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CANADA
MEDICAL & SURGICAL JOURNAL

Original Communications.

THE INITIAL RASHES OF SMALL-POX,

By William Osler, M.D., L.R.C.P., Lond.,

Fellow of the Royal Microscopical Society, London, late Physician to the Small-pox Department of the Montreal General Hospital, and Professor of the Institutes of Medicine, McGill University.

In the abundant literature of small-pox, contained in the standard text-books, and scattered through the various periodicals, mention is occasionally made of rashes occurring in the initial stage of the disease. The reference to them in the ordinary English works on the Practice of Medicine is usually limited t two or three lines, stating that the eruption is sometimes preceded by an erythematous or erysipelatous rash, (see text books of Aitken, Wood, Watson, Niemeyer, Barlow.) Many make no mention whatever of them. (Bennett, Tanner). Even in the special works on the subject the notice is scarcely more extended.

Thompson* refers to a roseolous rash as a common precursor of varioloid.

Munro† speaks of a "rosy efflorescence as in measles preceding the eruption in malignant small-pox."

Gregory‡ makes no mention of them, but refers to a scarlatina-like rash in the progress of the secondary fever.

* On Varioloid Diseases, pp. 35-151.
† On Small-pox, p. 97.
‡ On Eruptive Fevers, p. 49.

Marson* states, that in varioloid the eruption "is very often preceded by roseola, which lasts two or three days—the r. exanthematica."

Foreign Physicians appear to have paid more attention to them, and very good accounts are to be found in some of the recently translated works †

Many of the older authors believed them to be independent affections, and, according as the eruption was diffuse or mottled, spoke of scarlatina or measles occurring simultaneously with small-pox.

Sydenham was evidently acquainted with them, and refers to the difficulty they may cause in the diagnosis. "The aforesaid small-pox," speaking of the discrete form, "breaks out sometimes after the fashion of erysipelas, sometimes like measles. From these they are difficult to be distinguished even by the practised physician, provided that he goes by the external appearance only."‡

In some of the cases collected by Murchison§ of the supposed coincidence of two fevers at the same time, the mistake has been made of confounding the initial rashes with independent diseases.—(Illustrations, 3, 4, 5, 6, 7, 8, 9, 10.)

Our definite information on the subject dates from the publication by Dr. Theodor Simon of Hamburg (whose premature death last year was a severe loss to the profession in Germany), of a series of articles in the Archives f. Dermatologie und Syphilis, Bds II, III, & IV, on the "Prodromal Exanthems of Small-pox." Other papers on the subject appeared in the same journal from the pens of Drs. Knecht and Scheby-Buch, and less important observations have been published in several of the German periodicals within the past four years.

The probable reason why such scanty reference to them is found in the records of the older epidemics is that they appear

* Reynolds' System.—Article Small-pox.

† Trousseau.—Clinical Medicine (Sydenham Society)) Vol. 2.
Hebra. Skin Diseases, (Sydenham Society) vol. 1.
Ziemssen's Encyclopedia, Curschmann. Art. Small-pox.

‡ Works of Sydenham (Sydenham Society) Vol. 1, page 127.

§ Med. Chirurgical Review, 1858.

with great irregularity, some epidemics, as the one now subsiding, affording numerous instances, others very few.

Two forms of these rashes are to be distinguished, the diffuse scarlatiniform, and the macular or measly, either of which may be accompanied by petechiæ, and occupy a variable extent of the cutaneous surface. In some instances they are general, covering the whole body; as a rule, however, they are limited and show a decided preference for certain localities. This holds good especially for the purpuric rashes, which occur with greatest frequence in the abdominal region, occupying a triangle the base of which is formed by a line drawn from one anterior superior spinous process of the ilium to the other, the sides by Poupart's ligaments, the apex corresponding to the pubis. Another favorite situation is the inner surfaces of the thighs, (the crural triangle of Simon). A third is the lateral thoracic region, in a strip extending towards the navel, along the margins of the ribs. The above are the usual sites for the purpuric rashes, and in the majority of cases they occur in one or all of them. The simple erythematous and macular rashes, unaccompanied by petechiæ, are often much more extensive, spreading over larger areas. When limited, in which case the presence of purpura is common, they occur in the above-named situations, and also, according to Simon, "in the axillary regions, (axillary triangle) the extensor surfaces of the extremities, especially in the neighborhood of the knees and elbows, the backs of the hands and feet, on the genitals, and lastly, as a streak extending from the ankle along the skin over the extensor hallucis longus."

My experience has been that they are chiefly purpuric; in the limited number of cases which I have observed, only two, were unaccompanied by petechiæ. In very many of the cases reported by Simon and Knecht no mention is made of the presence or absence of cutaneous extravasations. Scheby-Buch, on the other hand, believes them to be, in most instances, of an hæmorrhagic nature, *i. e.*, numerous petechiæ occur upon an erythematous base. The following cases will give a good idea of the nature and extent of these initial rashes.

Case I.—D. R., æt. 14. Admitted November 28th. Vac-

cinated, one good mark. Revaccinated 8 days before admission, three points, which had taken, were just passing into the pustular stage. A diffuse erythematous rash of a dark-red hue existed over the abdominal region, extending upwards in the lateral thoracic areas, and downwards upon the thighs. Face much suffused, extremities unaffected. On pressing with the finger upon the skin of the abdomen, numerous petechiæ were evident, most abundant in the groins, and inner surfaces of the thighs.

Temp. 101°. Slight delirium. A papular eruption over face and arms.

29*th*.—Erythema has disappeared, leaving the ecchymoses visible as small, dark, punctiform spots, closely set together in the groin, and more scattered towards the navel. The largest existed in the lateral thoracic regions, over the serrati muscles. A few were also noticed on the legs about the inner surfaces of the tibiæ.

Course of the Disease.—Eruption became confluent on the face, discrete on the extremities and trunk. Not more than eight pocks appeared on the sites of the erythema. Instead of proceeding to maturation, the majority of the pustules aborted, and on the 11th day of the disease desiccation had begun.

Case II.—J. C., æt. 23, medical student. Vaccinated, one good mark. Admitted, December 15th, 1874. Initial symptoms, according to his own statements, had been tolerably severe. Papular eruption present on the face and arms. On examining the trunk a fading erythema was noticed over the thorax and abdomen. A diffuse ecchymosis existed over the anterior surfaces of both shoulder joints, extending above over the acromion processes, and internally over the outer half of the clavicles. Continuing into the axillæ, it involved the greater part of the skin in these fossæ, terminating below at the level of the fifth rib. A considerable amount of hyperæmia was present, and pressure with the finger revealed the fact that the ecchymosis was not uniform, but here and there left portions of the skin unaffected.

Numerous purpuræ in the groins and lateral thoracic regions,

some of which were of considerable size; none on the extremities, or inner surfaces of the thighs. Temp. 100.5°. General symptoms good. Pulse firm and strong.

Course of Disease.—Pocks numerous but discrete, and proceeded regularly to pustulation. Ecchymoses faded gradually leaving a yellowish-green discolouration of the skin over the shoulders, and in the axillæ. Desiccation early. Rapid recovery. No complications.

The first case affords an excellent example of the condition under consideration. The exanthem occupied the most usual situations, viz, the anterior abdominal and lateral thoracic regions, together with the inner surfaces of the thighs. On superficial examination the ecchymoses were not at first evident, becoming so, however, on the following day, when the erythema had faded.

The second case presents several points of interest. The initial symptoms were so severe, and such was the intensity of the prodromal exanthem, and extent of the cutaneous extravasations, that the gentleman who attended the case, though possessed of considerable experience in small-pox, believed it to be of the true hæmorrhagic variety. On first seeing it I expressed a similar opinion. The remarkable extent of the ecchymoses in the neighborhood of the axillæ was certainly very misleading, more especially, as it was accompanied by an eruption of purpura in the thoracic and lower abdominal regions. Indeed, in such a case, within the first 48 hours, it might be almost impossible to decide definitely, whether we had to deal with a simple prodromal exanthem, or with the initial symptoms of genuine hæmorrhagic small-pox. In the latter the exanthem would probably be more general, of a deeper hue, and present a greater number of petechiæ, and even on the second day hæmorrhage mighttake place from the mucous membranes.

The two following cases are the only instances which have come under my notice of a simple erythematous rash unaccompanied by petechiæ. Oddly enough, both subsequently became hæmorrhagic; in one the extravasations were limited to the pocks upon the legs, and a good recovery was made; the other proved to be of the true hæmorrhagic variety.

CASE III.—J. M., æt. 25. Vaccinated, one good mark. Admitted, January 28th. Initial symptoms not severe. A diffuse erythematous rash existed over abdominal and thoracic regions. According to patient's statements, it had been brighter. and was fading at time of admission. It was unaccompanied by any purpuric spots, either in the regions affected, or in other parts of the body. Eruption discrete, papular, very scanty upon the abdomen.

Course of Disease.—Progressed favorably, but presented peculiar characters, inasmuch as extravasation took place about the pustules on the legs on the 5th day, and was followed by a subsidence and rapid desiccation of the eruption.

CASE IV.—A. McR., æt. 19, a strong Scotch girl. Unvaccinated. Admitted January 31st, from the general wards, where she had been under treatment during two weeks for some ill-defined affection. Initial symptoms very severe. There was on admission a deep erythematous rash over the whole body, most intense on the abdomen and thorax, and unaccompanied by ecchymoses. Face and arms of a deep red colour. Papules very general. Temperature 103.3°. Pulse, 116. Respirations, 22. Feb. 1st, erythema fading on the trunk.

Course of Disease.—This case proved to be of the hæmorrhagic form, and is interesting from the fact, that a *simple* erythematous rash was among the initial symptoms, the extravasation into the skin not occurring until the third day of the eruption, when the erythema had disappeared.

Patients are usually sent to hospital on the third or fourth day of the disease. The initial rashes are often among the earliest symptoms, and may, if of the simple erythematous variety have disappeared, whereas, if purpuric in character traces of them will remain for days. In some instances, a fading erythema was noticed on admission; in others, no history of any could be obtained, though the petechiæ were present. The following cases illustrate this:

CASE V.—M. C., æt. 15. Vaccinated, one good mark. Admitted Jan. 18th. Initial symptoms severe, well-marked rigor. Temp. 102 2°. Pulse 102. Resp. 24. Only a few papules

visible on the face and about the wrists. Petechiæ on back, sides, groin, and legs. Those upon the back were scattered and small, on the abdomen they were thickly set and large, especially in the hypogastric region. On the lower limbs they existed as small circular spots of dark red colour on the inner surface of the thighs and the extensor surfaces of the legs. In this case I could obtain no history of an erythematous rash.

Course of Disease.—Favorable. Eruption discrete; desiccation early; recovery rapid.

CASE VI.—T. C., æt. 20. Vaccinated, one good mark. Admitted Feb. 16th. Initial symptoms moderate. Eruption discrete, in the papular stage. Abundant petechiæ in the lower abdominal region, and in the groins; also a few over the serrati magni muscles. None upon the thighs, or legs. No trace of an erythematous rash, nor could it be gathered from the statements of the patient that one had existed.

Course of Disease. General symptoms good; pustules formed normally. Purpura faded within the first week.

CASE VII.—T. B., æt. 22. Vaccinated, one good mark. Admitted December 31st. Eruption discrete and in the vesicular stage. Temperature 98.4.° Ill since the 27th. Initial symptoms mild. Numerous small purpuric spots in the groins, arranged chiefly parallel to Poupart's ligaments, and extending internally over the recti muscles. Similar spots, though somewhat larger, existed in a line with the lower ribs, extending towards the navel. According to the statements of the patient, on the second and third day of his illness, there was a rash on the lower abdominal region.

Course of Disease.—Pustules few in number. Recovery rapid.

CASE VIII.—R. W., æt. 20. Vaccinated, one indifferent mark. Admitted Jan. 10th. Initial symptoms mild. A plentiful eruption on face, buttocks, and arms. A diffuse erythema present over the whole trunk, and, in a limited degree, over both elbows. Accompanying this were abundant petechiæ, especially numerous in the groins, the lumbar region behind, and

the posterior surfaces of the the thighs. Jan. 11th. Erythema had disappeared entirely. On the buttocks, back, and extensor surfaces of the arms and thighs, the pustules were collected into small groups.

Course of Disease.—Pustules did not maturate fully; desiccation early. Recovery rapid. This was the only instance in which the initial rash was present on the extensor surfaces of the joints.

Occasionally the initial rash is late in appearing, and may follow rather than precede or accompany the eruption.

CASE IX.—H. A., æt. 28. Vaccinated, five good marks. Admitted April 3rd, with a disseminated papular eruption. Initial symptoms had been tolerably severe.

April 4th. At morning visit an erythematous rash, accompanied by numerous petechiæ existed over the lower abdominal regions, and groins. Erythema not intense, petechiæ small, and closely set together.

April 5th.—Rash had disappeared.

Course of Disease. Pustules developed well. General symptoms good. Purpura had faded by the seventh day, leaving light brown discolourations to mark the places where they had existed..

The initial rashes in the foregoing cases, with one exception, (case IV), occurred in the discrete form of variola, and though recovery, as a rule, was rapid, none of the cases could properly (unless, perhaps, case VII), be classed as varioloid. One of the last patients admitted into the Hospital afforded an instance of an initial purpuric rash in the mildest possible form of small-pox.

CASE X. W. A., æt. 17. Vaccinated, two good marks. Admitted June 2nd. Eruption scattered, pustules few in number, not more than 30. On admission an abundant purpuric eruption, accompanied by a slight degree of erythema, existed over the lateral thoracic regions, the abdomen, and inner surfaces of the thighs. Between the navel and the pubis was a large superficial ecchymosis, about half the size of the hand, extending in a somewhat semi-lunar form. The purpuric spots

in the groins were of large size, and arranged chiefly parallel to Poupart's ligaments, at a distance from ½"–1" above them. A few isolated ones extended over them to the anterior region of the thighs, while others existed on the upper third of the inner surfaces.

Course of Disease.—Up on the 5th day.

The last case observed is interesting from the fact that the initial rash took the form of an extensive urticaria.

CASE XI.—A. E., æt. 29. Vaccinated, one bad mark. Admitted April 7th. Initial symptoms had been moderate. On examination an eruption was found upon the trunk and extremities which presented the usual characters of urticaria, viz, elevated reddened patches of unequal size, in some places arranged linearly, in others forming broad areas, light in the centre, deep red at the periphery. On the trunk they were chiefly grouped together, being most abundant on the anterior surface, while on the extremities they were arranged in raised lines, the typical wheals of the affection. In the neighbourhood of the ankles and back of the feet they were of large size, and showed better than anywhere else the characteristic features of the eruption. The patient complained of sensations of heat and itching, and wherever he scratched violently a fresh outbreak occurred. A few papules of variola were noticed on the face, and about the wrists.

April 8th.—Urticaria persists, though not so marked on the trunk.

April 9th.—Has disappeared from the trunk, and greater part of the extremities; a few only remain about the ankles. At the evening visit no trace of urticaria could be found. Pocks few in number, not more than 60.

Patient got up on the 10th, and remained in the hospital twelve days.

Simon* expresses himself as somewhat skeptical about the occurrence of genuine urticaria as a prodromal exanthem in small-pox, believing that most of the cases described as such should be referred to the macular or measly rashes. I think there can be no doubt about this case, the wheals were

* Loc. Cit.

too characteristic to allow of mistake. A genuine case is also reported by Starck, (Arch. der Heilkunde, Vol. iv.) in which the urticaria appeared and disappeared in different parts of the body in the course of the disease.

Simon calls attention to the fact that the simple macular and diffuse rashes are not unfrequently accompanied by sensations of heat and itching, which in the case of the former might cause them to be confounded with urticaria.

The frequency with which the prodromal exanthems occur is apparently subject to considerable variations, depending, perhaps, on the type of epidemic, which has exhibited marked changes within the present century. The epidemic which has raged in so many parts of the world since 1870 has been of an unexampled severity, owing, in great part, to the large proportion of hæmorrhagic cases, and has been further marked by the very general prevalence of the prodromal exanthems. That no reference is made to them by so many of the old authors, and that such scanty notice is found in the more modern works, can only be explained on the supposition of their infrequence in former epidemics.

In 1088 cases of small-pox observed by Knecht, (Arch. f. Derm. u. Syph. iv), prodromal exanthems occurred in 104 or about 10 per cent. In 1413 cases of Scheby-Buch there were 237 instances of these rashes, or 16¾ per cent.

In 81 cases under my care there were 11 instances, *i. e.*, about 13 per cent. Simon does not give the percentage in his cases, but from the number recorded in his series of articles on the subject it must have been large.

The localities most commonly affected are the anterior abdominal surface, and the inner surfaces of the thighs. Thus in Scheby-Buch's 237 cases these regions were affected in 190 instances. In the few instances which have come under my notice, the lateral thoracic areas were more frequently the seat o fhe exanthem than the inner surfaces of the thigh; nor did I observe any cases in which the rash was absent from the anterior abdominal regions. Many cases are recorded in which the exanthem remained limited to the regions of the joints,

(elbows and knees), or the backs of the hands, the axillæ or the inner surfaces of the thighs, without the simultaneous affection of the abdominal surfaces. When confined to the extremities, both upper and under are implicated as a rule, the rash is rarely limited to either alone. Occasionally they are unilateral, in which case they are always of small extent. The general erythematous rashes are rare; in Scheby-Buch's 237 cases there were only 14 instances. Neither of the above mentioned authors state the proportion between the simple erythematous rashes and those accompanied by purpuric spots. Indeed, in the reports of many of Simon's cases no mention is made of their presence or absence. In the 11 cases which have come under my notice the latter greatly exceeded the former, the proportion being 8: 3.

A consideration of the diagnostic and prognostic value of the initial rashes is of great interest: for, of course, the worth of a symptom is in direct ratio to the amount of knowledge it gives us in deciding upon the nature of a case, and forming an opinion as to its probable issue.

From the fact that a patient is rarely or never sent to Hospital until the characteristic eruption has made its appearance, *i. e.*, on or about the fourth day of the disease, none of the above cases were of any service to me in forming a diagnosis; that had already been made. In any case the value of the initial rash depends greatly on the date of its outbreak, which extends from 1 to 5 days before the appearance of the eruption. In the majority of cases it comes out on the second day, and if of noticeable extent would consequently be of diagnostic importance, more especially if accompanied by petechiæ. Indeed, Curschmann* states that in the initial stage of the disease there is only one pathognomonic symptom, and that is, the hæmorrhagic exanthem situated in the triangle of the thigh. The petechial rash is of much greater diagnostic value than the simple erythematous, and a case of fever presenting an eruption of purpura in any of the above oft-named localities on the second or third day should be looked upon with grave suspicion. Simon maintained that even before the onset of the fever, and prior to

* Loc. Cit.

the general disturbance of the system, the diagnosis could be determined by the appearance of the characteristic prodromal exanthem. This is going very far; still, he has recorded two such cases, and quotes two others. In his 38th case there was an initial rash in the inguinal regions, and about the anus, for the greater part of a day before the onset of the fever and constitutional disturbance. The former set in with a rigor, and was followed by a great extension of the exanthem. It is to be remembered that prodromal rashes are not peculiar to small-pox, though, no doubt, they occur with much greater frequence in this disease than in any other. Scheby-Buch states that he has met with simple erythematous rashes in the initial stage of tonsillitis, typhoid fever, and measles, presenting the same distribution, and differing only from those of small-pox in intensity and extent. Purpuric rashes, however, are excessively rare, if they occur at all, in the first stage of the ordinary febrile affections; so that they are of chief moment among the prodromal exanthems of small-pox, and may be regarded as affording a tolerably certain basis for diagnosis. The general erythema, which is met with in a limited number of cases, is usually of the diffuse form, and, occurring on the second or third day, might be confounded with scarlatina. The points to be attended to in the diagnosis would be, the mode of attack, which in the two affections presents certain differences; the colour and extent of the exanthem, which is brighter in scarlet fever, and, as a rule, much more extensive; and lastly, the presence of minute petechiæ in the inguinal regions would be in favor of small-pox.

The diffuse erythema accompanied by numerous petechiæ which occurs on the second or third day in cases of malignant small-pox, could not be distinguished from the similar condition met with in those rare cases of hæmorrhagic scarlatina. The presence of an epidemic of one or other disease would be the only means of deciding the nature of the case.

Simon regards the prodromal exanthems as eminently characteristic of small-pox, and among his cases, which are all of great interest, we met with some of special significance. Thus in the case of a girl who had had a rigor, fever, pains in the back and

head, and initial rashes in several places on the extremities, though no eruption followed, the diagnosis of small-pox was made, and confirmed by the fact that the sister, who had acted as nurse, took the disease badly. He also records cases in which, with the outbreak of the prodromal exanthem, the temperature sank and the general symptoms subsided, coming on again with the appearance of the eruption, and finally subsiding on its completion. Whether from a diagnostic point of view we agree with this author's estimate of the value of these initial rashes or not, there can be very little doubt that in a limited number of instances they may be of considerable service, in enabling us to decide upon the nature of a case, and therefore take early precautionary measures for the isolation of the patient.

Of the value of the initial exanthem in the prognosis of the disease the opinions of authors differ. Simon makes the general statement, that, "among the severe and fatal cases of variola just as many were accompanied with prodromal exanthems as those without," and he regards their prognostic significance as *nil*. It struck me, however, in reading over his cases that the number of deaths was comparatively small.

Knecht in 115 fatal cases of small-pox met with the initial rashes only 15 times, and as this observer noted 104 instances his experience supports the view that they are, on the whole, of favorable significance. He states that up to the 30th year they are of no prognostic value, but after this age they indicate a severe course, while in old age they are almost invariably of evil omen.

Of Scheby-Buch's 237 cases. 37 died; *i. e.*, about 15 per cent. His experience does not bear out Knecht's supposition, that after the age of 30 the prodromal exanthems are of serious import. Curschmann believes that the simple macular and erythematous rashes almost invariably precede varioloid, and states, that in many instances the number of pustules was in inverse ratio to the extent of the initial rash. On the other hand, the purpuric rashes, in his experience, especially those in the regions of the groin, are almost always followed by variola vera. The 11 cases above reported do not support the view; the only

fatal case among them was preceded by a simple erythematous rash of considerable extent and the other instance of an erythematous rash was not followed by varioloid. Not one of the eight instances of initial purpuric exanthem proved to be variola vera; they were all followed by the milder forms of the disease, two of them being varioloid.

Trousseau* states that while in natural small-pox the scarlatiniform rashes accompanied with purpura constitute alarming symptoms, they do not lead to an unfavorable prognosis in the modified form.

Professor See† believes that the scarlatiniform and rubeolic rashes precede as a rule benign cases, the hæmorrhagic variety the severe.

Hebra‡ holds that the appearance of the rash upon the abdomen is not "necessarily to be regarded as an unfavorable sign. These cases do, however, more often terminate badly than in recovery, and particularly when the affection passes beyond mere hyperæmia into hæmorrhage, when, in fact, a purpura rather than an erythema shows itself on the abdomen and on the thighs."

On the whole the presence of initial rashes in the majority of cases indicates a favorable termination, but it is evident from the foregoing statements that we cannot as yet lay down definite rules with reference to their prognostic value. In forming an opinion we must not rely on the nature and extent of the exanthem alone, but take into account the general symptoms, not, as Sydenham says "go by the external appearance only."

The prodromal exanthems it may be remarked occur with much greater relative frequence in men than in women.

A debated point has been, whether the small-pox eruption ever appears on the regions which have been affected with the initial rashes. In very many instances these parts present an entire immunity, which may be owing to the fact that the rashes occupy just those regions most commonly spared by the small-

* Loc. Cit., Vol. 11, p. 71.
† Journal de Medicin, Juin, 1875.
‡ Skin Diseases, Vol. 1, p. 58.

pox pustules. The lower abdominal and inguinal regions are rarely the seats of an abundant eruption, and often remain free, while the rest of the surface is involved to a considerable extent. I have several times seen isolated pustules develop in the hypogastric region after an initial rash.

Most authors refer the phenomena in question to disturbances in the vaso-motor nerves, caused, Simon supposes, by hyperæmia of the cord, which affects injuriously the vascular nerves, passing down from the medulla. "If," in his own words, "the affection of these nerves is wide-spread an erythema universale follows, while if limited to certain groups we notice circumscribed erythemas: and, as the chief site of the affection (hyperæmia ?) of the spinal cord is in the lower dorsal and lumbar regions we have in the majority of cases the erythema confined to the lower parts of the trunk."

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Acute Rheumatism treated with Salicylic Acid.—Under DR. ROSS. Reported by Mr. H. N. VINEBERG.

The following case illustrates well the effect of the great new remedy for rheumatism. The case was certainly quite severe, but the relief to the pain was very rapid. As the temperature was almost normal on the 19th inst., and there was perfect freedom from pain, the acid was stopped, as some complaint had been made of burning in the stomach from it. The result of this, it will be observed, was the immediate return of all the febrile and painful phenomena. A return to the remedy again very soon removed them, and produced a rapid cure. It seems quite necessary to continue the acid for a few days after the patient is completely relieved.

L. P., æt. 22, was admitted into the Montreal General Hospital on the 14th of September, 1876, under the care of Dr. Ross, with Acute Rheumatism. No history of rheumatism

in the family. She never had rheumatism herself before. Had typhoid fever last summer. Has been frequently exposed to draughts, and sleeps with the windows of her bed-room open. Eight days ago first began to experience slight pain in both limbs. The pain came on during the day-time. The following day she was comparatively free from pain, but on the second day was seized with a severe pain in both shoulders. It soon left the shoulders and went to the hips, where it remained for some three days, and then migrated to both knee-joints, ankles and toes.

Condition on admission—Severe pain in the shoulders, elbows and wrists. The joints are slightly swollen, very hot and tender. Also has some pain in both knee-joints, the right knee being somewhat swollen, tender and hot. Tongue considerably furred, with a red border. Anorexia. Bowels regular, very copious perspiration; whole body is covered with sweat, which is very acid; urine very high coloured and acid, and with a high deposit of lithates. Temperature 102°; Pulse 120, full and compressible. Heart sounds normal. Ordered milk, and to take gr. v. of salicylic acid every hour.

Sept. 15*th.*—Pains much better to-day. Perspires very freely. Saliva distinctly acid.

Sept. 16*th.*—Slept well last night. Pains all gone from the joints, with the exception of the left shoulder. The other joints feel stiff. To take medicine only every two hours. Urine feebly acid. Saliva and perspiration very acid. Still perspiring very much.

Sept. 17*th.*—No pains whatever to-day. Joints still feel somewhat stiff. Rested very well last night. Perspires considerably still. Tongue heavily coated. Bowels not moved since admitted.

Sept. 18*th.*—No recurrence of the pains. Had three attacks of epistaxis during the last 36 hours. Heart sounds normal. Says medicine makes her sick at the stomach, causing some uneasiness, and a burning sensation. Only to take it every six hours in the future.

Sept 19*th.*—To discontinue the salicylic acid, and the following mixture was ordered. Quinæ sulph, gr. xii; acid nitro muriat. dil. ℥ii; aquæ ad ℥vi; a table spoonful three times a day.

Sept 20th.—Recurrence of pain in both shoulders. There is a slight roughening with the first sound of the heart, heard over the 3rd cartilage. To have gr. x. of salicylic acid every two hours, and to discontinue quinine mixture.

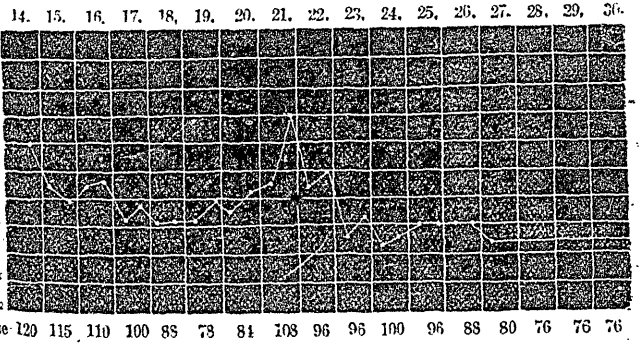
Sept. 21st.—Had a very poor night. Pain in both wrists to-day, none in the shoulders. Has a pain between the shoulders behind, which shoots to the left wrist. Bowels moved freely last night by medicine. Owing to some error did not get the salicylic acid till late in the evening. Roughness with first sound pronounced.

Sept. 22nd—Pains all gone to-day. Wrists a little stiff only. No change in sounds of heart.

Sept. 23rd.—Condition about the same as yesterday. To have gr. v. of the acid every four hours.

Sept. 24th—Sleeps very much. Says medicine makes her sleep. Tongue coated. The roughness with first sound has become a distinct, but soft, blowing murmur, with maximum of intensity at the junction of the 5th cartilage with the sternum. To have medicine only four times a day.

Sept. 29th.—Has had no recurrence of the pains. The murmur, for the last four days, has been becoming less distinct every day, and to-day it cannot be detected at all. Feels quite well, asking for food. Still taking five grains of the acid four times a day.



Oct. 1st.—Up and doing well. Joints as well as ever, Ordered half diet, and a tonic mixture. Continuing quinine and nitro-muriatic acid.

Case of Tubercular Meningitis. Under Dr. Ross. Reported by Mr. C. L. COTTON.

E. H., æt. 21, was admitted into the Montreal General Hospital on the 27th October, 1876, under Dr. Ross, and was said to have typhoid fever.

History.—Has formerly been troubled a good deal with headaches. Last winter she had swelling of her legs, for the greater part of the winter, accompanied by a constant headache. Father died two years ago. Cause not known. Mother living. Catamenia always regular. She has been sick for the last fortnight, the predominant symptoms have been a *constant severe headache, vomiting and constipation.*

Oct. 29th.—Patient has been delirious since eight o'clock last night. Delirium of an active, talkative, singing kind. Hands are constantly moving about the head. She is constantly rubbing her nose as if it irritated her. She is perfectly unconscious. Muttering, and talking is continuous. Vomited often during the night. Was given an enema which operated freely. Some apparent tenderness over the abdomen. Pupils are dilated. They oscillate when exposed to light and do not fully contract. The nail drawn across the skin of the abdomen leaves a deep red mark, which is persistent for some time, (*Tache cerebrale* of Trousseau). Pulse 88, small and weak. Respirations 18. Lips parched and dry. Temperature $101\frac{2}{5}$° Fah. Urine contains 25 per cent. of albumen.

Heart and lungs examined and found normal in every respect.

Ordered a purgative of calomel and black draught. Sinapisms to back of neck, and pot. brom. gr. x. pot. iod. gr. v. three times a day.

Oct. 30th.—Was delirious all night, but the delirium has subsided, and she now lies in a half stupid condition. Dull expression. Can answer questions slowly.

Tongue coated with a heavy white fur. Pupils still dilated, and do not act well to light. About 25 per cent. albumen in urine. Sp. gr. 1030. Abdomen *not so tender* on pressure.

Had an enema last night which moved her bowels very freely.

Oct. 31st.—She is rather more dull to-day. It is with great

Oct. 5th.—Discharged well.

difficulty that she answers questions. Urine still albuminous. Complains of a severe frontal headache. Some tenderness over abdomen.

Pupils dilated and oscillating. Tongue very heavily coated with a white fur, moist. Bowels not moved.

Nov. 1st.—Mental faculties more stupid to-day. A very severe headache. Tongue dry and dirty brown. Pupils dilated, the left more than the right. She complains of a pain in the chest, and a very severe pain *at the back of the neck*, and also some *pain in the back*. She is constantly moaning. Urine 20 oz. Very turbid and a heavy deposit of lithates, 25 per cent. of albumen. Had a purgative of calomel and black draught last night, and an enema this morning but her bowels have not moved. Same condition of skin, but not quite so marked.

Nov. 2nd.—Same dull condition of mind. She answers questions slowly, and does not always seem to understand their meaning. Face flushed. Pupils dilated. The left more than the right and oscillating. Complains of the light hurting her eyes. Internal strabismus of right eye evidently caused by paralysis of external rectus of left eye, Frontal headache. Pulse, 100, weak but regular. An apathetic expression of countenance, the mouth wide open and eyes nearly closed. The peculiar condition of skin which was noticed at first is still present, but not quite so marked. Urine still albuminous.

Dr. Ross discovered slight traces of sugar. Had an enema last night which moved her bowels very freely. Ophthalmoscopic examination of eyes by Dr. Buller. Margins of optic nerve, specially upwards and inwards, are not well defined. Retina slightly hazy. Optic disc rather paler than usual at her age.

Nov. 3rd.—Still in the dull condition. Pupils dilated. Equal in size. Internal strabismus of right eye continues.

Sordes on lips. Face covered with a profuse perspiration. Bowels not moved.

Nov. 4th.—Passed her evacuations under her unconsciously. She had Ol. Crotonis *mi*, last night which operated very freely. She is in a much more stupid condition to-day. Cannot answer questions. Eyes closed, and the light seems to pain her. Con-

junctiva of right eye somewhat injected. Pupils dilated, but not to quite so great a degree as heretofore—of equal size. Strabismus not quite so much marked. Tongue coated with a heavy brown fur and dry. Same peculiar condition of the skin present. Urine albuminous. Pulse, 120. A red rash on back of both forearms. Cheeks are flushed. Died at 10.15 P.M.

AUTOPSY 17 HOURS AFTER DEATH, BY DR. OSLER:

General Appearance.—Body, that of a tolerably well nourished young girl. Rigor mortis present in a slight degree. Post mortem discolouration in the dependent parts. Thin layer of panniculus adiposus. Muscles normal in colour.

Brain.—1270 grammes. Parts about optic nerves matted together, arachnoid thickened. Pia mater very adherent. No lymph nor inflammatory products present. No miliary tubercles discoverable on superficial inspection, but on spreading out the middle cerebral arteries under water, many of them were observed about the smaller arteries, chiefly as fusiform thickening. *Cortex;* veins moderately distended. Convolutions slightly flattened. Small veins over convolutions also full. On section white substance pale. Puncta vasculosa indistinct. Lateral ventricles distended, and contain one ounce of fluid. Lining membrane of the ventricles slightly granular. Surface of optic thalami soft. Fornix and septum lucidum exceedingly soft and tore in the removal.

Spinal Cord.—Much blood oozed from the vessels about the dura mater, and a thick layer of fat exists between the laminæ and this membrane in the dorsal region. Arachnoid looks a little opaque in the upper part of the cord. In the lower three-fourths this membrane was covered with numerous small cartiliginous plates irregular in outline, flexible, and of the usual glistening whiteness of these bodies. Veins of pia mater full posteriorly. No trace of miliary tubercle. Substance appeared in section quite natural.

Thorax and Abdomen.—Position of thoracic viscera normal. Sigmoid flexure very long, 16 inches, and passes across from left

to right, just above the symphysis pubis. Rectum descends on right side. Pericardium appears distended, and a small amount of fat exists upon it, and it contains 6 oz. of slightly turbid fluid.

Heart.—Weight, 300 grammes. No clots. Considerable amount of blood in the cavities. Valves of right side healthy. Walls of left ventricle appear slightly thickened, valves normal. Endocardium on the septum, immediately below aortic valves, a little opaque.

Right Lung.—A large amount of blood flowed out from the pulmonary veins on removal. Whole of the lower lobe dark in colour, heavy. On section surface bathed with bloody serum. No crepitation can be felt. Small portions of the organ from superficial parts float in water, from the deeper parts they sink. Deeper part of the middle lobe of the lung is in a similar condition, and also the anterior part of the upper lobe below. A few miliary granulations seen in the substance of this lung.

Left Lung.—On careful inspection a few small miliary granulations seen on the visceral layer of the pleura, and on section a few are also evident in the substance. The lung is crepitant throughout, and contains an average amount of blood. Bronchial glands enlarged, and one presents several caseous masses. Small miliary tubercles are also evident throughout them.

Spleen.—Capsule slightly opaque, and covered with a few small fibroid thickenings. A small supernumerary spleen, about the size of a walnut, is situated just below the tail of the pancreas. Anterior border of the organ presents three, posterior border two, fissures. No tubercles evident on the capsule or in the substance. On section the organ is soft and dark in colour.

Right Kidney.—130 grammes. Capsule easily detached. Surface smooth. Venæ stellatæ evident. On section two small tubercles noticed in the cortical portion. Cortex presents a series of alternating red and white lines. Pyramids slightly congested, and a good deal of blood oozes from the vessels at their bases.

Left Kidney.—160 grammes. Appearances similar to those in the right. No tubercles evident.

Stomach.—Slight post-mortem softening in the dependent

part from post mortem digestion. Small amount of mucus over the surface.

Duodenum.—Healthy. Bile flows from the puncta biliaria on pressing the gall bladder.

Small Intestines.—Peyer's glands solitary and agminated in the region of the ilium very distinct. Otherwise normal.

Liver—1235 grammes. Firm. On section, of a uniform reddish colour. Lobules indistinct. A good deal of blood flows out from the cut on section of the veins.

Uterus and Ovaries—A recent corpus luteum found in right ovary, presenting a yellowish rim, enclosing a firm reddish clot. The mucous membrane of the uterus pale, a few of the larger vessels only being visible. On examination the uterine glands and epithelium are present, and appear normal.

Reviews and Notices of Books.

A Practical Treatise on Materia Medica and Therapeutics. By ROBERTS BARTHOLOW, M. A., M. D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, in the Medical College of Ohio: etc., etc. New York: D. Appleton & Company, 1876.

Bartholow's Materia Medica is, we believe, the latest work upon that highly important department of Medical Science that has issued from the American press. In many respects it is deserving of commendation at the hands of the Reviewer. It is neither too ponderous nor too diminutive. Its size does not fill one with the awe felt by the sight of the three large tomes of Pereira's Elements,—nor does it cause a sigh for more, as when one turns over the pages of the notorious Hunter Lane. But in a happy mean in an 8vo. of 537 pages, the author has comprised just what is likely to be of practical utility to the physician upon the subjects taken up. Dr. Bartholow entered upon his task with several advantages, and he brought to it the claims not merely of the plodding book compiler, but far higher, those of the independent original observer. He was

for several years a teacher of Materia Medica and Therapeutics, he pursued a number of researches bearing upon them, and has supplemented the knowledge thus gained by a clinical experience of 22 years' length. The outcome of all this in the work before us, is a good digest, not only of the information to be found in the older works, but also of that which has accumulated, since their date and is chiefly confined to the serials or periodicals in which it first appeared. One cannot live alone in the past in Materia Medica any more than in anything else. New remedies are steadily being added to our former store,—and some of them are of the greatest worth, to wit, Nitrite of Amyl and Salicylic Acid. All such are fully treated of in this volume in a clear, concise and able manner.

The author's classification of medicines is both novel and interesting. It includes the following divisions: Remedies used I. To promote constructive metamorphosis; II. To promote destructive metamorphosis; III. To modify the functions of the nervous system, by (*a*) exciting functional activity; (*b*) depressing or suspending functional activity; (IV) To cause some evacuation from the body, such as Cathartics, Emetics, &c., and (V) To act topically. Simple though this be, we think a still simpler arrangement will be found to gather in the actual tendencies of all remedies. They nearly all tend to excite or urge on functions. They nearly all are stimulants,—either general or local,—acting upon either one function alone, or upon several functions. The exceptions to these operations are very few. Upon these few facts the whole materia medica might be made to include medicines, which I. tend to stimulate, and II. do not tend to stimulate. The first to include stimulants proper, and besides them narcotics, and evacuants, and counter-irritants, &c. The last to include such agents as sedatives, demulcents, &c. Such an arrangement may smack of the old Brunonian fancies,—but it is one the worth of which in its practical bearings will be easily appreciated by the practitioner. While upon the benefits to be had from reducing things down to the simplest comprehension; we may here also express the wish that writers upon Therapeutics would draw a line of distinction between Absolute and

Relative remedies. As disease is now treated, the latter occupy a far more prominent and frequent place than the former. Who ever thinks of prescribing for Amenorrhœa any of the reputed absolute emmenagogues? Is not the usual course to treat the disorder by removing the condition upon which the suppression depends?

We notice a useful introduction in the work before us, which seems worth mentioning. It is a paragraph under most of the articles to name the "Synergists;" that is to say, the medicines that act in the same way with the one under examination. For example, under Chloroform we find "Synergists, Anæsthetic agents, opium, chloral, alcohol, etc., promote the action of chloroform:" under colchicum we find "Synergists, such alkaloids as produce gastro-intestinal irritation, and depress the action of the heart, *e. g.* veratria, aconitia, etc., are synergistic. Therpeutically considered emetics, purgatives, alkalies, promote the activity of colchicum:" and so on under the majority of the articles discussed.

Lastly, we would remark, that this excellent work has been written rather for the physician than the druggist. Accordingly the mode of preparing drugs, and the formulæ of the officinal compounds are purposely omitted. The aim has been steadily kept in view to produce a treatise more therapeutical than pharmaceutical in character. To all in need of such a book;—and who is not in need of the latest instruction upon the weapons of his warfare? who in busy practice is not desirous to have that information in the most condensed, and at the same time most easily accessible form? To all such we heartily commend this book. We feel sure those who study it best, will thank us most for having brought it to their notice.

A Practical Treatise on Diseases of the Eye. By ROBERT BRUDENELL CARTER, F.R.C.S., Ophthalmic Surgeon to St. George's Hospital, &c., &c. American Edition edited by John Green, M.D., of St. Louis; with 124 illustrations; 8vo., pp. 505. Henry C. Lea, Philadelphia, 1876.

The enormous strides made in the science of Ophthalmology within the last quarter of a century can only be dimly discerned

through the flood of literature which, up to the present time, continues to be poured in upon the reading world; and perhaps no one can fully appreciate the full extent and breadth of the subject, who has not attempted to collate from and embody in a single treatise the leading facts contained in this vast bulk of material.

For such an undertaking, if the treatise is to be a readable one, something more than mere plodding industry is requisite; the author should have a perfect command of the language in which he writes, and, what is almost equally important, he should be a perfect master of his subject. Given, then the capacity for labor, together with the two last mentioned qualifications, and it will be safe to predict that such an author will produce a high classed work on any subject he may choose to treat of.

The work under review has emanated from the pen of a gentleman who has attained a high reputation as a writer, apart from the speciality of which he is one of the brightest ornaments. Although containing much that may be found in any other treatise on Ophthalmology, the whole work smacks of originality, both in its arrangement and in the freedom with which the author expresses his own views, though without entering into lengthy discussions such as are to be found in some of the more ponderous volumes of a similar kind written within the last few years. Thus it happens that many of the dry details to be found in "undigested compilations" are left out; nevertheless, there is a very great deal of information contained within a comparatively small compass—though nothing of importance seems to have been omitted for the sake of originality. From the specialist's point of view, the book might justly be styled incomplete, but it is none the less well adapted to supply the wants of the much larger class of readers who cannot be expected to acquire a thorough knowledge of other than the common forms of diseases of the eye.

After discussing the anatomy and physiology of the eye sufficiently to enable the reader to refresh his memory on all strictly practical points connected with this division of the sub-

ject, a very clear and concise description is given of the way in which a methodical examination of the organ is to be conducted in order that no departure from the normal state shall escape observation. This includes, of course, a description of the ophthalmoscope and its uses. Here we do not find as much attention given to the art of determining the state of refraction, by the aid of the ophthalmoscope, as might be desired by any one aiming at proficiency in its use. Some five pages are devoted to the description of a demonstrating ophthalmoscope invented by the author, who seems to have forgotten the circumstance when he states, further on, that "the safest man is he who never invented an instrument in his life, but whose daily practice affords evidence that he can use those which have been invented for him by others."

We now come to the chief feature in the arrangement of the work, and which, so far as we have seen, distinguishes it from all other recent treatises on Ophthalmology, and that is the introduction of two long chapters on "The Principles of Ophthalmic Therapeutics and Ophthalmic Surgery," before proceeding to treat of diseases of the eye *in specie*. Both of these chapters are exceedingly well written, and will amply repay a careful perusal, as they contain many valuable hints of an eminently practical character, together with a description of the ordinary instruments required in operating upon the eye; and instructions for their use are given in detail worthy of the importance attaching to this department of Ophthalmology.

The chapter which treats of diseases of the conjunctiva is, perhaps, a little deficient in the matter of classification of the diseases of this structure, but the deficiency has been pointed out, and to some extent remedied by the American editor, who has also done good service in making some additions to the text, and in supplying foot-notes, in relation to some points which have seemed to him to require further elucidation or call for criticism.

It would be difficult to find a better essay on iritis and its sequels than that contained in this book and the remainder of the work which treats of cataract, glaucoma, the diseases of the fundus oculi, wounds and injuries of the eye, affections of the ocular

muscles, accommodation and refraction, and the uses and selection of spectacles is fully up to the present state of knowledge concerning these things as far as can be comprised in a work of this size. He who wishes to study the pathology of diseases of the eye will find but meagre satisfaction from this treatise, but for the busy practitioner who desires to keep up his knowledge of ophthalmic medicine and surgery with the least possible amount of labour, there is probably no better text-book in the English language, and for the student who hesitates before taking up any new and extensive study, and who recoils at the sight of huge volumes reeking with optical puzzles and algebraical formulæ, there can be no more welcome boon.

A Contribution to the Treatment of Uterine Versions and Flexions. By EPHRAIM CUTTER, A.M., M.D. Second Edition, entirely re-written, with 29 illustrations on wood. 8vo. pp. 216. Boston: JAMES CAMPBELL, publisher, 1876.

This little work has issued from the press, as the author expresses it, not as "a piece of fine writing," but rather as a contribution from the pen of one who believes it the duty of every man to better the profession of his choice if he can. So far as uterine flexures and their mechanical treatment is concerned, we must admit that Dr. Cutter has in a measure done his part. The object the author has in view is principally to extol a uterine pessary which goes by his name, and which seems to be an excellent article of its kind. In nearly all works on the subject of uterine diseases, imaginary drawings are given showing the excellent results of the introduction of some form of mechanical support for the relief of uterine displacements. These are remarkably satisfactory as far as a book illustration goes. We see the uterus which otherwise, is bent or twisted, flexed or hanging down, set up in its right and proper position, and there retained, as though it were fresh from the hand of Dame Nature. The practical man, however, is sorely perplexed and somewhat disgusted when on the use of any of these sup-

ports he finds that they do not correct the difficulty nor remedy the displacement. In making these remarks we do not desire to run a tilt against all pessaries, but we are forced to the conclusion, after our own limited experience, that of all the patented and non-patented contrivances the *perfect coming pessary* has not yet seen the light of day. Dr. Cutter in his introduction gives a very lucid description of the methods of uterine displacements, and he concludes his argument by stating that the principles of treatment consist in, 1st restoration of the displacement by the uterine sound, and 2nd, the retention of the parts in their proper position through means mechanically adapted to the parts. This is the gist of the whole matter, and it is this difficulty of mechanical adaptability which meets us in many if not the majority of cases.

The author next proceeds to the consideration of Retroversion of the uterus, and then considers separately Retroflexion, and subsequently both these conditions combined. Retroversion as figured at page 11 is a condition which we have never met with, and fear it is a slight exaggeration on the part of the artist, the anteror and posterior *cul-de-sac* in both instances, is made to reach as high as the fundus of the uterus. For this condition of retroversion the author advises two forms of pessary, the loop and the T. For the purpose of accuracy the author advises after reduction of the deformity by the uterine sound, to measure the distance from the full depth of the posterior cul-de-sac to the edge of the perineum at the outlet, or in other words the length of the posterior vaginal wall, when a loop pessary, one half inch longer than the measurement, and with the curve in the loop corresponding to the cervix will be found to fit accurately. The peculiar feature in Dr. Cutter's pessary is the hook-shaped stem which curves backwards over the perineum, and which is held in position by an elastic band, which passes between the nates and is fastened to a waist-belt opposite the sacrum. Very specific directions are given for the application of these pessaries, and furthermore, directions are given how to properly retain the pessary in position at all times. From pages 42 to 47 there is a liberal amount of what is known as printer's fat, in which the

author gives an extended list of what to eat and what to avoid. This looks odd and somewhat mars the appearance of the book. We next have chapters on Anteversion, Anteflexion, and the combination of these two conditions. The author adapts his loop and T pessary for these conditions, and in some cases finds it necessary to introduce a stem. In the introduction and wearing of the pessary, the necessity for perfect and absolute comfort to the patient is pointed out, without this, the surgeon should seek to remedy the difficulty or change the instrument. After a few words on lateral displacement the author discusses prolapsus, for which condition he employs a cup-shaped support. The author next considers the prevalence of versions and flexions in the unimpregnated state, and he accounts for this prevalence from a variety of circumstances such as dress, poor food, over-work, much standing, going up and down stairs, non-observance of rest during the menstrual period, indolent indulgence or under work. He also points out the danger of neglecting to treat early uterine diseases, and displacements, and after showing how essential woman is to the sterner sex, he concludes with cases which have come under his own observation. In the preface the author protests against some forms of pessary which are called by his name, and in which the essential feature of his invention has been left out. And he states that Messrs. Codman & Shurtleff of Boston, who are his instrument makers, can supply these pessaries. We have read this little book with a good deal of satisfaction, and we can commend it for its thoroughly practical instructions.

Walsh's Physicians' Combined Call-book and Tablet.—From 18 to 18. For sale by J. B. Lippincott & Co., Philadelphia, and Booksellers generally.

We have received from Dr. R. Walsh, of 227, 4½ street, Washington, D.C., a copy of this book. It is to supply a want that is supposed to exist, although we think that the Physician's Visiting List, published by Lindsay & Blakiston, which has been in use for over 25 years is fully up to the mark. This

opinion, honestly expressed, may be regarded as biased, for we confess to the use of the latter work ever since it first made its appearance. In saying this we do not desire to detract from the usefulness and worth of the Call-book and Tablet.

It is an exceedingly neat visiting list, and possesses an advantage in that the date is not filled in, so that it can extend over many months or years, according to the amount of work which the Physician has to perform. The contents consist of an erasible tablet on the inside front cover, a calendar for 1877 and 1878, a table of signs, a table of drops to the fluid drachm, a graduated table for the administration of tr. opii, according to the age of the patient, a table to regulate the doses of medicine for children, a list of abbreviations, poisons and their antidotes, formulæ and doses of medicines for hypodermic injections, the doses of medicines for inhalation, formulæ for suppositories and medicated pessaries, table to ascertain the duration of pregnancy, maximum doses of poisonous medicines, disinfectants, relation of weights and measures, the diagnostic examination of urine, directions for making post mortem examinations, treatment of asphyxia from drowning, &c., list of incompatibles, list of doses of medicines, blanks for visiting patients, giving the name of patients, name of street with number of house and space for one week's attendance, obstetrical engagements, vaccination engagements, nurses' addresses, and blanks for cash receipts. There is a pocket for bills or prescription blanks.

The size of the book is somewhat different to those already in use, being longer, about the usual width, and more compact. Altogether it is a useful visiting list, and contains one feature of importance, blank leaves whereon short notes of cases can be added at pleasure. We freely commend its use to the profession. It is to be had in this city, at the book-store of C. Hill, No. 666 Dorchester street.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Hypodermic Injection of Corrosive Sublimate in Syphilis. — In the *Wiener Med. Wochenschrift*, No. 11. 1876, Von Bamberger states his experience in the treatment of syphilis by the hypodermic injection of corrosive sublimate, and he raises certain objections to this plan of treatment, the chief of which are that the injections are apt to cause intense pain or even give rise to the formation of abscesses. Dr. Lewin, who claims to have originated the method again comes to the fore in its defence.

He says: "During the last 11 years, nearly all the patients suffering from constitutional syphilis, that have come under my care, have been treated by the subcutaneous injection of corrosive sublimate. The average number was about 1,200 or 1,300 per annum, the total for the 11 years being about 1,4000. The average number of injections required was about 25. Of these some 20 suffered from abscess, in consequence of the injections.

These abscesses were never sufficiently serious to confine the patient to bed.

The abscesses will not occur if proper precautions are taken by the person who makes the injection.

It must be admitted the injections are liable to cause violent pain, but this occurs so rarely that it cannot be advanced as a weighty argument against the method. On the other hand, the results of this mode of treatment are, on the whole, so favorable that I do not hesitate to recommend it in all cases. Bamberger himself concedes that their curative effect is surprisingly rapid, and that such is the case the following statistics will abundantly show. These statistics are based upon the reports of the Charité Hospital, and they afford a tolerably correct indication of the amount of syphilis which exists in a certain class of the population of Berlin, and we have been able to observe its course and progress during lengthened periods of time; because the Charité is the only hospital in the city which treats syphilitic

prostitutes, and in addition to this the police regulations are such that prostitutes are seldom treated for any length of time by private practitioners.

In order to form a just estimate of the results of my method of treatment, I have compared the number of syphilitic prostitutes treated in my department since I commenced using the mercurial injection in 1865, up to the present time, with three treated in other ways during a like period before 1865.

The comparison shows not only that the duration of treatment is lessened by the corrosive sublimate injection, but also that relapses (*i. e*, manifestation of constitutional syphilis) are much less frequent. From 1855 to 1865, the average time spent by each patient in the Hospital was 10 weeks, since 1865 it has only been four weeks.

The number of relapses under the old system was about 80 per cent, under the injection plan it was about 40 per cent.

These results also compared exactly with the difference in the number of patients treated in my department before and after the year 1875.

In the year 1855, the inhabitants of Berlin numbered between five and six hundred thousand. The number of syphilitic patients treated daily in the Charité was then 150 to 170. There is now a daily attendance of 100 to 120.

If the increase had been in proportion to that of the population the daily attendance would now be about three hundred.

The severity of the relapses is also much diminished, inasmuch as I have not seen a severe case of constitutional syphilis in a prostitute for a long time, and as far as I can learn from my hospital colleagues there have been no cases of visceral syphilis after the treatment by mercurial subcutaneous injection. It must not, however, be forgotten, that one course of treatment even when continued for many weeks will not secure immunity from relapses, to this end the treatment must be renewed from time to time for one year at least. Neglect of this precaution is apt to be punished after several years have elapsed by an outbreak of severe constitutional syphilis.—Prof. G. LEWIN.—(*Berliner Klinische Wochenschrift*, No. 45, 1876.)

Treatment of Acute Rheumatism by Salicin.—Before the onset of winter I would again draw the attention of the profession to the beneficial result of salicin in acute rheumatism.

In my original paper on the subject the following conclusions were given as the result of my then experience of the remedy:—"1. We have in salicin a valuable remedy in the treatment of acute rheumatism. 2. The more acute the case, the more marked the benefit produced. 3. In acute cases, its beneficial action is generally apparent within twenty-four, always within forty-eight, hours of its administration in sufficient doses. 4. Given thus at the commencement of the attack, it seems to arrest the course of the malady as effectually as quinine cures an ague or ipecacuanha a dysentery. 5. The relief of pain is always one of the earliest effects produced. 6. In acute cases, relief of pain and a fall of temperature generally occur simultaneously. 7. In sub-acute cases, the pain is sometimes decidedly relieved before the temperature begins to fall; as is frequently observed in those of nervous temperament, the pain is proportionately greater than the abnormal rise of temperature. 8. In chronic rheumatism, salicin sometimes does good where other remedies fail; but it also sometimes fails where others do good."

A further experience of the remedy has confirmed me in the accuracy of these conclusions. In not one case of acute rheumatism have I found salicin fail to produce a speedy cure of the disease. I have therefore nothing to add to, nothing to detract from, the conclusion—"that, given in sufficient dose at the commencement of the attack, salicin seems to arrest the course of acute rheumatism as effectually as quinine cures an ague, or ipecacuanha a dysentery."

The points to which, in this communication, I would direct special attention are: first, the dose which should be given; and, second, the action of the remedy on the cardiac complications of acute rheumatism.

1. *The dose.*—What I said on this point in my former paper was as follows:—The dose of salicin is from ten to thirty grains every two, three, or four hours, according to the severity of the

case. Fifteen grains every three hours is a medium dose for an acute case. It is very possible that less might suffice; for I have not tried to find the minimum dose. It is very certain that a much larger dose may be given without producing discomfort."

Further experience has led me to the conclusion that it is well to give the larger dose; and that the best way to get the full and speedy benefit of the remedy is to saturate the system with it as quickly as possible. The more speedily this is done, the more speedily are the fever and pains subdued. I now, therefore, give the salicin to adults in a dose of twenty to thirty grains every two hours; in very acute cases I give that quantity every hour till pain is relieved. With relief of pain, sleep returns, and the hourly dose cannot be adhered to. But it is well to give twenty grains, at least, every two hours during the day, till the temperature is down to the normal. For a week afterwards the same dose should be given four times a day.

Salicin is an excellent bitter tonic—in my experience as good as quinine, and not apt to disagree as the latter is. I have always found cases of acute rheumatism treated by it convalesce very rapidly; treated in the old way, convalescence from that disease is a slow and tedious process.

I am specially anxious to call attention to the necessity for giving salicin in large and frequently repeated doses, because, in some of the cases which have been reported in the journals since my original paper was published, the dose given was too small to produce benefit. To give "from thirty to sixty grains per day" is to do justice neither to the patient nor the remedy; and to report a case in which such a dose was given as one indicating "the inability of salicin to arrest the disease," is to draw an inference which is unwarranted by the facts, and which tends to throw unmerited discredit on a remedy whose ability to arrest the progress of acute rheumatism has already been demonstrated in numerous cases. A case of acute rheumatism which gets from thirty to sixty grains in twenty four hours—i.e., an average of less than two grains in the hour—receives practically no treatment, and is of no value as evidence either for or against salicin.—*Dr. McLagan, Lancet Oct. 28th.*

Post Partum Hæmorrhage.—Dr. Osterloh. *Ætiology.*—The great cause of this hæmorrhage is the incomplete contraction of the uterus. After labour the uterus feels soft and large instead of hard and round. Among 289 cases of incomplete contraction of the uterus, 150 occurred in primiparæ. The age of the primipara has no effect in the hæmorrhage. Injury or tearing of the uterus is observed more in the abnormally rapid, or very protracted labour, in cases where the liquor amnii is deficient, and where the child is large. Sometimes the contraction of the uterus is retarded by some of the membranes, or part of the placenta remaining in the uterus, contraction may be also hindered by a full bladder; in these cases the removal of the causes produces contraction and cessation of the bleeding. In 69 of these 289 cases the labours were of long duration. Forceps were applied in 8.6 per cent.

The second great cause of hæmorrhage is due to injury of the soft parts from rigidity of the passages, &c., or as the result of an operation. In 20 cases hæmorrhage due to injury was observed, one case of rupture of the walls of the uterus, one case of tearing of the cervix, four cases of tearing of the vagina, and fourteen cases of tearing of the vulva. There were 153 cases of late bleeding from the first to the eighth day or later, due to tardy involution of the uterus. Several of the cases were due to previous severe flooding, and slight after contraction of the uterus; in other cases, it was due indirectly to retention of membranes, or part of placenta, inflammation of the mucous membrane of the uterus, &c. In many cases the reason of the bleeding was not apparent.

Symptoms.—Among the local symptoms the condition of the uterus is most important. If the uterus the day after labour is painful on movement and very hard to the feel, this condition is probably due to blood clot or retained membranes.

The *Diagnosis* is not so difficult if one carefully examines the body and passages. If blood comes from the uterus it would of course be on the plug, and by means of the speculum the bleeding point may be easily made out.

The *Prognosis* of hæmorrhage is generally favorable, only in one case did death occur, and this on the eleventh day; it was

due to ruptured uterus. In 57 cases out of 307, where the hæmorrhage had ceased, other diseases remained; 13 had parametritis, and 37 endometritis. They all recovered.

Treatment.—In most cases where there is rupture of the vulva, vagina or external orifice, a plug soaked in vinegar and water was found sufficient to stop the hæmorrhage. In one case of tearing of the neck of the womb, a tampon soaked in liquor ferri perchloridi was used. One must endeavour always to prevent the possibility of bleeding, (*a*) by avoiding terminating labour by artificial means, especially in simple cases of labour; (*b*) by complete removal of placenta by the method of expression; (*c*) by using ergotin hypodermically in cases of exhausted uterus or inertia of the uterus; salicylic acid (1 to 400) has also been found useful hypodermically. If bleeding continues after emptying the bladder, taking away clots, &c., and using pressure on the uterus, then use subcutaneous injections of ergotin. Ergotin was injected in 230 cases of this kind with favorable results. When ergotin has no effect inject vinegar and water in a strong stream *into* the uterus. In cases where ergotin had no effect, (50) liquor ferri perchl. and water (equal parts) were injected into the uterus. Dr. Osterloh says no ill effects follow the use of the liquor ferri perchl., and that he can recommend it as an injection.

Injection of chloride of lime was employed in 10 cases, hypermanganate of potash in 74, and salicylic acid in 12. Carbolic acid and benzoic acid were also used, and all with good effect.

In cases of late hæmorrhage the cold douche and astringents were used, also hypermanganate of potash, later salicylic acid, (1 to 600), and in severe cases, liq. ferri perchl. was used; where there were placental polyps, these were immediately removed. In cases of threatening anæmia, the subcutaneous injection of sulphuric ether is recommended. If there is a high pulse after hæmorrhage use digitalin subcutaneously (1 mgrmm.) two or three times. Every obstetrician should carry with him a solution of ergotin, a hypodermic syringe, liquor ferri perchl., and a Winckel ball-syringe.—(Deutsche Ztschr. f. pr. Med. 11. p. 119, 1876. quoted in Schmidt's Jahrbücher, band 170, Hft. 3.)

Poisoning by Digitalis.—Two young men wishing to escape conscription, obtained a large number of pills from a person who professed to be able to exempt recruits from military service, with instructions to take 2 to 4 pills daily for eight or ten days before their enrolment. One of them reported himself ill three days after entering the service, six days later he was sent to hospital, where he died quite suddenly and unexpectedly after three weeks' illness.

A careful investigation of the case elicited the following facts:

The post mortem revealed no pathological change sufficient to account for death. The blood was thin and fluid, of a cherry-red colour, and without a trace of coagulum. There were ecchymoses in the coats of the stomach and intestines, and the brain was anæmic.

A chemical examination of portions of the œsophagus stomach, duodenum, and liver, gave the reaction of digitalin most decidedly; that of the blood contained in the right ventricle was negative.

The pills were found to contain pulv. fol. digit. purp. gr $1\frac{1}{2}$ in each. It appeared that the unfortunate young man had taken 137 pills, or upwards of 200 grains of digitalis within five weeks, and he probably died in consequence of the cumulative action of the drug.

The symptoms presented during life were pains in the stomach, loss of appetite, nausea, constipation, pain in the head and giddiness. The patient, moreover, looked very ill. The pulse was 50 to 52 per minute, the temperature normal. The odour of the breath was peculiar, and on one occasion some greenish material was vomited.

In addition to this there was dimness of vision, tinnitus, and great debility. The pupils were alike and acted well. The skin was pale and sallow.

Death occurred suddenly whilst the patient was being raised up in bed by one of the attendants. The day before he had a sudden and severe attack of syncope. The other recruit suffered in a similar manner, but recovered, having taken only 75 pills in the four or five weeks.—(Dr. Könrad Kühnhorn, Vierteljahrschrift f. gerichtl. Medizin, April, 1876.

Ergot in Purpura.—The following summary is given by Dr. Buckley in a paper on the subject in the last number of the Practitioner, (Nov):—

I. The treatment of purpura, as advised in the books, is ineffective and tedious in lighter cases, and insufficient to save life in many of the severer or hæmorrhagic cases.

II. Ergot possesses a very decided power in contracting the involuntary muscular fibres, causes divided arteries to contract, acts upon the smaller arteries and capillaries, and has been proved a valuable arrester of hæmorrhage in many affections.

III. In purpura the action of ergot is very manifest, causing, when given in sufficient doses, an almost, if not quite, immediate cessation of the cutaneous and other hæmorrhages.

IV. The most effective method of administration of ergot is by hypodermic injection, and this means renders it peculiarly valuable in purpura hæmorrhagica, where there is hæmatemesis, so that its administration by the mouth would be impossible, or in cases where the stomach would not tolerate it.

V. While ergotin, a purified watery extract, has been advised by many, and has been found to act efficiently in many cases, its action is liable to be uncertain by reason of age or faulty preparation, and after dilution with water it soon becomes inert.

VI. Fluid extract of ergot may be administered hypodermically, undiluted, and without local accident, as abscess or inflammation, if care be exercised; and its effect is very prompt and certain.

VII. Ergot may be thrown under the skin in any part of the body; the gluteal and shoulder regions answer well, but the places to be preferred are about the pectoral muscles or at the sides of the chest, about half way down.

VIII. Severe cases of purpura require the frequent repetition, even of very large doses, whether by the mouth or by hypodermic injection; both methods may be combined.

IX. Generally one or two grains of ergotin or from ten to fifteen minims of the fluid extract, hypodermically, once or twice a day are sufficient, but the former may safely be increased

to five grains, and the latter to twenty or thirty minims, and repeated as often as every hour and a half.

X. Larger doses relatively are required when given by the mouth, and their action thus given, is more slow.

XI. No fear need be entertained of any untoward effects; an ounce of fluid extract by the mouth, and seven grains of ergotin, hypodermically, have failed to give rise to any unpleasant symptoms; and from half a drachm to a drachm and a half of the tincture or fluid extract have been continued for several months without producing ergotism.

XII. Other preparations of ergot may be employed internally, —as the powder, solid extract, wine—or infusion, the dose veing proportioned to the effect required and produced.

Volvulus and Ileus — Cured by Effervescing Clysters.—A servant girl, æt. 22, was suddenly seized with an abdominal affection which presented the usual symptoms of internal incarceration, and in the right hypochondrium, a short distance above the crest of the ilium, a movable tumour about 3 inches long, and 1½ inches wide, could be easily detected by palpation. After several unsuccessful attempts had been made to move the bowels with purgative medicines, eight effervescing enemata were administered at short intervals; each consisted of half an ounce of bicarbonate of soda dissolved in a pint of water, followed immediately by three drachms of tartaric acid in an equal quantity of water.

It is not stated whether any of the fluid of each injection, or of the gas generated by the soda and tartaric acid, escaped per rectum during the short intervals mentioned, if not the patient's condition must have been somewhat precarious; for after the first clyster, she is said to have felt as if something had burst in the abdomen. The eighth injection was followed by several copious and offensive stools, and the symptoms of incarceration vanished.—(Dr. S. Adler, Med. Chirurg. Centralblatt, 15. 1876).

Number of White Blood Globules.—M. Grancher communicated the results of his researches into the physiological number of the white globules in the adult to the Société de Biologie (*Le Mouvement Médical*). The results he obtained differ from what have been given up to the present time. Almost all physiologists say there is one white to every four or five hundred red globules; but M. Grancher finds that the proportion is much lower, one to every fifteen or eighteen hundred. He also found, contrary to what is generally accepted that food does not augment the number of white globules, but that their number remains much the same during the entire day. The normal oscillations are much greater for white than red globules, so that the number of red globules in different healthy persons varies between five and six millions, and the number of white globules between three and nine thousand. M. Malassez's researches led him to find a smaller proportion of white globules than what is usually accepted, but nevertheless greater than that found by M. Grancher.—*Doctor.*

The Magnet in cases of Broken Needles.—A son of Sir B. Brodie broke a needle in his calf. The magnet was employed, and it was easy to show its position. It did not make any change of position. It being resolved not to disturb it, the lad ran about, and in time the needle passed to the other side of the leg, its travels being shown by the magnet. At length it came close under the skin and was extracted. This case being reported, Mr. B. Carter referred to Dr. McKeown's paper on the diagnosis of pieces of iron in the eye, and said that in one case a fragment was removed by the power of the magnet. Sir J. Paget had heard of powerful magnets being kept in large foundries for this very purpose; and Mr. Savory said Mr. Smee published a paper on the detection of the presence of needles by the magnet more than thirty years ago. This seems likely, for the practice is really very old. Indeed, at the meeting it was remarked that Fabricius Hildanus alluded to it.—*Royal Med. Chir. Society. Doctor.*

Enteric Fever.—Beef Tea *v.* Milk: Hæmorrhage.—"In a case, now at the fourteenth day, there is looseness of the bowels. On examining the stool, I find a separate undigested curd of milk. This curd has acted as an irritant and induced the diarrhœa, therefore you must thin the milk, and replace it more or less by beef-tea. It has been too much the fashion to give much milk without due regard to its digestion As remedies, you may give some starch with bismuth in enema." At the next visit, some hæmorrhage (of which the patient was kept in ignorance) was reported by the nurse. On inspection, it was found to be about half a pint of dark fluid blood, "Now, the most important point is, that this patient did not sit up for any purpose. A case which occurred during my student days impressed me very much. He had hæmorrhage like this, but did not seem very bad; his pulse was 84; his mind clear; he was allowed to rise to the night-stool: the hæmorrhage recurred, and ended fatally in a few minutes. A mesenteric artery had been opened. You must then by position, take off the weight of the blood-column. Omit milk altogether, the curd might irritate; give beef-tea and arrowroot; a little softened bread; a little brandy, two drachms every three or four hours, to improve the nerve-tone; give him three grains of the acetate of lead with acetic acid every four hours, and an opiate enema night and morning. Observe there is no great distension of abdomen, and there is no tremor. I conclude the ulceration is not deep. *When tremor is disproportionate to other nerve symptoms, it indicates more depth of ulceration.* The patient did well.—Sir W. JENNER, BART., in *British Medical Journal, Oct*, 28.

Personal.

A. D. Blackader, B A., M.D., ('71), has been appointed one of the resident Clinical Assistants at the Consumption Hospital, Brompton, London.

W. T. Ward, M.D., ('73), and R. L. Macdonnell, M.D., ('76), have passed the primary examination at the Royal College of Surgeons, England.

F. S. Sneider, M.D., ('76), has commenced practice in Simcoe, Ont.

CANADA

Medical and Surgical Journal.

MONTREAL, DECEMBER, 1876.

SMALL-POX AND VACCINATION.

A very excellent and carefully prepared paper was on a recent occasion read before the Board of Health of the city of Montreal, by His Worship the Mayor, Dr. Hingston, and some very practical suggestions were made touching the subject of vaccination, and also refuting the very dangerous and distorted statements which have been so freely and unblushingly circulated by the anti-vaccinators, of whom there are amongst us a goodly number. Interesting and practical lessons are to be learnt by a careful comparison of the statistics of the disease small-pox, one year with another, and one period of epidemic of that disease with another. These practical points are brought out with greater prominence in those countries where accurate and reliable statistics are obtainable. In the report of Dr. Seaton, the Medical Officer of the Local Government Board of London, England, which appears in Mr. Simon's Annual Report for 1874, some very instructive facts are brought out, which demand careful scrutiny. From this report it would appear that the epidemic of small-pox during the years 1871 and 1872, was a general and wide-spread epidemic of that disease. It was not confined to the continent of Europe and the British Isles, but was largely diffused, and we can call to mind the virulence and intensity, the malignancy and fatality of that epidemic in our own country. The disease attacked indiscriminately those who were supposed to be protected against it by vaccination as well as the absolutely unprotected. These facts very seriously

affected the generally admitted protective influence of vaccination, and gave rise to popular clamour against the practice of vaccination, confined, however, to that portion of the community who are always willing to endorse the views of a few leaders amongst them. Furthermore, there are with us, as well as in other countries, a sect of peculiar people, fearless as to results, who will expose themselves, their children and the community generally to the spread of the contagion of the disease small-pox. We have known of instances where parents have taken their children to a neighbour's house, where a mild case of small-pox existed, and have even placed their children to sleep in the same bed with the sick patient if peradventure they may be equally fortunate and pass through the disease in a modified form. Of course the absurdity of this practice needs no elucidation at our hands. The fear of the disease does not exist in a large proportion of our community. Referring again to the report of Dr. Seaton as touching the efficacy of vaccination, he shows that in the metropolis the annual mortality of small-pox before the introduction of vaccination ranged from 400 to 500 per 100,000 of the inhabitants. Since the introduction of vaccination the mortality from small-pox has greatly diminished, taking a period of twenty years from 1854 to 1873, which includes the epidemic of 1871 and 1872, the annual death-rate was reduced to decimal 24 per 1000, or in other words that out of every 100,000 inhabitants 24 persons only died of the disease. This difference in the mortality was so very remarkable, that there were those who suggested that the diminution depended not solely on the protective influence of vaccination, but on a gradual lessening in intensity of the disease, as also a lessening of its diffusion. This however has been proved to be erroneous, the experience of 1871 and 1872 showed conclusively that small-pox had lost none of its intensity and fatality. But although the epidemic was acknowledged to be unusually severe, the number of deaths amounted to 148 per 100,000 of the inhabitants. Thus under many most unfavorable circumstances, the death-rate from small-pox, during the most severe epidemic of this century, rose to less than one half of what it yielded

prior to the introduction of vaccination. There must be some good reason for this difference, and to the protective of influence of vaccination with the enforcement of wise laws for isolation of the infected, can alone, this remarkable difference be attributed.

This practical lesson, therefore, is taught by the epedimic of small-pox which visited London during the years 1871 and 1872. But other most remarkable facts are elucidated in connection with that epidemic. Persons in constant attendance on the sick, at the small-pox hospitals, were, as a rule, re-vaccinated, and in no single instance did the disease attack those who had been efficiently re-vaccinated, although the number exposed were some 300, and they were in constant association with the sick. This observation can be easily confirmed, as there is hardly a medical man of any experience in this country, or any other country, who could not bear similar testimony. Now this leads to the admission of the value of re-vaccination more especially during the prevalence of epidemic small-pox. Re-vaccination was very generally practised in London during the epidemic of 1871 and 1872, and as a result the disease in the metropolis was absolutely stamped out. This salutary effect followed isolation, enlarged hospital provision, and a very general adult re-vaccination. These lessons therefore, we can with propriety apply in the present instance in this country wherein small-pox is epidemic. Careful, energetic and general re vaccination should be practised, and very serious responsibility rests on the Health Authorities in this particular. From the published reports of Dr. Buchanan, taking the experience of London, Birmingham, and other large towns in England it would appear, that large hospital accommodation affording the means of isolating cases of the disease at the commencement of an outbreak, exerts a most important influence on the subsequent course and spread of the disease.

If, as a community, we are desirous of improving our sanitary state as regards this disease; if we are earnest in wishing to stamp out this disease since its existence amongst us has such a baneful effect on our trade; if it is deemed advisable to rid ourselves of the injurious character of a plague-stricken city,

then should we take advantage of the experience to be gained from observations in other large cities, and adopt common-sense measures. Liberal and ample hospital accommodation will afford means for isolation of those already suffering from the disease, and again, a thorough system of adult and infant vaccination will act as a protection against the invasion of the disease. We are aware that the city has gone to much expense in providing hospital accommodation; and furthermore that public vaccinators are at work engaged in a general system of vaccination and re-vaccination, and we may without hesitation predict that if isolation is thoroughly practised. and vaccination carefully and efficiently performed, there will be noticed a marked subsidence of the present epidemic if not its total extinction.

PRODROMIC RASHES OF SMALL-POX.

We publish in our present number a very good article by Dr. Osler of McGill University, upon the Prodromic Rashes of Small-pox. The writer has had peculiar advantages for the observation of numerous examples of these eruptions owing to his having held for some time the position of visiting physician to the small-pox wards of the Montreal General Hospital during a period of epidemic visitation of the disease in this city. Although, unfortunately for science, not now possessing any similar advantages, owing to the transference of all these patients to the care of the city and its public officers, yet Dr. Osler appears to have made such good use of his time that he is enabled to present us with the records of several cases serving to illustrate antecedent or prodromic rashes. It is remarkable how almost entirely descriptions of these eruptions preceding the development of the papules proper of variola are wanting from our ordinary English text-books and standard works of reference. The natural result of this is that a great deal of misapprehension has existed, and does indeed still exist with many as regards the diagnostic value and prognostic significance of these appearances. We have several times known the devel-

opment of a purpuric rash during the primary fever of an attack of variola lead the practitioner to give expression to most grave apprehensions as to the expected severity of the subsequent attack, which have happily been entirely dissipated by the favorable course the case has followed throughout. We have ourselves been fortunate enough to have observed a very large number of small-pox cases during several epidemics of late years and through experience (and by that means alone,) had already learned the truth of several of the statements advanced by the writer of this paper. But we must remember that a very large proportion of our medical men (fortunately indeed for the country), see very few cases of small pox; in fact often pass years without seeing a single one, so that anything which they may learn from others which is of practical value in understanding the disease becomes doubly useful. The same is equally true with reference to students. From the nature of the case it is hardly ever possible for any of them to study small-pox as they do every other disease in the hospital wards. Thus many are obliged to go into practice at first without ever having seen a case of small-pox. If then he trust to the ordinary description to guide him to a correct diagnosis, he will certainly soon experience annoying trouble from the casual occurrence of some of these (unless known) very puzzling prodromic rashes. We have several times been consulted by young practitioners under these circumstances and besides have occasionally been the means of entirely modifying the diagnosis of other and older men by referring to the facts known of the significance of these rashes. We have been pleased to know that Dr. Osler has promised to contribute another article on the hæmorrhagic varieties of small-pox before the Medico-Chirurgical Society at another meeting.

We are pleased to see in the Edinburgh Medical Journal for October, a short article upon Litholysis by our friend Dr. George C. Duncan. It is a subject which first engaged the attention of his brother, Dr. John Duncan, who graduated at

McGill University in 1871, and who, unfortunately, died before he could carry out his plans. Dr. Duncan possesses, we are sure, the necessary ingenuity and mechanical skill for the accomplishment of his task, for we remember with pleasure the ingeniously contrived Sphygmograph,—made altogether by himself and without a model—which accompanied his graduation Thesis on the subject. Details are promised shortly, when we hope to lay them before our readers.

Two Private Medical Schools have been started in London this autumn session, one by Mr Cooke, a well known teacher, and author of the "Tablets of Anatomy," and "Physiology," the other by Mr. Pearson. The former professes to be largely preparatory in character, a school where a beginner may spend three months working at Anatomy and Physiology before attaching himself to one of the larger Colleges, and, in this way, obtain some knowledge of medical work, and judge of his fitness for the Profession. If this could be carried out in the case of each student it would be an admirable plan. Both of these schools will be taken advantage of by the large class of students who find a few months before the examinations that something more than mere attendance at lectures is needed to master the necessary requirements, and to whom the Tutorial personal instruction will be invaluable.

Dr. McKendrick, formerly the late Dr. Bennett's Physiological assistant, has been appointed to the chair of Physiology in Glasgow University. Dr. Andrew Smart succeeds him as Lecturer on Physiology in the extra-mural school of Edinburgh.

The Chair of Medicine in Edinburgh University, vacated by the death of Dr. Laycock, has been filled by the appointment of Dr. Grainger Stewart, one of the Physicians to the Royal Infirmary and Lecturer on Clinical Medicine. The appointment is one which will give great satisfaction in Edinburgh, more so than to the Profession at large, with whom Dr. Gairdner of Glasgow, one of the candidates, was deservedly the favorite.

We have just received from the Queen's Printer, Quebec, as we go to press (29th November) a number of copies of the Bill of Amendments to the present act as adopted, by the Board of Governors of the College of Physicians and Surgeons, L.C., at the last semi-annual meeting of that body held in the city of Quebec, on Wednesday the 27th day of September ult. These shall, without further delay, be circulated amongst the profession, and we must in explanation observe that the delay has been entirely the fault of the printer. The profession should be informed that there are two bills before the Legislature, one the expression of the Medical Society, Montreal. That body has, without reference to the College, and absolutely ignoring its existence, prepared a bill which has been introduced into the Local Legislature by the Hon. Mr. Chapleau. The College bill, which possesses at least the merit of hailing from a recognized body, one in the possession of corporate rites is the bill which we refer to above. A petition to the Legislature is in course of signature, printed copies of which have been very generally circulated. The object of this petition is to strengthen the Board of Governors of the College in its demand for legislative amendment to the act under which it is governed. Those of our friends who have not already replied to the circular letter addressed to them with a copy of the petition enclosed, are earnestly requested to do so without delay.

We have received from Alderman McCord the following interesting figures with reference to the death-rate at the Civic Small-pox Hospitals from Nov. 7th, 1874 to Nov. 1st, 1876.

Protestant Hospital.—Total number received, 168. Died, 34. = 20.23 per cent. There were 54 unvaccinated, and of these 25 died : = 46.29 per cent. There were 114 vaccinated, of these 9 died : = 7.89 per cent.

Catholic Hospital.—Total number received 396. Died 127 : = 32.07 per cent. There were 165 unvaccinated, of these 89 died : = 53.93 per cent. There 231 vaccinated, of these 38 died : = 16.45 per cent.

In both Hospitals, 564 Received. Died, 161,28=.54 per ct.
Unvaccinated, received 219, Died, 117 : = 53.42 per cent.
Vaccinated, received 345. Died 47 = 13.62 per cent.

PERSONAL.—Dr. Edmund Robillard of Montreal sailed for Europe via New York on the 15th of November, ult. We believe it is the intention of Dr. Robillard to pass the winter on the continent, between Paris and Vienna, and he expects to return to Canada towards the end of next summer.