feel that the national association of this country—the American Medical Association—has become one of the largest and most influential bodies of the kind in the world. We can not be too grateful to men who have controlled its course during the past ten years. The reorganization so efficiently carried out has necessitated a readjustment of the machinery of the state societies, and it is satisfactory to know that this meeting of our state society, the first held under the new conditions, has proved so satisfactory. But in the whole scheme of readjustment nothing commands our sympathy and co-operation more than the making of the country societies, the materials out of which the state and national associations are built. It is not easy at first to work out such a scheme in full detail, and I would ask of the members of this body not only their co-operation, but an expectant consideration, if the plan at first does not work as smoothly as could be desired. On the country members I would urge the support of a plan conceived on broad national lines—on you its success depends, and on you its benefits will chiefly come.

Linked together by the strong bonds of community of interests, the profession of medicine forms a remarkable world-unit, in the progressive evolution of which there is a fuller hope for humanity than in any other direction.

Concentration, fusion and consolidation are welding together various sub-units in each nation. Much has been done, much remains to do, and to three desiderata I may refer briefly.

In this country reciprocity between the state licensing boards remains one of the most urgent local needs. Given similar requirements, and examinations practically of the same character, with evidence of good character, the state board should be given power to register a man on payment of the usual fee. It is preposterous to restrict in his own country, as is now done, a physician's liberty. Take a case in point: A few months ago a man who is registered in three states, an able, capable practitioner of twenty years' standing, a hard student in his profession, a physician who has had charge of some of the most important lives of this country, had to undergo another examination for license. What an anomaly! What a reflection on an united profession! I would urge you all most strongly to support the movement now in progress to place reciprocity on a proper basis. International reciprocity is another question of equal importance, but surrounded with greater difficulties and, though a long way off, it will come within this century.

The second urgent need is a consolidation of many of our medical schools. Within the past twenty-five years conditions have so changed that the tax on the men in charge of the unendowed schools has become even more burdensome. In the old days of a faculty with seven professors, a school with 300 students was a good property, paying large salaries, but the introduction of laboratory and practical teaching has so increased the expenses that very little is now left for distribution at the end of the year. The students' fees have not increased proportionately, and only the self-sacrifice and devotion of men who ungrudgingly give their time, and often their means, save a hopeless situation. A fusion of the schools is the natural solution of the problem. Take a concrete example: A union of three of the medical schools of this city would enable the scientific departments to be consolidated at an enormous saving of expense and with a corresponding increase in efficiency. Anatomy, physiology, pathology, physiologic chemistry, bacteriology and pharmacology could be taught in separately organized departments which the funds of the united school could support liberally. Such a school could appeal to the public for aid to build and endow suitable laboratories. The clinical work could be carried on at the separate hospitals, which would afford unequaled facilities for the scientific study of disease. Not only in this city, but in Richmond, in Nashville, in Columbus, in Indianapolis and in many cities a "merger" is needed. Even the larger schools of the larger cities could "pool" their scientific interests to the great advantage of the profession.

And the third desideratum is the recognition of our homœopathic brethren that the door is open. It is too late in this day of scientific medicine to prattle of such antique nonsense as is indicated in the "pathies." We have long got past the stage when any "system" can satisfy a rational practitioner, long past the time when a difference of belief in the action of drugs—the most uncertain element in our art!—should be allowed to separate men with the same noble traditions, the same hopes, the same aims and ambitions. It is not as if our homœopathic brothers are asleep—far from it—they are awake—many of them at any rate—to the importance of the scientific study of disease, and all of them must realize the anomaly of their position. It is distressing to think that so many good men live isolated, in a measure, from the great body of the profession. The original grievous mistake was ours—to quarrel with our brothers over infinitessimals was a most unwise and stupid thing to do. That we quarrel with them now is solely on account of the old Shibboleth under which they practice. Homœopathy is as inconsistent with the new medicine as is the old-fashioned polypharmacy, to the death destruction of which it contributed so much. The rent in the robe of *Æsculapius*, wider in this country than elsewhere, could be repaired by mutual concessions—on the one by the abandonment of special designations, and, on the other, by an intelligent toleration of therapeutic vagaries which in all ages have beset the profession, but which have been mere flies on the wheels of progress.

PEACE.

Many seek peace, few pursue it actively, and among these few we, alas! are not often to be found. In one sense every one of us may be asked the question which Jehu returned to Joram: "What hast thou to do with peace?" since our life must be a perpetual warfare, dominated by the fighting spirit. The physician, like the Christian, has three great foes—ignorance, which is sin; apathy, which is the world, and vice, which is the devil. There is a delightful Arabian proverb, two lines of which run: "He that knows not and knows not that he knows not is a fool—shun him. He that knows not and knows that he knows not is a simple—teach him." To a large extent these two classes represent the people with whom we have to deal. Teaching the simple and suffering the fools gladly, we must fight the wilful ignorance of the one and the helpless ignorance of the other, not with the sword of righteous indignation, but with the skillful weapon of the tongue. On this ignorance the charlatan and the quack live, and it is by no means an easy matter to decide how best to conduct a warfare against these wily foes, the oldest and most formidable with whom

we have to deal. As the incomparable Fuller remarks: "Well did the poets feign *Æsculapius* and *Circe*, brother and sister . . . for in all times (in the opinion of the multitude) witches, old women and imposters have had a competition with doctors." Education of the public of a much more systematic and active kind is needed. The congress of quackery, which is announced to take place in Paris, with some twenty-five subjects for discussion, indicates one important method of dealing with the problem. The remarkable exhibit held last year in Germany of everything relating to quacks and charlatans did an immense good in calling attention to the colossal nature of the evil. A permanent museum of this sort might well be organized in Washington in connection with the Department of Hygiene. It might be worth while to imitate our German brethren in a special national exhibit, though I daresay many of the most notorious sinners would apply for large space, not willing to miss the opportunity for a free advertisement! One effective measure is enforced in Germany. Any proprietary medicine sold to the public must be submitted to a government analyst, who prepares a statement (as to its composition, the price of its ingredients, etc.), which is published at the cost of the owner of the supposed remedy in a certain number of the daily and weekly papers.

By far the most dangerous foe we have to fight is apathy—indifference from whatever cause, not from a lack of knowledge, but from carelessness, from absorption in other pursuits, from a contempt bred of self-satisfaction. Fully 25 per cent. of the deaths in the community are due to this accursed apathy, fostering a human inefficiency, and which goes far to counterbalance the extraordinary achievements of the past century. Why should we take pride in the wonderful railway system with which enterprise and energy have traversed the land when the supreme law, the public health, is neglected? What comfort in the thought of a people enjoying great material prosperity when we know that the primary elements of life (on which even the old Romans were our masters) are denied to them. What consolation does the "little red school house" afford when we know that a Lethean apathy allows toll to be taken of every class from the little tots to the youths and maidens? Western civilization has been born of knowledge, of knowledge won by hard, honest sweat of body and brain, but in many of the most important relations of life we have failed to make that knowledge effective. And strange irony of life, the lesson of human efficiency is being taught us by one of the little nations of the earth, which has so far bettered our instruction that we must again turn eastward for wisdom. Perhaps in a few years our civilization may be put on trial, and it will not be without benefit if it arouses the individual from apathy and makes him conscious of the great truth that

only by earnest individual human efforts can knowledge be made effective, if it arouses communities from an apathy which permits mediæval conditions to prevail without a protest.

Against our third great foe, vice in all its forms, we have to wage an incessant warfare, which is not less vigorous because of the quiet, silent kind. Better than any one else the physician can say the word in season to the immoral, to the intemperate, to the uncharitable in word and deed. Personal impurity is the evil against which we can do most good, particularly to the young, by showing the possibility of the pure life and the dangers of immorality. Had I time, and were this the proper occasion, I would like to rouse the profession to a sense of its responsibility towards the social evil—the black plague which devastates the land. I can but call your attention to an important society, of which Dr. Prince Morrow of New York is the organizer, which has for one of its objects the education of the public on this important question. I would urge you to join in a crusade quite as important as that in which we are engaged against tuberculosis.

CONCORD.

Unity promotes concord—community of interests, the same aims, the same objects give, if anything can, a feeling of comradeship, and the active co-operation of many men, while it favours friction, lessens the chances of misunderstanding and ill-will. One of the most gratifying features of our professional life is the good feeling which prevails between the various sections of the country. I do not see how it could be otherwise. One has only to visit different parts and mingle with the men to appreciate that everywhere good work is being done, everywhere an earnest desire to elevate the standard of education, and everywhere the same self-sacrificing devotion on the part of the general practitioner. Man will tell you that commercialism is rife, that the charlatan and the humbug were never so much in evidence, and that in our ethical standards there has been a steady declension. These are the Elijahs who are always ready to pour out their complaints, mourning that they are not better than their fathers. Few men have had more favourable opportunities than I have had to gauge the actual conditions in professional private life, in the schools, and in the medical societies, and as I have seen them in the past twenty years I am filled with thankfulness for the present and with hope for the future. The little rift within the lute is the absence in many places of that cordial professional harmony which should exist among us. In the larger cities professional jealousies are dying out. Read Charles Caldwell's "Autobiography" if you wish for spicy details of the quarrels of the doctors in the first half of the last century in this country. I am sorry

to say the professors have often been the worst offenders, and the rivalry between medical schools has not always been friendly and courteous. That it still prevails to some extent must be acknowledged, but it is dying out, but not so rapidly as we could wish. It makes a very bad impression on the public, and is often a serious stumbling block in the way of progress. Only the other day I had a letter from a most intelligent and appreciative layman who was interested in a large hospital scheme about which I had been consulted. I quote this sentence from it in sorrow, and I do so because it is written by a strong personal friend of the profession, a man who has had long and varied experience with us: "I may say to you that one of the distressing bewilderments of the layman who only desires the working out of a broad plan is the extraordinary bitterness of professional jealousy between not only school men and non-school men, but between school men themselves, and the reflections which are cast on one another as belonging to that clique, which makes it exceedingly difficult for the layman to understand what way there is out of these squabbles."

The national and special societies, and particularly the American Medical Association, have brought men together and have taught them to know each other and to appreciate the good points which at home may have been overlooked. As Dr. Brush said yesterday in his address, it is in the smaller towns and country districts that the conditions are most favourable for mutual misunderstandings. Only those of us who have been brought up in such surroundings can appreciate how hard it is for physicians to keep on good terms with each other. The practice of medicine calls equally for the exercise of the heart and the head, and when a man has done his best, to have his motives misunderstood and his conduct of a case harshly criticized, not only by the family, but by a colleague who has been called in, small wonder, when the opportunity arises, if the old Adam prevails and he pays in kind. So far as my observation goes there are three chief causes for the quarrels of doctors. The first is lack of proper friendly intercourse by which alone we can know each other. It is the duty of the older man to look on the younger one who settles near him not as a rival, but as a son. He will do to you just what you did to the old practitioner, when, as a young man, you started—get a good many of your cases; but if you have the sense to realize that this is inevitable, unavoidable, and the way of the world, and if you have the sense to talk it over, in a friendly way, the first delicate situation that arises, the difficulties will disappear and recurrences may be made impossible. The young men should be tender with the sensibilities of their seniors, deferring to their judgment and taking counsel with them. If young graduates could be taken more frequently as assistants or partners, the

work of the profession would be much lightened and it would promote amity and good fellowship. A man of whom you may have heard as the incarnation of unprofessional conduct, and who has been held up as an example of all that is pernicious, may be, in reality, a very good fellow, the victim of petty jealousies, the mark of the arrows of a rival faction, and you may, on acquaintance, find that he loves his wife and is devoted to his children, and that there are people who respect and esteem him. After all, the attitude of mind is the all-important factor in the promotion of concord. When a man is praised, or when a young man has done a good bit of work in your special branch, be thankful—it is for the common good. Envy, that pain of the soul, as Plato calls it, should never for a moment afflict a man of generous instincts and who has a sane outlook in life. The men of rival schools should deliberately cultivate the acquaintance of each other and encourage their students and the junior teachers to fraternize. If you hear that a young fellow just starting has made mistakes or is a little "off colour," go out of your way to say a good word for him, or for him. It is the only cure; any other treatment only aggravates the malady.

The second great cause is one over which we have direct control. The most widespread, the most pernicious of all vices, equal in its impurity, much more disastrous often than intemperance, because destructive of all mental and moral nobility, as are the others of bodily health, is uncharitableness—the most prevalent of modern sins, peculiarly apt to beset all of us, and the chief enemy to concord in our ranks. Oftentimes it is a thoughtless evil, a sort of tic or trick, an unconscious habit of mind and tongue which gradually takes possession of us. No sooner is a man's name mentioned than something slighting is said of him, or a story is repeated which is to his disadvantage, or the involuntary plight of a brother is ridiculed, or even his character is traduced. In chronic and malign offenders literally "with every word a reputation dies." The work of a school is disparaged, or the character of the work in a laboratory is belittled; or it may be only the faint praise that damns, not the generous meed from a full and thankful heart. We have lost our fine sense of the tragic element in this vice, and of its debasing influence on the character. It is interesting that Christ and the apostles lashed it more unsparingly than any other. Who is there among us who does not require every day to lay to heart that counsel of perfection: "Judge not according to the appearance, but judge righteous judgment." One of the apostles of our profession, Sir Thomas Browne, has a great thought on the question:

"While thou so hotly disclaimest the devil, be not guilty of diabolism.

Fall not into one name with that unclean spirit, nor act his nature who thou so much abhorrest; that is, to accuse, calumniate, backbite, whisper, detract, or sinistrously interpret others. Degenerous depravities, and narrow-minded vices! not only below St. Paul's noble Christian, but Aristotle's gentleman. Trust not with some that the Epistle of St. James is apocryphal, and so read with less fear than stabbing truth, that in company with this vice thy religion is in vain. Moses broke the tables without breaking of the law; but where charity is broken the law itself is shattered, which cannot be whole without love, which is the fulfilling of it. Look humbly upon thy virtues; and though thou are rich in some, yet think thyself poor and naked without that crowning grace, which thinketh no evil, which envieth not, which heareth, hopeth, believeth, endureth all things. With these sure graces, while busy tongues are crying out for a drop of cold water, mutes may be in happiness, and sing the Trisagion in heaven."

And the third cause is the wagging tongue of others who are too often ready to tell tales and make trouble between physicians. There is only one safe rule—never listen to a patient who begins with a story about the carelessness and inefficiency of Dr. Blank. Shut him or her up with a snap, knowing full well that the same tale may be told of you a few months later. Fully half of the quarrels of physicians are fomented by the tittle tattle of patients, and the only safeguard is not to listen. Sometimes it is impossible to check the flow of imprecation and slander, and then apply the other rule—perfectly safe, and which may be commended as a good practice—never believe what a patient tells you to the detriment of a brother physician, even though you may think it to be true.

To part from the profession of this country and from this old faculty, which I have learned to love so dearly, is a great wrench, one which I would feel more deeply, were it not for the nearness of England, and for the confidence I feel that I am but going to work in another part of the same vineyard, and were it not for the hope that I shall continue to take interest in your affairs and in the welfare of the medical school to which I owe so much. It may be that in the hurry and bustle of a busy life I have given offense to some—who can avoid it? Unwittingly I may have shot an arrow o'er the house and hurt a brother—if so, I am sorry and I ask his pardon. So far as I can read my heart I leave you in charity. I have striven with none, not as Walter Savage Landor says, because none was worth the strife, but because I have had a deep conviction of the hatefulness of strife of its uselessness, of its disastrous effects, and a still deeper conviction of the blessings that come with unity, peace and concord. And I would give to each of you, my brothers—you who hear me now, and to you

who may elsewhere read my words—to you who do our greatest work labouring incessantly for small rewards in towns and country places—to you the more favoured ones who have special fields of work—to you teachers and professors and scientific workers—to one and all, throughout the length and breadth of the land—I give a single word as my parting commandant:

“It is not hidden from thee, neither is it far off. It is not in heaven that thou shouldst say, ‘Who shall go up for us to heaven, and bring it unto us that we may hear it and do it?’ Neither is it beyond the sea that thou shouldst say, ‘Who shall go over the sea for us and bring it unto us that we may hear it and do it?’ But the word is very nigh unto thee, in the mouth and in thy heart, that thou mayst do it—Charity.”

POST-DIPHTHERITIC PARALYSIS—A REPORT ON TWO CASES.

BY

AUBREY T. MUSSEN, M.D.

Assistant Clinical Neurologist at the Montreal General Hospital

Case I.—F. B., aged 27.

Personal History:—Patient has always been a healthy man. Three years ago he used alcohol to excess, but has not indulged since. On August 16th, 1904 he developed diphtheria, and was in the Civic Hospital up to September 16th, 1904. He was treated with anti-toxin from the onset. During his stay in the hospital he had paralysis of palate, but only slightly, and had quite recovered when he returned home in September. He then went to work, but, after two days, he noticed that his speech became indistinct, and that he had difficulty in swallowing.

On September 18th, 1904, he called in his physician, who kept him in bed six weeks. His speech and power of swallowing improved greatly. But he began to notice subjective sensations, numbness, and tingling in the hands and feet. When he got up his legs were so weak that he could hardly walk. He thought this was due to remaining in bed, so he went out for a little exercise. When he returned he was much weaker, and could hardly get up stairs. The weakness steadily progressed in the legs. Then the arms became involved, and then the back. At this time—November 25th, 1904—he began to attend the Neurological Out-Door clinic.

Condition on examination:—November 25th, 1904. The gait was distinctly ataxic, the legs being moved as if heavy and limp, somewhat resembling the steppage gait of spastic paraplegia—Rhomberg's sign

was present. He was so weak that he could hardly get up on the table for examination.

Reflexes:—Plantar. Achilles', knee-jerks, and cremasterics, were absent. Abdominal, epigastric and reflexes of upper extremities were present and normal. Pupils were equal and gave reaction to light, but not to accommodation.

Motor Power:—There was marked weakness in flexors of ankles, and extensors of toes; also in the extensors and flexors of the leg and thigh. The right leg throughout was weaker than the left. In the arm the flexors and extensors of forearm were very weak; he could not flex or extend forearm against the resistance of one finger. The dynamometer showed the left grip 32; right 30. The right side was weaker than the left, showing the paralysis to be hemiplegic in character.

Sensation to touch, pain, heat and cold were diminished to a great extent on the soles of the feet; but less so on the dorsum. Sensation in limbs was above the normal. In the upper extremities there was no objective sensory disturbance. Subjectively, there was numbness in the legs from the knee downwards. The hands were also numb, but there was no loss of the stereognostic sense. The sense of position of the toes was lost, and of the limbs uncertain. The sense of position of the fingers was normal.

Electrical examination showed good response in the muscles of the arm, but there was a mild reaction of degeneration present in the legs.

December 20th, 1904. The patient is much improved. From a recumbent position he can rise to a sitting posture without help. The strength of the limbs is greatly improved, and he can go up and down stairs with ease.

The arms and hands are much stronger; dynamometer, right 80, left 110. Objective sensation is normal but there is still numbness in hands and feet. Reflexes, same as before. Electrical examination, the same.

January, 1905.—Condition steadily improving.

February, 1905.—Motor power in limbs about normal. He can easily step up into a chair. There is no Romberg sign. Dynamometer, right 90; left 110. Sensation is normal. Reflexes and sense of position of toes normal. There is good faradic response in all the muscles.

Patient was discharged in the 10th week, having made a complete recovery.

Case II.—B. B., aged 30.

Patient had always been a healthy man up to January 3rd, 1905,

when he developed diphtheria. He was treated with anti-toxin from the beginning. The disease lasted one month. For 18 days he was confined to his bed. Food regurgitated on one occasion only. He remained in the house, after leaving his bed for 28 days. After this, as he felt quite well, he resumed work, and continued for three weeks. During this time he began to notice soreness of the throat and difficulty in swallowing. A little later he found that he could not read, although his sight for distant objects was good. Shortly after this he began to experience numbness in his extremities, associated with weakness; and he came to the Neurological Out-door clinic on March 3rd, 1905.

Condition on examination;—Patient walked with a shuffling gait, due to the weakness and incoordination. Romberg's sign was well marked. There was marked weakness in extremities, but not so severe as in Case I. Dynamometer showed R. 65; L. 70.

Reflexes:—Plantar absent, knee-jerk (all the others) present. Pupils equal; react to light, but not to accommodation.

Sensation:—In hands and feet diminished, though not lost—otherwise the sensation is normal. Steriognostic sense absent in hands; subjectively feet and hands numb.

Electrical examination showed fair response in muscles of arms, but a slight degeneration in muscle of right leg.

Through March and April his condition gradually improved. The power of accommodation was much better. Legs and arms stronger. Dynamometer, R. 86; L. 90.

In May, strength of limbs was much improved, but right not quite as strong as the left.

Reflexes:—The plantar is still absent. The others are normal.

Faradic irritability in the leg only slightly diminished. In the arm normal.

Sensation:—No objective sensory disturbance. Subjectively, the numbness is confined to soles of feet and to ulnar side of hands. There is now no loss of steriognostic sense.

The patient was discharged May 25th, 1905, having completely recovered.

Before passing on to the treatment let me briefly review these two cases. Each one illustrates the usual onset and progressive character of post-diphtheric paralysis. Beginning with the primary involvement of the palate which, as a rule, does not occur until the disease is over. Generally in the second or third week we see the spreading nature of the poison demonstrated in the loss of power of accommodation. Thence, gradually progressing numbness is felt in the lower extremities, fol-

lowed by weakness and a loss of myotatic irritability was evinced by loss of the knee jerk. Then the upper extremities were affected.

If these cases had been left untreated, the palsy might have still further proceeded, involving the muscles of the trunk and neck, disturbing the heart, and possibly, as in some severe cases, involving the bladder and rectum.

Treatment:—This was given twice a week and lasted for 15-30 minutes. It consisted of galvanism to keep up the tone of the muscles, and later, when the nerves had regenerated, of Faradism. Vibromassage was also given. This treatment is administered by means of an oscillator, which, in the opinion of many, is an improvement on the Chattanooga vibrator. By this means vibromassage is administered throughout the entire body, back, abdomen and limbs. The result is a stimulating effect on the circulation, producing a pleasant sense of warmth.

The muscles and nerves are nourished, and peristalsis of the bowels is increased, these helping to avoid the obstinate constipation that is apt to follow in these cases. In general it produces a tonic effect throughout the whole system.

I wish to thank Dr. Shirres for his permission to report these cases.

DIPLO-BACILLARY CONJUNCTIVITIS OF MORAX-AXENFELD.

BY

J. W. STIRLING, M.D.

Surgeon Oculist to the Montreal General Hospital.

AND

S. H. MCKEE.

Clinical Assistant.

For many years we have been confronted with an intractable chronic form of conjunctivitis, which has been in many cases resistant to the more ordinary forms of treatment. Only during the past few years has its pathology and treatment been worked out by Morax and Axenfeld.

This affection of the conjunctiva was first reported by Morax in 1896. He described the clinical picture, and the etiological factor, a diplo-bacillus and stated that with a pure culture of the diplo-bacillus he had been able to set up a typical conjunctivitis.

During the Ophthalmological Congress in Heidelberg in the same year, Axenfeld reported having studied this condition in fifty-one cases which he had seen in Marburg. He also showed preparations of the diplo-bacillus which he had grown on blood serum media. Morax called it "Conjunctivite subaigue." Axenfeld from its chronic qualities "Chronischen Diplobacillen Conjunctivitis." It is known as diplo-bacillary conjunctivitis of Morax-Axenfeld.

Since 1896 the presence of this form of conjunctivitis has been reported from many clinics in different countries, and at the present time it is one of the best known diseases of the conjunctiva in Europe.

In America its presence has been reported in Philadelphia by De Schweinitz and Veasy; in St. Louis by Alt, and in Omaha by Gifford. During the last three weeks its presence has been noted in the Out-patient Department of the Montreal General Hospital. During this time we have seen some eighteen cases there.

With its appearance in Canada a note on the bacteriological cause, clinical picture and the treatment to which it reacts so well may not be out of place.

Case I: Middle aged woman, housewife, who came complaining of her eyes having been "sore" for five days. She never had trouble with her eyes before. The condition was as follows:—Both eyes involved, edges of lids, especially at inner and outer canthi, showed marked reddening (blepharo-conjunctivitis), conjunctival sacs contained small quantity of greyish-yellow discharge, palpebræ and conjunctivæ were very injected, the superficial vessels prominent, while the slight involvement of bulbar conjunctivæ made the contrast marked.

The clinical picture was that of diplo-bacillary conjunctivitis caused by the Morax-Axenfeld diplo-bacillus. Accordingly a smear was made and stained as follows:—

Gentian violet, 25 seconds; washed with water; Gram's iodine solution, 15 seconds; washed with alcohol; washed with water; safranin 5 per cent. solution, 5 seconds; washed with water.

The slide was now examined and found to contain hundreds of square-corned, red-stained diplo-bacilli about 2 μ long and 1 μ wide—the diplo bacilli of Morax-Axenfeld. They were the only bacteria present. The smear preparation was not enough however for diagnosis, so a culture was taken on blood serum media. The best media for diplo-bacillus is blood serum, serum agar, or ascites agar.

Until recently it was held that the diplo-bacillus of Morax-Axenfeld would not grow on glycerine agar, but Axenfeld reports having grown it on this media, while Erdmann reports having grown it to seventeen

generations on glycerine agar. The best medium, and by far the easiest to cultivate it upon is, however, blood serum.

After 24-48 hours in the incubator the surface of the serum shows a number of separate indentations, the surfaces of which are moist; these gradually spread joining one another and increase in depth liquefying the blood serum.

Within a short period we have had seventeen other cases of diplo-bacillary conjunctivitis. They were of varying degree, but all gave the typical picture and bacteriological findings described.

As with Erdmann the cases were mostly grown persons of the poorer class. The cases here have all appeared during a hot spell, a coincidence noted by Gonin and Erdmann. None of the cases complained of headache, as is sometimes the case. All were treated and did well with a solution of sulphate of zinc, one per cent.

The following case is, perhaps, of more than ordinary interest. An elderly man, a farmer, who entered Montreal General Hospital July 2nd, complained that six days previously he had struck his eye with a twig of a tree, but he paid no attention to it at the time. The day following his eye was painful, so he consulted a local physician who treated him five days then sent him to Montreal. His condition upon entry was as follows:—Right eye, central third of cornea deeply ulcerated, edges infiltrated, only part of cornea clear in a small area above. Anterior chamber about half full of pus, iris dull, pupil dilated, conjunctival sac showed profuse greyish discharge.

The ulcer so resembled the serpiginous type due to the pneumococcus, that the usual treatment of cauterizing and the application of antiseptics was proceeded with. Despite this treatment the ulcer continued to spread. Accordingly, after 24 hours a bacteriological examination was made.

Slides were made from pus from the sac, and from the surface of the ulcer; diplo-bacilli in hundreds were found on each slide from the surface of the ulcer and were the only bacilli seen, whilst slides from the conjunctival sac secretion showed cocci, as well, which turned out to be *Staphylococci pyogenes aureus*.

The day following he was put on instillations of zinc. The eye quieted down, and the ulceration healed rapidly under zinc. This case is of interest because of the deep ulceration of the cornea caused by the diplo-bacillus of Morax-Axenfeld.

There has been considerable activity of late in reporting cases of this kind.

Paul has recently reported the cases from the Breslau clinic, Erdmann

from the Marburg clinic, while Petit (8), Peters (9), Phluges (10), Hoffman (11), Sweet (12), Gifford (13), Breete (14), Uthhoff (15), Axenfeld and Zur Needin (16), have all reported cases.

The ulceration of the cornea from diplo-bacillary infection lacks the progressive border so characteristic of pneumococci infective. Diplo-bacillary ulceration is very amenable to zinc therapy.

Shortly then; diplo-bacillary conjunctivitis presents a well marked clinical picture. The diagnosis can be easily verified by means of a smear preparation and culture media.

Without treatment this form of conjunctivitis is exceedingly chronic in its course, with treatment it is a disease of three to six weeks.

One point in connexion with these cases is the marked tendency there is to recurrence, if treatment be desisted from too soon. In a few of the cases the patients disappeared from observation as soon as the more marked symptoms showed signs of amelioration, only with a fresh, severe outbreak shortly afterwards.

In one case we failed to discover any germ when the patient left us, but some bacilli must have remained in the conjunctival sac, as the case returned with a fresh outbreak in ten days after the cessation of treatment. Hence treatment must be persisted in for sometime after the disappearance of symptoms.

The treatment which gives the best results, not only for the conjunctivitis, but also where the cornea is involved, is instillation of zinc sulphate one quarter to one per cent.

Raehlmann holds that the metallic salts break up and act by precipitating the albumen forming albuminates. These agglutinate the enzymes, and active agents of the inflammation, and the freed acid of the salt thereupon exerts its caustic action.

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THE

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EDITED BY

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A DANGEROUS PLANT.

Prince Edward Island has put forward many claims to greatness. Now, it appears that "the Island" is the habitat of a plant for which the most extraordinary medicinal efficacy is claimed. According to one authority, "runnings and cancers and tumours in female women" may be cured by its employment. Professor James Fletcher, Dominion Botanist, however, is not so enthusiastic; but a lack of enthusiasm is the bane of scientific men. According to Professor Fletcher the plant is *Daphne Mesereum*, as described in Barton and Castle's British "Flora Medica," 1877.

In the *Maritime Medical News* for July, a report upon the plant, by Professor Fletcher, is published over the signature of Dr. MacNeil, of Charlottetown, who had sent specimens to Ottawa for examination.

Every part of the plant is powerfully acrid and caustic. Two or three flowers, chewed, have merely an herbaceous flavour at first, but in a short time, the tip of the tongue is affected with an acrid burning

taste, combined with a degree of numbness like that produced by aconite; this sensation soon extends to the throat and fauces, and continues for several hours, although not a particle of the substance be swallowed. Drs. Munro and Russel were the first to introduce the *Mezereum* bark into practice as a stimulant diaphoretic, useful in venereal nodes from thickening of the periosteum. Other writers have also recommended it in similar diseases, and a decoction has been frequently administered in rheumatic, scrofulous, and cutaneous affections.

Dr. Withering records having used the root successfully in a case of difficulty of swallowing occasioned by paralysis. After chewing a thin slice as often as could be borne, the patient in about a month recovered the power of swallowing, although the case was of three years standing.

An ointment made of berries is employed in the north of Europe against foul ulcers, chancres and cancer. On this continent the bark is employed as a vesicant. It is also applied to the head, to relieve deafness, headache, toothache and some affections of the eyes; and has been recommended in coxalgia, chronic rheumatism, and various skin diseases. A crystallizable principle called *daphnia* has been found in the plant.

We would be the last in the world to question the validity of this claim to greatness, but cannot refrain from saying, on the high authority of Linnaeus, that "six of these berries will kill a wolf." That eminent botanist also asserts that he saw a girl die of excessive vomiting and hemoptysis in consequence of taking twelve of them to check an ague.

Nor do we undertake to set ourselves in opposition to popular belief; yet we may mention, on the authority of *Pharmacographia*, page 487, that, in English medicine the plant is never given, except as an ingredient of the compound decoction of sarsaparilla, and an ethereal extract of the bark was introduced in 1867 as an ingredient of a stimulating liniment.

NATIONAL QUARANTINE.

A journal in a city like Montreal is bound to be more or less local in its character. We do not undertake to deal with all subjects, or to speak with equal authority upon each. An epidemic of yellow fever in Canada would be proper subject for enquiry and comment; but when it occurs in the United States, we feel free to leave it to those who have better information. Certainly, from reading the current medical journals which issue from the United States, it would appear that the opportunity is not being missed.

The fact which is of importance to outside persons is that the system

of State regulation of Quarantine has broken down. It is worth a little epidemic of yellow fever, if it will induce the citizens of the States to surrender the care of the public health to one central authority.

In times gone by, it did not matter whether state or nation managed health affairs, since anything which either might do was not likely to be of much importance. The work of the physicians who laboured so heroically, and uselessly, was a pitiful sacrifice; but now that there are sure grounds of procedure, much can be done, and it can be done best by those who know what to do, by doing it all the time.

The people and Governor of Louisiana have asked President Roosevelt to put the United States Marine Hospital Service in charge of the situation; and as soon as the care of the epidemic was put in the hands of Surgeon-General Wyman, public confidence revived. Men like J. H. White and J. M. Guiteras, who have had experience in Cuba are likely to be more competent than the health officers of small towns on the Gulf of Mexico. There is a strong tendency in the United States to surrender the right of local government to those who can do it better. The doctrinaires are giving way to the men of common sense, and the facts in the present epidemic form a strong argument for the control of all quarantine stations by the United States Government.

The more ignorant amongst the public affect to believe that the appearance of yellow fever outside of the habitat of the *Stegomyia* throws doubt upon the correctness of the theory that the disease is propagated by mosquitos. Upon this subject the *Medical Record* says: The truth of the theory, it is generally believed by the medical world, was demonstrated experimentally and practically in Havana; and, in the face of the mighty sanitary revolution there effected, objections based upon the unexplained facts of old time epidemics in Philadelphia and other Northern cities, where the *Stegomyia* mosquito does not habitually flourish, have but little force. It is more reasonable to explain these epidemics on the supposition of an importation of the fever-bearing insect than it is to explain the fact of Havana's riddance on any but the mosquito theory.

THE APOTHEOSIS OF ADVERTISING.

We have been favoured by Dr. William Henry Drummond with a copy of an advertisement which he picked up at the railway station in Joliette. If it came from any other quarter there might be some doubt as to its authenticity. Coming from the author of "The Habitant," all doubts are set at rest. As a rule we do not publish all

the advertising matter which is sent to us; but we think it worth while giving further publicity to this document.

“The Woman’s Health” :—Is a vegetable preparation which guaranties to cure all diseases of the womb, with the exception of “fall” for which, I have another preparation. But this one cures, as by enchantment all others troubles, as that ball which rises in the stomach, who suffocates and which very often makes you believe that you are to get dyspepsia, because that gives you some winds, risings, etc.

Here I speak to you as a friend. Do not doubt my preparation because you shall be surprised with the quickness of your cure. You shall not have taken it two or three days, or more, that you shall feel a great release.

I have said this one cures the winds, risings, and backsores, the kidney’s disease and all twitches of the abdomen, sore of the hips and groins, and thighs, and takes off the black thoughts, such as the discouragement carelessness to fulfill the duties of one’s own condition, and generally regulates your months in time and without pain.

All those troubles are more or less cured in one or three months of time, or more, sometimes very much less, but sometimes little more of course, according to case and treatment if well followed. For the “falls,” what we call heaviness in the lower part of the body, and who, more or less can make some inconvenience in walking, and suppress the urines. This one can be cured in 20 days entirely.

If you follow this prescription: Warm one of my plaster and put it under the nevol, and apply a good belt of cotton, not too close, and go to bed lying on the back, the left leg over the right leg, as much as possible, and changing the right leg over the left leg, and that position during 9 days or more, and getting up only for make the necessities, and be careful not to catch cold, and care in rising not to make any effort. To do not eat, but only light food. Get up after the tenth days only one hour, less or more, taking care not to become tired. In getting up if you feel very weak, if your head turns, go to bed a few minutes more, that can occur once on 25 cases. Because some persons are more or less very strong. Walk very little for a few days and do not work during ten or twelve days, and let the plaster fall, by himself, and take your preparations during a month at least. Then you shall be cured without operation and at your home. And be careful not to rock. Prepare by L. D. Dupuis, Joliette, P.Q.”

IMPERIAL REGISTRATION.

General Laurie’s Bill to amend the Medical Act of 1886 has passed the House of Commons of Great Britain. This amendment states that

where any part of a British possession is under a central and also a local legislature His Majesty may, by Order-in-Council, declare that the part which is under the local legislature shall be deemed a separate British possession.

Under the present arrangements a graduate of a Canadian university wishing to practise in Great Britain, or enter the Imperial service, must first pass the examination of the General Council of Medical Education in primary and secondary subjects. If now the provinces decide to avail themselves of the provisions of General Laurie's Bill, a reciprocal arrangement might be entered into by which the passing of the provincial examination would be sufficient to allow a Canadian graduate to enter the army or navy or to practise in Great Britain.

The provisions fall short of those in Dr. Roddick's Dominion Registration Act in this respect, that a person so qualified would not necessarily be permitted to practise in every province in Canada or in the other British dominions.

This is a considerable advance towards unification of the profession, and it now rests with each province to avail itself of the provisions which are offered.

THE FIRST AUTOPSY IN MONTREAL.

In the description in "Hakluyt's Voyages" of the travels of Jacques Cartier, is found the following, which describes the earliest reported autopsy performed in this city. It took place in 1535, when the winter was passed in Hochelaga and many of the crew died of an epidemic disease.

"That day Philip Rougement, borne in Ambroise, died, being 22 yeeres olde, and because the sicknesse was to us unknowen, our Captaine caused him to be ripped to see if by any means possible we might know what it was, and so seeke meanes to save and preserve the rest of the company: He was found to have his heart white, but rotten, and more than a quart of red water about it; his liver was indifferent faire, bur his lungs blacke and mortified, his blood was altogether shrunke about the heart, so that when he was opened great quantitie of rotten blood issued out from about his heart; his milt (spleen, Ed.) toward the back was somewhat perished, rough as if it had bene rubbed against a stone. Moreover, because one of his thighs was very blacke without, it was opened, but within it was whole and sound, that done, as well as we could, he was buried."

At the celebration of the fourth centenary of the Royal College of Surgeons held in Edinburgh, July 21st, 1905, honorary fellowship was

conferred upon Dr. F. J. Shepherd, professor of anatomy, McGill University. Other recipients of the honour included Baron Von Eiselburg, Vienna; Professor Ernst Fuchs, Vienna; Professor Sylvester Saxtorph, Copenhagen; Professor Guyon, Paris; Dr. Lucas Championnière, Paris; Professor Poncet, Lyons; Dr. Paul Segond, Paris; Professor L. F. Terrier, Paris; Professor Von Bergmann, Berlin; Professor Bier, Bona; Professor Vincenz Czerny, Heidelberg; Professor Franz König, Jena; Baron Saneyoshi, Japan; Professor Halstead, Baltimore; Baron Lister, London; Dr. Alex. McCormick, Australia; Professor McBurney, New York; Dr. J. H. Cameron, Toronto. All who know Dr. Shepherd and his work will agree that these distinguished persons were in very good company on that memorable day.

Surely the editors of medical journals have troubles enough without quarrelling among themselves. The A. R. Elliott Company, which publishes the *New York Medical Journal* has "taken the law of" the *California State Journal of Medicine* over a question of the improper use of the editorial page for advertising purposes. Certainly, the western journal spoke its mind freely, and the "lawyer's letter" which it received was an awful one. But peace has come. Medical journals should study to be quiet.

In the *Johns Hopkins Hospital Bulletin*, Vol. XVI., No. 168, p. 102, Dr. Kelly, in discussing a paper by H. I. Wiel, gives in detail the procedure which he has found useful in the vaginal examination of children. He says that "children rapidly become accustomed to the method and readily submit." We quite agree with Dr. Kelly that "there is very little upon the subject in the literature," and trust that this condition of meagreness will continue to exist.

This month the JOURNAL is freed from the burden of Society Proceedings, which has been so cheerfully borne whilst the meetings were in session. We are therefore able to print Dr. Lockhart's voluminous paper on Chorion-Epithelioma, which is likely to be of authority for a long time to come. Under arrangement with the Journal of the American Medical Association we are also enabled to publish Dr. Osler's farewell address upon "Peace, Unity and Concord."

The British Medical Association will meet in Toronto in 1906. There are in Montreal many persons yet living who acquired some experience during the meeting which was held here in 1897; and the committee of arrangements might learn of us. We make this sugges-

tion with proper humility, as knowing our place, when we lift up our eyes to that great city.

At a recent meeting of the Board of Trustees of the Toronto Free Hospital for Consumptives the most important matter under consideration was the proposition to add to the present hospital, near Weston, by the erection of the new building giving improved accommodation for medical, nursing and domestic staff, and a new and commodious dining-room and kitchen. The trustees decided to proceed with the work.

Scarcely a number of a medical journal reaches us which does not contain an account of the awakening of the public mind to the necessity of combatting the ravages of tuberculosis. In Louisville an association of 200 members has been established to operate through the whole State of Kentucky.

The *Kentucky Medical Journal* points out a real difficulty in connexion with central examining bodies. In colleges, clinical and laboratory instruction is rapidly replacing the old method of didactic lectures, whilst the old methods of examination continue to exist. Obviously, the better trained graduate is at a disadvantage, if his examination is of a purely theoretical nature.

The seventh session of the Australasian Medical Congress will be held in Adelaide, September 4th to 9th, 1905. According to an announcement which is contained in the excellent *Australasian Medical Gazette* the work of the Congress will be conducted in seven sections under the presidency of Professor E. C. Stirling.

Reviews and Notices of Books.

ADDRESSES AND OTHER PAPERS. By WILLIAM WILLIAMS KEEN, M.D., LL.D., F.R.C.S. (Oxon.), Professor of Surgery, Jefferson Medical College, Philadelphia. W. B. Saunders & Co., Philadelphia, 1905; J. A. Carveth & Co., Toronto.

Professor Keen has been known these forty years as one of the first surgeons in America; and he has richly deserved that place by reason of his skill and industry, and his humane character. When he makes an incursion into literature—that is another matter.

These addresses and papers cover a wide range of thought, and were given at various times these thirty years past, published in popular magazines, in scientific journals, or delivered before associations and collegiate bodies.

As a record of facts, either observed, or acquired; as a body of opinion pertaining to surgical questions, this book has the value which Dr. Keen's great name gives it. For example, the shocking condition of the Army Medical Service in the War of the Secession is clearly revealed. The Assistant Surgeon of the Fifth Massachusetts regiment had graduated in 1861, and received his appointment immediately. Fortunately, he remained at his post only two months. He was replaced by Dr. Keen, whose experience as a surgeon had been acquired during one session at a medical school. Dr. Keen himself "graduated" the following year. "It is quite true that you know very little, but you know more than your predecessor," were the encouraging words which Dr. Brinton addressed to this modest surgeon of six months' experience who was to be entrusted with men's lives. The historical papers, then, have a value; but it is as a work of literature such a book must be considered.

The book, it appears, has been published, "in response to numerous requests." It is an excess of good nature on the part of an author to yield to such requests. It is his reputation which is at stake, not his friends', who are usually so free with their advice. In the present case they appear to have advised without sufficient information, or to have exercised singularly poor judgment. Dr. Keen is also ill-served by those who are responsible for the introduction of the pictorial frontispiece. "The foetal skeleton, playing left-handed with an injected artery, as a bow, upon a sequestrum as a violin," in spite of its "pathetic pose," is in singularly bad taste. It is little better than those jokes which Freshmen find amusing, though it was drawn in the year 1703. These poor remnants of mortality are not fit subject matter for humour. Dr. Osler touches these old subjects with grace, for he knows that a thing may be old, and at the same time be obscene and revolting. The caricature of the Resurrection on page 3 is offensive to any sensible person. Dr. Keen may not be responsible for these aberrations from good taste. He is responsible for the unctuous goodness of his "Cheerfulness of Death." "There," he says, "we shall see, and know intimately, our Lord Jesus Christ." It may be so, we hope it is; but we should like to have the statement made with less assurance, until we have better information than is contained in this revelation. Dr. Keen employs words without a perception of their meaning, and helps to propagate what may turn out after all to be a disappointing illusion.

These addresses as a whole do not rise above the level of those addresses which are delivered upon similar occasions. They contain many sentiments which are entirely creditable and proper; but the expression is without that quality of literary grace, or sagacity, which can lift any

battered out subject above the commonplace. As homilies they are excellent; but we have heard them before. One example will serve to illustrate their banality: "The flavour of stale tobacco-smoke about his beard and clothes will never characterize the ideal physician." Such gems of thought are profusely scattered throughout the work. The thing is true; but is not necessary to say it, especially in a book which it is intended to sell for three dollars and seventy-five cents.

AMERICAN EDITION OF NOTHNAGEL'S PRACTICE; Malaria, Influenza and Dengue. By DR. JULIUS MANNABERG, Professor of Internal Medicine, University of Vienna; DR. O. LEICHTENSTERN, formerly of the University of Cologne. Edited, with additions, by MAJOR RONALD ROSS, F.R.C.S., F.R.S., C.B., Professor of Tropical Medicine, University of Liverpool; J. W. W. STEPHENS, M.D., D.P.H.; WALTER MYERS, Lecturer in Tropical Medicine, University of Liverpool, and ALBERT S. GRUNBAUM, M.D., F.R.C.P., Professor of Experimental Medicine, University of Liverpool. Authorized translation from the German, under the editorial supervision of ALFRED STENGEL, M.D., Professor of Clinical Medicine, in the University of Pennsylvania. Philadelphia and London; W. B. Saunders & Co., 1905. Canadian Agents, J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

The title of this book does not express the relative importance of its parts, for, in a volume of 770 pages, 517 are taken up by malaria, and 70 by dengue. The monograph on malaria, as written by Mannaberg, is as different as possible from what the same article would be if written to-day by Stephens, and this is an advantage, for the reader gets the benefit of the point of view of two men who look at the subject from widely differing sides; the American edition is a much more valuable work of reference than is the original monograph. The present editor has added a hundred pages upon the mosquito and its relation to the disease, and this large space is closely packed with information relative to the zoology and anatomy of the mosquito, as well as with technical directions as to the procedures adopted in the study of the mosquito and the carriage of malaria. It is commendable that the author is very straightforward and terse with regard to stains and methods of examination, and these are not multiplied indefinitely, but the author gives what he considers the best ones. The geographical distribution makes interesting material, and the shaded maps are very useful for its graphic representation; the symptomatology and classification are followed by a chapter on perniciousness, in which the editors have been compelled by circumstances to preserve the use of those terms

that are sanctioned by use, though they are not free from objection; such are typhoid pernicious malaria, syncopal pernicious, diaphoretic pernicious, pneumonic subcontinued, and so on. Complications and sequelæ form a useful terse chapter, and treatment is definite and clear cut. One confesses to liking the editorial addenda better even than the original material, but this is so of necessity, because so much that is essential to the understanding of the disease is contained in the research of recent date; but, while saying this, one is compelled to admit that the combination of the old and the new makes a far more useful treatise than would the whole work, written by either the original author or the editors.

Leichtenstern's monograph on Influenza has been edited by Grünbaum, who points out in the preface that the author, by the irony of fate, died from pneumonia following influenza.

The part that deals with Influenza takes up 200 pages, and the editor's task seems to have been comparatively light, so far as additions are concerned. A paragraph on differential diagnosis we find has been added, but a list of literature, 16 pages long, which is by no means exhaustive, indicates how serious has been the work of consultation. The opening chapter on the history, epidemiology and etiology of the disease is entertaining, apart from its scientific value. Sixteen outbreaks of tremendous distribution have occurred since 1510. The plate illustrating the influenza bacillus is, unfortunately, not a very good one, but the bacillus is so small that a distinct photo-micrograph is difficult to obtain.

Dengue is briefly dealt with, the editor giving his opinion in favour of the parasite described by Graham, as the active agent in its production.

HALL'S PHYSIOLOGY; A Text-Book of Physiology, Normal and Pathological. For students and practitioners of medicine. By WINFIELD S. HALL, Ph.D., M.D. (Leipzig), Professor of Physiology, Northwestern University Medical School, Chicago; Member of the American Association for the Advancement of Science, etc., etc. New (2nd) edition, revised and enlarged. In one octavo volume of 795 pages, with 39 engravings and three full-page coloured plates. Cloth, \$4.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This book tempts one to lay aside the strictly judicial role of the reviewer and to indulge in a little enthusiasm. It covers a wide field and contains a great deal that is not found in other text-books of physiology. Like the first edition the present one contains far more ana-

tomical, physical, chemical and even mathematical matter than one expects to see. This second edition also contains a number of sections dealing with what the author somewhat inelegantly calls "pathologic physiology." For these sections he has called upon a number of his colleagues engaged in clinical and pathological work for assistance. The subjects taken up include the principal diseases of the blood and of the circulatory, respiratory and digestive systems, the disorders of metabolism and excretion, and to a slight extent, affections of the nervous system. These sections being contributed by different writers vary in excellence, but on the whole they give a presentation of applied physiology such as cannot easily be found elsewhere under a single cover.

At first we were inclined to doubt the necessity of pointing out clinical applications to primary students, but we have become satisfied that, as carried out in this book, the idea is a good one. It adds interest to the study of physiology for the junior student and makes the book far more available for the advanced student who desires to read up the physiological aspect of his hospital cases.

To practitioners these sections will be equally acceptable in bringing before them a large amount of useful physiological knowledge which has come to light since their undergraduate days, and with much of which they are unfamiliar.

A serious difficulty in the way of its adoption as a college text-book is that it adopts a nomenclature and classification of the chemical constituents of the animal body which is often at variance with that taught in this country.

In the case of proteids for instance, the Cohenheim-Hammerston classification is adopted, which gives new meanings to old terms and tends to produce great confusion in the minds of students. The worst of it is that the author does not even carry this classification consistently throughout his own book, but sometimes uses terms with their older significance which must make confusion run riot in the student's mind indeed. In matters of detail we find that the book contains sufficient inaccuracies and omissions to shut it out from the very first place among students' text-books.

On page 140 fibrin is given instead of fibrinogen, as a constituent of plasma. On page 174 an unusual and, as it seems to us, a ridiculous explanation is given of the predicrotic pulse wave. As in the first edition no mention is made of the part played by the mitral and tricuspid valves in the first sound of the heart. We can find no mention of secretin in connexion with the secretion of pancreatic juice.

This book is probably the best a practitioner could buy from which

to brush up his physiology, because he will find it a convenience to have the necessary anatomy, chemistry and physics all to hand in the one volume, and he should appreciate the clinical applications.

For the student, on the other hand, we think there are better books, but not many. We refuse first place to this as a student's text-book because we find some carelessness as to detail, and because we consider the confusion in the classification of proteids a very serious drawback.

W. S. M.

A MANUAL OF MIDWIFERY; for Students and Practitioners. By HENRY JELLETT, B.A., M.D. (Dub. Univ.), F.R.C.P.I., L.M.; with the assistance in special subjects of W. R. DAWSON, M.D., F.R.C.P.I.; H. C. DRURY, M.D., F.R.C.P.I.; T. G. MOORHEAD, M.D.; R. J. ROWLETTE, M.D. With 9 plates and 467 illustrations in the text. University series. London: Ballière, Tindall and Cox, 1905. New York; Wm. Wood & Co.

This is, on the whole, the best manual of obstetrics for students and practitioners which has appeared for many years. It is up-to-date, and, at the same time practical and sound. The author was assistant master at the Rotunda Hospital, and his collaborators are all Dublin men of prominence. The book, consequently, is a good exposition of the views and practices of the Dublin School of Obstetrics at the present time. Dr. Moorhead contributes the chapters on Embryology and Anatomy, the Phenomena of Pregnancy and the Anatomy of Contracted Pelvis; Dr. Drury, those on Organic and Functional Diseases in Pregnancy; Dr. Rowlette, on the Etiology and Pathology of the Surgical Fevers; Dr. Dawson, on the Insanities of Reproduction. The illustrations are excellent, many being original, utilizing valuable specimens in the Museums of Trinity College, Dublin, and the Royal College of Surgeons, Ireland; others have been reproduced from the works of Bumm of Halle, Williams of Baltimore, Webster of Chicago, and the late Milne-Murray of Edinburgh. The arrangement of the book is convenient, the style is concise, the directions clear and practical. The writer has his own convictions based on experience, and he does not hesitate to express them. This is just the kind of book which is helpful as a manual, but which, unfortunately, has gone out of fashion to a great extent. Authors nowadays strive to pile up references to foreign literature, German especially, to make their articles encyclopædic and complete, to give everyone's views and describe everyone's treatment; but they forget to sum up, to give their own deductions, and the practice they themselves would use or would recommend to others. Among the multitude of advisors, and the mass of conflicting opinions and con-

tradictory methods, the student is left in a state of hopelessness and helplessness which is truly pitiful.

The chapters on the pathology of labour, pregnancy, and the puerperium are very good, full use being made of the excellent bacteriological work done by Williams and Little in this important field. Obstetrical operations are treated clearly, and from the point of view of the student and young practitioner, rather than of the expert. Here and there are little points in practice which seem strange to us on this side of the water, such as, for example, the giving of the vaginal douche in the *lateral* rather than in the *dorsal* position, and the use of Ferguson's glass speculum to obtain a view of the os, in making a diagnosis of parity or multiparity (Figs. 139, 140). But these are small matters; and, after all, they serve to show us that there are many ways of doing the same thing, and that other methods may yield excellent results, even though they may widely differ from those which we are wont to employ. The book is thoroughly practical and sound, and can be recommended as a good hand-book for students, and a safe guide for practitioners.

A PRACTICAL TREATISE ON SEXUAL DISORDERS IN THE MALE AND FEMALE. By ROBERT W. TAYLOR, A.M., M.D., Clinical Professor of Genito-Urinary and Venereal Diseases in the College of Physicians and Surgeons (Columbia University), New York. New (3rd) edition, enlarged and thoroughly revised. In one octavo volume of 575 pages, with 130 engravings and 16 coloured plates. Cloth, \$3.00, net. Lea Brothers & Co., Philadelphia and New York, 1905.

After forty years of labour this JOURNAL has acquired a considerable *Musée d'Obscénités*. This book of Dr. Taylor's has been placed on the shelf labeled "duplicates." Vice is an evil sisterhood, and lechery and lying go hand in hand. The degenerate individuals who have occasion to seek the services of surgeons practising Dr. Taylor's specialty come to confess, and frequently end up by boasting. These vapourings are duly entered in a case-book, and when a sufficient amount is accumulated, they are published. That is the genesis of most of the productions which defile a reviewer's table. Dr. Taylor's collection of "case reports" does more credit to his erudition and industry, than to his good sense or taste. That excellent jester, Egerton Y. Davis, is again quoted as a sober reciter of scientific truth. For twenty years this humourist has ranged through erotic literature; indeed, ever since his now memorable contribution upon "Cohésione in Coitu" was offered to this JOURNAL—and declined. Dr. Taylor reproduces in all solemnity on page 406, this piece of subtle satire, which is directed against just

such writers. Dr. Taylor should verify his "reports," and, if he were to address a communication to Egerton Y. Davis, 1 West Franklin Street, Baltimore, with the superscription, "to be forwarded to the Regius Professor of Medicine, Oxford, England," we feel sure that he would receive information which would minister to his amusement.

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATION. By LOUIS A. STIMSON, B.A., M.D., LL.D. (Yale), Professor of Surgery in Cornell University Medical College, New York. Fourth Edition revised and enlarged. 331 Illustrations and 46 Plates in Monotint. Lea Brothers & Co., New York and Philadelphia.

To those familiar with the previous edition of this work commendation of the present is unnecessary. The work is of a high character. The addition of twenty X-ray photographs in 16 plates has made more clear some points about fracture, that have always been obscure. Colles's fracture, in which every one is interested is thoroughly illustrated and the essentials in the successful treatment emphasized.

In speaking of fracture of the neck of the femur, the old classification is pretty much put aside and the author thinks that the prognosis depends not upon impaction nor upon the situation of the fracture, but upon the preservation of the vascular supply furnished by the vessels which approach the bone near the insertion of the capsule and run to the head in the thick periosteum of the neck. Most surgeons are very careful not to break up an impaction of the neck of the femur—and now a forceful additional reason for the utmost gentleness in manipulation is the danger of destroying the blood supply of the detached femoral head. Special mention should be made of the chapter on fracture of the lower end of the humerus and injuries to the elbow in children. The book is a standard and is one to be highly recommended.

INTERNATIONAL CLINICS. Edited by A. O. J. KELLY, M.D., Vol. II. Fifteenth Series, 1905. Philadelphia and London. J. B. Lippincott Company. \$2.00.

This is a volume of 310 pages. It contains 23 separate articles, 14 plates and 18 figures. The articles are not strictly bedside lectures, as the term "clinic" implies—unless to the word κλίνη be given its additional significance, that on which one lies, a bier; and, by analogy, a *post-mortem* table. Many of the papers savour of the lamp; and others of the laboratory. They differ in value. The clinic by Solis-Cohen on Uræmic Psychoses is entirely suitable for students, and the employment of the Socratic method of question and answer lends it lightness. The discussion of sea-sickness by Dr. Benedict is trivial,

though the speaker makes a judicious use of the humour inherent in this malady. The sections of Physiology by Hemmeter, and Pathology by Josef Weisel are admirable. The French clinics are masterly. The whole book is full of interest, of one kind or another.

THE SURGICAL ASSISTANT; A manual for students, practitioners, hospital internes and nurses. By WALTER M. BRICKNER, B.S., M.D. New York. International Journal of Surgery Co., 100 William Street, New York. Price, \$2.00.

The author deals with a lot of questions not often considered in books, frequently discussed by medical men, both young and old, that are of interest and importance, and the right understanding of which contributes greatly to maintain the friendly feeling that should always obtain between medical men and their assistants and nurses. Not only the conduct of the assistant and his relations with the surgeon and the patient, but the hospital interne, the preparations for an operation, the preparation of the room, the anæsthetist, the choice of the anæsthetic, but a lot of useful directions and details concerning major and minor operations are considered in the different chapters devoted to these subjects. It is a suggestive and useful book.

A HANDBOOK OF INTESTINAL SURGERY. By LEONARD A. BIDWELL, F.R.C.S. London, Baillière, Tindall and Cox, 1905. Canadian Agents, J. A. Carveth & Co., Ltd., Toronto. Chandler, Massey & Co., Toronto, Montreal and Winnipeg. Size, demy 8vo. Price, six shillings net.

This little volume aims at giving such a precise description of the commoner intestinal suture that an inexperienced surgeon may readily practise the various methods on dead intestines before performing an anastomosis on the living subject. The illustrations are numerous and excellent. The text is clear. The different operations on the stomach and intestines are most lucidly described. It is a valuable book for students and beginners.

PROGRESSIVE MEDICINE. Edited by HOBART AMORY HARE, M.D., H. R. M. LANDIS. June 18th, 1905. Messrs. Lea Brothers & Co.

The contents of this volume are Hernia, by William B. Cooley, M.D.; Surgery of the Abdomen, by Edward Milton Foote, M.D.; Gynæcology, by John G. Clarke, M.D.; Diseases of the Blood and Glands, by Alfred Stengel, M.D.; and Ophthalmology, by Edward Jackson, M.D. An index completes a volume of nearly 350 pages. This quarterly digest will appeal to Canadian practitioners by reason of the excellent survey

of the foreign field of medicine. There is no mention of any work which has been done in Canada. To that extent the record is imperfect.

SAUNDERS' POCKET MEDICAL FORMULARY. By WILLIAM M. POWELL, M.D. Containing 1,831 formulas from the best known authorities. Seventh Edition, revised. Flexible Morocco. \$1.75 net. Canadian Agents: J. A. Carveth & Co., Toronto.

In this new seventh edition there have been added over 460 new and valuable formulas, selected from the works and private practices of the best authorities. The editor has eliminated many obsolete formulas, inserting in their place newer and better ones, embodying a large number of approved new remedies. A book of this kind is a daily necessity to physicians, young or old.

The National Standard Dispensatory, by Hare, Caspari and Rusby, will be ready for sale September 1st, the date when the new United States Pharmacopœia goes into effect. By authority of the Convention it will contain every article in the Pharmacopœia, as well as the explanations and instructions necessary to understand and apply the brief statements to which the official guide is restricted. The authors, Dr. H. A. Hare, of Philadelphia; Prof. Charles Caspari, Jr., of Baltimore; and Prof. H. H. Rusby, of New York, all men of eminence in their respective fields, and members of the Revision Committee of the Pharmacopœia.

Medical News.

MORTALITY IN MONTREAL.

Dr. Laberge, Medical Health Officer, has prepared a statement of the deaths from tuberculosis in Montreal during the past five years. His statement shows that there were 62 fewer deaths from tuberculosis of all descriptions in 1904 than in 1903, and that in 1904 the deaths from pulmonary tuberculosis were only 1.94 per thousand of the city's population. This is a lower rate than in any of the preceding four years. Owing to the fact that statistics for pulmonary tuberculosis alone were kept in 1900, 1901, and 1902, the percentage of deaths from tuberculosis of all forms was not obtainable during those years. There were 755 deaths from tuberculosis in 1904, while the preceding year showed 817.

The death rate from all causes was also lower in 1904 than in 1903, being 23.39 per one thousand of population, as against 24.29 for the preceding year. The total number of deaths was 6,895 last year.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The annual meeting of the British Columbia Medical Association was held in Vancouver, on the 18th and 19th July, 1905, under the presidency of Dr. W. D. Brydone-Jack. The following is the programme which was adhered to:—

On Infection and Immunity, by Dr. J. C. Eagan; An Unusual Case of Intestinal Obstruction, by Dr. R. E. McKechnie; Clinical Reports with Exhibition of Cases, by Dr. Glen Campbell; On Septic Tanks (illustrated), by Col. T. H. Tracy, M.C. Soc. C.E.; Vancouver Hospital (illustrated), by G. W. Grant, Architect; Cases of Bilharzia Hæmatobia in British Columbia, by Dr. R. E. Walker; Observations on Tuberculosis in New Zealand, by Dr. William Stephen.

ROYAL VICTORIA HOSPITAL.

Report for July, 1905:—Patients admitted, 262; patients discharged, 263; patients died, 16. Medical, 92; surgical, 108; ophthalmological, 16; gynæcological, 32; laryngological, 14; total, 262. Out-Door Department:—Medical, 718; surgical, 316; ophthalmological, 294; gynæcological, 129; laryngological, 302; total, 1,759. Ambulance calls, 74.

The International Congress of Tuberculosis will assemble in Paris, on 2nd October, and will continue till 7th October. It will be under the patronage of Mr. Loubet, President of the Republic. The Congress will be divided into sections as follows:—Medical Pathology, President, Prof. Bouchard; Surgical Pathology, President, Prof. Lannelongue; Preservation and Assistance of Infancy, President, Prof. Grancher; Preservation and Assistance of Adults, Presidents, Prof. L. Landouzy and Paul Strauss.

The Prince Edward Island Medical Association has appointed the following officers: President, Dr. McLaughlin; Vice-Presidents, Drs. Coffin, Douglas and McLennan; Secretary, Dr. Johnson; Treasurer, Dr. Conroy. The Council is as follows:—Dr. Taylor, Dr. Conroy, Dr. S. R. Jenkins, Dr. H. D. Johnson, Dr. McLaughlan, Dr. Murchison. The Council met afterwards and elected Dr. Conroy as President, and Dr. Jenkins, Registrar-Secretary.

The Board of Trustees of the Woodstock Hospital have received the legacy of \$20,000 bequeathed to them by the late Hon. James Sutherland.

Retrospect of Current Literature.

SURGERY.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

ROYAL WHITMAN, M.D. "Fracture of the Neck of the Femur."
American Journal of Medical Sciences, July, 1905.

Until quite recently the prognosis in this fracture was far from bright, and even at the present time many practitioners regard shortening, deformity, limitation of movement, pain and swelling inevitable. The advance in the treatment and consequent improvement in results are due to a very large degree to the writer's work on this fracture, and we welcome this further contribution. He takes the ground that this fracture is a neglected subject, and suggests that this injury would be far less disastrous in its results if the following conclusions were generally accepted. Fracture of the neck of the femur occurs at any age, even in childhood. That there are two distinct forms of fracture of the upper extremity of the femur in young subjects, true fracture in which the neck is depressed as a whole, and partial epiphyseal-disjunction in which the injury involves its articulating extremity and that the recognition and distinguishing of these forms hold great importance in influencing treatment. An injury to the hip, followed by persistent disability, should always suggest fracture, and if one is not expert in the details of physical examination, an X-ray picture should be procured if possible. As an impacted fracture must of itself cause disability, one should attempt to reduce it in the manner that has been described, provided efficient support can be assured. The first essential in the treatment of complete fracture is to appose the fragments. For this purpose direct traction under anæsthesia, followed by fixation in the attitude of abduction seems to present certain advantages over the methods usually employed. If union has not followed routine treatment, the open method is indicated in suitable cases. The standard of success in treatment of the most favourable cases should be restoration of normal function, and in all one should at least attempt to apply the principles that are recognized as essential to success in the treatment of fractures in other situations. Anatomical investigations bearing on the writer's method of treatment were made by Alfred S. Taylor, M.D., and are of great importance in showing the mechanical measures to be adopted in reducing the fracture. Before dissection the limit of abduction varied from 45 to 55 degrees from the median lines. When the neck of the femur was divided the outer fragment underwent a posterior displacement combined with external rotation. In the cadaver there was no upward displacement such as occurs in the living. Abduction to

45 degrees, combined with lifting forward of the outer fragment produced and maintained good apposition of the fragments and gave the proper relation between the axis of the neck and that of the shaft of the femur. Abduction beyond 45 degrees caused separation of the fragments at the inferior border of the neck. Abduction was limited by the inferior ligaments and capsule, and by impact of the posterior part of the great trochanter upon the soft tissues just above the acetabulum and held firm, regardless of the level at which the neck was divided. The outer fragment of the neck caught under the rim of the acetabulum and cotyloid ligament only when the line of division was close to the head of the femur. Tension of the inferior capsule and its ligaments during abduction tended to cause spontaneous alignment of the fragments; this influence being more marked as the line of division of the neck approached the great trochanter. A slight amount of rotatory manipulation, combined with some lifting forward of the distal fragment, gave best opposition. Division of the capsule and ligaments inferiorly rendered reduction more difficult as there was a tendency to upward displacement of the distal fragment during abduction, and the usual spontaneous limitation of abduction was largely absent.

WILLIAM B. COLEY, M.D. "Final Results in the Treatment of Cancer, including Sarcoma." *Annals of Surgery*, August, 1905.

The conclusions drawn by the writer from the results obtained by him in the use of the X-ray treatment of malignant disease are well worth our most careful consideration. They must certainly emphasize the very great difference there is between the treatment of superficial and deep-seated malignant disease. They also show how useless it is for a permanent cure, in any but a superficial condition, to be effected, and justly place a great responsibility upon the practitioner who advises delay from a radical and early surgical operation. It is conceded that the X-ray exerts a powerful influence upon cancer cells of all varieties, but most marked in cases of cutaneous cancer. In some cases, chiefly in superficial epithelioma, the entire tumour may disappear, probably by reason of fatty degeneration of the tumour cells with subsequent absorption. In a much smaller number of cases of deep-seated tumours, chiefly cancer of the breast and glandular sarcoma, tumours have disappeared under prolonged X-ray treatment. In nearly every one of these cases, however, which have been carefully traced to final result, there has been a general or local return of the disease within a few months to two years. In view of this practically constant tendency to early recurrence,

furthermore, in absence of any reported cases well beyond three years, the method should never be used except in inoperable cases, or as a prophylactic after operation as a possible, though not yet proven means of avoiding recurrence. The use of the X-ray as a pre-operative measure in other than cutaneous cancer is contra-indicated, because the agent has not yet been proven to be curative, because of serious risks of an extension of the disease to inaccessible glands or to other regions by metastases during the period required for a trial of the X-ray.

A. W. MAYO ROBSON, D.Sc., F.R.C.S. "Biliary Pulmonary Fistula Cured by Hepato-Dochotomy." *The Practitioner*, July, 1905.

This very unusual complication of cholelithiasis occurred in a young man of 28 years of age, whose previous history consisted of an attack of pain in the gall-bladder region, which was surmised, not definitely diagnosed, to be due to gall-stones. For nine years previous to the operation he had been spitting up pus and bile in quantities varying between a pint and a pint and a half every day. A stone was found impacted in the hepatic duct, the removal of which, with subsequent drainage, resulted in a perfect cure.

CARL BECK, M.D. "The Surgical Importance of the Cervical Rib." *Journal of the American Medical Association*, June 17th, 1905.

While the supernumary ribs of the lumbar vertebrae have only an academic interest, those of the cervical region have a real importance. The observations of disturbances due to a cervical rib are multiplying every year. The anomaly may vary from a slight growth just extending beyond the transverse process to a complete rib with a cartilage uniting with that of the first rib. It is bilateral in two-thirds of the cases, but a complete rib on both sides is a rarity. When not complete, or nearly so, it may give rise to no special symptoms, and before the use of the Roentgen ray it was comparatively seldom diagnosed during life, and most of the reported cases were, therefore, accidentally discovered at autopsy. Even when it caused trouble, the symptoms were often credited to tumour or other causes than cervical rib. It is probably, therefore, a more common anomaly than might appear from the small number of cases reported. Though of congenital origin, it does not cause trouble until about the twentieth year, a fact which is hard to explain. The principal symptoms of the anomaly are a hump-like prominence in the lateral cervical region, a superficial pulsation of the subclavian artery and the appearance of pressure symptoms in the brachial plexus. The trouble is a mechanical one, and the treatment, when re-

quired, must be surgical. It is just as foolish, Beck remarks, to remove a cervical rib which causes no disturbance as it is to leave one that does cause disturbance until lasting tissue changes have been brought about. At times the technique is very simple, but in the majority of cases difficulties are met, and it should be done only by an experienced surgeon. The difficulty is enhanced by the necessity of removing the periosteum, as otherwise recurrence may be expected. Beck finds that a triangular flap incision, running directly downward along the trapezius and then conducted toward the sternum about one inch above the clavicle, fully exposes the field of operation. If the trapezius can not be sufficiently retracted with a broad retractor, a transverse incision must be made into the muscle, for, next to a strict asepsis, the success of the operation depends on extensive exposure of its field. The brachial plexus, which usually runs across the rib, can be pushed aside; the subclavian artery is best pulled forward. The scaleni are carefully divided at their point of insertion, and this is best done by using a Cooper shears and, advancing layer by layer, lifting the several muscle fibers with the flat of the scissors and using the instrument like a grooved director. By means of a ring-shaped periosteotome the rib is then freed of any small muscular appendages. The division is easy with Beck's beak-shaped rib shears, but some may prefer the Gigli saw. Any remains are nipped off with rongeur forceps.

MEDICINE.

UNDER THE CHARGE OF JAMES STEWART, F. G. FINLEY, H. A. LAFLEUR AND
W. F. HAMILTON.

Journal of the American Medical Association, August 12th, 1905.

Chapter XXI. of the special article on Immunity treats of the subject of typhoid, its toxins and their characteristics. The typhoid bacillus is one of a rather numerous group of intestinal organisms, the differentiation of which requires special care and is sometimes difficult, except by properly performed agglutination and bactericidal tests. While it apparently does not flourish outside of the body, its resistance is considerable, and it may remain alive and virulent for a considerable time in water, earth, etc. Typhoid epidemics may originate either from water or contact infection. The incubation period varies, as does also the virulence in epidemics. The micro-organisms enter the system through the lymphoid tissue of the intestinal tract, though it may be rarely possible that other infection atria, such as the lungs are used. The bacteria reaching the circulation from the intestinal lesions are killed and dissolved in the blood in large numbers, and it is now believed

that the poisoning of the system takes place through this disintegration of the germs and the diffusion of their toxins in the body. The abundance of the bacilli in the blood stream in the early stages of the disease promises to have some diagnostic significance, as they can be detected by culture methods before the agglutination reaction appears. After, from the tenth to the fourteenth day, they can no longer be found in the blood, and are probably all killed off. In one-third or one-fourth of the cases the urine becomes more or less heavily infected with the bacilli during convalescence, and this may persist for weeks. They are supposed to come from metastatic foci in the kidneys and may be accompanied with cystitis, mild or severe. The rose spots on the skin are credited by Neufeld to similar metastasis. The gall bladder is pretty regularly infected in typhoid, and the organisms may proliferate in this situation for years. It has been suggested that reinfection may occur from their passage into the intestines. Pneumonia, as a complication of typhoid, is usually due to mixed infection, rarely to typhoid germ alone. The latter, however, may give rise to various after lesions, neuritis, abscess, bone disease, etc., and possibly to meningitis and myelitis. The typhoid bacillus is a facultative pyogenic organism and may by itself cause abscess, usually, however, in purulent conditions, a mixed infection is present. From the foregoing it would seem that the typhoid lesions are largely due to the distribution of the germs, in contrast to what is seen in diphtheria and tetanus. Nevertheless, it would appear that the toxins have a special affinity for the lymphoid tissues and the nervous system. The preference for the lymphoid tissue is manifest early in the disease. Lesions developing in the parenchymatous organs, however, may depend on the localization of the organisms rather than on any special affinity for the tissues.

The seventeenth chapter in the same journal, June 17th, 1905, on Immunity, commences with a statement of the nutritional aspects of Ehrlich's side-chain theory as developed by him in his earlier work on the oxygen requirements of the body and before its application to the explanation of the phenomenon of immunity. It assumes that all substances that enter into the structure of protoplasm (food substances) are bound in the cells and the union must be considered a chemical one. Such a chemical union demands the presence of two binding groups of maximal chemical affinity which are suited to each other. He called these binding groups residing in the cells, side-chains or receptors, those in the food molecules, haptophorous groups. He also assumed that protoplasm is endowed with a large number of such side-chains, chemically adapted to the various foodstuffs, thus providing for nutrition. To adapt this theory, however, to the explanation of immunity it is

necessary that it be elaborated in order to account for the formation of antibodies. Why these are not formed for nutritive substances is explained by assuming it to be probable that, in the normal condition, a physiologic equilibrium exists between the food substances on the one hand and the cellular activities on the other, so that the union of food and protoplasm forms no abnormal stimulus to those of the cell. When, however, union with a toxin occurs, the result is described as a cell defect, consisting in the functional elimination of the receptor. To repair the defect, the vital center of the cell (*Leistungskern*) sends out new receptors, and not only enough, but, in harmony with Weigert's hypothesis, a great excess, so that many are thrown out into the circulation. The proofs of the three tenets that form the framework of Ehrlich's theory are next taken up in detail. The first of these, that antitoxins counteract toxins by entering into chemical union with them, is deemed to be well supported by experiments *in vitro*, such as those made with ricin and antiricin, the neutralization experiments with diphtheria and tetanus toxins and their respective antitoxins, etc. Admitting that these neutralizations are of a chemical nature, the first essential step in the establishment of the chemical or side-chain theory is assured. It is not so easy to demonstrate this as regards the union of agglutinin and amboceptors with the cells, but here also the proof is considered strong. The second tenet: that toxins in injuring cells combine chemically with a definite constituent of the protoplasm, the cell receptor, is held to be strongly supported by Wassermann's famous experiment of neutralizing tetanus toxin by grinding it up with the central nervous system of guinea-pigs. The chapter concludes with a reference to the analogous results obtained by von Dungern with precipitins, showing that albuminous substances, other than toxins, are taken up chemically by the cells.

W. M. LESZYNSKY. "The Disorders of the Nervous System Arising in the Course of Chronic Nephritis." *Medical Record*, May 20th, 1905.

Aside from the various neurasthenic manifestations occurring in patients with chronic nephritis, many of the transitory subjective nervous phenomena arising during the course of the disease are the result of the uremic (or possibly other) intoxication in varying degree, while nearly all of the transitory objective nervous phenomena, and the more permanent and incapacitating or fatal complications, are primarily due to the concomitant arterial disease. Hence palpable evidence of arteriosclerosis and high blood-pressure is usually of the greatest significance.

The many forms which the nervous disturbances attendant on nephritis assume are described in detail, and several illustrative cases are cited in which the failure to recognize the uremic condition underlying symptoms apparently of nervous origin led to serious results.

J. D. ROLLESTON. "The Tendo-Achillis Jerk in Diphtheria." *Brain*, Spring, 1905.

A study of the tendo-achillis jerk in one hundred cases of diphtheria Dr. Rolleston summarizes in the following statements:

1. The tendo-achillis jerks are affected in a considerable proportion of all cases of diphtheria, though less frequently than the knee-jerks.
2. The frequency and extent to which they are affected bear, like albuminuria and paralysis, a direct relation to the character of the faucial attack.
3. They are completely abolished in all cases of diphtheritic paraplegia.
4. The absence may be the only evidence of loss of motor power in the lower limbs.
5. Like the knee-jerks they are liable to be affected at the early stage of the disease, and to remain absent after disappearance of all diphtheritic paralysis, properly so-called.
6. Like the knee-jerks, again, they may be unequally affected on the two sides and, like the former they may be unusually brisk before they become sluggish and finally disappear.
7. The achillis jerk, like the knee-jerk, after it has been lost may reappear on one side before it does so on the other.

F. J. POYNTON. "The Influence of School-life upon Rheumatic Children." *The Journal of Preventive Medicine*, July, 1905.

Dr. Poynton's investigations and experience enable him to speak with authority on this very important subject. After touching upon the historical development of our knowledge of what is included under the term rheumatic fever, and after making a very few apt comparisons between tuberculosis and rheumatism the writer expresses a wish to change the title of his paper, making it more comprehensive by asking, "What is the influence of school-life upon rheumatic children?"

Two general answers are given: The first, That the discipline and employment of the body and mind, which are the great functions of a well conducted school-life, are good for the child of a rheumatic constitution.

The second, that, on the contrary, these are detrimental to a rheumatic child with rheumatic fever.

Rheumatic children are usually bright and intelligent, and not infrequently attend school with symptoms of rheumatic fever. Among the well-to-do, these children often get the upper hand and romp and play and read to excess, and wear themselves out—and, as a result, they sleep poorly with dreams, night-terrors and sleep-walking. School discipline often prevents or corrects this. Because of the often stealthy onset of rheumatic fever it is difficult at times to be sure that in a fever patient one is justified in attributing to rheumatism the symptoms complained of. Important warnings that the rheumatic condition is present are emphasized by the writer. The first group of these warnings is Chorea. In an out-patient service of three and one-half years among 225 undoubted cases of rheumatic fever, 126 had suffered or were suffering from chorea. Headaches, loss of power of attention—worry over the lessons—are soon followed by grimacing and fidgety jerking, the signs of the disease developed under such circumstances. "School-work strains the very functions that are damaged and frets the sore." Rest from school is imperative, and the sooner such rest is secured the shorter and milder will be the attack in most instances.

Then chorea is not only important because of its association with rheumatism, but, because of its association with heart disease. Of the 126 cases already mentioned, 84 showed signs of damaged hearts, and when such a condition is found, rest is necessary. Another point upon which stress is laid is the association of tonsillitis and rheumatic fever. In 67 cases of the 225 rheumatic patients observed in the out-patient department, sore throat was one of the first episodes in the illness. The warning here conveyed is against over-crowding stuffy and heated schoolrooms, for we know that under such conditions sore throats are common. The last paragraph but one of this article is too good for any abstract to convey the full import of it, so it is quoted at length:

"The entire question of rheumatism in early life would, I think, repay very careful study. I am glad to have had been given this opportunity, for I have the conviction that we see in rheumatic fever one of the great diseases of mankind, to be ranked with tuberculosis, malaria and cancer in its power for evil. I cannot think it can be anything but a special disease. We have arrived now at a time when we can press forward and attack it from every side, for its explanation is no longer a mystery. We have tried diet alkalies and salicylates, and we have practically now exhausted their possibilities. We see their good and their limitations. Let us also try prevention; we must get help too, from all sides in order to seize upon the disease as early as possible, and those engaged in training the young can help us here.

We can help ourselves, I think, by trying to make a cardiac bruit a reproach."

SCHILLER. "Five cases of Pfeiffer's Glandular Fever." *The Journal*, August 5, 1905.

"Pfeiffer's Druesenfieber," or idiopathic swelling of the glands of the neck, as Neuman calls it, has attracted some attention of late, and Schiller, of Chicago, has seen five so-called cases in April and May in one of the wards of that city. Three of these he selected for detailed description. A *résumé* of the three cases is here given and, in the writer's words, these show that this disease begins with chills, headaches, fever, sometimes vomiting, pains in the throat, and that there follows shortly after the onset of the disease, swelling of the cervical glands, and especially of the glands behind and before the proximal end of the sterno-cleido-mastoideus; that the disease is accompanied by fever, and in severe cases, acute hæmorrhagic nephritis occurs in the early stages, that is from the fifth to the eighth day; the spleen and the liver become enlarged, the swelling and redness of the tonsils and throat disappear rapidly after from three to five days, while the swelling of the glands stays for weeks. The tumour of the glands has a rather characteristic form. There is no periadenitis. Each gland can be palpated separately. The glands feel rather hard and not very tender; the tenderness cannot be compared with the tenderness of glands accompanying tonsillitis. No exanthema is found on the skin or in the mouth.

Society Proceedings.

CANADIAN MEDICAL ASSOCIATION.

The thirty-seventh annual meeting of the Canadian Medical Association was held in Halifax, August 22nd to 25th, 1905. The attendance was large and a comprehensive programme was submitted. The arrangements were admirable, and were undertaken jointly by the profession in Halifax, and the Nova Scotia Medical Society. The meetings were held in the new building of the Institution for the Blind. It proved to be suitable in every way, and was appropriately decorated for the occasion. The usual business session was held the first morning; and it was followed by a meeting of the Dominion Protective Association at which the officers were re-elected.

In the afternoon an address of welcome was given by Lieutenant-Governor George H. Murray, and also by Dr. H. A. March, President of the Nova Scotia Medical Society.

The President and members of the Nova Scotia Medical Society gave a reception in the Provincial Building. There was a garden party at the residence of Senator MacKeen, and a concert in the Public Gardens. The same evening, in addition, there were concerts in the Rowing Club, and armouries; excursions upon the harbour, and to Chester.

The arrangements left nothing to be desired; and the business and entertainments were carried out to perfection. The hospitality of the profession in Halifax was unbounded, and was fully appreciated by the members.

Dr. John Stewart, the President of the Association, delivered the customary address. The address in medicine was given by Dr. D. A. Campbell, upon "The Growth and Development of the Profession in Nova Scotia."

The Association then divided into two sections, medical and surgical; the respective presidents being Dr. F. P. Taylor, Charlottetown, and Dr. Murray MacLaren, St. John.

The address in surgery was given by Francis M. Caird, surgeon, to the Royal Infirmary, Edinburgh; the address in ophthalmology, by Dr. J. W. Stirling, Montreal; in Gynaecology, by Dr. H. A. Kelly, Baltimore.

The following is the programme which was submitted. Medical section:

Tubercular Pericarditis, Dr. A. McPhedran, Toronto.

The Fever of late (visceral) Syphilis: Its Diagnostic Difficulties, Dr. Arthur Birt, Berwick.

Postural Heart Murmurs, Dr. R. D. Rudolf, Toronto; Postural Albuminuria of Children, Dr. W. F. Eager, Halifax; Arteriosclerosis, by Dr. J. J. MacKenzie, Toronto.

Demonstration of Spirochaeta Pallida, by Dr. E. E. King and J. J. MacKenzie, Toronto.

Symptoms, Diagnosis, Prognosis and Treatment of Neoplasms affecting the Central Nervous System, Dr. D. A. Shirres, Montreal.

Cerebral Tumour simulating Vascular Lesion, Dr. F. G. Finley, Montreal.

Lead Poisoning from a Clinical Standpoint, Dr. W. F. Hamilton, Montreal.

Modern Views on the Therapeutic Value of Alcohol, Dr. A. D. Blackader, Montreal.

The Gopher, a Possible Substitute for the Guinea Pig, Dr. S. W. Hewetson, Pincher Creek.

Dissemination of Disease by Railway Trains, Dr. J. F. McDonald, Hopewell.

The Treatment of Small-pox without pitting, Dr. Archibald Leitch, St. Thomas.

Our Detention Hospitals, Dr. J. D. Page, Quebec.

Atmospheric Humidity in Relation to Health, Dr. A. P. Reid, Prov. Health Officer.

The Prodromata of Insanity, Dr. W. H. Hattie, Supt. Nova Scotia Hospital.

Cerebrasthenia, Dr. D. Campbell Meyers, Toronto.

Case Reports. (a) A Case of Chylothorax; (b) Further Notes on a Case of Myelogenous Leukæmia with Disappearance of Splenomegaly and Myelocytes, Dr. D. G. J. Campbell, Halifax.

Surgical section:

Report of cases of Septicæmia and Pyæmia from a Surgical Standpoint, Dr. W. F. England, Winnipeg.

Case Reports. (a) Recent Fracture of the Clavicle, with Operative Treatment; (b) Rupture of Urethra with Extravasation of Urine; Operation; Recovery, Dr. J. W. T. Patton, Truro.

Case Report: Chorion-Epithelioma, Dr. F. A. L. Lockhart and Dr. B. D. Gillics, Montreal.

The Possibility of Stamping out Cancer, especially of the Uterus, Dr. Laphorn Smith, Montreal.

Exhibit of Illustrations of Radium Treatment, Dr. Myron Metzbaum, Cleveland.

Cæsarian Section, with Report of Nine Cases, Dr. H. L. Reddy, Montreal.

Post-Operative Pulmonary Thrombosis, Dr. Herbert A. Bruce, Toronto.

Tracheotomy as a Remedy in Severe Whooping Cough, Dr. A. B. Atherton, Fredericton.

Experimental Work in Intestinal Adhesions, Dr. Ed. W. Archibald, Montreal.

Can the Vermiform Appendix while itself free from Obvious Lesion be the source of Purulent Peritonitis, Dr. James Bell, Montreal.

The Equipment of the Canadian Army Medical Corps, Lieut.-Col. G. Carleton Jones.

Combination Operation for Radical Cure of Inguinal Hernia, Dr. F. N. G. Starr, Toronto.

The Surgery of the Stomach in Non-malignant Conditions, Dr. Geo. E. Armstrong, Montreal.

The Buried Suture, Dr. J. M. Elder, Montreal.

Mesenteric Cyst with Intestinal Obstruction, Dr. Murray MacLaren, St. John.

Intestinal Obstruction, Dr. M. Chisholm, Halifax.

Indications for Operations in Ophthalmic Practice, Dr. R. A. Reeve, Toronto.

Case Report. Carcinoma of the Lachrymal Gland, Dr. E. A. Kirkpatrick, Halifax.

Discussion in Obstetrics. The Management of the Puerperal State, Dr. Thomas Walker, St. John, Dr. H. L. Reddy, Montreal, Dr. A. A. MacDonald, Toronto, Dr. Eccles, London, Dr. M. A. Curry, Halifax, Dr. D. McIntosh, Pugwash.

The following officers were elected: President, Dr. Alexander McPhedran, Toronto; general secretary, Dr. Geo. Elliott, Toronto; treasurer, Dr. H. B. Small, Ottawa; vice-presidents, Prince Edward Island, Dr. H. D. Johnson, Charlottetown; Nova Scotia, Dr. G. Carleton Jones, Halifax; New Brunswick, Dr. Emery, St. Johns, Quebec; Dr. H. S. Birkett, Montreal. Ontario, Dr. J. D. Courtney, Ottawa; Manitoba, Dr. H. P. Prowse, Winnipeg; North-West Territories, Dr. H. C. McKid, Calgary; British Columbia, Dr. R. E. McKechnie, Vancouver.

Local secretaries, Prince Edward Island, Dr. Simpson, Charlottetown; Nova Scotia, Dr. J. R. Corston, Halifax; New Brunswick, Dr. J. A. Scammell, St. John; Quebec, Dr. Ridley McKenzie, Montreal; Ontario, Dr. Harold Parsons, Toronto; Manitoba, Dr. J. R. Davidson, Winnipeg; North-West Territories, Dr. J. Hislop, Edmonton; British Columbia, Dr. W. H. Sutherland, Revelstoke.

Executive Council, Dr. W. P. Caven, Toronto; Dr. A. A. McDonald, Toronto, and Dr. F. L. M. Grasett, Toronto.

Messrs. P. Blackiston's Son & Co. have favoured us with some advance sheets of A Manual and Atlas of Orthopedic Surgery, by Dr. James K. Young, Professor of Orthopedic Surgery, Philadelphia Poly-clinic. The book will contain 900 pages and nearly as many illustrations. If one may judge from the specimen pages, the book will be a noble volume.

John Lane Company, The Bodley Head, has begun to issue a series of medical and surgical handbooks under the title "The Practitioner's Handbooks." The first volume of the series is devoted to The Rheumatic Diseases, and has been entrusted to J. O. Symes, Assistant Physician and Bacteriologist to the Bristol General Hospital. The second is concerned with Hysteria and Neurasthenia, and is the work of J. Mitchell Clarke, Physician to Bristol General Hospital and Professor of Pathology, University College, Bristol.