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Original Communications.

CYSTIC DEGENERATION OF THE VILLI OF THE CHORION AND ITS RELATION TO CHORION EPITHELIOMA.*

By CHAS. J. C. O. HASTINGS, M.D.C.M., L.R.C.P.I., L.M.K.Q.C.P.I.

This condition is usually known as Hydatid Mole, Hydatidiform Mole or Cystic Mole. Among the earlier writers very extraordinary theories were advanced to explain the probable cause of the condition. The earliest I can find any record of is by Amidi early in the sixth century. For several years the prevalent belief was that each vesicle contained a living embryo as is shown by the interesting quotation of Priestley¹, by Ambroise Pare, in which he refers to the Countess Margaret having brought forth at one birth 365 infants, whereof 182 were said to be males, 182 females and the odd one a hermaphrodite; and it was not until early in the seventeenth century that it was considered to be due to some disease of the ovum. No more definite explanation for the condition was suggested until the beginning of the present century, and then it was claimed that the vesicular condition was due to the presence of the echinococcus. Velpeau² was the first to discover that the cysts were simply the distended villi of the chorion. This was confirmed by microscopic examination by Prof. Robin³, which shewed that the hydatidiform vesicles had all the anatomical characteristics of the walls of the villi of the chorion.

Many attempts have been made to explain the cause of this cystic degeneration, such as hypertrophy, oedema, disease of the blood, vessels, disease of the lymphatics and degeneration of

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

the mucous substances within the villi, continuous with the substances within the cord (Virchow,) and a degeneration of the epithelial cells derived from the decidua which replaces the epithelial covering of the chorion (exochorion). The process usually begins when the villi are equally developed over the whole ovum, that is, before the third month, as after that period the villi of the chorion atrophy over the whole periphery of the ovum.

The disease usually involves the whole chorion, but occasionally the placental portion alone is involved. In these cases the disease began after the atrophy of the villi had taken place over the extra-placental portion of the chorion.

Virchow, in 1853, expressed the opinion that it was a true myxoma of the endochorion, the exochorion not necessarily taking part in the morbid process. This view was universally accepted until 1895, when the investigations of Marchand⁴ demonstrated that it was the epithelial covering of the villi, more than the stroma, that was affected, and that both the syncitium and Langhan's layers of cells underwent profuse and irregular proliferation, penetrating Nitabucks' fibrin-layer and making their way into the depth of the decidua, and occasionally into the uterine musculature as well. At the same time the blood-vessels of the terminal villi disappeared and the stroma degenerated, the cells presenting a necrotic appearance. The fluid contents of the vesicles failed to give the characteristic reaction for mucin, in consequence of which Marchand decided that the condition was one of oedema. This decision, I believe, has been accepted and confirmed by all leading pathologists.

Etiology.—The cause or causes of vesicular mole are not known. Both a fetal and a maternal origin have been suggested, but the weight of authority at present seems to incline towards favoring a maternal causation, considering the death of the fetus as secondary. It is supposed, however, to be caused by a disturbed maternal circulation. Owing to this failure in the circulation the connective tissue of the villi degenerates and a serous infiltration takes place. The proliferation of the syncitium and Langhan's layer being due to their penetrating deeper into the decidua to get adequate nourishment. Syphilis, tuberculosis and endometritis are mentioned among the predisposing causes. Virchow considers the primary factor to be disease of the decidua. In most cases the mother is a multipara and over thirty years of age. In 212 cases collected by Findlay, the majority of them occurred between twenty and thirty years of age. Hydatidiform mole occur in about 1 in 2,000 cases of conception.

Symptoms.—The symptoms usually present themselves before the tenth week; of these there is a group of three which covers.

the entire field. 1st. The evidence of pregnancy. 2nd. The disproportionate size of the uterus, which is usually much larger than corresponds to the period of pregnancy unaccompanied with any evidence of the presence of the fetus, either by palpation or percussion. 3rd. A bloody or sero-sanguineous discharge.

The discharge of vesicles, however, is the only positive sign, but this rarely occurs until the process of expulsion has begun. Moor-Madden⁶ states that before the fourth month it is practically impossible to differentiate cystic degeneration of the chorion from normal pregnancy unless some vesicles should chance to be discharged.

Treatment.—When the diagnosis is established the indication is to empty the uterus at once. The cervix may be dilated with steel dilators or the Barnes bag, and then the finger, aided by the long-handled ovum forceps, should be used for the removal of the neoplasm, but the danger of rupturing the very thin and attenuated walls must be remembered, therefore all intra-uterine manipulation must be gentle.

It is a good plan to make counter pressure over the abdomen while working within the uterus, as the great danger is hemorrhage, which cannot be controlled until the uterus is firmly retracted. The cysts must be cleared out rapidly, followed by the use of hot irrigation and hypodermic injections of ergot. The curette is not safe in these cases, as it may readily perforate the uterine tissue, while its use is sometimes necessary when cysts are imbedded in the decidua, for their thorough removal undoubtedly diminishes the likelihood of subsequent chorion-epithelioma.

The liability to septic infection calls for strict asepsis during the abortion, as well as afterwards, but with the most extreme precautions sepsis may occur, having its focus in a retained cyst.

The cysts sometimes penetrate the walls of the uterus to the peritoneal coat. And a case has been reported of fatal hemorrhage into the peritoneal cavity.

Description.—The vesicles vary in size from that of a small currant to that of a chestnut. Their mode of attachment one to another, makes the so-called resemblance to a bunch of grapes incorrect. They are not attached by the stalks to branches of a main stem, but each vesicle is attached by a pedicle to another cyst, and the first of the series, that nearest the ovum, springs direct from the outer surface of the chorion. The pedunculated structure intervening between the cysts, represents the unaltered tissue of the villi. When the vesicles are discharged separately with the blood-stained fluid, they resemble very closely white currants in red-currant juice.

In some cases the embryo disappears altogether. In a few it may be found, but insignificant and blighted, the degeneration of the villi preceding and determining the death of the embryo. In these there is generally present some portion of the placental structure which is free from vesicular degeneration. From a medical legal standpoint it is important to remember that this condition is essentially the result of conception.

REPORT OF CASES.

CASE 1.—Mrs. W. aged 25 years, primipara, had had a miscarriage about one year previous; and when I was called to see her, I found her in labor, having completed her fourth month's gestation. On examination found the uterus about the size of a six months' gestation; a small vagina; the os far up and slightly dilated and very rigid; some blood escaping from the os; pains quite severe and frequent. After being in labor for about six hours, on going to make a second examination found that some vesicles had escaped which at once explained the character of the case. At this time the patient was losing considerable blood. After some effort I succeeded in getting two fingers through the os and peeling off the mass, which contained only traces of placental tissues; consisting almost entirely of vesicles, varying in size from 2 to 3 millimeters in diameter, to the size of a large sized nutmeg. I carefully palpated the uterine cavity to be sure that all had come away; gave the patient a full dose of ergot. She made an uneventful recovery.

CASE 2.—Mrs. S., aged 30. Second para; one miscarriage. When called to patient found her almost exsanguined; clothing and bedding saturated with blood. Examination revealed a rigid os, slightly dilated; uterus about the size of a three months' gestation. I packed the cervix and vagina with iodoform gauze and had her removed to Grace Hospital, where, under anesthesia, I dilated and emptied the uterus, carefully curetting the whole endometrium, I used the curette in this case, as the uterine walls were not distended beyond that of a normal pregnancy at three months.

Two-thirds of the mass removed in this case was placental tissue, only about one-third having undergone cystic degeneration. The patient made an uninterrupted recovery.

CASE 3.—Mrs. N., aged 28. Second para; three miscarriages. When first called to see this patient she had the appearance of one suffering from malignant disease. She gave a history of having had persistent vomiting for over two months and of being three months pregnant. Patient complained of having had a rather profuse discharge at times from the vagina, which on examination proved to be of the typical

red-currant juice character. I had her removed to Grace Hospital. In this case I emptied the uterus with the finger, not using a curette, as the uterus was distended to the degree of a four months' gestation. The patient subsequently developed a well-marked septicemia. I feel confident that this patient infected herself, as she acknowledged to me having used means to bring on the former miscarriages. She subsequently had abscess of both ovaries, which Dr. Ross and myself removed, after which the patient made an uninterrupted recovery. In none of these cases has there been any subsequent trouble.

Let us now briefly review the most important features in connection with the early recognition, diagnosis and treatment of these cases.

1. *Diagnosis*, three points. (1) Rapid increase in size of uterus out of all proportion to the period of gestation. (2) More or less constant bloody, or better, a red currant-juice discharge. (3) Discharge of vesicles; but this unfortunately rarely occurs before the expulsion begins. This of course is the only pathognomonic sign.

2. *Early Recognition*.—The extreme importance of early recognition, in view of the fact that from 20 to 50 per cent. of these cases are followed by chorio-epithelioma, should be borne in mind. It is practically impossible to distinguish between benign and malignant mole.

Do not use a curette, owing to the attenuated conditions of the uterine walls, and after the uterus is emptied explore the uterine cavity with the finger; irrigate and gently pack with sterilized gauze.

3. Keep the patient under observation for months and even years, and in the event of any suspicious symptoms developing, curette and have the scrapings carefully examined by a competent pathologist.

In connection with hydatidiform moles, we are confronted with two very serious conditions, Primary and Secondary.

Primarily we have the danger from hemorrhage, perforation and sepsis. Ten per cent. of the cases collected by Dorland proved fatal.

Secondarily—In view of the fact that chorio-epithelioma, according to the most careful statistics, is preceded in about thirty per cent. of the cases by a history of hydatidiform mole, every case of this kind should be carefully watched for months after, and if there should be any hemorrhage or offensive discharge the uterus should be dilated and its cavity carefully palpated and curetted, and the contents carefully examined microscopically for evidence of the so called deciduoma maligna, and if found, a hysterectomy performed at once. The early recognition of these cases is most important on account of the danger

of metastasis, found more especially in the vagina, lungs and brain.

The first recognition of this condition, known as deciduoma-malignum, is due to Sänger⁶ in a case reported by him in 1889, of a very malignant sarcoma-like growth of the body of the uterus, arising from the body of the uterus, after an abortion, in about the eighth week. This he looked upon as being peculiar to the gravid uterus, that is, containing decidual tissue, and being sarcomatous in character, and, consequently, called it decidua malignum. Several other cases were reported about the same time by both German and French, of a very malignant character, but did not accept altogether Sänger's explanation of the condition. However, in 1889, Sänger⁷ published his monograph on the subject, in which he divided them into three classes. (1) *Sarcoma decidua-cellulare*. (2) *Sarcoma decidua-celulare* with participation of the chorionic villi. (3) The malignant interstitial hydatidiform mole. These views, however, have proved erroneous, but notwithstanding this, to Sänger is due the honor and merit of being the first to draw the attention of gynecologists and pathologists and paved the way for all subsequent investigation. Gottschalk⁸ was the first dissenter from the views of Sänger and emphasized his views that the growth was primarily of fetal tissue, being essentially a sarcoma of the chorion arising from Langhan's layer. Williams, of Hopkins⁹ and Marchand¹⁰, published articles about the same time endorsing this view, but to Marchand¹¹ is due the credit of having, as a result of a careful study of the histology of the placenta and of Peter's ovum, demonstrated that both the syncytium and Langhan's layer are of fetal origin, and that the growth was true chorio-epithelioma. This opinion was at once accepted by all German and French authorities and Williams, of Hopkins. Notwithstanding this, the British Obstetrical Society, in 1896, still maintained that these growths were merely sarcomata.

The most complete and elaborate description in English of this condition, with a report of nearly 200 cases, is that by John H. Teacher¹² of the Anatomical and Pathological Department of the University of Glasgow, and that masterpiece by Risel, of Leipzig¹³, 170 pages.

Of the 138 cases reported by Teacher, 113 were preceded by hydatidiform mole, 85 by abortion, 68 by confinement at term and 9 tubal or ovarian. Several cases of chorio-epithelioma in teratoma of the testes, which would seem to be further evidence of Marshand's views of the development from fetal ectoblast; also the histogenetic identity of the two layers which invest the chorionic villi, namely, syncytium and Langhan's layers.

In conclusion, I shall give you the summary of the conclusions of Dr. Teacher as taken from his monograph.

1. The so-called deciduoma malignum is a tumor arising in connection with pregnancy, and originating from the chorionic-epithelium (or its fore-runner the trophoblast), which is of fetal epiblastic origin.

2. That these tumors form quite a characteristic group clinically, pathologically and developmentally, and that they should be classified, neither as sarcomata nor as carcinomata, but as a distinct group. The most appropriate name is chorion-epithelioma malignum. Malignant hydatidiform mole may be treated as a variety of this disease.

3. That in addition to the common tumors developing from pregnancy, there are tumors containing precisely similar structures which are not connected with a pregnancy, and may occur in other parts of the body than the uterus, and in either sex. The most probable explanation of them, is that they are teratomata originating from some structure which has the morphological value of an included matured fertilized ovum, and this chorion-epitheliomatous tissue represents the actual trophoblast (chorionic-epithelium) of the included ovum.

4. That special care must be exercised in the diagnosis between cases of hydatidiform mole and chorion-epithelioma arising in connection with that condition.

5. That while the prognosis in all cases of chorion-epithelioma is a very grave one, early recognition, followed by prompt radical operation offers a fair chance of recovery. The fact that metastasis has occurred does not necessarily preclude successful operation, although it materially diminishes the chances of success.

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THE SYMPTOMATOLOGY AND DIAGNOSIS OF SMALL-POX FROM A STUDY OF THIRTY- THREE CASES.*

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The subject is of particular interest to the medical profession, not only clinically, because of its terrible ravages when left untrammelled, but also because it is one of the oldest diseases known to medical writers. It is very ancient, dating back between three and four thousand years.

The earliest references to small-pox are to be found in Hindostanese many centuries before the beginning of the Christian era, and next to these come those of the Chinese, which date from the twelfth century, B.C. To an Arabian physician of Bagdad, about 600 A.D., we are indebted for the first accurate treatise upon the subject. It is also thought to have prevailed in early Greece and Rome and to have been the "pesta magna" described by Galen.

During the Middle Ages little is known of the progress of small-pox in Europe, but that it existed is evident from monastic writings recording miraculous cures that happened. Manuscripts in the British Museum, written in England during the tenth century, contain references to its ravages and prayers used in defence or deliverance from these.

In the Dark Ages little is to be found concerning it, but mention of its virulence and prevalence is to be found. So widespread was it that one writer remarks, "all persons are attacked by it in the course of their lives," while another held "that almost every person must have it once."

From the writings of these it is learned that small-pox was one of the most severe and dangerous diseases to which mankind was subject, and that up to the beginning of the nineteenth century it had descended from generation to generation with undiminished violence, and that every effort previously made to check it had failed. Amongst aboriginal races it has proved to be terribly fatal, especially in the New World. The Mexicans died by thousands, while of the American Indians fifty per cent. fell victims to small-pox. This immense loss of human lives was not the sole evil produced by this disease, for a large proportion of the survivors were pitted and disfigured; some lost one of their eyes, others became totally blind, and

* Read before the Post-Graduate Society of Toronto, April 30th, 1905. The photographs shown have been omitted.

many had their constitutions impaired and predisposed to a variety of other diseases.

In recent times we have the history of an epidemic in Montreal nearly as bad, if not quite, as above cited. There in 1885-86 over three thousand died, making 31.3 per cent. of those affected. Up until 1889 the mortality in Ontario averaged 30 per cent.

From then until the present, however, we have to record the occurrence of hundreds of cases of a much milder type occurring throughout the province. Amongst these the mortality ranged from .50 to little less than 1 per cent., a great drop from previous percentages. The reason of this immense decrease in virulence is not known. Some believe this to be caused by the effect of vaccination, and as shall be shown, vaccination has a marked effect. Dr. Hodgetts believes that the present decrease has been too sudden to be accounted for in this way, and some other reason remains to be discovered.

In the spring of 1903 I took charge of an outbreak of small-pox just west of Berlin. This was an offshoot from the Galt epidemic of that time, which will be remembered as having caused considerable anxiety because of its return to something like the old-time mortality. These cases did not originate from the New Ontario lumber-camps, as have most of the cases in the last ten years, but were traced to one of the Old World seaports, the disease having been brought to New York by a sailor and carried here by someone from the former city.

As a full consideration of variola would make a lengthy paper, this will include only two of the most important phases of the subject, its symptomatology and diagnosis; also some of the most typical temperatures and clinical charts will be presented. Among the cases observed were to be found examples of mild and severe, or discrete and confluent variola, examples of varioloid, a small-pox modified by vaccination, and possibly an example of vaccinia, a small-pox modified by passing through the cow and induced in man by vaccination with bovine lymph, or again by inoculation with bovine lymph containing small-pox virus and secured from someone suffering from small-pox.

True small-pox, variola vera, presents surprisingly varied symptoms clinically, and this fact has in the past led to many errors in its diagnosis.

Speaking generally, the period of incubation has been twelve days, but many cases have been observed exceeding this by two, three or five days; and again others, where a shortage of a similar number of days under the usual twelve has occurred. So that cases are on record with incubation periods extending from eight to twenty days. In one of my cases, the only exposure to infection that could be determined occurred twenty

days previous to onset. During this period nothing is complained of by the patient as a rule, although general malaise and headache may be present.

In recent outbreaks, usually the initial symptoms have been very slight, and often the patients have suffered so little discomfort that it has been hard for them to fix any time for the onset. However, in the severer cases at Berlin, such did not obtain. Usually the patient complained of a chill, perhaps several, in the first twenty-four hours. Following this was the intense frontal headache and severe pains in the small of the back, shooting down into the thighs. These are very constant, and with them vomiting may be associated. The temperature rises rapidly to 103° to 105° or 106° in children, pulse becoming rapid, and patient restless. Called at this stage, the patient presents the condition of one in an acute fever, but nothing diagnostic presents, unless one is put on his guard by the pains in back and limbs which are more severe than in any other eruptive fever.

The fever continues usually from three to four days, the temperature falling to normal, or nearly so, with the appearance of the papules. The mildness or severity of the initial symptoms does not give definite information regarding the severity of the attack.

Preceding the papules are to be seen red macules, minute and disappearing on pressure. These appear first on the forehead and wrist. However, they may be more general, and may assume very closely the appearance of a scarlatiniforme, or again of a measly rash. One case that I saw with the Medical Health Officer had a beautiful scarlatinal rash, which would undoubtedly have been diagnosed for scarlet fever had not the small-pox epidemic been present. In this patient, on the following day, the shotty papular condition was present on the forehead and rendered the diagnosis quite certain.

The typical eruption passes in succession from macule to papule, to vesicle, and to pustule, then drying up and scaling off. In certain mild cases and in varioloid it apparently aborts between the papular and vesicular stages, or between the vesicular and pustular, no suppurative fever occurring, or very slight. Ordinarily on the fourth day macules appear first on the forehead. On the fifth day these are all over the body, and those on the face have become papules and are distinctly shotty to the feel. On the sixth day the papules become vesicles with umbilication, which is indicative of the approaching pustulation, the depression being the point of primary necrosis. The vesicles are multilocular and do not collapse on pricking. On the eighth day the vesicles have become pustules, globular in shape, greyish in color, due to pus. The surrounding skin is injected and swollen.

The vesicles and pustules vary in size from a good-sized pin-head to that of a split-pea. Usually circular in shape, and with an elevation about equal to the radius, so that they are really half-spheres. If there is a tendency to become confluent, these will present various shapes and those close together will unite and form larger ones, varying from the size of a nickel to a quarter, or even larger, in the very severe cases. The elevation does not increase with the size.

In the palms of the hands and the soles of the feet the vesicles may be from six to seven days later in appearing than on the rest of the body. This may not be mentioned elsewhere, but it obtained in these cases, especially in adults, and of those more noticeably in the ones with epithelium thickened from manual labor. A day or two before appearing apparent tightness and soreness is complained of, but later they give rise to a good deal of pain as well, and the patient is very particular to protect them from anything that might press upon them. The late appearance is probably due to the thickening epithelium and the pain to the tension resulting from the effort to get through.

Following the initial rise and the fall, which is usually on the fourth day, the temperature commences to rise again about the sixth or seventh days and may be long or short, according to the severity of the case. Often there is no stationary period whatever, the temperature rising again immediately as the initial fall is completed. This constitutes the secondary or suppurative fever, and with it the general symptoms return. This usually ranges from 101° to 103° , and lasts about five days or more. On the twelfth day pustules begin to dry and scale off. By the fifteenth day desquamation may be advanced. However, in one case the maturation fever attained to 104° and lasted about two weeks. The tenth day usually sees it at its height. The face and neck become greatly swollen, the latter practically disappearing in some.

The pustules instead of remaining discrete may become confluent. This rarely, if ever, occurs elsewhere than the face and possibly the backs of the hands. The cause is this, as above described, only more severe, both in initial and secondary symptoms. Delirium is likely to occur about the tenth day, but may earlier. Haemorrhagic symptoms may develop, and death occur, patient comatose previously, with pulse gradually becoming feebler and more rapid.

Text-books describe a form called haemorrhagic small-pox, or black small-pox. In the Montreal epidemic there were twenty-seven cases. In this the illness starts with the usual symptoms, but with more intense constitutional disturbance. Mucous and conjunctival haemorrhages occur. Hematuria,

haematemesis and meleana may be noticed. Bleeding into the pock in the vesicular stage may also occur. The earlier the haemorrhage, the poorer the prognosis. I had no cases that could be called distinctly haemorrhagic, although in two of them bleeding into the pocks on the hands and face occurred. Otherwise these patients were not different from the others.

With the severer cases a most troublesome complication is involvement of the eyes. Vesicles appear on the conjunctiva of the under surface of upper and lower eyelids, and may appear even on that of the eye-ball. A catarrhal and purulent conjunctivitis is the result, and it may go on to keratitis, with ulceration and perforation.

More frequent even is the sore throat. This is really a symptom rather than a complication, for in all ordinarily severe cases the buccal mucous membrane has vesicles upon its surface as elsewhere. These may involve the pharynx and larynx as well.

Boils may make their appearance during convalescence. In two of these cases they were present and were very troublesome, keeping the suppurative fever from falling as rapidly as it should.

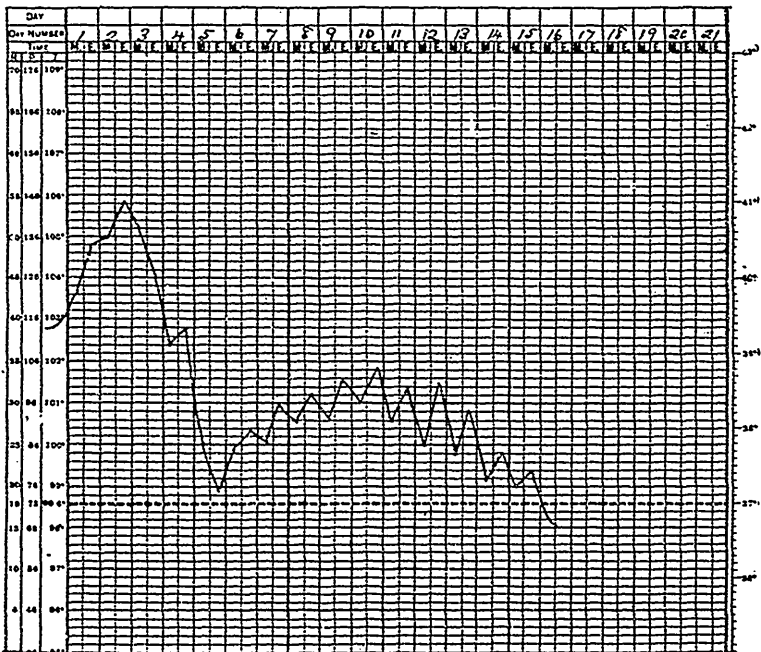
Delirium may be present. In children it is usually limited to the first or initial fever. In adults, that of the early fever may persist, continuing on into the suppurative fever stage, as in two of these cases. It may even become violent, and finally end in coma and death, as in one of these cases.

Usually, early in the third week the pustules begin to break, allowing the pus to exude and dry into crusts, which later fall off. This commences on the face and travels to the rest of the body precisely in the same order as the eruption appeared. In mild cases the secondary fever subsides, and encrustation is complete in the third week. In severe confluent cases it may require one or two weeks longer. Especially slow is this process in the tough epidermis of the hands and feet.

The disease is contagious from the first appearance of the eruption; and possibly earlier. The virus is reproduced most strongly in the skin lesions, but is present also in the secretions and excretions, as well as in the exhalations from the lungs. The virulence of the contagion is said to be in direct relationship to the severity of the attack, although it is well known that severe attacks may result from exposure to varioloid. Probably a great deal depends upon the degree of susceptibility of the person exposed. Merely entering a room for a few seconds where a small-pox rash is present will often suffice to cause an attack, while again others may live in the same house with a case for weeks before developing it, or may even never develop it.

There appears to be a relative immunity ranging from zero where no protective influence exists to that of complete, where patient will not develop the disease. This latter may be natural, as is recorded by some writers who have observed this to obtain. Usually, however, it is secured artificially, either by vaccination or inoculation, or naturally by a previous attack of the disease. None of these are absolute, however; in fact, attacks of small-pox quite often follow varioloid, even within two months, if the patient is re-exposed.

To illustrate the facts above cited regarding variola vera, both discrete and confluent, the following cases will be outlined,



four in adults, two discrete and two confluent, and two in children, discrete :

CASE I.—Variola vera, discrete form, is interesting, showing, as it does, the very high initial rise in temperature, rapid fall, and immediate commencement of the suppurative fever. The extent and severity of the delirium is unusual.

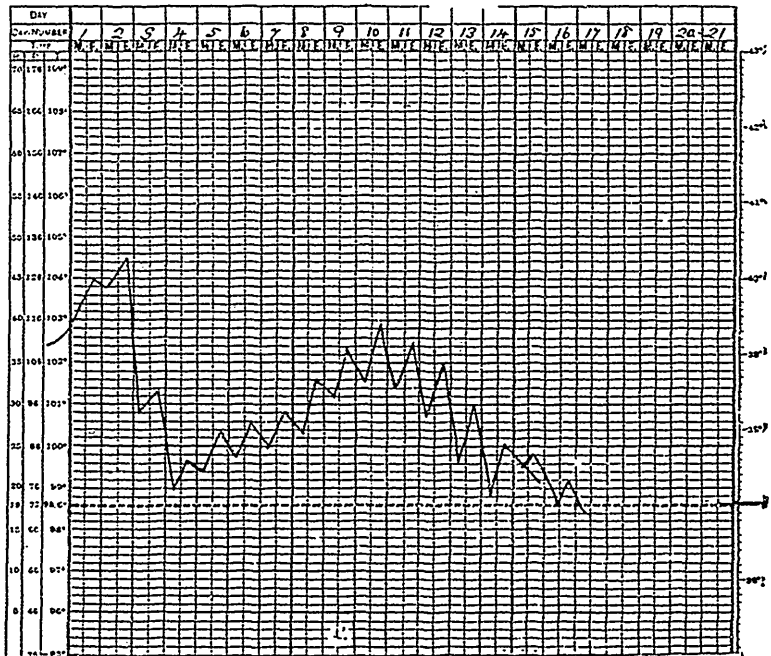
Patient, female; aged 16; unvaccinated. Twelve days after exposure patient fell ill with headache, backache, shooting pains in limbs and nausea. No prodromes.

2nd day.—Temperature very high, 105.8; pulse, 140; respirations, 50.

4th day.—Temperature falling rapidly, and patient becoming delirious.

6th day.—Patient very delirious; papular shotty rash present on face and arms; temperature commencing secondary rise, having been normal on fifth day, as per chart; eruption discrete.

8th day.—Patient quieter; pulse, 136; eruption vesicular on face and hands; papular on body; eye-lids swollen; few vesicles on conjunctiva; not many in mouth.



10th day.—Eruption in late pustular stage on face; early pustular on body; eyes much better; still quite delirious; suppurative fever well marked.

12th day.—Scabs drying on face; pustules breaking on body; patient becoming rational.

16th day.—Patient feeling well; desquamation proceeding on face and body; temperature normal.

CASE II.—Variola vira, discrete form, but more severe than the preceding case, was marked by the following features:—exceptionally long incubation period with such mild prodromes as slight headaches, general pains and malaise during the last

week, very severe initial symptoms, an early scarlatiniforme rash, and the late appearance of the eruption on the palms of the hands and on the soles of the feet:

Patient, male; aged 40; unvaccinated. Twenty days after the only-known exposure patient developed a severe headache, with great pain in back, shooting into loins; nauseated.

2nd day.—See chart. Temperature, 104.4; pulse, 120; respirations, 26.

4th day.—Temperature falling and patient easier; macular rash on face and hands of scarlatiniforme type; would probably have been diagnosed for scarlatina but for presence of epidemic.

6th day.—Eruption papular and quite shotty; present on face and hands; also plentiful in the hair.

8th day.—Eruption vesicular on face; many umbilicated; papular on body.

10th day.—Eruption pustular on face and arms, and very numerous, some almost confluent; vesicular on body; lower part of face swelling; eyes free, but throat slightly sore.

12th day.—Face in late pustular stage pustules nearly ready to burst; lower part of face greatly swollen, and neck not recognizable as such; maturation fever well established; palms of hands and soles of feet getting sore; pulse 115, but good.

14th day.—Pustules on face breaking; neck and face not so swollen; pustular on trunk; shotty elevations appearing on palms and soles practically a week after their appearance elsewhere; very sore and painful.

16th day.—Temperature falling; face scaling; swelling gone; pustules breaking on body; eruption on palms and soles vesicular but filled with blood instead of serum; patient comfortable.

18th day.—Scaling and crusting proceeding rapidly; temperature normal. Some days later eruption on palms and soles began to dry up. If left alone they would not have scaled inside of three weeks longer, but patient dug them out with a knife a little later.

CASE III.—Variola vera, confluent form, and very severe. In this case the eruption apparently never reached the pustular stage, but presented as huge bullae unilocular and filled with a sero-sanguineous fluid.

Patient a female, aged 35; unvaccinated. Twelve days after exposure patient became ill with severe headache and strong shooting pains in back and thighs. Nauseated also.

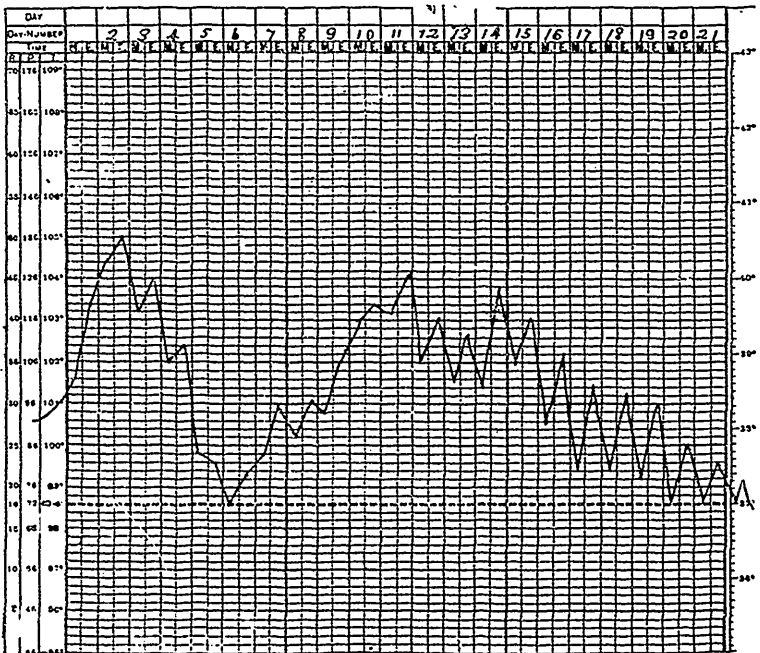
2nd day.—Temperature, 105; following day, 104. Pulse, 120; respirations, 33.

6th day.—Temperature normal, and rash appearing as papules on face and hands only. Quite shotty.

8th day.—Suppurative fever commencing. Eruption papular on body; vesicular on face.

10th to 12th days.—Secondary fever at its height. Eruption pustular and confluent in face and hands. Many were as large as a dime and others as a quarter, and were filled with serum, making them appear as large blisters. These were unilocular, and collapsed on being pricked. Throat quite sore from presence of eruption in mouth and pharynx.

14th to 16th days.—Eruption breaking on face and commencing to dry. On body pustular and quite confluent, which is unusual, usually being limited to face and hands. Throat improving. Suppurative character of fever well shown in chart.



18th to 20th days.—Scabs all off of face, and mostly off of body. Patient felt well. At this time it was possible to gather at any visit whole handfuls of scales from the sheets. After scaling, face and forearms had a lobster-like appearance. The eruption was so markedly confluent, and so large and numerous, that little or no skin remained free on trunk or face and arms. No scarring probably resulted, as they were chiefly serous, and true skin did not appear to be involved.

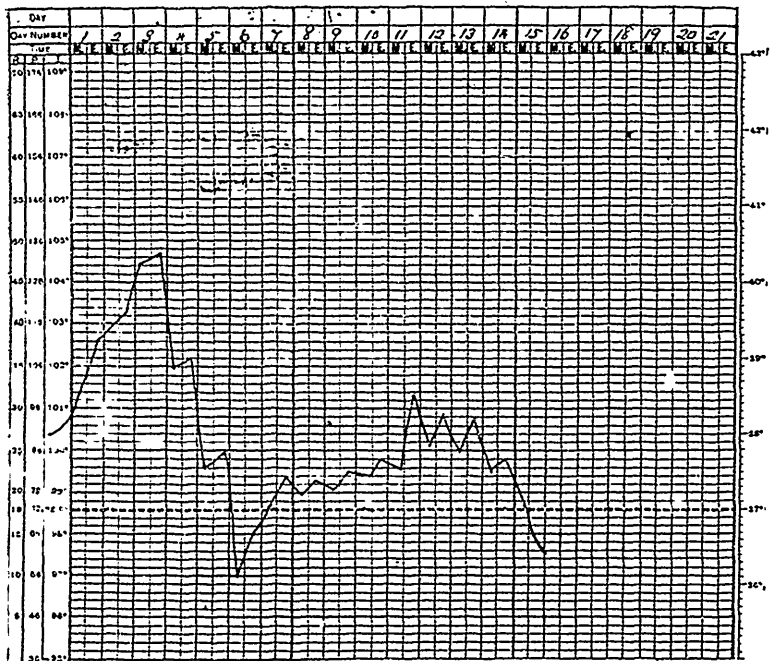
CASE IV.—Variola vera, confluent. Very severe, and ending fatally. Delirium commenced as initial fever was falling and

eruption appearing, and continued throughout, becoming violent about 11th day and then passing into coma. Eyes and throat very very bad. Eruption in pustular stage did not dry, but became putrescent with a terrible odor.

Patient, male, aged 39, unvaccinated. Ten days after exposure patient complained of headache and general malaise.

2nd day.—Very severe backache extending to extremities; bad headache; nauseated and vomiting. Initial fever, 105.6; pulse, 106; respirations, 30.

4th day.—Fever falling rapidly; patient commencing to wander.



6th day.—Temperature subnormal, as per chart. Pulse, 69; respirations, 18. Papular shotty rash appearing on face and backs of hands.

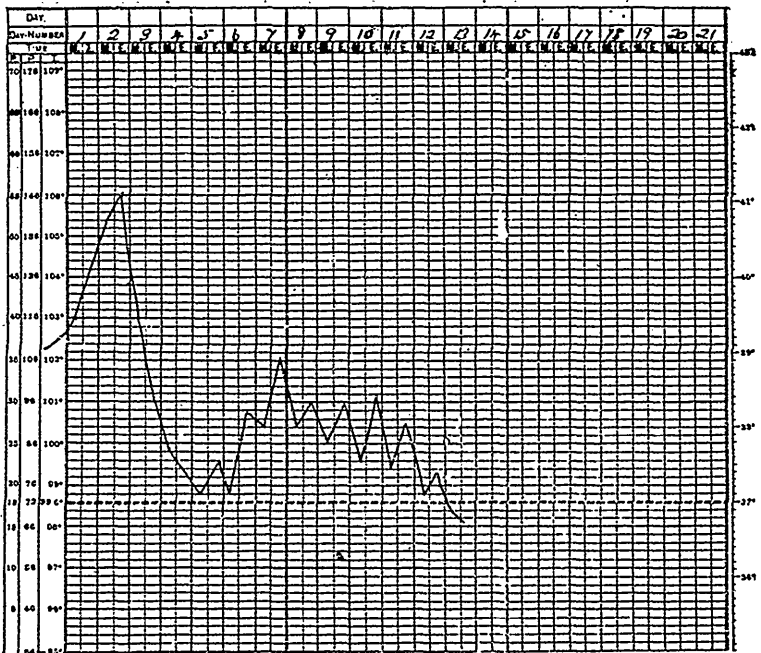
8th day.—Suppurative fever commencing. Eruption pustular and confluent on face; vesicular on arms and papular on trunk; scalp full of pustules; eyes having several on conjunctiva; throat involved; patient quite delirious.

10th day.—Eruption pustular all over; breaking on face and scalp; eyes discharging pus, but cornea clear; maturation fever at its height; pulse, 125, and of poor quality.

12th day.—Eruption drying on face and arms, and breaking on body; patient violently delirious, but getting much weaker; pulse rapid and feeble; keratitis and iritis added to the suppurative conjunctivitis; patient unable to swallow.

16th day.—Pustules all broken but not drying as they should; odor very bad, that of putrefaction; patient comatose; pulse, 130, and very feeble; temperature subnormal; patient dying of intoxication by small-pox virus.

The foregoing has been a consideration of small-pox in the adult. In children the disease is usually milder in its effects, and runs a shorter course if uncomplicated. The initial rise



is higher, going to 106° or more; falls more rapidly, and with its fall appears the eruption. It has been noticed by some that the higher the initial rise the lower the secondary fever. This is more likely to obtain in the case of children. The eruption may be very plentiful but is rarely confluent, and goes through the various stages more rapidly. The initial symptoms are not so marked, except for the vomiting, which is usually more constant than in adults. The older the patient if unvaccinated, the more severe will the disease be if attacked, and according to this rule, children take it less severely. In illustration two cases are cited.

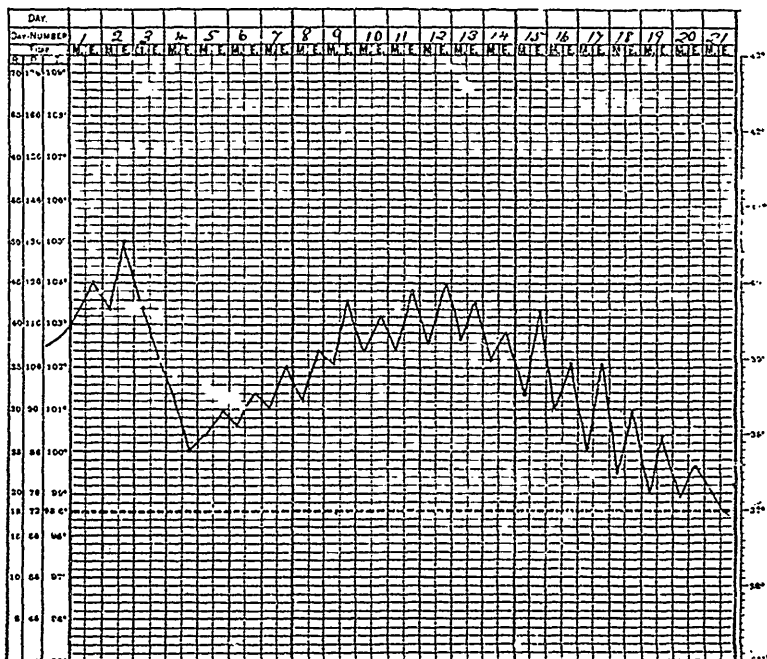
CASE V.—Variola vera, discrete, shows the very high initial rise, rapid fall, and rapid development of eruption, all over in less than two weeks.

Patient, male, aged 4; unvaccinated. Nine days after exposure patient taken ill with headache and vomiting of mucous. Fever 104, as in chart.

2nd day.—Maximum temperature; vomiting ceased.

4th day.—Temperature falling, and macular rash appearing on forehead.

6th day.—Eruption papular on face and hands; discrete but quite thick.



7th day.—Eruption vesicular on face; papules appearing on trunk.

8th day.—Eruption pustular on face; vesicular on trunk.

10th day.—Pustules broken; scabs formed; those on face falling off; temperature normal, and patient feeling well.

CASE VI.—Variola vera, discrete, also shows a high initial rise and rapid fall, but the suppurative fever is very marked, owing to a complication by boils.

Patient, male, aged 7; unvaccinated. Eleven days after exposure patient taken ill with high fever, headache, backache and vomiting.

2nd day.—Fever 105°, as per chart; pulse, 150, and respirations, 46; also delirious, which continued until fourth day, when temperature was falling and rash appearing.

6th day.—Eruption vesicular on face and hands.

8th day.—Pustular on face and hands; vesicular on trunk; eye-lids swollen; maturation fever well established.

10th day.—Pustules breaking on face; becoming pustular on body.

12th day.—Scaling on face; scabs forming on body; eyes better; patient feeling fairly well, but suppuration fever up to 104°.

16th day.—Fever remaining up, and several boils developing on body and legs.

20th day.—Suppurative fever falling and scaling completed, but boils still troublesome.

24th day.—Boils disappearing and patient feeling well.

The above description of the course of the disease and of individual cases is as I found it, but it must be remembered that a large percentage of the cases occurring in the province are much milder and form what some have wrongly called modified small-pox, and yet unvaccinated so that the term is quite misleading. Many of these very closely resemble true varioloid cases.

In these the prodromata are mild and insidious from a passing malaise to headache, and more or less severe headache. Many describe it as simulating la grippe more than anything else, and have followed their usual occupation throughout the whole progress of the disease.

On the third day or sooner the temperature drops to normal or subnormal, the eruption appears and thus ends for many their sickness.

The eruption appears first as macule and so on, and involves the body in the order as above described. The progress from one to another is more rapid however, and at any stage is liable to cease, the rash aborting. Many of the macules may not become papules, while these may not become vesicles, of which in turn a number will abort before becoming even slightly pustular.

The rash is always discrete and the individual papules may be far apart, a limited number only appearing.

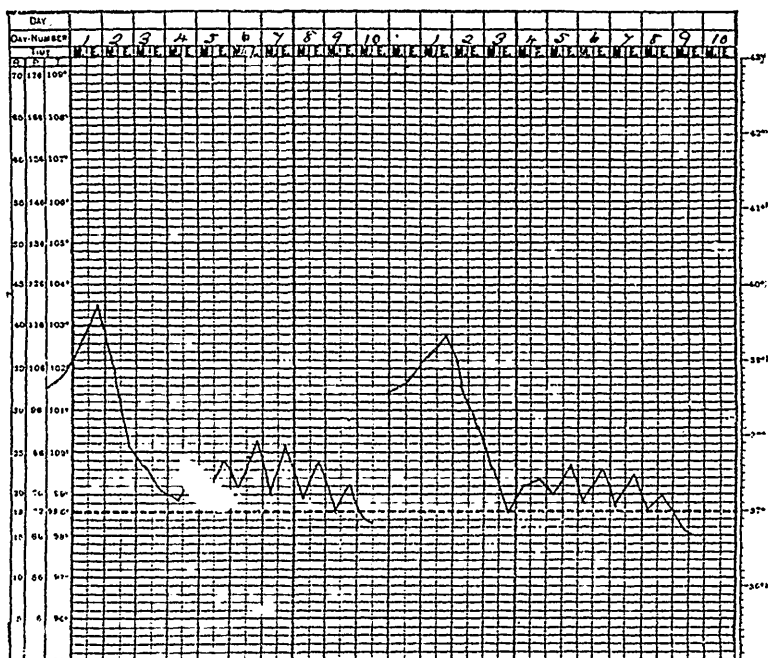
Among individuals exposed to the same contagion, some will take it very severely and others very mildly. In illustration of this mild form of variola vera, the first temperature of chart may be taken.

Patient, a male, aged 20, unvaccinated. The initial symptoms were slight. Temperature fell rapidly and eruption appeared

early and ran a short course, several of the papules and vesicles absorbing. Patient never ill.

Varioloid, the form of small-pox affecting persons who have been vaccinated, is often still milder than the last case cited. It may set in with severe headache and backache, but more commonly the initial symptoms are very mild. The papules are usually few in number and confined to face and hands, appearing on the third day. Vesiculation and maturation is rapid and often no secondary fever occurs.

Of the three cases in this series, all were very mild, not equiring to go to bed. Some slight headache and dizziness



was complained of, and in two of these only a very few papules appeared, and would never have been called small-pox aside from an epidemic. The other case, whose temperature line appears as the second figure in chart above, had perhaps two dozen papules on face. These rapidly became vesicular, then pustular, drying up and falling off in from seven to eight days.

Vaccinia, the form of small-pox modified by transmission through the cow or the horse, and induced in man by inoculation or vaccination with the animal lymph, creates a protective immunity lasting from ten to fifteen years or longer. On the

third day, in a typical case, a papule appears at site of vaccination. This reaches the pustular stage about the end of the second week and by the end of the third week will have formed a scab ready to separate. If the patient was very susceptible, a severer form may occur in which, beside the initial pock, artificially produced, several others exactly similar to those of true small-pox may appear in the neighborhood. In fact, if very severe, these may also appear on the body as well. One of the adults vaccinated while in quarantine, exhibited a fairly severe vaccinia. Beside the pock, at seat of vaccination, several others appeared on the arm which was very red and inflamed. Patient was quite ill.

Vaccination is of no avail unless performed sufficiently early for its effect to be produced before the commencement of the incubation period. Several patients were vaccinated during the incubation period, there being no way to determine whether they had contracted smallpox or not, although exposed. The vaccinia pocks, two or three as the case might be, took their usual course, and during their development the ordinary variola rash appeared and seemed not to be effected at all by the former.

While in the unvaccinated in former epidemics, the mortality has been 35 per cent., that of the vaccinated was reduced to 8 per cent.

In the present instance, of the forty-five persons under quarantine, thirty were unvaccinated, and everyone of these was attacked, the adults much more severely than the children. Of these thirty attacked three died, making the mortality 10 per cent. The fatal cases were all in adults.

Of the fifteen vaccinated only three were affected, and that very mildly as we have seen. Not one of the fifteen had been vaccinated within ten years and others not within twenty, while of the three attacked, one had not been vaccinated within thirty years. This goes to prove the great value of vaccination as a preventive of small-pox, and would lead one to believe the immunity so created to be of value even for thirty years. It may not necessarily render one absolutely immune, but it will render the disease much less severe if attacked. Of the fatal cases in the unvaccinated under consideration, the patients were between thirty-five and forty-five, while two of the varioloid cases in the vaccinated were over fifty and hadn't been vaccinated inside of ten years. The comparison between the severity in the one and the mildness in the other, who were also older subjects, proves the value of vaccination as a protection. In the literature upon the subject very convincing statistics are given regarding vaccinia. It is also proved that the greater the number of cicatrices the more absolute is the immunity.

Seven years has been given as the duration of immunity secured by a successful vaccination. However, if an outbreak should occur, it would be wise to be re-vaccinated in any case. If a successful take results, one was not immune. The greater the reaction in vaccinia, the greater would have been the danger from variola if attacked.

Therefore, those opposed to vaccination because of the discomfort and soreness of the arm entailed, if vaccinated, and a very sore arm and some constitutional disturbance result, ought yet to be correspondingly grateful, for had variola been contracted the probability is that they would have succumbed to its effects. This is, of course, debarring those cases in which infection of the arm results either from poor lymph or carelessness at time of vaccination, or later at vesicular or pustular stage of pock from improper dressing. All are usually very careful to dress arm properly at time of vaccination, but many do not wear any protective dressing whatever thereafter. The vesicle is easily ruptured and a channel for infection opened up.

Of late years the diagnosis of small-pox has been rendered extremely difficult because of the lack of opportunity for studying it clinically. The mildness of many cases in recent epidemics has also led to many errors.

Among the eruptive fevers, measles, scarlet-fever, and vari-cella will require to be excluded, and of these the last-mentioned will give the most trouble. Primary cases are the hardest to determine, of course, but during an epidemic the severity of the invasion or initial symptoms ought to put one on guard. The high temperature rapidly attained, severe headache, and especially the pain in small of the back and running into thighs, is very characteristic. These are more severe than in any other condition.

The early scarlatinal rash of small-pox may simulate scarlatina very closely, but it is not so widely distributed nor does it exist so long, that of small-pox becoming papular within twenty-four hours. Ordinarily, incubation is only one-third as long in scarlatina. The initial rash may also resemble measles, but here the character of the prodromes, coryza, conjunctivitis and rhinitis will assist. Koplik's spots may also be looked for.

Chicken-pox, being much like small-pox, most frequently leads to error. In the mildest cases it may be impossible to tell without referring to other and more severe cases for something diagnostic. The following are the chief characteristics distinguishing the two:

Chicken-pox is chiefly confined to children, being only occasionally seen in adults.

In it the prodromes are but slightly marked, and often are entirely wanting.

The eruption of varicella is more abundant on the trunk than elsewhere, and often appears first on those portions of the body covered by clothing. While in small-pox the eruption is much more apparent in the face, and then the hands, than elsewhere, and always appears first on these parts.

Chicken-pox rapidly runs its course, usually in about one-third the time small-pox requires.

The eruption rarely has the shotty feel of small-pox in the papular stages. The vesicles are more superficial, and the skin between them is not so inflamed and infiltrated. They are unilocular and collapse on pricking. They become pustular much more quickly than do those of small-pox. After desquamation there usually is no scar, and they leave a red rather than a pigmented spot.

Speaking generally, it may be said that a mildly febrile eruption appearing without prodromal symptoms, and desiccating on the second or third day, should be regarded as varicella, while an acute eruptive fever with distinctly high temperature, severe headache and backache, and an eruption going from papules to vesicles and vesico-pustules, should be regarded as small-pox.

In some recent cases medical men have persisted in diagnosing small-pox as *impetigo contagiosa*. The chief points in differential diagnosis of this disease are:

It is a skin affection, rarely accompanied at any stage of its progress by an elevation of temperature.

There are no initial symptoms.

Does not begin as a papule but as a vesicle or vesico-pustule, and appears chiefly on the exposed parts—face and hands.

Crusts appear as if stuck on, being very superficial. They are very friable, and upon removal the base is covered with pus. After healing there is no scar.

Spreads by inoculation either in others or in the same individual, the infecting material being carried by finger-nails usually.

The rash of secondary syphilis may resemble variola. It is ushered in by fever and accompanying pains and aches, making the resemblance more complete. The distinguishing points are these:

The slight amount of rash on face as compared with the body.

Papules have not the shotty feel.

History of initial lesion, and upon examination other syphilitic symptoms usually can be found.

Unfortunately, small-pox has also been diagnosed as acne. Acne is a skin affection occurring usually at puberty. In it there are no initial symptoms. Eruption has a black central

dot in each pustule and occurs chiefly on face, shoulders and back.

Cerebro-spinal meningitis has been mistaken for hemorrhagic small-pox. Pustular glanders has also been confused with this disease, as has also urticaria papulosa.

In conclusion, it must be said, that the diagnosis is not easy, nor are the opportunities common for studying it clinically. Errors in the detection of small-pox have been very common and a plea should be made for a closer study of the subject towards which end, I hope, the above may be found helpful.

Progress of Medical Science.

MEDICINE.

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

The Uses of Roentgen Rays in Medical Practice.

According to Innemann (*Berlin klin. Woch.*), one of the most important uses of Roentgen Rays in medicine is in the controlling of the effects of accidents, in cases when claims for compensation are made. He considers it necessary to prepare a skiagraph in every such case, but inasmuch as badly-produced pictures lead to confusion, the photograph should be carried out by a skilled Roentgographer. He gives some examples of wrong deductions having been made from faulty pictures. It is also necessary for the person controlling such cases that he be acquainted with all possible abnormalities of the skeleton. As an example, he cites a case in which the existence of a so-called "os intermedium cruris" gave the impression that a fracture was present. Sesamoid bones must also be recognized as such. The existence of splinters of metal damaging bones can be recognized, but one must at the same time be careful to determine whether there is any independent disease of the bone, which has nothing to do with the accident. Sarcoma, syphilis and tuberculosis may affect a bone which becomes injured. He points out that one must consider if the functional damage is in proportion to the supposed cause. Again, it requires a very careful judge to determine whether a healed fracture has left any avoidable laming behind. It is extremely rare to come across an ideal union of a fracture when seen in Roentgograph. In medical jurisprudence also the use of X-rays are of importance. As instances, he speaks of a case in which, although the accused stated that he only fired one shot, five bullets were found in the skull, and in another case a small portion of the blade of a knife was seen in the interior of the skull, proving that the stabbing had been carried out with a knife. Another very important point in jurisprudence can be cleared up by means of the rays. In judging whether an infant has died during or after the birth, or whether it was capable of existing (in fetal life) apart from the mother, an X-ray photograph will be able to settle at once whether the fetus has passed the thirtieth week, after which it is believed to be capable of independent life by attention to the skeleton. The ossification

centre in the distal end of the femur first appears at this time, and can readily be detected by these means. The lungs of a newborn infant which has not breathed show a shadow, while those of an infant which has breathed does not do so. If the lungs have been artificially blown up, one sees transparent portions near the main bronchi. For the military surgeon and for the medical referee of a life insurance company, X-rays, too, are of great importance. Beside changes in the skeleton, the rays are able to demonstrate earlier than other methods of examination the existence of disease of the lungs and aneurysm of the aorta. The chief point which he emphasizes is that the examination must be entrusted to one well practised in skiagraphy.—*British Medical Journal*.

Rest as a Curative Agent.

The therapeutic value of rest in the medical management of acute inflammatory and infectious processes is not fully appreciated. Its effect on the circulation is significant. The average daily output of energy by the heart is 400,000 foot pounds; by simple rest in bed it is possible to save the heart a daily expenditure of 50,000 foot pounds of energy. The faster the heart beats the less time it has for rest—that is, the sum total of the periods of rest or diastole is much greater when the pulse is, say, 70 per minute than when it is 120 per minute; so that decreasing the pulse-rate saves the heart. Again, in the recumbent position this organ is saved the labor of elevating that part of the blood which goes to parts above its own level. Rest of the voluntary muscles is still more important. An immense amount of energy evolved in muscle movement is conserved by rest in bed. Muscle rest also secures rest for the motor neurones. The larger part of the nervous system is relieved of its work when the muscles are dormant. Decreasing the output of energy relieves the digestive, assimilative and eliminative organs of a corresponding amount of work.—*G. Wehrle, in Therapeutic Gazette*.

The Treatment of Appendicitis.

Maragliano (*Gaz. d. Osped.*, March) pleads strongly for operation in every case of appendicitis, no matter what stage the disease is in. When one considers the large variety in type in cases of appendicitis, the possibility that even a mild case may suddenly change, within a few hours or less, and become alarming, he considers operation is the only logical treatment. Those cases which would have got better if left alone are none the worse for operation, and some of the cases which are lost from too late operation might be saved. He, of course, recog-

nizes the fact that a very large number of cases of appendicitis get perfectly well under medical treatment, and that some of these may be successfully operated upon in the quiescent stage—that is, after the acute symptoms are passed. But, on the other hand, if one waits until the acute symptoms have subsided, there is no doubt some cases will never survive, and the chance of operation has gone by forever. Moreover, under his teaching no one need ever lament that surgical aid has been employed too late; on the other hand, he is perhaps too optimistic as to the practically harmless nature of the early surgical interference he advocates. Further, he suggests that the control of the question of operation should be left entirely to the physician, who, on his part should obtain surgical assistance in every case of appendicitis as soon as it is diagnosed, and insist on immediate operation.—*Brit. Med. Journal*.

Clinical Examination of the Urine.—Cabot (*Jour. A. M. A.*) has made a critical study of the commoner methods of urinary analysis, and compared the clinical diagnosis with the pathological findings. His conclusions are that in many cases marked urinary anomalies may exist without demonstrable changes in the kidneys, and also that there may be sometimes serious lesions of the urinary organs, which cannot be detected by the analysis of the urine. Albumin may be present in large amounts and yet at *post-mortem* the kidneys are perfectly normal. "Our clinical inferences," he says, "from the amount or percentage of albumin to the anatomic lesions in the kidney are often far too direct." Fatigue for instance, not usually classed as a disease, is capable of bringing into the urine a quantity of albumin and casts equalling that found in the majority of cases of anatomical nephritis.

A great number of useless urea estimations are made. We are apt to forget that the amount of urea excreted in the urine depends not merely on the functionary power of the kidney, but also on the amount of nitrogenous food absorbed, and on the catabolism of the whole body. The output of urea is also affected by exercise, the free ingestion of water and disturbances of digestion. A rough estimate of the power of the kidney may be quickly formed by noting the specific gravity and 24-hour quantity of urine. The quantitative estimation of the other urinary solids are useless to the clinician.

Hyaline and granular casts in small numbers are found in healthy urine, and more than two-thirds of all persons over 50 years of age pass urine containing a slight trace of albumin with casts.

Cabot concludes that the most reliable data about the urine

are the most simply and quickly obtained—the twenty-four hour quantity, the specific gravity and the color.

Long has found (*Jour. A. M. A.*, April 1) that the average volume of 1500-2000 c. c., as usually stated, is too high, and the specific gravity is correspondingly low. He found in twenty-four healthy men an average of 1,167 c. c., with extremes of 765 c.c. and 1,950 c. c. The average specific gravity was 1,025. This bears out what most life assurance examiners in this country have often commented on.

F. A. C.

Salt and Bright's Disease.

It has several times been put forward that sodium chloride taken in excess is injurious to the subjects of Bright's disease, and alleviation of the conditions arising in the course of that disease has been procured by exclusion of sodium chloride from the diet. It is still a question, however, whether the ingestion of excessive quantities of the salt may act as a causative factor in the production of the disease. It is true, as Castaigne showed, that the administration of large quantities of salt may occasionally give rise to a passing albuminuria; the failure to produce this effect in the majority of cases made, however, the observer suspect that where it occurred there was already a lesion, or at least a predisposition of the kidneys. More recently, Silvestri has collected several cases where young subjects, owing to a peculiar craving, consumed large quantities of salt, and subsequently developed typical parenchymatous nephritis. He believes the sequence to be casual, and he thinks that the lesion of the kidney is due primarily to irritation of the epithelium during the elimination of the salt.—*Medical Press and Circular*.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. McILWRAITH, FRED. FENTON AND
HELEN MacMURCHY.

Puerperal Fever

The March number of the *Practitioner* (English) was devoted entirely to Puerperal Fever. In our last issue we published its article on "Asepsis" in the Rotunda Hospital, Dublin, by Dr. Tweedie, the master. The Dublin School is essentially practical, and its methods are always of interest to the obstetric world. There is considerable difference of opinion as to the best methods of preparing the hands for obstetrical work. At the Rotunda the hands are first washed with soap

and water, and then immersed in a 1-500 sublimate corrosive solution for one and one-half minutes. This treatment was adopted in the Burnside Hospital, Toronto, several years ago, but as the corrosive solution had such a bad effect on the skin, lysol was substituted for the corrosive solution for the hands, while the latter solution is now used chiefly for the vulvar dressings. After cleansing the hands, finger stalls or rubber gloves are generally used in Dublin. Rubber gloves have their advantages as well as their disadvantages, but should always be at hand and should always be used in cases of infection.

We are told by Dr. Tweedie that great attention should be paid to lacerations of the perineum, tears of half an inch being counted of sufficient importance to stitch. We think it unfortunate that British obstetricians do not pay more attention to repairs of injuries of the pelvic floor, which are frequently of more importance than the lacerations of the perineum. The placenta is not interfered with until the uterus by its unaided efforts is expelled out into the vagina. We learned many years ago the importance of "watching the uterus" during the third stage. We presume that Dr. Tweedie still considers this important, although we understand that certain British obstetricians have gone to the other extreme, and pay no particular attention to the uterus for twenty minutes after the expulsion of the child. Violent kneading during this time is harmful, but we should take care that clots are not allowed to collect in the uterine cavity. When they are present they should be carefully squeezed out of the uterus, as they generally may be without causing premature separation of the placenta.

Dr. Tweedie tells us that one nurse has charge of three patients and their respective babies. We think our Burnside authorities should carry out a similar rule both in the interest of the nurses who are overworked and the patients who require proper attention.

In cleansing the genitals night and morning a buttock-pan (special design) is placed beneath the patient who is thoroughly washed with soap and water by means of sterile wipes carried in the direction from the pubes to the anus. In the event of high temperature or other symptoms of morbidity the forceps is employed by the nurse in charge for holding the wipes. It was formerly the rule at the Rotunda in estimating the morbidity to consider a temperature of 100.8 as the highest normal limit during the puerperium. Recently it has been considered that such a rule as an indication of morbidity is unreliable. They now consider a temperature rising after the first twenty-four hours and remaining above 99° for two consecutive days with a pulse rate of over 89 an indication of morbidity. The latter rule is perhaps better than the former, but neither is

good. In the first place either rule is narrow because two symptoms only are mentioned, while others equally important—such as headache, restlessness, wakefulness, chilly feeling, indigestion, etc., are overlooked. In the second place, when abnormal symptoms arise, no matter how slight they may be, there is no reason why the accoucheur should wait for forty-eight hours before commencing active treatment. In our opinion he should not wait one hour, but should immediately commence fairly active eliminative treatment. It is well enough in connection with the symptoms to get a bacteriological report, but that is a matter of quite secondary importance. The main thing is to commence the treatment at once without waiting for any such report which very frequently gives no definite information.

The author of this very interesting paper tells us in conclusion that there are many points in their aseptic methods which might be considered cumbersome or unnecessary; his reply to any such criticism is that their methods have been evolved gradually in their endeavors to stamp out morbidity. Our own opinion is that their methods are not at all cumbersome, and should be carried out both in the hospital and private practice as carefully and thoroughly as possible. In expressing such an opinion we are referring to their general plan which we should all consider good although we may differ slightly as to some matters of detail.

A. H. W.

OPHTHALMOLOGY AND OTOTOLOGY.

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

Eye Strain and Brain Strain.

The *British Medical Journal* is publishing an admirable series of articles on the "Teaching of Hygiene in Schools," No. VI. being devoted to Eye Strain and Brain Strain, in the course of which the following appears:

We have already said that the principal causes of myopia are convergence of the eyes and stooping of the head. It is obvious that everything should be done to prevent these conditions in schools, and in order to accomplish this it is of first importance that every teacher should be impressed with the importance of the following points:

1. An ample supply of light.
2. The light must fall upon the work from the proper direction.
3. The object looked at must be easily distinguished.

4. The object must be so placed as to be seen without stooping.

5. There must be a distance of not less than 10 inches between the eye and the work.

Miss Sayer states that, "At 6 years of age 3 per cent. have seriously bad vision, and 88 per cent. can see $\frac{3}{4}$ with each eye; at 11 years of age 11 per cent. have seriously bad vision, and only 58 per cent. see $\frac{3}{4}$ with each eye. The rest have slight defects."

That myopia scarcely ever exists before the age of five, and that statistics taken in elementary schools by Mr. Priestley Smith and others prove that from that age onwards the numbers of children who suffer from it steadily increase, goes to show that school conditions must be defective.

It should be clearly understood that the points mentioned should be attended to, not only with the object of checking the development of myopia, but also in order to prevent unnecessary strain upon the brain and nervous system of the growing child. The child has not only to see the object but also to take in what it means; the younger the child the greater the strain. The eye and the brain have to be educated while both are at the same time undergoing a process of growth and development.

Quinine in the Treatment of Corneal Ulcers.

At a late meeting of the Ophthalmological Society of the United Kingdom, Mr. Arnold Lawson read a paper on "Quinine in the Treatment of Corneal Ulcers." He said that up to the present time the use of quinine in ophthalmology had been restricted to a very limited class of conjunctival and corneal affections, but his observations, which had extended over four years, showed that it was a very powerful curative agent in a large variety of corneal ulcers not amenable to ordinary routine treatment, to which much more drastic measures were commonly applied. The sulphate of quinine dissolved carefully in just sufficient sulphuric acid to hold the salt in solution was preferable to either the hydrochloride or the acid sulphate, both of which were soluble in water; and it was recommended to be used in a 1 per cent. solution. The eyes should be soaked in the solution for five minutes four or five times a day, and in addition a thorough irrigation daily by an undine filled with the solution was advised. It caused very little discomfort, and patients used it readily, but stronger solutions gave rise to pain, and had no advantage. When the treatment was going to be successful improvement showed itself within a few days, and if no manifest benefit was effected within a week it might be discontinued. The rapidity of healing under this treatment was at times remarkable, and the author had seen many for-

midable-looking ulcers heal by this treatment alone within a week. A list of several cases of corneal ulceration treated by this method within the last three years was appended to the paper.

Myopia.

At the last meeting of the British Medical Association Ernest Clarke (*British Medical Journal*) gave a summary of his twenty years' treatment of myopia. He advocates the full correction of all cases of myopia and compound myopic astigmatism. His method is to estimate the ametropia under a mydriatic and to order the full correction for all cases. In high degrees the patients sometimes refuse to accept the full correction, but with this exception he never reduced the spherical glass for near work. Out of 532 cases which had been under observation for more than two years the majority showed no increase in the myopia, and in only three instances had the myopia increased as much as 4 D., and in only sixteen had there been any increase worth mentioning. In some it was necessary to stop all near work, but for these full correction was always given. If this principle were carried out generally, he feels sure that progressive myopia and high degrees will become almost unknown.—*Med. Rev. of Reviews.*

Diseases of the Ear.

In the *Therapeutic Gazette* is an excellent abstract of an article by Grant in the *Clinical Journal*, on "Diseases of the Ear." With regard to foreign bodies, the author reminds us not to believe in the presence of a foreign body until we have seen it; do not be guided by a probe, because the most fallacious feelings are produced by a probe in the ear. The author has touched thin masses of cerumen on the floor of the meatus, and they have been so hard that he has been almost convinced there was a sequestrum of bone or a stone of some sort inside the meatus. The mistake made with regard to foreign bodies is trying to take them out with forceps; of all instruments at our disposal for the purpose, a forceps is the most certain to fail. There is, it is true, a very fine pair made with detachable blades, which are introduced one above and one below the foreign body, but they do not often act well. When a foreign body is found in a child, the great thing is to give an anesthetic. Of course, many foreign bodies will come out with syringing, but a great many will not. We must, however, be very careful in trying to remove the foreign body with an instrument, because if we fail to get it out we probably irritate the skin of the external meatus to such an extent that it swells up and makes the subsequent removal infinitely more difficult than it

was before. It is to be kept well in mind that the direction of growth of the skin of the membrane and external meatus is outward toward the meatus; just as the nail grows upward, so this skin grows in that direction (little cicatricial points on the membrana tympani have been seen to gradually work their way up on to the roof of the meatus). This has the effect that sometimes a foreign body in the meatus that we have been unable to move has worked out to the orifice.

At the hospital the author has spent a great deal of time and trouble to extract a foreign body, and has told the mother to bring the child again in a week, ordering her to use some lead-water drops. The mother comes back in a week with the foreign body in her hand. When asked how it got out, the answer has been, "Oh, it was just at the opening, and I got it out with a hairpin." The fact is that there is this tendency to spontaneous extrusion, and if a foreign body is not likely to do harm—for instance, a bead or a little pebble—it is better to leave it alone, or at least not to be in too great a hurry to get it out, and allow the inflammation to subside. If you use an instrument for the removal of a foreign body, it should be a very fine one, and used under an anesthetic. The author employs an instrument like an exaggerated crochet-hook with a very sharp point, and it should be put in an angular handle so that we may know which way the point is projecting. Another instrument which has also a very sharp hook serves for this purpose, and for other purposes as well; it can be coaxed beyond the foreign body, turned round, and the foreign body is gently rolled out by means of it.

The author gives in his paper a little hint which we may find very valuable. We all know the extreme difficulty of examining the interior of the ear of an infant or very young child. We must recollect that in the infant the tympanic membrane is more horizontal than it is in the adult; also that there is no osseous meatus. The rule in examining the ear of a young child is to pull the auricle downward and backward. We all know how anxious we are when a child has the symptoms of meningitis to make out whether these are due to inflammation of the middle ear. We look into the child's ear and see the posterior wall; we may say that it is slightly congested, but we cannot say more than that. We may not realize that instead of pulling the auricle upward and backward, we should pull it downward and backward. We will then be surprised to find how good a view we get of the tympanic membrane—even in a very young infant—if this rule be followed.

Therefore, we can get a much better view of the tympanic membrane in a child or young infant by *pulling the auricle downward and backward*, not upwards and backward.

LARYNGOLOGY AND RHINOLOGY

IN CHARGE OF J. PRICE-BROWN

A Contribution by the Study of Ocular Affections of Nasal Origin.

A. Carbone (*Archiv. Ital. di Otologia, Turin, June, 1904*). From the Polyclinic in Turin the writer has collected a large number of instances in which different affections of the eye were directly traceable to nasal disease. Among these he mentions clonic blepharospasm and blenorrhea due to atrophic rhinitis; ciliary blepharitis, both pustulous and ulcerous, and palpebral phiniosis due to simple chronic rhinitis. Acute rhinitis is often followed by catarrhal conjunctivitis, while in children with impetiginous rhinitis, there is often pustulous conjunctivitis and phlyctenular kerato-conjunctivitis. In many of these cases the presence staphylococcus pyogenes aureus has been demonstrated. In the treatment of these cases, the ocular symptoms abated with improvement in the nasal conditions.

Nasal Disease as a Cause of Headache.

A. L. Whitehead (*Brit. Med. Jour. January 28th*) completes an article upon this important subject by the following conclusions:

1. Nasal disease is undoubtedly the cause of headaches in a certain percentage of cases, although it is doubtful whether it is possible for headache to be produced by any nasal condition which does not give rise to discharge, or to obstruction to normal nasal respiration.

2. In all cases of persistent headache, a careful examination of the nose should be as much a routine practice as the examination of the urine, the teeth, and the eyes; since in some instances the nasal symptoms may be ignored by the patient, and a careful examination of the nose will be necessary to establish the diagnosis.

3. Suppuration in the accessory sinuses, and marked nasal obstruction, constant or intermittent, should be thoroughly treated.

4. Small spurs, deviations, and hypertrophies, not causing obstruction, should be left alone, as no relief will be given from the headaches by treatment of these.

5. If the middle turbinated bones are enlarged and pressing upon the septum, especially upon the tubercle, and if all other possible causes of headache have been eliminated, partial removal of the hypertrophiced bone should be advised, since in many such cases complete relief is given.

Nasal Hydrorrhea.

E. J. Rhodes (*Jour. Laryn. Rhin. and Otol.*, March, 1905) gives the history of a case. Two theories have been advanced as to the cause: First, that the disease is a neurosis of the fifth nerve in the nasal mucosa. Second, that it is a symptom of a general neurasthenic condition. Rhodes holds to the latter theory. In treating his case, many remedies were tried, but all failed until he applied nitrate of silver, grs. 60 to the ounce. This caused violent headache, lasting for several days, during which the discharge ceased, and did not return.

The Ultimate Results of Cauterization of the Lower Turbinate, with Therapeutic Suggestions Based Upon Histological Findings.

J. L. Goodall (*Boston Medical and Surgical Journal*, Dec., 1904), gives the details of six cases, with the resulting summary of conclusions:

1. Caustic applications to the nasal mucous membrane may cause a loss of the columnar ciliated epithelium, with a replacement of this by cells of a squamous type.

2. Such applications may cause an obliteration of the canaliculi in the basement membrane.

3. Immediately below the cauterized mucous membrane, new connective tissue may be formed, which extends downwards to a depth dependent upon the intensity of the trauma.

4. The contraction of the tissues, which is observed clinically to follow caustic applications, is due to the contraction of this new-formed connective tissue, and the consequent compression both of the lymph sinuses, and of such cavities as the lumina of blood-vessels and glands.

5. Repeated superficial application of caustics tend to the formation of connective tissue immediately beneath the epithelium, which, by its contraction, may constrict the lumen of the ducts of the glands and lead to cystic dilatation of the latter.

Taking all these phenomena as a guide, the writer concludes that judicious cauterization of the relaxed mucous membrane in vaso-motor rhinitis may sometimes be advisable; but that in the majority of nasal conditions cauterization has an effect the reverse of beneficial.

Nasal Diphtheria.

F. Massei (*Archiv. Ital. de Laryngologie*, Naples, April, 1904), deals in an exhaustive manner with this division of diphtheria, in which he describes the history, symptoms, diagnosis, and treatment. Among many practical points he dwells particularly upon the importance of regarding a large majority

of cases of rhinitis fibrosa as nasal diphtheria, and treating them as such, even when in doubt. Still, he realizes the possibility of the existence of the coccus forms of membranous rhinitis.

Torticollis Following the Removal of Adenoids.

Ferreri (*Archives Intern. de Laryngologie*, Nov. and Dec. 1904), draws attention to the tendency of the operation to cause irritation in the ears, nose and throat. He quotes two cases. The first, a girl, aged 12 years, suffered from subacute otitis media and the presence of a large adenoid growth. Sudden cold caused the ear to suppurate. The adenoid, under cocaine and adrenalin, was removed at two sittings. After the second operation the girl was seized with shiverings, and temperature of 104° Fahr., with spasmodic twitchings of the neck. Treatment by large doses of aspirin, hot applications, and gargles of salicylic acid removed both the torticollis and the middle ear disease. The second case was that of a boy, aged 8 years, who had adenoids, enlarged tonsils, and intermittent deafness. After operation the temperature ran up, the glands of the neck swelled, and tenderness with rigidity of the neck muscles developed. The condition was relieved in twelve hours by hot fomentations.

The Opening of Peritonsillar Abscesses.

St Clair Thompson (*British Medical Journal*) February 12th, 1898), dwells upon a simple, safe and satisfactory evacuation of Peritonsillar abscess, as opposed to the dissatisfaction of the general profession and of the public with the operation, as usually done. Many medical men in operating upon the throat for evacuation of pus, are in constant dread of opening some important artery or vein. Even Bosworth, in spite of his long experience, says that in no case has he incised a quinsy without a certain degree of nervousness on account of the proximity of blood vessels.

St. Clair gives the following as the natural sequence of events in ordinary cases: Attempts at relieving the pent-up pus are postponed by both patient and practitioner as long as possible, to avoid dreaded pain by the former, and failure in finding pus by the latter. Towards the seventh day, the patient commences to wear out, and the medical attendant, under the belief that "matter has formed," arms himself with a sharp-pointed, narrow-bladed knife. While prepared to operate, he has a vivid mental picture of the proximity of carotid arteries. The view he can obtain of the field is most restricted. If, however, successful in seeing the tonsillar region, he thrusts his narrow blade into the most prominent part, hoping to find pus. If

none appears and the patient is tolerant, one or two or three more stabs may be made; and the patient is encouraged by the winning statement, that "if pus does not then appear, the bleeding will itself be beneficial." Perhaps the abscess is "not ripe." Possibly the following morning the announcement may be made that it "burst in the night."

The writer of the article believes that the uncertainty of relieving quinsy is due to a want of knowledge of its usual location; and that the anxiety in opening the purulent collection can be entirely avoided, by not using a knife in the operation, but a modification of Lister's sinus forceps.

St. Clair Thompson believes that an acute collection of pus in the faucial region, known as quinsy, never occurs in the tonsil itself. It is always peritonsillar and forms in the areolar tissue between the tonsil and the aponeurosis. Most frequently it is met with in the prolongation of the faucial pillars, and in the large majority of cases, is situate above and in front of the tonsil.

Left to itself the peritonsillar abscess usually bursts spontaneously into the mouth, but the silt may escape detection, as it frequently occurs beneath the folds of the supratonsillar fossa, the pus trickling down over or behind the tonsil. Sometimes a quinsy will rupture through the soft palate, and this is the safe and effective route by which the surgeon should endeavor to relieve the patient.

To make the point definite, imagine a horizontal line across the base of the uvula, and a perpendicular line at right angles to it, parallel with the base of the anterior faucial pillar. The point of intersection is directly over the supratonsillar fossa, and is the point to be opened.

The patient's throat is first to be cleansed and sponged with a 5 per cent. solution of cocaine. When required the head should be held by an assistant. General anesthesia should never be used. When ready, the tongue being depressed, the surgeon can usually find the soft, boggy spot, behind which pus has already accumulated; and by direct pressure and rotation of the instrument, the pus-sac is entered. By the sense of touch the surgeon must determine the depth of the opening to be made. In withdrawing, the forceps should be opened to their widest extent, thus ensuring free drainage.

Other methods of operating are referred to by the writer of the paper, such as the use of Killian's blunt probe, and the use of the galvano-cautery knife; but he considers the one he more fully describes as the better plan of treatment.

Epithelioma of Soft Palate, Tonsil, and both Alveoli—Excision, Recovery. Cancer Hospital, Brampton.

Herbert Snow, Senior Surgeon. (*British Medical Journal*, Feb. 11th, 1905).

T. W., aged 52 years, a sturdy-looking man, was admitted on Aug. 10th, 1904. A typical epitheliomatous ulcer occupied the left side of soft palate and the internal aspect of the cheek. The alveolar processes of both upper and lower jaws were infiltrated and the tonsil was involved. The tongue appeared free. The glands were not enlarged, but excruciating pain was felt.

Operation was decided upon, and was extensive, involving the removal of nearly all the inferior maxilla, a portion of the left superior maxilla, a large section of the soft palate and left tonsil—the latter largely by electro-cautery. There was little hemorrhage. An excellent exposure, and removal of diseased tissues by incisions was accomplished. The wounds were accurately sutured by silkworm-gut and united by first intention. The recovery was a favorable one. The highest temperature was 100° F. on the fifth day. On the eighth day it was subnormal.

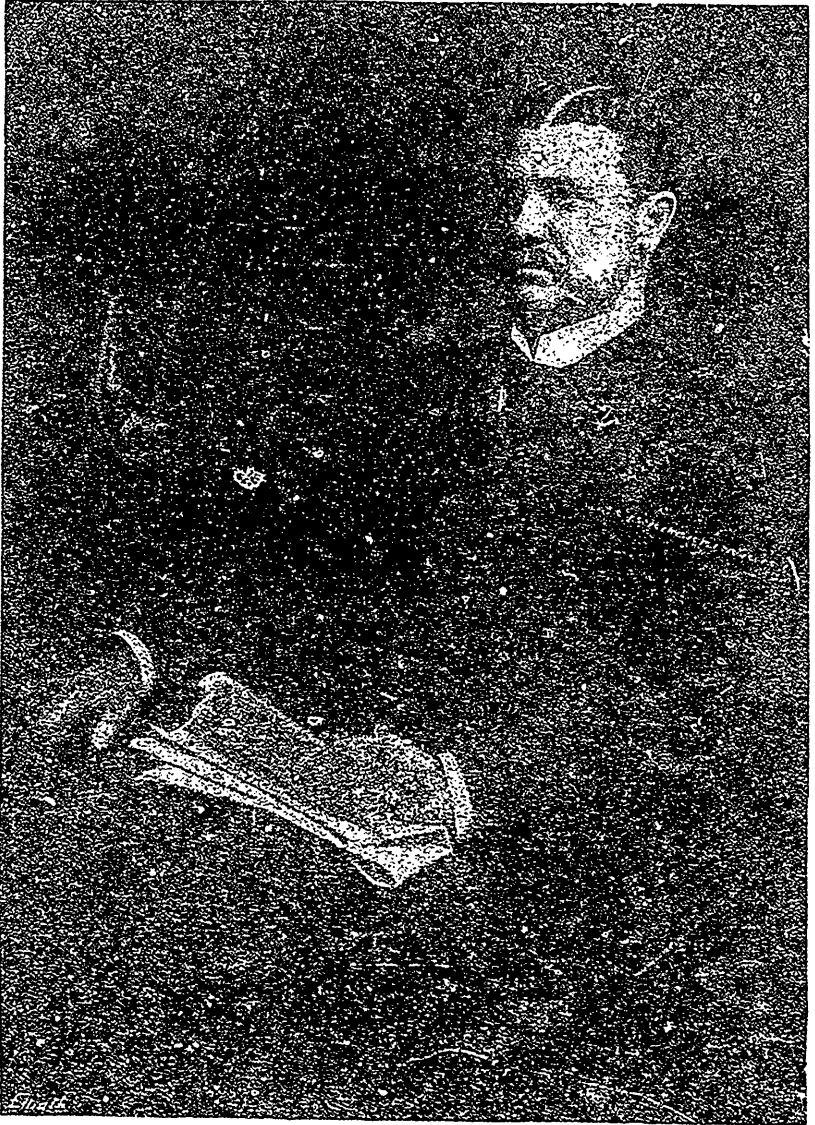
The patient made a good recovery. The wounds cicatrized firmly, and the beard hid from view any outward manifestation of the extensive operation. At the time of reporting he was still perfectly well.

A New Method of Treating Otomycosis *Aspergillina*.

E. Guarnacia (*Archiv Ital. de Otologia*, Turin, June, 1904,) has successfully treated three cases of *Aspergillus Niger* by means of instillation of Merk's Oxygenated Water, containing 20 per cent. of oxygen. Ten drops were instilled every two hours. It is of interest to know that two of the patients were employed in a tannery, while the third was a boatman carrying leather. It is well known that leather is an excellent culture medium for *aspergillus*.

Three Recent Cases of Croup Due to *Staphylococcus* and Requiring Tracheotomy.

Auzinger (*American Journal of Medical Science*, Nov., 1904). These all occurred in children between the ages of one and four years. All followed attacks of acute tonsillitis, but none of them were accompanied by deposit of false membrane within the pharynx or larynx. Two died a few hours after tracheotomy of profound toxemia; one recovered. In two, diphtheria was diagnosed and antitoxin given with negative results. Swabs from the throat in all the cases gave pure cultures of *staphylococcus*, which when tried on white mice proved unusually pathogenic.



DR. CHARLES O'REILLY

Editorials.

THE NEEDS OF THE UNIVERSITY OF TORONTO.

No man in Canada has taken a broader view of higher educational matters than Mr. J. P. Whitney, the Premier of Ontario. He surprised the late Government, his own party, and the Province of Ontario, five years ago, when he boldly proposed a more advanced policy in dealing with the needs of the Provincial University. He stated at that time in the House that it was intolerable that the existing conditions at the University should be continued; the Province should either support or abandon the University. It was the duty of the Government to put the institution's finances on a sound, suitable, and permanent footing by giving it an annual revenue which would fairly and fully meet its needs. This was not considered good generalship by some of our politicians. It was really not the act of a politician, but rather that of a statesman. He showed no desire to gain any party advantage, but generously gave his support to the Government. Although Mr. Whitney has been Premier for a short time only, he has already given evidence of his determination to carry out the policy which he before outlined.

In speaking of the University's requirements he gave the following items: A new Physics Building to be erected at a cost of \$225,000: of this the late Government had promised \$180,000, the proceeds of the sale of the old Parliament grounds, leaving a balance of \$45,000 to be provided. A Museum wing to the Science building on College Street will be erected at a cost of \$50,000. The new Convocation Hall will cost about \$160,000: of this the late Government had promised \$50,000, and a similar sum had been raised by subscription. The Government has agreed to the plan proposed by the trustees for securing the remainder; it will be taken out of the Endowment Fund, and be paid from the revenues of the wild lands given to the University. A glass house for practical work in forestry and botany will be erected at a cost of \$5,000, and an addition to the Woman's Residence will be built at a cost of \$15,000: and as explained on another page of this issue, four residences will

be erected for male students at a cost of \$40,000 each. The Government will give \$50,000, while the remainder will be made up by private subscriptions.

The total proposed expenditure will be about \$1,600,000, and of this sum the direct grants by the Government will amount to about \$465,000. The Government have in their session written promises that if the scheme thus outlined were brought to a successful conclusion, over \$250,000 was waiting to be given to the University.

The Premier also stated that when the House next met he would submit a measure providing an annual appropriation to be drawn from the succession duties, or some other branch of the public revenue, for the University's needs. He further explained that during the coming recess the Government would take up and consider the question of the troubles and complaints at the University; it was their intention to either appoint a commission or take some other steps to inform themselves of the exact state of affairs existing, and ascertain the best manner of changing the entire administration of the University.

TORONTO GENERAL HOSPITAL.

We publish in this issue a very important statement issued by the trustees of the Toronto General Hospital. It is hoped that in a comparatively short time there will be erected on some central site in Toronto a new general hospital at a cost of about \$1,500,000. It is expected that the Provincial Government, the City of Toronto and the Hospital Trust, will work together. The Premier of Ontario, in discussing the matter in the House, May 17th, said that the last and most important provision of a bill which he was introducing was intended to bring about closer relations between the Medical Faculty of the University of Toronto and the Toronto General Hospital. It was at one time proposed that the Provincial Government and the City of Toronto would each grant \$100,000, with the understanding that the Hospital would rebuild on its present site. It is now considered advisable that a new site be secured which would suit the convenience of the Medical Faculty and the students. If this

were done it would mean the expenditure of at least \$1,000,000. In this the Government would be asked to give \$250,000, and it would also be asked to consent to the borrowing of \$50,000 from the Endowment Fund for the purchase of a site. This happy condition of affairs is one of the results of the recent amalgamation of the Trinity and Toronto Medical Faculties. A few years have brought great changes.

DR. CHARLES O'REILLY

The profession of Canada were surprised to learn, May 1st, that Dr. O'Reilly had tendered his resignation as Superintendent of the Toronto General Hospital.

He first acquired a reputation as an able and efficient administrator in the General Hospital, Hamilton, where for some years he was the Medical Superintendent. A certain portion of the medical profession did not accept the appointment of Dr. O'Reilly as Medical Superintendent of the Toronto General Hospital with marked approbation. It was soon found, however, that he was the right man in the right place, and his administration of affairs has done much to place the hospital in the position it now occupies. The Toronto General Hospital is now, and has been for many years, the largest institution of the kind in Canada. It has four hundred beds for patients, and altogether a population of five hundred or more at all times.

The following brief references made to the growth of the institution during the last twenty-nine years are somewhat interesting. During this time over 100,000 patients have been treated in the hospital, and over 4,000 births have occurred in the Burnside maternity department. The original hospital has been enlarged in many ways. One of the most important additions to the hospital was the establishment several years ago of an Emergency Branch down town, in which over 2,500 patients are annually treated.

Dr. O'Reilly has been on different occasions Examiner for the Ontario Medical Council, the University of Toronto, and the Trinity University. He has taken an active interest in the Association of Hospital Superintendents of North America, and

has been for the last two years' vice-president. We are told that the presidency of the same Association is ready for his acceptance at any time. He is also vice-president of the Ontario Hospitals' Association.

In private life, Dr. O'Reilly's genial manner and kindness of heart have gained for him a great host of friends living in all parts of Canada and the United States, or perhaps, more correctly speaking, in all parts of the civilized world.

His friends in Toronto propose to give him a dinner on the evening of June 19th. Tickets for the same may be obtained from Dr. Sam. Johnson, 169 Carlton Street.

Dr. Charles O'Reilly, Mrs. O'Reilly, and their only son, Dr. Brefney O'Reilly, will sail from Montreal for England June 24th. The best wishes of the profession of Canada will follow them. It is not unlikely that Dr. O'Reilly will remain for some time in England.

BANQUET TO DR. OSLER IN NEW YORK.

There was a remarkable gathering of physicians at the dinner given to Dr. Osler, in New York, May 2nd. The Committee who had charge of the banquet was composed of Doctors Bray, Jacobi, Janeway and Dana. We are told that this tribute to Dr. Osler was initiated by the Committee of the Medical Faculty of the University of Pennsylvania, of which he was one of the professors for about five years.

Dr. Osler's career embraces three periods: (1) Professor in McGill University, Montreal; (2) Professor in University of Pennsylvania, Philadelphia, and (3) Professor in the Johns Hopkins Hospital, Baltimore. The histories of these three periods formed the main subject of the addresses delivered at the banquet. Dr. F. J. Shepherd, of Montreal, spoke of Dr. Osler's work in Canada; Dr. J. C. Wilson, of Philadelphia, gave a sketch of his career in that city; and Dr. Welsh, of Baltimore, referred to the great work he had done at Johns Hopkins University. In addition to these three addresses, Dr. Jacobi, of New York, made reference to Dr. Osler as a literary man, and Dr. Weir Mitchell, of Philadelphia, delivered a short address when presenting to Dr. Osler a copy of "Cicero's de Senectute."

Among those present from Canada were—Drs. Shepherd, Bell, Lafleur, Arthur Brown, Birkett, Adami and Armstrong, of Montreal; Drs. Arch. Malloch, James Russell, Ingersoll Olmsted and J. H. Mullin, of Hamilton; Drs. N. H. Beemer, Allen Baines, Adam Wright and Herbert Bruce, of Toronto; Dr. Hugh A. McCallum, of London.

The *Evening Mail* of New York gives the following list of guests of honor "who have passed the time when they should be attending banquets, unless the menu were strictly limited a la Maryland": Robert Fletcher, 84; Stephen Smith, 82; S. Weir Mitchell, 75; W. M. Polk, 71; D. W. Sternberg, 67; St. John Rosseau, 69; Jno. S. Billings, 67; E. S. Janeway, 64; Francis Delafield, 64; James Tyson, 64; J. R. Chadwick, 61; John A. Wyeth, 60.

The banquet was altogether the most magnificent thing of the sort that this continent has known.

CANADIAN MEDICAL ASSOCIATION.

As we have already announced, the thirty-eighth annual meeting of the Canadian Medical Association will take place this year in Halifax, under the Presidency of Dr. John Stewart of that city, who, along with his Executive Committee, and Programme and Committee of Arrangements, are ardently working for the complete success of this meeting, the first which has been held in Halifax since 1881, when the number present just numbered fifty-three. If an united effort be put forth by the vice-presidents and local secretaries in the different provinces, especially in Nova Scotia, Prince Edward Island, New Brunswick, Quebec and Ontario, there should be a largely attended meeting. There are indications that Montreal and Toronto are both going to send down good contingents. Daily there are additions to the list of contributors, whose names we will publish in a later issue. This year all delegates will travel on the usual *Standard Convention Certificate* plan, which means that every delegate when purchasing single first-class fare to Halifax, must get from the ticket agent a *Standard Convention Certificate* for himself, his wife or daughters if they accompany him. Delegates will kindly bear in mind that

they do not have to get any special certificate from the General Secretary. If fifty are present holding Standard Convention Certificates, all will be returned free to Montreal. Montrealers will, as well as delegates from Quebec, be returned for single fare. If there are 300 present holding these Standard Convention Certificates, all will be returned free to their original starting point. This applies to all parts of Ontario, Manitoba, the Northwest Territories and British Columbia. Delegates from points west of Port Arthur will not be allowed to use the upper lake routes when travelling by this certificate plan, in either direction. In all cases return transportation *must* be arranged for at Halifax. The usual time limit for conventions will be allowed for points east of Port Arthur, namely, three days before and three days after the meeting. Our readers will kindly extend this information as much as possible, and those who intend contributing papers and being present, are requested to notify the General Secretary, Dr. George Elliott, 203 Beverley Street, Toronto, without delay. No arrangements can be secured for return via Boston or New York after the meeting; and those desiring to be routed thus should ask for tourists' tickets. Arrangements are in progress for completion about the end of May for boat trip, *Toronto* or *Kingston*, to Montreal or Quebec via the Richelieu and Ontario Navigation Company's line.

The Ontario Medical Association will begin its Twenty-fifth Annual Meeting on the morning of Tuesday, June 5th, under the presidency of Dr. Wm. Burt. of Paris.

A programme full of papers has been secured through the efforts of the energetic Committee on Papers.

The Committee on Arrangements will provide for a few hours of entertainment. This will take the form of a tea at the Ontario Medical Library on Tuesday afternoon, at which the men from outside the city will be able to see the newly acquired home of the Library, and have an opportunity for a social hour together. On Wednesday evening an informal gathering will be held in the Biological Buildings, at which entertainment of a scientific and social character will be provided.

The fact that the Post-graduate Course of the Medical Faculty, and the meeting of the Executive Health Officers of the Province immediately precede these sessions, should ensure a large attendance.

GRADUATES OF THE UNIVERSITY IN THE ONTARIO GOVERNMENT.

It is a remarkable fact that of the ten members who form the present Executive Council of the Province of Ontario, all but three are graduates of the University of Toronto as it is now constituted.

The Premier and Attorney-General, the Hon. J. P. Whitney, K.C., is entered in the roll as "LL.D., 1902." He is an old pupil of the venerable Cornwall Grammar School, and was called to the Bar in 1876. Since the year 1888 he has continued to represent the County of Dundas in the Ontario House of Assembly; and he has been the leader of the Conservative party since April, 1896.

The Hon. J. J. Foy, K.C., Commissioner of Crown Lands, was made an LL.D. on the same day, in 1902, as Mr. Whitney. He studied at St. Michael's College and at Ushaw College, England, was called to the Bar in 1871, and was elected a Bencher of the Law Society in 1881. He has been a member of the Ontario House since 1898.

The Hon. J. O. Réaume, M.D., C.M., Commissioner of Public Works, is a graduate of Trinity of the year 1886. His early education was received at Assumption College, Sandwich. He was first elected to the Ontario House in 1902, as member for North Essex.

The Hon. A. J. Matheson, Provincial Treasurer, is an old pupil of Upper Canada College, and a graduate of Trinity, where he became a B.A. in 1865. He is now a member of the Council of Trinity College. He was called to the Bar in 1870. It was in 1894 that he was first elected by the constituency of South Lanark, which he has continued to represent ever since.

The Hon. S. N. Monteith, Minister of Agriculture, is a graduate of the Ontario Agricultural College, where he received the degree of B.S.A. in 1890. He is not only a graduate, but a very practical agriculturist.

The Hon. R. A. Pyne, M.D., Minister of Education, is a graduate in Medicine, first as M.B. in 1878, and then as M.D. in 1880. He has been prominently associated with the School Board and the Public Library, of Toronto, and was also Registrar of the Ontario Medical Council.

The Hon. W. A. Willoughby, M.D., Minister without portfolio, is a graduate in Medicine, of Victoria, of the year 1867, his previous preparation being received at the Bradford Grammar School. He first entered the House as member for East Northumberland in 1886. Dr. Willoughby has occupied many important posts in various municipal capacities in Colborne, his place of residence.—*Univ. Tor. Monthly.*

TORONTO GENERAL HOSPITAL.

The Board of the Toronto General Hospital has issued the following statement.

The action of the Government in authorizing an advance of \$250,000 by the University of Toronto to the proposed reorganization plan of the Toronto General Hospital, and the advance of a further \$50,000 out of the University endowment toward the purchase price of a suitable site for the Hospital, makes the present a natural time for the trustees of the Toronto General Hospital to make known to the public the character of the negotiations which have been in progress for many months.

Recognizing that the present premises were unequal to the requirements of a modern hospital, and that new buildings and equipment were highly desirable, they approached the University authorities, the Government of the Province, and the Board of Control of the city, asking if there was not some basis for a fusion of interests that would work out to the common benefit of the city and the University, and meet the responsibility of the Government for the provision of adequate medical education for the University of Toronto School of Medicine. It was felt that if it were possible to secure such co-operation, it would be proper for the present Board of Trustees of the Toronto General Hospital to tender to the Government the trust under which the property and endowment is held at present, and to have a new trust formed which would recognize the interests of all the contracting parties named above.

The response on the part of the Government and the University has been the setting aside of the above two sums aggregating \$300,000. It is hoped that the response on the part of the City Council will be \$200,000, and that the individual citizens will contribute, say, \$800,000.

With this sum a central site will be secured, and a general hospital, an emergency hospital, and an out-patient hospital will be built upon it. The public wards will be available for the medical faculty of Toronto University for educational purposes, and for the moderate expenditure of \$300,000 the province will have secured for its provincial medical school all the necessary advantages which they would secure in a direct ownership of a hospital establishment costing \$1,300,000 in land, buildings and equipment, and a yearly income of \$25,000. The city will enjoy the advantage of a modern, well-equipped hospital capable of performing to the highest degree of efficiency the service necessary for the comfort of the sick and suffering.

It would not have been possible for any one of the co-operating bodies to have alone acquired a site and buildings of the

type at present proposed, and the fusion of interests which has taken place seems to provide the needed facilities for all with a fair distribution of the burden.

J. W. FLAVELLE, *Chairman.* PETER C. LARKIN.
 THOS. URQUHART. CAWTHRA MULOCK.
 M. J. HANEY.

ITEMS.

Post-Graduate Course of the University of Toronto.

The Post-Graduate Course of the Toronto University began on Monday, May 22nd, and will terminate on Monday, June 5th. The programme included the following: Operations and surgical clinics in the various Toronto hospitals; clinical methods and practice in the University of Toronto; a course in surgical pathology, including gross and microscopical specimens in the laboratories of the University of Toronto; medical clinics in the various hospitals; and a course of surgery on the cadaver.

McGill University.

The tenth course of instruction for post-graduate students, given by the Faculty of Medicine of McGill University, will begin June 5th and terminate June 30th. The principle adopted for this session is to make each course optional, attaching thereto a special fee. The programme, speaking broadly, includes general clinics and special courses in different subjects.

Residences for the University of Toronto.

We have before referred to the fact that Mr. Whitney, of Ottawa, has presented to the University of Toronto the sum of \$45,000, to be used for the construction of a residence for the students of the University, on the condition that three other buildings of the same sort be erected.

It was recently decided at a meeting of the University Senate, to erect four such buildings in the near future. The work has been placed in the hands of a Board of Trustees, composed of Mr. E. C. Whitney, Mr. S. H. Blake, Mr. Z. A. Lash, Mr. J. W. Flavelle, Mr. T. R. White, Sir Wm. Meredith, the Chancellor, and Prof. Loudon, President of the University.

A deputation composed of Dr. Barrick, Dr. Rosebrough, and Professor Wrong, waited on Premier Whitney, May 17th, and asked for a grant towards establishing a Home for Inebriates. Consideration of the matter was promised, but it is not expected that any large sum for such purposes will be forthcoming before the next session of Parliament.

Personals.

Dr. Osler, Mrs. Osler, and Master Osler sailed from New York on the S.S. *Cedric*, May 18th.

Sir James Grant sailed from Montreal on the *Virginian*, May 26th.

Dr. J. T. Duncan left Toronto May 25th, for a three months' tour in England.

Dr. J. S. McEachern, Trinity, '97, of Elmvale, who was for some time engaged at Post-graduate work in London, England, returned to Canada early in May.

Dr. Edmund E. King reached London, England, May 14th. He expects to return to Toronto about July 1st.

Dr. G. Sterling Ryerson left Toronto for England May 25th.

Dr. John McCrae, of Montreal, paid a short visit to Toronto early in May.

The marriage of Dr. T. H. Bell, of Winnipeg, to Miss Darling, of Toronto, was announced for June 1st.

The admirers of Dr. Addis Emmett, New York, gave him a dinner, May 29th, in celebration of his 77th birthday.

In our last issue we referred to the fact that Dr. Bray had been honored by his *Alma Mater*, Queen's University, conferring upon him the honorary degree of LL.D.

The *Chatham Daily News*, in commenting on this, makes reference to Dr. Bray's long service in municipal affairs in that city. It mentions the fact that he had served the city in municipal affairs for nearly thirty years. He was elected school trustee in January, 1869, running against the late Edward Robinson, ex-M.P.P. He was chairman of the Board in 1874, and in 1875 he retired and ran for Councillor for Ebert's Ward, and was elected, and remained a Councillor until 1878. He was elected Deputy Reeve in 1877, having as his opponent the late John Smith, ex-M.P.P. He retired from the Council in 1878, and was appointed a trustee for the High School, and sat at that Board for about ten years. When Chatham became a city in 1895, Dr. Bray was elected Alderman in that and the following year. He retired from the Council in 1897, and was elected Water Commissioner, with Mr. Sheldon, in 1899; was re-elected every year up to the present time, and has been chairman of the Board for seven years.

When considering the fact that Dr. Bray has had a large and laborious practice for more than thirty years, has been a member of the Medical Council for twenty-five years, and has also taken a great interest in many medical associations, we commence to realize the fact that he is what may be called a many-sided man.

Obituary.

JAMES THORBURN, M.D.

We have to announce with the deepest regret the death of Dr. James Thorburn, which occurred at his late residence in Toronto, May 26th. He was born in Queenston, November 21st, 1830. He received part of his medical education in Toronto, but completed his course in the University of Edinburgh, graduating M.D. in 1855. He received the degree of M.D. (*ad eundem*) from the University of Toronto in 1859.

Shortly after leaving Edinburgh he settled in Toronto and very soon acquired a large and lucrative practice. His handsome appearance, charming manner, kindness of heart, boundless tact and great skill made him one of the best specimens of a *family physician* that this country has known. He was, however, essentially a general practitioner and was for many years recognized in Toronto as a man skilled in medicine, surgery and midwifery.

Although as a practising physician he was ever busy, he did much outside of his routine work. He was for some time a teacher of Medical Jurisprudence, and later of Therapeutics and Materia Medica in the Toronto School of Medicine, and also a teacher of Clinical Medicine and Surgery in the Toronto General Hospital. He gave up his work as an active teacher in 1888, and was appointed Emeritus Professor of Therapeutics and Materia Medica in the University of Toronto, and shortly afterwards Consulting Surgeon to the General Hospital. He took much interest in the welfare of the University of Toronto and was for many years a member of the Senate of that institution.

He was a very active supporter of many medical societies and especially of the Canadian Medical Association, of which he was President in 1895, when one of Montreal's best meetings was held. He was a member of the Ontario Medical Council for many years, and was elected President of that body in 1897. He also took great interest in life assurance and was for a long time Medical Director and Vice-President of the North American Life Assurance Company. While occupying this position he wrote a valuable "Manual of Life Assurance Examinations." He was one of the first surgeons in Toronto to take part in military organization and was for many years surgeon to the Queen's Own Rifles, being with the regiment in that capacity at the Battle of Ridgeway in 1866.

While we, who enjoyed the privilege of a close acquaintance with him were proud of his success in so many directions, we took more pleasure in thinking of his admirable qualities in private life. He was in all respects one of the most lovable men that we have known. While our deepest sympathy is

extended to the family who have suffered a sad bereavement, we are stricken at the same time with grief over the loss of a dear, kind and considerate friend.

FRANCIS WAYLAND CAMPBELL.

Dr. F. Wayland Campbell, Dean of the Medical Faculty of Bishop's College, Montreal, died May 5th, after an illness extending over several months, aged 67. Dr. Campbell was one of the best known practitioners in Montreal, and was for many years editor of the *Medical Record*. Within a year he had lost his two sons, Dr. Rollo Campbell and Mr. F. W. Campbell, jr., the latter of whom died only a short time ago. A widow and one daughter survive.

JOHN HERALD, M.D.

In our last issue we published a short obituary notice of the late Dr. Herald, of Kingston. In that notice we stated that "he never rallied after the operation." That statement was incorrect. On the evening of the operation his temperature was 99° and pulse 90. The morning after, his temperature was 99° and his pulse 80. He had a comfortable night, was feeling very well, and was in good condition; there was no nausea or vomiting, and it was supposed that he had completely recovered from the operation. His friend, Dr. Anglin, of Kingston, thought that his condition was in every respect satisfactory, and was convinced that the recovery would ensue. On the evening of the second day, at half-past five, he suddenly became cyanosed, with respirations 50 and pulse 150, and died the following morning at fifteen minutes to ten, within 48 hours after operation. The *post-mortem* examination showed that pulmonary thrombosis was the cause of death.

ALBERT EDWARD HARVEY, M.D.

Dr. A. E. Harvey, of Wyoming, one of the oldest and best known medical practitioners of the County of Lambton, died suddenly, May 28th. He received his medical education in Kingston and graduated M.D., Queen's University, in 1869.

ARTHUR RICHARD BOYLE, M.D.

Dr. A. R. Boyle, of 172 Dovercourt Road, Toronto, died in Grace Hospital, May 27th, aged 71. He was graduated from Queen's University in 1859.

Book Reviews.

A Text-Book of Medical Chemistry and Toxicology. By JAMES W. HOLLAND, M.D., Professor of Medical Chemistry and Toxicology, and Dean, Jefferson Medical College, Philadelphia. Octavo volume of 600 pages, fully illustrated, including 8 plates in colors. Cloth, \$3.00 net. Philadelphia and London: W. B. SAUNDERS & Co., 1905. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

Dr. Holland possesses the faculty of making even the most difficult and complicated chemical theories and formulae easy and clear. This is probably due to his thirty-five years of practical experience in teaching chemistry and medicine. Recognizing that to understand physiologic chemistry students must first be informed upon points not referred to in most medical text-books, the author has included in his work the latest views of equilibrium of equations, mass-action, cryoscopy, osmotic pressure, dissociation of salts into ions, the effects of ionization upon electric conductivity, and the relationship between purin bodies, uric acid, and urea. Chemical substances he has treated from the standpoint of the medical student and physician, giving much more space to toxicology than is given in any other text-book on chemistry. The chapters on the clinical chemistry of milk, gastric contents, and the urine, and that on water supply and filtration are full of practical information. Dr. Holland's work will undoubtedly be gladly received by the profession, presenting as it does the mature experience of a practical teacher.

The Veriform Appendix and Its Diseases. By HOWARD A. KELLY, A.B., M.D., Professor of Gynecology in The Johns Hopkins University, and ELIZABETH HURDON, M.D., Assistant in Gynecology in The Johns Hopkins University. Octavo, 827 pages, with 399 original illustrations, some in colors, and three lithographic plates. Cloth, \$10; half morocco, \$11 net. Philadelphia: W. B. Saunders & Co., 1905. Toronto Agents: J. A. Carveth & Co., 434 Yonge Street.

It is a very difficult matter to give anything like a suitable review or even a notice of a work like this. Fortunately the world knows Dr. Kelly and recognizes his ability as a writer and teacher. It has been recognized for many years that his great work of "Operative Gynecology" was the best thing of the sort that the world has seen. One of the chief features of that book was the magnificence of the illustrations. He was particularly fortunate in having for some years the services of great artists in this particular line of work. The author gives us interesting information relative to the illustration of medical works and the proper use of good figures. He tells us that the changes in the appearance of an organ brought about by disease are often manifest in such delicate deviations from the

normal topography, that it requires the hand and eye of a genuine artist, and one who is also a well-informed anatomist and pathologist to represent the morbid condition accurately. The sense of vision unaided often fails to grasp the significance with completeness, and in such a case the true artist will palpate the fresh specimen and then represent the combined illustrations of sight and touch. The artists demonstrates the character of the specimen (1) by inserting lines; (2) by cutting away portions of the surface and thus displaying the depth; (3) by magnifying the organ and drawing it as though translucent; (4) by explanatory diagrams and cross-sections.

The writer of this review is rather a poor artist, but he holds a strong opinion that the illustrations in this book are the best that even Dr. Kelly has produced.

Dr. Kelly quotes the following from Dr. M. H. Richardson: "I am fully convinced that appendicitis is the most important acute abdominal disease of the present time, and that, excluding certain zymotic diseases, it is the cause of more deaths than any other acute abdominal lesion."

We accept this statement as true, and consider, therefore, that appendicitis should be studied most carefully by the physician, the surgeon, and the obstetrician, including both the specialist and the general practitioner.

It is, perhaps, needless to say in connection with this book, that the text is equal to the illustrations, particularly those portions which deal with the clinical side of the subject. We think, therefore, that every physician should obtain the book.

Gall-Stones and Their Surgical Treatment. By G. A. MOYNIHAN, M.S. (Lond.), F.R.C.S. (Leeds). Fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Canadian Agents: J. A. Carveth & Co., 434 Yonge Street, Toronto.

We are told by some recent visitors to Great Britain, that Dr. Moynihan, of Leeds, is the most skillful operator in England, and he happens to be as good a writer and teacher as he is an operator. This book is a very interesting and useful one, containing as it does the material upon which the author based a course of lectures delivered at the Medical Graduates College, in London, during April and May, 1904. It contains an account of the etiology, pathology, clinical manifestations and operative treatment of gall-stones. The chief feature as to the increasing importance of this subject, is the almost certain fact that in the future, as the author states, surgical treatment will be adopted more frequent, and in an earlier stage of gall-stone disease than has heretofore been customary. The book is an excellent one in all respects, and is published in the Saunders' best style.

Practical Pediatrics: A Manual of the Medical and Surgical Diseases of Infancy and Childhood. By DR. F. GRAETZER, Germany, Editor of *Centralblatt für Kinderheilkunde*, with numerous additions and notes by the translator, HERMAN B. SHEFFIELD, M.D., Pediatricist of New York. 544 pages. In limp cloth, price, \$3.00. Published by the F. A. Davis Co., Philadelphia.

This is a reference book in pediatrics. Part I., containing 19 chapters, is devoted to descriptions of pathological states, diagnosis, symptomatology and treatment. Part II., containing 75 pages, is devoted to materia medica and therapeutics, the majority of the newer remedies being dealt with. Keeping in view the purpose of the book, *i.e.*, for reference, the author has endeavored briefly, but clearly, to present everything worthy of attention from a modern standpoint. The author largely follows Hensch, but the work is chiefly the outcome of his own experience in many years of extensive practice, especially in pediatrics.

"To my knowledge," says the translator, "no book in pediatrics presents in so small a space such an abundance of practical and clinical material, pathological and bacteriological data." The translator has added to the text Lorenz's operation for congenital dislocation of the hip, hydrotherapy, palatable prescribing, and many other articles. The book is well got up—good paper and good type. Altogether a very useful addition to any medical library.

Progressive Medicine—March, 1905. A quarterly digest of advances, improvements and discoveries in the medical and surgical sciences. Edited by H. A. HARE and H. R. M. SANDIS. Lea Bros. & Co. \$6 per annum.

The first volume of this year is equal to any of its predecessors. The subjects dealt with are: Surgery of head, neck and thorax, infectious diseases, including acute rheumatism, croupous pneumonia and influenza, the diseases of children, laryngology, rhinology and otology.

Diseases of the Blood (Anemia, Chlorosis, Leukemia, Pseudoleukemia). By DR. P. EHRLICH, of Frankfort-on-the-Main; DR. A. LAZARUS, of Charlottenburg; DR. K. VON NOORDEN, of Frankfort-on-the-Main; and DR. FELIX PINKUS, of Berlin. Entire volume edited, with editions, by ALFRED STENGEL, M.D., Professor of Clinical Medicine, University of Pennsylvania. Octavo volume of 714 pages, fully illustrated. Cloth, \$5.00 net; half morocco, \$6.00 net. Philadelphia and London: W. B. Saunders & Co., 1905. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

This volume on Diseases of the Blood is the ninth in Nothnagel's Practice to be published in English. It includes anemia, chlorosis, leukemia, chloroma, pseudoleukemia, and each condition is treated so exhaustively and the theories discussed so carefully that the work will remain the last word on the several subjects for many years. Dr. Alfred Stengel, under whose

excellent supervision the entire series is being issued, is also the individual editor of this volume. His wide experience and recognized ability as a clinician, and his valuable work concerning the histology, both normal and pathologic, of the blood, renders this volume of unusual interest. His additions are particularly frequent in the article on anemia. When this series are completed—and the publishers assure us that the three remaining volumes will shortly appear—it will undoubtedly form the best practice of medicine in existence, expressing the opinions of the highest German and English speaking authorities.

A Text-Book of Obstetrics. By ADAM H. WRIGHT, Professor of Obstetrics in the University of Toronto; Obstetrician and Gynecologist to the General Hospital, Toronto, Canada. New York and London: D. Appleton & Co., Publishers. George R. Morang & Co., Canada. Price, \$4.50.

For more than twenty years Professor Wright has held a leading place amongst the obstetricians of this continent. Many practitioners in Canada and the United States still depend for their obstetric information on the notes they took of his lectures in their student days. When, therefore, it became known that he was to publish a text-book, its advent was awaited with keen interest and great expectation. The book now before the public clearly shows that Professor Wright's reputation has been well earned.

The style in which the work has been cast—that of lectures—is, we think, the best. It is sufficiently flexible to admit of orderly arrangement, and yet to avoid that pedantry which comes of over classification. No space is wasted on "speculations which lead to no important result," but that which has commended itself to the author's mature judgment, is laid down with admirable clearness and detail.

The work is obviously based on the author's large obstetrical experience, but he has, at the same time, been quick to avail himself of all that is best in the literature of the subject. He has not permitted himself to walk in the beaten track that runs through so many obstetrical text-books, but in no case has he departed from generally accepted teaching, or advanced new ideas, without giving good reasons.

The sections on the "Toxemia of Pregnancy," "Bright's Disease in Pregnancy," and "Eclampsia," and their inter-relationship, form a most valuable addition to the history of a difficult subject. Dr. Dwyer, who has paid especial attention to renal pathology, says of this part of the work: "I critically examined that portion of the work dealing with the difficult and important subject of 'Eclampsia.' The clear and concise setting forth of the known causation and pathology of this condition, as also its relationship with the various forms of

nephritis and albumenuria, is in every respect accurate and complete." The objects of treatment are elimination of the poisons and control of the convulsions, and the various means of accomplishing these objects are carefully reviewed. A good instance of the clinical nature of this work is the chapter on "Dry Labor." The absence or early escape of the liquor amnii will often so modify the course of labor as to become a factor of greater importance even than the presentation or position. We therefore think that the author has done well to treat this condition as a separate entity.

Intercurrent diseases of pregnancy are more fully described than in any other text-book. The sections on heart disease and tuberculosis will be found of especial value. The author's views on the former subject were published two years ago, and have been widely quoted since. Of these two sections Dr. W. P. Caven says: "What strikes me most forcibly about them is that the reader of these articles will have clinical facts at hand which he could only acquire by careful investigation at the end of twenty-five or thirty years' practice. I should consider that every practical point arising in the management of such cases in general practice is dealt with in a most common-sense manner."

Puerperal septicemia is, perhaps, the most difficult part of obstetrics to write on. If any man doubt this let him try. In spite of all that has been written or done, no bacteriological classification has yet been made that will answer clinically. Streptococci may prove comparatively harmless, and saprophytes may prove fatal. Professor Wright has given us a clinical classification which will prove of great service to the practitioner, and the types which he describes will be recognized by all who have much to do with this dreaded infection.

We have heard many practitioners declare that occipito-posterior labors gave them more trouble than all the other complications of labor put together. As this has been our own experience, we have often been surprised to find the small amount of attention given to this subject by obstetric writers. In Professor Wright's treatment of this topic we again see the clinician's hand.

Contrary to many writers the author thinks that the collapse which occurs in concealed accidental hemorrhage is out of all proportion to the amount of blood usually lost. The reader will find some interesting cases cited in support of his views.

With regard to the more purely surgical complications, Dr. H. A. Bruce says: "I was particularly pleased with the chapter on Ectopic Gestation. It gives one, in the shortest space possible, a most lucid and comprehensive account of this difficult and important subject. No one could possibly read this

chapter without feeling that he had acquired a most useful and practical knowledge of the subject. I consider this chapter the best work on Ectopic Gestation that has ever been published. . . . The chapter on Appendicitis gives one a complete account of this subject in a very short space."

The science is not so elaborately dealt with as the art of Obstetrics, but all that is needful is given, and all that is given is correct.

We have singled out a few sections for especial remark, but the work is of the same quality throughout, equal care being evident in each section. On the whole, we consider it by far the best practical text-book on the subject extant. Dr. Helen McMurchy says of it, "Although I have the standard English and American authorities on the subject, I do not think that any of them is so practical, or, perhaps, so forcible. The man and his experience speak directly to one as one reads it, and the style is interesting."

Of the illustrations about 70 per cent. are new, the material being largely photographs of specimens in the University of Toronto and of scenes at the Burnside Lying-in-Hospital. The excellence which has been attained in this part of the work is chiefly due to the untiring efforts of Dr. Edmund E. King, Past President of the Toronto Camera Club, and that gentleman is to be congratulated on the results achieved. We believe that many of these plates have never been equalled. Dr. Walker's drawings, illustrating repair of the perineum, distended bladder, etc., are also especially good.

The work of the publishers has been well done. Paper, type, and binding are all excellent. We have heard expert opinion to the effect that the price charged is a very moderate one for such a production.

Great care has been taken in the preparation of the index, so that reference is easily made to any subject. The list of illustrations has also been arranged alphabetically. As members of the medical profession we feel proud that Canada has made so substantial an addition to the world's medical literature. Truly our University has been a long time in labor, but she has at last brought forth a book.

K. C. M.

A new Journal will be published in Chicago, entitled *Surgery, Gynecology and Obstetrics*. The Managing Editor will be Dr. Franklin H. Martin; Associate Editor, D. Allen Canavel. The following well-known men will be associated with Dr. Martin on the editorial staff: Doctors Senn, Murphy, Webster, Holmes, Dudley, Bacon, Besley, Hollister, Bachellé and Cubbins. There will also be a number of collaborators from various cities in the United States.

The first issue will appear about July 1st. The Journal will cover the fields of general Surgery, Gynecology and Obstetrics. The editors will endeavor to make it the most complete, the most important and the best Journal of its kind in the world."

The following papers will appear in early numbers of the new Journal:

"Iodine as an Antiseptic," by Dr. Senn, Chicago.

"Appendicitis Complicating Pregnancy," by Dr. Coe, New York.

"Vaginal Cesarean Section," by Dr. Fry, Washington.

"Thyroid Cysts," by Dr. Bloodgood, Baltimore.

"Short Incisions in Certain Common Operations," by Dr. Van Hook, Chicago.

"Sudden Deaths Immediately Following Parturition and Gynecological Operations," by Dr. Davis, Philadelphia.

"Pelvic Infections," by Dr. Watkins, Chicago.

"Appendicitis in Relation to Pelvic Diseases of Women and Pregnancy," by Dr. Webster, Chicago.

"Eclampsia," by Dr. Kirkley, Toledo.

"Post-operative Vomiting," by Dr. Boise, Grand Rapids, Mich.

"Preparatory and After-treatment of Surgical Cases," by Dr. Ries, Chicago.

Mechanical Vibration and its Therapeutic Application. By M. L. H. ARNOLD SNOW, M.D., Professor of Mechanical Vibration Therapy in the New York School of Physical Therapeutics; Associate Editor of the *Journal of Advanced Therapeutics*; Late Assistant in Electro-Therapeutics and Diseases of the Nervous System in the New York Post-Graduate Medical School, etc. Published by the Scientific Authors' Publishing Co., 465 Lexington Ave., New York. Price \$2.50 net.

Mechanical vibrations are of great use in a large number of pathological conditions. We have had great results in joint stiffness (the result of injury) in nervous condition and the neurasthenia. This volume is one that places the use of vibratory machines before the reader in a very clear and interesting manner. Vibration is not a cure-all, but it is an adjunct to treatment that is not widely enough known.

Morrow on Social Diseases. The Relation of Social Diseases and Marriage. By PRINCE A. MORROW, A.M., M.D., Emeritus Professor of Genito-Urinary Diseases in the University and Bellevue Hospital Medical College; Surgeon to the City Hospital; Consulting Dermatologist to St. Vincent's Hospital, etc., New York. In one octavo volume of 390 pages. Cloth, \$3.00 net. New York and Philadelphia: Lea Brothers & Co., Publishers. 1904.

Since unlawful relations between the sexes have come to be known generally as "The Social Evil," the author has adopted the term "Social Diseases" to indicate the infections most usually thus acquired. Their frequent infliction upon innocent

victims through legitimate martial relations involves consequences which affect not only the health, but the peace, honor and happiness of the entire family, and the importance of venereal prophylaxis is beyond words.

The importance and practical value of this new and timely volume, written by a man of profound learning, long experience and sound common-sense, upon a subject which so vitally concerns mankind individually and collectively, ensures its wide recognition.

Venereal diseases in their origin, and especially in their far-reaching pathological effects, strike at the very root of race perpetuation. They blight the mental, moral and physical welfare of society as does no other agency. War, pestilence and famine are temporary; venereal diseases constantly ravage all grades of society.

Heretofore no comprehensive treatise upon the subject has existed in our language, and it is fortunate for the profession and laity alike that an author of Dr. Morrow's achievements and established ability is the first to enter the field.

The work sets forth clearly the dangers introduced by venereal diseases into marriage—dangers to the wife, dangers to the offspring, and dangers which come from their morbid irradiations in family and social life. The fulfilment of the protective duty, which has for its object the preservation of the helpless and innocent from infection, realizes the highest ideals of preventive medicine; and, while this duty devolves especially upon the physician, every member of the community is and should be the protector of the wife and mother, and the preserver of the health and welfare of future generations.

Not the least interesting chapter presents the author's views upon the "Medical Secret" and the exercises of professional discretion in restraining improper marriages, and gives valuable hints for the physician's guidance in many of the involved questions which so frequently arise.

In dealing with these situations there is required not only a thorough knowledge of these diseases in all their recently revealed relations, but also a knowledge of human nature, and a professional sagacity which is not taught in the curricula of the medical schools.

It is to furnish just this knowledge that this book has been written, and its perusal, in fact, its study, may well be recommended, not only to every physician, but to every thoughtful adult.

Dr. J. A. Y. Schooley has been appointed Associate Coroner for the County of Welland, and Dr. Hugh Clayton Maclean has been appointed Associate Coroner for the District of Parry Sound.