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CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Axillary Aneurism—Ligature of Subclavian Artery. Recovery.—By George Ross, A.M., M.D., Professor of Clinical Medicine, McGill University. Reported by Mr. E. B. C. Harrington.

A. C., stone-cutter, aged 24 years, was admitted into the Montreal General Hospital on the 20th May, 1874, under the care of Dr. Ross. He is a well made young man, six feet in height, with black hair and eyes, clear complexion, and intelligent countenance. He has always lived in a country town; had never been intemperate, and beyond one gonorrhœal attack, has been free from venereal diseases. There is no syphilitic family history. When a lad he was laid up with pneumonia, but completely recovered and enjoyed capital health until four years ago, when he had an attack of acute inflammatory rheumatism, involving the joints of both lower extremities.

This prevented his working for a year, keeping him in bed about half that time, while ever since he has suffered from irregularity in the heart's action, upon any excitement or exertion. Last Autumn he was troubled a great deal from alternating chills and fever, which ultimately caused much weakness and loss of flesh. He had not at any time previous been exposed in a malarious district, and his physician assured him that it was not "fever and ague." At this time he experienced a severe pain over the cardiac region, extending thence in a line to a point just above his

right nipple. This pain was increased by any exertion, or by stooping, while in addition to this his bowels were constipated and digestion impaired.

On the 3rd of January, while at some distance from his house, he was seized with a sharp pain, which began in his right shoulder and then ran down the arm; and almost immediately the whole limb became cold and white. He at once started for home, and while walking had occasional attacks of giddiness, stumbled and had a "swimming blackness" all around him. Friction and warmth were used in endeavoring to re-animate the limb, and at midnight when he was sitting up, his friend still rubbing his arm, he felt a cold chill run up his left side, then came numbness and pricking, followed by complete loss of sensation and motion in the left side.

He did not lose consciousness, and the left side of his face was merely deprived of sensation, the motor power not being affected. He had some difficulty in his speech, being thick-tongued for forty-eight hours, while his memory was impaired for about the same length of time. In the week following he had retention of urine, which necessitated the introduction of a catheter twice or three times.

In the *right arm* both power and sensation were absent for a fortnight, while the limb kept blue and clammy, but at the end of this period, with the disappearance of the pain in his shoulder, the functions of the part were somewhat restored.

After the hemiplegia of the *left side* had lasted six weeks, galvanism having been applied daily, both motion and sensibility re-appeared, coming simultaneously in both extremities.

In the meantime the right arm had gained considerable strength, and continued improving, until the end of February, when the old excruciating pain again made its appearance in the right shoulder, and he now for the first time noticed a swelling about the size of a walnut projecting into the right axilla. This tumor was supposed by his medical

attendant to be an enlarged axillary gland, while the pain was treated as of rheumatic origin ; not being improved by the treatment, and getting alarmed at the steady growth of the tumor, he came by Dr. Moore's advice to the General Hospital.

Condition on Admission.—The right arm hangs, cold and livid by his side, all motion in it being limited to slight action of the Biceps and Deltoid muscles. The second and third phalanges are rigidly flexed upon those of the first row, the nails being purple, while there is not the faintest pulsation in either the radial, ulnar or brachial arteries. Sensation appears good over the whole limb.

In the axilla is a tumor the size of a large lemon, which fluctuates, pulsates forcibly, and gives a very perceptible thrill to the hand, and by auscultation a bellows sound or whizzing bruit. The pulsation is entirely controlled by pressure on the subclavian over the first rib. The size is lessened, the throb is diminished, the bruit decreased, by pressure above, and vice versâ, they are all exaggerated by pressure below, or by elevation of the limb. Great pain with numbness is complained of *through* the shoulder, but there is no particular tenderness at any point. By percussion the heart was found to be normal in size : the apex beat occupying the fifth interspace, and in a direct line with the nipple.

By auscultation the sounds at apex were found healthy. At the base was noticed a slight roughening of the first sound. Each sound was distinct, and the roughness, which could hardly be called a murmur, was most audible over the aortic cartilage, being lessened above and below. Lungs, and other organs normal. Urine contains no albumen, and otherwise healthy.

Since the patient has been put to bed he complains of no pain, is very cheerful, and anxious to be operated upon, if necessary.

May 26.—The aneurism being controlled so well by pressure on the subclavian, Dr. Ross decided to give

digital compression a trial before resorting to ligature of the artery. Accordingly the patient was placed on a mattress, with his head and shoulders in a lower, yet comfortable position, and at 2.30 p.m. four students undertook the task of compressing the subclavian artery, in its third portion, just where it passes over the first rib.

May 28.—Compression has been faithfully kept up for the last forty-eight hours, the students relieving each other every half hour.

After the first hour the patient lost all sensation and power in the arm, and could not tell where it was, excepting by feeling for it with his other hand. After an hour it gradually began to recover sensation, and became warm and rosy. By means of a hypodermic injection of an eighth of a grain of morphia, twice in the night, he managed to sleep well. His bowels were not moved, and the urine was withdrawn by a catheter. All pulsation was completely controlled, excepting during the change of hands.

No change whatever has been effected in the tumor. A small cutaneous slough has been developed in spite of the greatest care, and the young man's patience is entirely exhausted. Digital compression was therefore abandoned, and a dressing of Ung. zinc oxyd. applied to the tender surface.

The patient was subsequently seen by Drs. Campbell, Howard, Reddy, Fenwick, and others of the Hospital staff, and it was agreed, in view of the fact that the tumor was rapidly growing, and that, through delay, any operation would in all probability be rendered more difficult, that as soon as possible the subclavian should be tied. The dangerous character of the operation was fully laid before the patient when he unhesitatingly decided for himself that it should be done.

Accordingly on the 5th June the operation for ligature of the subclavian in the third part of its course was performed by Dr. Ross, assisted by Drs. Campbell, Fenwick, Reddy, and Howard, in the presence of the Medical Staff of the

Hospital, as well as several other medical gentlemen, amongst whom was Dr. Moore, of Troy, N. Y., who had previously had charge of the case.

Chloroform having been administed by Dr. Cameron, Assistant House Surgeon, the skin of the neck was drawn down by the operator's left hand, and an incision made directly upon and along the clavicle for a distance of four inches; a second incision was then carried upwards from the inner angle of the foregoing for a distance of two inches along the posterior edge of the sterno-mastoid muscle. The included flap was carefully dissected up, and the external jugular vein exposed; this was readily drawn inwards by a blunt hook, and thus held away from injury during the remainder of the operation. The deeper layers of fascia were then disposed of, partly by division on a director, and partly by scratching through with the nail and knife-handle, all vessels being carefully avoided. There was no bleeding and the posterior edge of the scalenus anticus was soon reached. What was believed to be the vessel was now felt against the rib, but on passing an aneurism-needle beneath it and compressing it, no effect was produced upon the aneurism. This was, no doubt, the suprascapular artery much enlarged and tortuous. It was, therefore, immediately released. Although the subclavian could now be distinctly felt between the finger and the first rib, yet, owing to the depths of the parts, it was not easy to pass the needle fairly around it. The lower branch of the brachial plexus of nerves was thus mistaken for the artery for a moment, but careful examination soon exposed the error. Finally, the needle was gently passed round the subclavian from below upwards, just outside the edge of the anterior scalenus muscle. It was secured by a ligature of carbolised silk, the end being allowed to hang out of the wound. The flap was closed by sutures of carbolised catgut, and the wound dressed with carbolic water—1 to 40. A small opening was left at the depending corner for drainage. He was then laid on a hair mattress, his shoulders being kept as low as possible with comfort.

For several days he remained quite comfortable, free from pain, sleeping well under the influence of a small hypodermic injection of morphia, pulse from 100 to 108, and temperature only a little above 99°; but on the 12th, complained for the first time of a pain in the right side, about the nipple, pulse rose to 118 and temperature to 101°. No abnormal sounds could be heard on auscultation. He was relieved by a sinapism and an enema, and next day the temperature had fallen again to 99°. The wound meanwhile was granulating and discharging a very moderate quantity of healthy pus.

17th June.—12th day after operation. The ligature separated to-day without accident. Pulse 110; temperature 98⅖°. Feels well and takes nourishment very freely.

The day following the temperature was 101° and for the ten succeeding days he is reported not progressing quite so well, some pain in the neck having been complained of together with two or three slight chills at intervals; temperature ranging from 100° to 101⅕°, and the pulse from 110 to 120. Diarrhœa was also troublesome about this time and some fears of the possibility of the commencement of septicæmia were entertained. The discharge of pus had become rather more profuse. However, by the 28th the report is much more favorable; "Pulse 90, temperature 98⅕°. Diarrhœa ceased; general appearance good; wants to get up and go out."

4th July.—Was up to-day and spent the afternoon on the verandah. Discharge much diminished, is applying red wash in place of the carbolic solution.

5th July.—Had a violent paroxysm of palpitation of the heart this morning, without any apparent cause and lasting several minutes. Has had similar attacks before.

8th July.—Has been up the last two days; was discharged to-day and went as far as Troy, N. Y. The wound is entirely closed in its deeper parts and only a narrow granulating strip is left to heal. The mass of the aneurism has shrunk to at least one-fourth its original

dimensions and is only to be felt as a small, round, smooth lump deep in the axilla.

I was subsequently informed by letter that after the railway-journey he had had a very severe cough and had expectorated a large quantity of thick and dark pus and appeared much tired and depressed, but a few days later (16th July) I received a note from Dr. Moore, under whose care he then was, which reports as follows:—"Cough much less, expectoration much less. and the appearance of it more healthy; wound nearly closed; relishes his food well; sits up five or six hours every day; general appearance very good."

REMARKS.—This case is one of considerable interest, especially as, so far as I have been able to ascertain, it is the first of the kind which has been performed in Canada. If this is not so, I should be glad to be set right in the matter. The mortality of ligature of the subclavian artery has been so large even in the hands of the most experienced surgeons—recent statistics showing it to be about 50 p.c. of all the cases—that naturally every expedient will be resorted to before having recourse to such a formidable procedure. Digital compression was fairly and faithfully tried by intelligent and zealous students, but entirely failed. There can be no doubt that these cases are less adapted for this method of treatment than popliteal aneurisms, the femoral artery being much more easily compressed and pressure there being better borne. The only other plan of treatment possible was the application of galvano-causty. I had not, however, within my reach the apparatus necessary for this.

As regards the operation itself, the only difficulties met with were the temporary interruptions mentioned in the report. To any one, however, who is intimate with the anatomical relations of these parts and acquainted with the numerous similar positive errors committed by eminent surgeons, such will not appear at all surprising.

Mr. T. Holmes, in the third vol. of Holmes' Surgery,

states that probably the chief cause of ill-results after this operation will be found to be pleurisy and inflammation of the subserous cellular tissue leading to purulent formation in the anterior mediastinum. I would submit it as a question whether some such subserous inflammation might not have been, in an obscure way, going on to account for the indefinite feverish symptoms noticed in the report; and whether from the jolting in the railway carriage such a purulent collection might not have found its way into either the trachea or a large bronchus which it was preparing to open. I can see no other explanation of his suddenly expectorating a large quantity of dark pus almost immediately on reaching home. This, however, appears to have been followed by complete relief, as was found to occur in several cases reports of which have been published.

Another clinical feature of interest in this case is the occurrence of almost complete but temporary hemiplegia of the left side, following closely upon the blocking up of the right axillary artery by the aneurism. Was not this embolic? If so, what connection was there between the existence of a right axillary aneurism and the plugging of a right cerebral artery with a clot?

I am much indebted to Mr. Harrington for the foregoing report, and for his management of the compressing staff, as well as to several of his fellow-students who composed the same.

Medico-Legal Evidence in Identification of Human Remains after Exposure to Fire. By G. P. GIRDWOOD, M.D., M.R.C.S., England, Professor of Practical Chemistry, McGill University.

It so seldom occurs that a medical jurist is called upon to express an opinion concerning portions of a human body, or fragments suspected of being portions of a human body, after those fragments or portions have been submitted to

the action of fire; that I desire to lay before the profession a few notes, concerning two cases in which my opinion was asked;

On referring to such works as I can I find mention made only of the case of Dr. Parkman, who disappeared suddenly in Boston on Nov. 23rd 1849, and whose remains were subsequently discovered in and around Dr. Webster's laboratory. Fragments of the skull bones were found in the ashes of the laboratory furnace which when put together enabled a dentist who had fitted some artificial teeth for Dr. Parkman, to identify the jaw and artificial teeth as belonging to Dr. Parkman, thus proving the identity of the remains.

In the first case which came under my observation I was invited by coroner Jones to examine some bones which had been burnt, and to determine if possible whether or no they were human bones.

The history of the case as appeared subsequently at the trial, "the Queen v. John Henry Wilson, for murder" was briefly as follows.

Wilson's mother had contracted a second marriage, against her son's wish, in consequence of which an ill feeling had sprung up between himself and his stepfather who held a small farm, and obtained his living partially by burning lime and partly by farming. A kiln for the purpose of burning lime was near the house; this squabble continued and increased to such an extent that Wilson left his stepfather's house and sought and obtained employment in the neighborhood.

The stepfather and the mother remained at the house with two little children. The stepfather proceeded with his avocation of lime burner, and when so occupied was in the habit of sleeping out beside the lime kiln in a wood shed so as to be ready to tend his fire, and usually had a buffalo skin to sleep on.

One evening the mother went to the village of Caughnawaga and remained the night with some sick relatives, leaving the two children in the house, and her husband,

burning lime at the kiln. That night Wilson visited the house, the children hearing a noise asked who was there to which question Wilson replied it was he, and asked them where the axe was. They answered, in the wood shed. The stepfather was never seen afterwards. Wilson continued to burn the lime, for a full week, and it was stated with a more than usually large fire. When asked where his stepfather was, he answered that he was gone to the States. After burning the lime for over a week, he drew the fire, but at the same time broke in the arch of the lime kiln, so as to let the lime into the ash hole. This was soon after harvest and the crops had been cut and gathered in from the field adjoining the kiln. A side road ran past the kiln, and came into swampy ground of deep black loam into which the cart wheels sank deeply, in several places round about the kiln in the adjoining field and particularly into these cart ruts Wilson was seen to be strewing ashes and these ashes he stated were from the lime kiln fire, and when asked what bones those were amongst the ashes he was reported to have said his stepfather's. It was from those places that the bones had been collected which were submitted to me. Some of these bones had become quite like porcelain from the action of the heat, and were so hard that I could not cut them with a steel saw, others were not so hard, but had been cracked by the heat and being deprived of gelatinous matter, were very friable. These had been put into a pocket handkerchief and tied up, and allowed to grind together, so that by the time I had an opportunity of seeing them, they were considerably damaged. I visited the spot and picked up some other bones myself. Those portions, which I was able to identify, were the processus dentatus of the axis together with a portion of the superior articulating surface of the left side attached to it, a portion of the first rib, a fragment of the symphysis pubis, a portion of the patella, both astragali, the internal cuneiform bone of the left foot and the scaphoid of the right foot, the base of metatarsal bone of the little toe of the left foot, and some of the

phalanges. The os magnum of the left hand and some of the phalanges of the hands. These bones and fragments of bones I have soaked in gelatine, to prevent further destruction.

To identify these as portions of a human body was the first duty. On those fragments an inquest was held and the prisoner was committed. At the trial the identity of these bones rested on the fact of the finding of two buttons which are buttons similar to those found on the United States soldiers' jackets one of which the missing man usually wore, and had on at the time he was last seen, and by a metal buckle which deceased wore on a leather strap round his waist.

The second case is one the features of which most of you are probably familiar with, they are as follows: A young woman was supposed to be in the family-way who should not have been. It was supposed she had been confined, and had made away with the infant. Under this supposition the premises where she lived were searched by the chief constable who found in the stove, some bones and fragments of bones that had been burnt. These bones were submitted to me to determine if they were human bones, and if so, were they the bones of a newly born infant, either at or shortly before maturity. I had little difficulty in determining both these questions, firstly they are not human bones, and secondly they could not be bones of a newly born infant.

Both these cases have points of interest, and are instructive, and more particularly to junior members of our profession. The former case shows the changes that bones may undergo when submitted to high temperature for a considerable period, and through what apparent dangers their form may be preserved so as to be capable of identification. It is curious how so large a bone as the astragalus should have remained uninjured, and so few of the long bones of much denser structure should be present in the debris. It may have been that the long bones and head bones had been removed to another place and escaped find-

ing, but the presence of the hand bones and bones of both feet, patella, and of the axis, so intimately connected as it is with the skull, lead to a fair inference that these were representatives of a whole skeleton.

The bones in the second case, point to the necessity of a medical education embracing a course of comparative anatomy, for on examining these bones even cursorily their origin is shown at once by their lightness, and the large cavity within and the thin external shell, and the large cancelli and the pillars crossing between the sides of the shell pointing to the air cavities existing in the bones of birds and their adaptation to the purposes of the animal to which they belong. They could not be bones of an infant for independently of their shape the epiphyses are all attached showing that the animal had arrived at puberty. There are two fragments which require comment, they are fragmentary and the cancelli are large and loose, these two bones I believe to be portions of the rib bones of a pig. The others the leg and wing bones of a good sized and well ossified chicken. The question naturally arises how came these bones in the stove, the answer simple. These people are living in a tenement house, and having no convenience for disposing of them otherwise, threw them into the stove as soon as they had got all they could out of them. As a sanitary measure burning is probably the best way of getting rid of such refuse. In this case the coroner objected to hold an inquest on the bones. I am informed that they were submitted to a gentleman, who thought they might be monkey's bones and the magistrate Captain Brehaut, was constrained to ask of me a private opinion on these bones from not being able to get proper instructions, and the unwillingness of the authorities to incur any expense in the matter.

Correspondence.

We have heen requested to insert the following letter, addressed to the *Toronto Mail.*—ED.

MEDICAL ETHICS AND JOURNALISTIC HONOUR.

To the Editor of the Toronto Mail.

SIR,—The courteous editor of the *Canada Lancet,* although unwilling to allow me to speak in its columns, has not scrupled to assail me in a manner, which will be characterized as I proceed. His limping editorial of more than a column concludes with the words "*verbum sat sap.*" If a word to the wise is sufficient, the compliment he pays to his readers is obvious.

If this were a personal matter I would not trespass upon the general public; but principles of equity and ethics are involved concerning the medical profession of Ontario at least, and I naturally seek the most certain way of reaching the ear of the Ontario profession—through the columns of *The Mail,* being denied the privilege in the *Lancet.*

The question discussed in my former letter, which you kindly inserted some time ago, was: "Should a medical man write in the general press to meet the arguments and misrepresentations of that press against his profession?" The editor of the *Canada Lancet* says no, "because such writers may justly be suspected of trying to exalt their own personality." In language intended to be inoffensive I discussed this subject in the light of the events connected with the late legislative action. But the editor of the *Canada Lancet,* unable to controvert my arguments, again adopted the tactics of the *Globe,* and, while refusing to publish my letter, resorted to the most unfair and unmanly course of misrepresenting me; and upon these misrepresentations basing

a tirade of abuse. It is hardly necessary for me to say that all I ask is fair play of the editor of the *Lancet*, and then I am perfectly content to allow the medical public to judge who is right. And this is what will be done in spite of the efforts of the *Lancet* to deceive its readers and to be personal. Finding himself incompetent to answer arguments, the courageous editor endeavours to raise a false issue, and, regardless of the absurd position he takes, repeates his stereotyped words about "efforts to exalt one's personality." It was not agreeable to the valiant editor to have his weakness exposed in the public press, and so he attempt to make a point by charging me with a desire to exalt my personality in taking steps to place my letter in the hands of those who had most likely read the *Lancet*. Now, it is perfectly plain the editor of the *Lancet* knew he was writing nonsense, because, in a previous sentence, he declares that he would make known my personality only for mercy's sake! The fine sense of honour here manifested will be refreshing to journalists in general. The editor of the *Lancet* claims that it is mercy alone which prevents him from divulging the name of a correspondent, given to him in confidence, under the belief that the editor of the *Lancet*, like other journalists, held such confidence as sacred. So far as the writer of these lines is concerned, he is not aware that more than two medical gentlemen know his name, and he is ignorant that any one but the editor of *The Mail* outside of the profession has any knowledge of his identity. Therefore, if he be known, it is in consequence of the want of the ordinary professional honour and sacredness of the editorial chair exhibited by the *Lancet*. I may say here, I neither court nor shun publicity. I wrote to the *Lancet* over an assumed name in order that the question might be regarded independently of individuals; but from the first the *Lancet* has been trying with discourteous intent to drag my name before the public. I now inform the editor of the *Lancet* that he is at liberty to place my name to the several letters if he will thereby be induced to publish them.

It seems to have touched the sensitive editor to have my letter distributed among the medical men and the medical students attending the hospital. He "supposes these fly sheets were distributed among my patients." The absurdity of this statement is apparent when it is remembered that my name is unknown, unless revealed by the accommodating man of all works, who carries information to the editor from the Hospital. The fact is the fly-sheet was placed only in the rooms devoted to the doctors and students; and I charge the editor of the *Lancet* with a knowlege of this when he penned his article. But I am sure it will surprise the medical public to learn that this same would-be-censor, who deliberately misrepresents one, is wont to bid for popularity and students (with an eye to future subscribers) by carrying his precious *Lancets* to the lecture-rooms and gratuitously distributing them. Perhaps it is, however, a part of the agreement he has with his advertising friends to thus spread abroad unseemly anatomical plates. And I think it is about time I spoke more fully respecting those plates. For months there has appeared on the outside of the *Lancet* certain "figures" and representations to catch the eye of the public, one of which particularly might well receive the attention of those whose duty it is to prevent the distribution of obscene literature. I have no doubt the editor of the *Lancet* is induced to thus sacrifice respectabilily by a handsome sum which might even satisfy one of the "avaricious dispensers," to use the polite language of the *Lancet* when speaking of druggists. But it does not become such an one to undertake to point out motes in the eyes of others, much less to attempt to remove them.

Thanking you for the uniform courtesy extended to the medical profession by *The Mail*,

I am, &c.,

ETHICS.

Toronto, July 8, 1874.

Reviews and Notices of Books.

A System of Midwifery, including the diseases of pregnancy and the puerperal state. By WILLIAM LEISHMAN, M.D., Regius Prof. of Midwifery in the University of Glasgow, Physician to the Lying-in-Hospital, &c., &c., 8vo. pp. 715. Philadelphia; HENRY C. LEA, 1873.

The author states in his preface, that his aim in writing this work has been to furnish to students and practitioners a complete system of the Midwifery of the present day, and how well he has succeeded in his arduous undertaking, all, who read his work will readily acknowledge. We have no hesitation in recommending this as the most useful book on the subject to the student and practitioner, in the English language. The author gives the substance of the most modern views on the subject, and gives them in an easy and readable style. The subject is treated of fully in all its parts, and nothing is slurred over. We first get a very complete description of the pelvis, with its muscles, ligaments and articulations, to each and all of which their peculiar part is assigned in the act of parturition. The diagrams in this chapter are admirably adapted to elucidate this somewhat, to the student, misty subject. Next he describes the female organs of generation, and is especially full upon the mucous membrane of the uterus.

The chapters devoted to the development of the ovum, embryo and fœtus, are well and carefully written.

The mechanism of labour is thoroughly explained, and this is one of the best parts of the book, illustrated as it is by diagrams which would make the process intelligible to the dullest intellect. In the management of labour, whether natural or otherwise, in the treatment of hæmorrhage, and in the management of the pregnant or puerperal woman we have a safe guide in Dr. Leishman, and in cases

where there is room for difference of opinion as regards treatment, the evidence on both sides is carefully weighed, and although the author is, from his wide experience, entitled to speak with authority, he is never dogmatic.

The important subject of hemorrhage is exhaustively treated, and the author seems to lean to the treatment of post partum hemorrhage, by a solution of the perchloride of iron, as recommended by Dr. Barnes, but he only views it as a *dernier resort*.

The cases requiring operative interference are well described, and the mode of procedure fully explained. Turning, especially, is thoroughly explained, and considerable space is devoted to a description of *Bimanual* or *Bipolar Version*.

The rules for the management of the child, and the treatment of the mother after parturition, as laid down by Dr. Leishman, leave scarcely anything to be desired: and, altogether, it is a work which we gladly welcome, and which supplies a long felt want. The student will find it a useful and trust-worthy text book, and the practitioner will soon learn to look upon it as a valued work of reference.

The volume is put before the profession, by the enterprising publishing firm of Henry C. Lea, of Philadelphia, in a shape that does them credit. The paper, type and binding are all good, and the price is moderate. We cordially recommend the work to the notice of the profession, and we do not doubt that a second American edition will soon be called for.

Experimental Researches on the Causes and Nature of Catarrhus Æstivus (Hay Feveror Hay Asthma). By CHARLES H. BLACKLEY, M.R.C.S., Eng. London: Bailliere, Tindall & Cox. 8vo., pp. 202.

This peculiar disease is one to which comparatively little attention has ever really been paid by good observers, and although the affection is one which has long been recognized as especially *sui generis*, as presenting symp-

toms unmistakable in themselves, and although general descriptions of it are to be found in our various well-known works on medicine, yet it must be confessed that all our ideas on the true etiology or causation of Hay-fever are extremely hazy and indistinct, and have been derived from statements founded upon a very limited number of observations. Investigations into the true cause of any disease are always surrounded with much difficulty, and we find no exception to that statement here. It is not a common affection, indeed in this country it may be said to be extremely rare, and consequently the observations made by any one person must necessarily be conducted only upon a small number of subjects; and further, not being a disease of dangerous character or requiring much medicinal treatment, it is very difficult to keep the same persons under observation for such a length of time as would render their cases useful in a scientific way. Our author himself has been for many years a periodical sufferer from this annoying complaint, and thus enjoyed (?) unusual facilities for experimentalizing and making accurate notes on the various points which would tend to explain its real mode of origin and communication.

There have been quite a number of discrepant theories at various times promulgated to account for the peculiar phenomena so characteristic of true Hay-fever. Its singular and regular recurrence at a definite season of the year, and its equally sudden and certain disappearance at a certain other period of the year,—the fact that attacks were frequently observed to occur in connection with accidental proximity to new-mown hay, or even to a standing crop of the same—soon directed enquirers to the grass, there to seek for some principle which might be proved to be the offender and the guilty irritant. But, apparently with the usual perversity of ingenious theorists, this ground was abandoned by some, the above singular facts being explained away as mere coincidences, and certain other explanations were offered for its production, entirely inde-

pendent of any noxious emanation from the vegetable kingdom. Thus Dr. Phœbus insisted that it was produced by *heat*, and to meet objections at once apparent was obliged to resort to the supposition that the *first heat of summer* possessed certain peculiarities to be found at no other period of the year. It is almost enough to say that Dr. Phœbus' theory was built upon the observation of *one case* (it being very rare in Germany). Dr. Blackley shows abundant reason why this theory is entirely untenable. Others again attribute it to *ozone* in a similar manner that Influenza has been assigned to the same agency. That this cannot be the case is also shown by the author's observations and experiments upon himself. Some prefer to think that simple dust is at the bottom of the trouble: this theory also will not hold water.

But the most interesting observations and experiments are those connected with the elucidation of the problem—which of the elements or substances arising from active vegetation posseses properties which would render it *probable* that it is in itself the true cause of the distinctive symptoms of the Catarrhus Æstivus? There are very good grounds for believing that the complaint has direct connection in some way with certain states of the surrounding or neighbouring vegetation,—and further, from the mode of attack and from the parts affected, (the nasal, buccal and ophthalmic mucous membranes) it is rendered highly probable that the local lesions were produced by direct contact of the noxious agent. That is to say, that the agent must be either of an imponderable or substantially inappreciable nature, or else in such a fine state of division as to readily reach these points during respiration. On this principle, several different substances have in turn been accused; benzoic acid, coumarin (an odoriferous principle found in some of the grasses and other plants), odours of various kinds, and finally pollen.—Most interesting and carefully-devised experiments are here described, performed with a view of determining which, if any, of these

possessed the property of developing the catarrhal or asthmatic symptoms of Hay Fever.—With all except pollen, the results have been entirely negative. This substance, the pollen shaken from the anthers of various grasses and other botanical species (a long list of which is given) is directly proven to excite very great local trouble when directly applied to the nasal lining membrane. Besides this a curious relationship is shown to exist between the severity of the attack at any given time and the actual quantity of pollen present in the atmosphere at that time. Much ingenuity has been displayed in the methods employed for determining this latter point, both at the earth's surface, and at considerable altitudes, by means of kites, &c. Dr. B. thinks that the effects produced by pollens upon the human frame arise from some inherent property and not from the presence of any powerful alkaloid; at any rate none such has yet been discovered. The symptoms of the disease are then described minutely and graphically as could only be done by an actual sufferer, and the diagnosis between this and ordinary asthma clearly shown.

The nature of the lesion causing the catarrhal and asthmatic symptoms is believed to be submucous serous exudation. We will allow that such exudation would certainly give rise to the nasal and faucial symptoms witnessed, but we cannot admit, as the author would have us do, that the same process continued to the larynx, is what produces the asthmatic trouble—the dyspnœa. Although it is not easy to explain certain peculiarities of this dyspnœa, such as effect of position upon it, on the supposition of spasm, yet it is highly improbable that intra-laryngeal œdema—that eminently dangerous condition—should be present in a disease which has never been shown to be in any way dangerous to life. Besides, if this be so, why was not the laryngoscope used, and the actual state of the larynx described? We look upon this as a serious omission.

As regards treatment, no great encouragement is to be found. "I have never met with a case," he says, "in which

I could feel sure that the administration of remedies had really produced a cure;" but continues, "I am at the present time engaged in experiments on the action of various agents, and hope to be successful in my search for an effectual remedy for the disorder."

To every physician who has to advise patients suffering from this complaint, this book affords innumerable useful hints, and to all at the present day when germ-theories and disease-causation are such popular subjects, these original observations and experiments concerning this ill-understood disease will be found to contain much that is interesting and instructive.

Archives of Ophthalmology and Otology.

We have been favoured by Messrs. Wm. Wood & Co., of New York, with the July number of the Archives of Ophthalmology and Otology, which has been changed from a semi-annual to a quarterly Journal. This is the first Number of Vol. IV, and in every way sustains the reputation which the Journal has hitherto enjoyed. The ophthalmological part of the book is well and carefully written, and contains several interesting papers and clinical cases, among others are a case of retinal glioma, and also several cases in which tenotomy of the superior and inferior recti has been resorted to with good results. There is also a description of a new ophthalmoscope, with a single disc, invented by Dr. Knapp of New York.

The otological department is, to our mind, the best part of this number of the Journal, and contains several translations from the German. Among these is a translation of an article by Dr. Wreden of St. Petersburgh, on the Myringomycosis Aspergillina. We here have a most interesting account of this aural fungus, and the symptoms to which it gives rise, this is followed by a case of Myringomycosis Aspergillina contributed by Dr. Charles Burnett, the translator of Dr. Wreden's paper.

The book finishes with an Otological and Ophthalmological review, and at the end are some excellent plates illustrative of various papers in the Journal. The number before us is very well printed in excellent type on good substantial paper, and the "Archives" will, we hope, be a decided success as a quarterly Journal. We should mention that the subscription has been reduced from seven to five dollars per annum, and we may safely say to any intending subscriber that it will be money well spent.

The Cerebral Convolutions of man, represented by original observations, especially upon their development in the Fœtus.—Intended for the use of Physicians. By ALEXANDER ECKER, Professor of Anatomy, and Comparative Anatomy, in the University of Freiburg, Baden. Translated by ROBT. T. EDES, M.D., New York, D. APPLETON & Co., 8vo. pp. 84.

This is an anatomical manual, consisting entirely of accurate descriptions of all the lobes and convolutions into which a normal brain is constantly divided. It is insisted by the author, that for all persons who attempt to record observations in cases of cerebral disease, it is very necessary to have some such topography as would enable them to describe accurately the exact situation of any given lesion. Thus in a purely scientific way the knowledge of some such system of nomenclature would no doubt facilitate work and also render such observations more valuable. But it would be idle to expect that the busy, general practitioner should be willing to expend the time necessary for the study of the name and relations of every separate convolution in the brain.

It displays, however, the great pains that have been betowed upon its preparation. It is illustrated with several good diagrams, and is a complete index of the matter of which it treats.

Periscopic Department.

On the Concentration and Sanitary Regulation of the Business of Slaughtering in Cities. By STEPHEN SMITH, M.D.

(Read before the Public Health Association of New York, June 11th, 1874.)

One of the first questions which sanitary authorities, newly organized in our cities, have to meet and answer is:—"How can the nuisance created by the ordinary slaughter-house be most effectually abated?" The conclusion which is generally reached is, that a stringent ordinance will remedy the evil, and accordingly, the opinions and purposes of the Health Authorities are embodied in the form of an ordinance, somewhat as follows:

"That every butcher, leasing or occupying any place, room, or building where any cattle have been, or are killed or dressed, or where any cattle may be kept, and, having power and authority so to do, shall cause such place, room, building, stall and their yards and appurtenances to be thoroughly cleansed and purified, and all offal, blood, fat, garbage, refuse, and unwholesome or offensive matter to be therefrom removed, at least once in every twenty-four hours; and shall, also, at all times, keep all wood-work, save floors and counters, in any building, place, or premises aforesaid, thoroughly painted or whitewashed."

But it is found by painful experience that in spite of this declaration the nuisance continues; that, in fact, this carefully worded and high-sounding ordinance proves to be but a tuft of grass thrown at the offenders. It is resolved next to enforce this ordinance by prosecution, or arrest, or by both methods. These proceedings possibly secure *more* care on the part of the butcher, but they do not in any proper sense abate the nuisance. During certain portions of the day the yards are covered with liquid ordure, the walls are bespattered with filth, the drains are choked with refuse matters; and however thorough the cleansing may be, the walls, floors and areas become so saturated that during the remaining portion of the twenty-four hours the whole establishment reeks with foul odors in the summer sun.

After a protracted struggle with this nuisance, stimulated by public censure, it will prove a fortunate circumstance if the health authorities reconsider their action, and adopt a policy more in accordance with the dictates of good sense and of wise sanitary administration.

The slaughter-houses of any city must be placed on the same basis as the markets, so nearly are they related to the public health. The business has always been recognized as offensive, and on that account amenable to municipal regulations. But there is a far more important sense in which they should be regarded as subject to special control, viz.: as the medium of food-supply to the people. Considered in their two-fold influence upon the public health, *first*, as sources of filth, and *second*, as liable to furnish impure meats, health authorities should exercise the most rigid supervision in regard to the details of their management. How can such supervision be most advantageously exercised? We answer:—by the concentration of the business in well-appointed abattoirs. These establishments should be so located, constructed and conducted as to secure the utmost degree of cleanliness, and the most direct and complete oversight by sanitary officers. We may thus state the advantages of concentration:—

1. *Facilities would be afforded for the thorough inspection of cattle and meats.* It is of the first importance as a sanitary measure that there should be ample facilities for the intelligent inspection of the cattle to be slaughtered, and of the meats to be exposed for sale in the markets.

The temptation to slaughter diseased cattle in large cities is very great, and the opportunities offered are abundant when the business is entirely unregulated, and free from the surveillance of competent sanitary officers. In every city where no restrictions upon the trade exist, there is a class of men who deal in diseased cattle and meats. In the cattle yards they purchase the sick, lame, or injured stock, and in the markets they select the rejected meats, and then retail this unwholesome refuse of the slaughter-house to the poor.

To guard the people against the imposition of diseased meats, the best regulated foreign cities require the careful inspection by expert officers of every animal brought to market. All obviously diseased cattle are sent to the offal yards, and the suspected are detained in yards or stalls for observation. All the meats offered for sale in the public markets must have a previous inspection. In this manner the people are protected from even the liability of receiving unwholesome meats.

But no sanitary inspection worthy of the slightest confidence can be maintained over the meat supply of our markets while the present scattered, unregulated, and practically unlicensed system of slaughtering is continued. Cattle suffering any and every form of disease may pass unnoticed and unchallenged to any of the slaughter-houses, and the carcass may go thence to the market without hindrance.

The only practicable and indeed possible method of instituting an adequate system of cattle and meat inspection is the concentration of the business in large and well-regulated abattoirs. The very incorporation of butchers in such companies, leads to the expulsion from the business of those irresponsible dealers who live by a sort of contraband trade. But the great sanitary feature of the proposed regulation is the rigid inspection of cattle and meats which may be so successfully carried out.

2. *Abattoirs properly conducted, tend to the purity and preservation of meats.*

Fresh meats afford, during the warm summer months of the year, a fertile soil for the development of the germs which arise from decaying or decomposing matter, vegetable and animal. The germs are of course, the most abundant where there is the largest amount of organic matter. When implanted on fresh meat, at a proper temperature, they at once begin to develop, and the meat undergoes putrefactive changes. In certain localities, meats cannot be preserved in the summer, except on ice, for even an hour. And it is

susceptible of demonstration that meat slaughtered in filthy stalls and exposed to the emanations of unclean yards, areas, drains, etc., quickly takes on putrefaction. If we add to this exposure the filth of the slaughter-houses, the additional exposure to the filth of the street, as the cart is driven to market by the butcher, we have the best conditions that could be devised for furnishing the people of any city with unwholesome meats. That such a meat supply is detrimental to the health of the people, there is no doubt. The effect of inoculating a wound, as a cut on the lip, with meat in this stage of putrefaction, is most dangerous, often resulting in violent inflamation and speedy death.

But in the abattoir, we have these conditions changed. All is scrupulously clean; the air is untainted by decomposing organic matter of any kind; the meats are hung up in a cool dry atmosphere.

3. *The large surface area occupied by the business would be diminished to the least practicable space, and the entire territory occupied could be preserved in a much greater state of cleanliness than that of any one of the single establishments now in use.*

It has been taken for granted by some people that if all the slaughter-houses should be concentrated in one establishment, this single establishment will become as many times more offensive as there are slaughter-houses so concentrated. This view is not only absurd, but practically the reverse is true. If, for the loosely paved yards, the imperfectly drained areas, the absorbent floors, etc., of existing slaughter-houses, widely scattered, we can substitute a single yard with impervious bottom, susceptible of being thoroughly flushed at all times with water—a building with non-absorbent floors, and equally capable of rapid and thorough cleansing, it is apparent that large and filthy areas now reeking with ordure in the summer's sun, and floors saturated with animal matters, would be entirely removed, and the substitute would be a single limited area, at all times

kept thoroughly clean, and buildings free from contamination.

4. *Concentration of slaughtering will abate the nuisance of fat-melting, hide-curing, gut-cleaning, and other offensive kinds of work growing out of the business.*

Not the least of the evils arising from the maintenance of numerous slaughter-houses, are those kinds of offensive business, like fat-melting, which are its adjuncts. These trades are carried on by independent operators on their own premises, and always in a most slovenly and negligent manner. The butcher is likely to retain his fat until it becomes putrid, and then it is carried through the streets to the dilapidated fat-melting house where it is rendered with imperfect apparatus; the hides are cured by another small and irresponsible dealer in any old building which he can secure; the entrails, in a state of active putrefaction, are taken by still another dealer through the city to any dilapidated rear building where the workmen can be concealed, and there they are manipulated for days together.

It is frequently urged by those opposed to the abattoir system that there is not sufficient available space in cities for the proper management of the business if it is concentrated. This question has been practically studied recently by Mr. Carl Pfeiffer, sanitary architect with reference to the concentration of the slaughter-houses of New York. From the data which he gives the necessary calculations can be readily made as to the space required for the business of any town. He concludes as follows:

"The space usually allotted to a butcher in most of the slaughter-houses of this city, for killing and hanging cattle, is called a baulk, and occupies a floor space of 10x50 feet, exclusive of yard-room for the temporary storing of the live cattle; for the latter purpose additional space of 15 or 20 square feet is allowed for each animal. One set of butchers in the smaller establishment usually kill and prepare ready for market on an average 25 beeves per day; to kill and dress one bullock ready for market requires 20 to 30 minutes.

A space of fifteen feet in width affords ample room for two baulks, and making each baulk 60 feet deep, would give slaughtering and hanging room for 40 cattle per day; add to this a space of 15x40 feet to be used for a pen, in which the cattle are placed previous to being slaughtered, would give room for 40 to 50 cattle. The space usually allowed for this purpose I have found to be from 11 to 15 square feet for each animal. It appears then that in a space of 15x100 feet ample room is afforded for slaughtering, hanging, and yarding 40 cattle. A block of ground 200x400 feet would afford facilities for slaughtering, hanging, and the necessary pen or yard space of 4,000 cattle per day, or nearly three times the capacity that is required by the butchers of this city during any day for the past year.

At the slaughter-house of the Central Stock Yard and Transit Co., at Jersey City, I found that a space of 15 by 80 feet was required for yarding, slaughtering, and hanging 50 cattle per day. The same company in a space of 300 by 400 feet, afford accommodation for the reception, feeding and watering of 20,000, and the slaughtering and hanging of 5,000 sheep, so that it is safe to assume that in a space of 200 by 300 feet 5,000 sheep can be daily yarded, slaughtered, and hung up, which is more than is required by all of our butchers in this line of business. During the past year the daily average of sheep-slaughtering in this city has been 3,300, so that in the same space sufficient room would be left to do all slaughtering of calves required. This the sheep and calf slaughtering, is mostly done in the second stories. For hog-slaughtering a space of 1,312 square feet is required for a tub and bench for one set of slaughterers, and 2½ square feet of hanging room for one hog; if the baulks for hogs are made in double tiers, one above the other, then two hogs can be placed in a floor space of 2½ square feet. One set of hog-slaughterers usually kill and dress 200 hogs per hour, and, five hours being their working time, one set of men deliver 1,000 hogs per day, or one-fourth of the number of the entire daily supply furnished by all the

butchers. Assuming then a ground space of 200x350 feet for a hog slaughtering-house two stories in height, the upper floor to be used for yarding and killing, the lower for dressing, weighing and hanging; the upper floor containing 70,000 square feet, and each hog requiring less than 7 square feet, there would be room for more than 10,000 hogs. Assuming the lower floor to have a central space of 60 by 350 feet, room would be afforded in this for 16 tubs and benches, and 16 set of slaughterers. On each side of this central space would be 70 by 350 feet of hanging room, capable of having 400 baulks; each baulk being 70 feet deep, would afford hanging room for 42 hogs, and the 400 baulks would hold 16,800 hogs, or more than four times as much as required by all the hog-slaughterers of New York.

The above demonstrates that all the slaughtering of cattle, sheep, and calves required by the slaughterers of New York can be done in a building 300 x 400 feet, and the hog-slaughtering in a building of 200 x 300 feet. These buildings could have basements where there would be ample room for the salting of the hides and collecting all offal. A building of 100x100 feet, 3 stories in height, and a basement fitted up with the most approved apparatus would be sufficiently large to admit of the fat-melting and rendering being done for all of the slaughterers' offals. In addition to the meat supplied by the New York butchers, the Central Stock Yard Co., slaughtered at their abattoir at Jersey City for the New York market during the past year, 200,000 cattle, 300,000 sheep, and 600,000, hogs, and from personal observation and survey I have found that this abattoir is worked to less than one-half of its capacity, and could do all the slaughtering to supply the demands of the New York, Brooklyn and Jersey City markets.

The abattoir also demonstrates that in a large establishment the slaughtering is more readily supervised, and the whole business done more systematically and more cleanly; in fact, so cleanly that nothing offensive is perceptible, owing to the superior sanitary precautions that have been taken in

the construction and the constant enforcement of proper regulations, which experience has proved almost impossible to enforce in a large number of small establishments scattered over a great part of the city."

In the light of the preceding discussion we can but conclude that the interests of the public health demand that the business of slaughtering in all our American cities should be concentrated at the most available point for cleanliness and economical management, in one or more abattoirs according to the necessities of the trade. The common slaughter-house is a nuisance against the public health (and public morality) which should be abated wherever it exists. —*The Sanitarian.*

Practical Notes on Cutaneous Subjects. By TILBURY FOX, M.D., LONDON, F.R.C.P., Physician to the Department for Skin Diseases in University College Hospital.

IX—SYPHILITIC TUBERCLES ABOUT THE NOSE.

I have seen strange mistakes, made in regard to the nature of specific indurations or tubercular formations about the nose. The occurrence of syphilitic inflammation or infiltrations in circumscribed spots about the nose, constituting the sole syphilitic cutaneous manifestation present, is not uncommon. The favourite seat of these infiltrations is the hollow formed by the junction of the ala of the nose with the cheek. These formations may be as small as, and even smaller than, a split pea, or as large as an almond or larger. There may be one or several. Generally speaking there are one or two packed together. In some cases the nose about its tip or side, or in both situations, appears enlarged from excess of tissue; whilst it is at the same time redder and hotter than usual, and distinctly indurated to the touch. More rarely the general enlargement of the nose is excessive. The tubercles, or the more general enlargement, may be the seat of ulceration or crusting.

No such condition as the last described could be the result of simple inflammation. The syphilitic disease begins and progresses slowly and indolently; and the enlargement is due to the formation of a fleshy-like mass, firm and reddish—a neoplasm in fact. The neoplasm in the form of a tubercle or a more diffused infiltration is firm, not very vascular; it *tends* to crust freely and to ulcerate—characters that bespeak its syphilitic nature. The lupus neoplasm is softer, more vascular, gelatinous-looking, and, if small, does not crust, except in strumous subjects, but is covered by thin scales, which are closely adherent; and, further, the tubercles are not multiform, save but very rarely. But the diagnosis is further set at rest by the discovering of some concomitant syphilitic lesion of the throat or the tongue, by the presence of nocturnal bony pains, &c., although there may be no additional evidence of skin syphilis.

These syphilitic tubercles are often taken to be acne indurata spots; but they have none of the characters of an inflamed sebaceous gland, and especially no central aperture indicative of the follicular opening; they are primarily solid (new) formations, and they tend to ulcerate and leave pits behind on their disappearance, unlike ordinary acne spots. I have seen many cases of these syphilitic tubercles or slight infiltrations about the nose which have been treated for a long time without any benefit because their nature was not recognized; but if the fact of the disease beginning as a new formation be attended to, the observer will be at once put upon his guard against error, and many a patient will be saved from ugly ulceration and deformity of the ala of his nose by timely treatment.

X.—UNCONSCIOUS SCRATCHING.

I am convinced that sufficient attention is not paid to the evil effects of scratching upon skin diseases which are accompanied by pruritus, and especially by such as may be termed unconscious scratching—i.e., that which is practised

during the night. To the case of old people suffering from pruriginous affections these remarks particularly apply. I was recently consulted by a gentleman in his fifty-eighth year, who had been greatly distressed and worried by an attack of cutaneous pruritus, for which he had failed to get relief, and which he aggravated greatly by savagely excoriating the skin with the nails, thereby inducing a crop of what is known as pruriginous papules (inflamed follicles and papillæ in a state of excoriation) The cause of his malady was over-work and want of fresh air no doubt; this, however, is not the point I want to notice, but the effect of scratching during sleep practised perfectly unconsciously upon himself. He told me that his mornings were miserable on account of the burning and soreness he felt in his skin. He imagined that he had exacerbations of his disease in the mornings; but I observed that each morning the skin appeared to be more than usually excoriated, and on requesting his wife to watch his doings at night, it appeared that he was in the habit of almost continuously scratching himself in various parts of the body when in sound sleep. He had no idea that he habitually so scratched his skin; but attributed the ill effects of the scratching to an aggravation, natural as it were, of the disease. The disease in his case was speedily cured, though it had lasted some time, by anointing the body with simple oil, and tying the hands in gloves, so that the nails could inflict no injury upon the skin when he was not watched in the night. The case illustrates the importance of attending to "little matters" in the treatment of skin diseases, and especially in regard to scratching.

XI—SYPHILITIC PEMPHIGUS IN AN ADULT.

As instances of syphilitic pemphigus are "few and far between" in private practice, the narration of the following case, which came under my observation in March, 1873, will be followed with interest.

The patient was a gentleman aged twenty-five, sent to

me by his medical man from the country. He informed me that he had "had a great deal of worry and trouble of late," and had suffered much from "migrain." The disease for which I was immediately consulted attacked him first in October, 1870, about the hands and feet, and the interior of the mouth was so badly affected that he "could not eat anything," and the patient added that "the throat was awfully bad." He had been attacked by seven outbreaks in all, including the one I saw. The outbreaks kept him in bed for a fortnight, and left him in a very weak and depressed condition. When any outbreak was severe, the patient suffered from intense headache, during its height for about twenty-four hours. He had been subject to neuralgic pains, and occasionally to rheumatic pains. He had been very low-spirited. The body had never been attacked by the eruption: the penis, however, had suffered of late.

The last attack began on March 6th by a little speck on the centre of each hand, the patient being very low and weak. The lip became sore on its outside and "broken." On March 8th another spot appeared on the thumb. On the 11th other spots had appeared about the fingers, and the first which came had assumed the aspect of little bullæ; the gums had also become tender, and the spots on the 14th had reached the size of a large split-pea. On the 15th the patient felt so weak that he had to go to bed; the throat got very sore and the bullæ filled with bloody fluid and looked like black grapes. The feet now became affected. On March 20th the patient was still in bed; headache came on and lasted all day, and the man suffered from great pain in the limbs and febrile disturbance. He got up on the 24th of March (eighteenth day of disease) for the first time since he took to bed. When I saw the patient on March 28th—that is, the twenty second day of the attack—there were about sixteen bullæ on each hand, of various sizes and different stages of evolution, some being much indurated at their bases and some freely coated over; and about ten

on each foot. The patient's tongue exhibited white patches and fissures on the sides, and there was also evidence of syphilitic ulceration about the throat on each side. His wife was confined of her first child in February, five weeks before her expected time, and the child only lived two days.

Remarks—I base my diagnosis of syphilis upon the general state of the patient, which showed that he was to some extent cachectic; upon the frequency of the attacks of headache; the occurrence of rheumatic and neuralgic pains, especially about the head; the evidence of syphilitic mischief in the throat and about the tongue; the seat of the bullous eruption—viz., the soles of the feet and the palms of the hands; the indolent character of the eruption—viz., the slow development of the bullæ, their tardy progress, the presence of sanious contents, and particularly the induration left behind by them; upon the premature confinement of the wife with what was practically a still-born child; and lastly, the effect of anti-syphilitic treatment in relieving the patient.—*Lancet.*

The Internal Administration of Phosphorus.

The difficulty of finding an appropriate vehicle for phosphorus in its medicinal uses has long been recognized. Balsam of tolu has lately been suggested for this purpose. Experiment has shown that four grains of phosphorus are perfectly dissolved by ninety-six grains of washed tolu, if melted together under water and well stirred.

The preparation so made, when examined microscopically, does not show any particles of undissolved phosphorus, and when seen in the dark, and rubbed between the fingers, it gives off a perfectly equally distributed light.

This preparation may, therefore, be formed into pills, with every confidence in the equal distribution and activity of the phosphorus.—*Medical and Surgical Reporter.*

Turning after Craniotomy. *By* S. WORDSWORTH POOLE, *M.D. Aberd., L.R.C.S.E.*

A Case like the following is happily uncommon in the practice of a country surgeon, as an experience of above 3000 assures me, and its perusal may afford some useful lessons to those who are not yet perfect in the obstetric art.

On the 10th of April last I was called to see a very diminutive person in the ninth month of pregnancy, a primipara, and thirty-two years of age. There were present slight pains, and a sanious discharge, but the os was impervious to a catheter, the cervix being small, with merely a depression in its centre. The brim of the pelvis was blocked up by an unyielding bony mass, simulating the fœtal head as it might lie when firmly impacted. The diagnostic difference was this, that it was continuous with the coccyx and sacrum. This discovery led to an examination of the spine, which was found to be deeply incurvated below the loins. The legs were found to be greatly deformed, the tibiæ being enlarged and bowed inwards. Yet the husband was ignorant of the distortion of the figure, and it was not till some days after her death that he told me he remembered that she always took care, when dressing and undressing, to have her limbs concealed from his view.

On the 12th the nurse showed me veritable brain-matter escaping from the os, which, however, was not open enough to admit the point of the forefinger. The pains were still very slight and infrequent; the pulse was good, and the mind cheerful, and so I deemed it prudent not to make incisions and bring on delivery until I saw what could be effected by nature through powerful uterine efforts. These supervened on the 14th, and about six hours after I attended her, and found the os large enough to admit one finger, and just within it was a piece of jagged bone, evidently part of the cranium. The promontory of the sacrum was very close to the pubis, not an inch and a half apart, but the outlet was roomy enough. As the history was clearly that

of rickets, not osteomalacia, I could not hope for any yielding of the bones, and anticipated the worst result.

The woman was put under chloroform, and the delivery at once proceeded with. Barnes's bags, so often useful, were here out of the question, as the head would have prevented their insertion, at any rate their retention; so with a hernia knife I made three incisions, and extricated the presenting bone, twisting it off with the fingers. The craniotomy forceps were then fixed, and the crochet was passed inside the cranium and made fast to a distant point, and by drawing on the two simultaneously the head was pulled down as far as possible, but the scalp constantly gave way, and the bones had to be twisted and removed in fragments, chiefly by the fingers.

After an hour and a half the whole cranium was delivered, and operations were delayed to give both patient and attendants a rest.

As it seemed a very uncertain undertaking to fix a blunt hook in the axilla, and thus drag down the trunk, I passed the left hand, as being the smaller, slowly through the os and brim, and attempted to grasp a foot, employing external version at the same time. Though my hand is small, it was impossible to rotate the wrist, which was painfully gripped between the sacrum and pubis, and a foot could not be seized. I then introduced the right hand and caught one foot, which was drawn through the outlet, and the blunt hook fixed over the opposite groin, after which the delivery was tolerably easy. The state of the fœtus may be judged of from the fact that, on moderate traction on the thighs, the skin gave way and became completely inverted over the foot.

The placenta was firmly adherent, and for a third time the unfortunate creature had to be subjected to the introduction of the hand. She suffered no pain, however, being completely anæsthetised for three hours. The uterus contracted well, and there was not the slightest hæmorrhage. For forty-eight hours after delivery the pulse remained at

120, and then fell to 100, and the urine kept constantly dribbling away. There seemed some chance of recovery until the fourth day, when tympanites and vomiting set in, and the patient rapidly sank. On examining the vagina there was found a good deal of sloughing.

Though I do not reproach myself for the fatal termination of this case, it is pretty clear that a better chance would have been afforded had the fœtus been turned before extracting the skull; indeed, it seems evident to me that but for one great risk—namely, the giving way of the neck, and consequent leaving the head in the womb, this method would be best after craniotomy in all cases where version was possible. In the above instance it would have answered, though the risk would have been considerable from the decayed condition of the fœtal muscles and ligaments.

As a country surgeon is not often able to make public his opinions, I take this opportunity of expressing mine on the question of craniotomy *versus* the induction of premature labour, which is always causing some discussion, though I am at a loss to comprehend how any educated man in his right mind can take the side of the former. I conceive my experience of both sufficient to warrant me in stating that the latter is quite as safe for the mother as the former, and that an accoucheur who deliberately neglects to induce labour at or about the seventh month, knowing that the only alternative is perforating the skull, is guilty of infanticide.

It does not very frequently happen that a patient's estimation of the advantages of the operation can be so markedly expressed as in the following case, which was published in *The Lancet* some four years ago. A woman having a pelvis two inches and a half in the antero-posterior diameter had been delivered of six still-born children, some by version, some by forceps, some by craniotomy. I induced labour at six months and a half. The child was born alive, and lived for three years. The mother emigrated to America, where

she was delivered again at the ninth month of a dead child, to her own great risk, and she is now on her way home to undergo the same proceeding which resulted so happily for her before.

With one other remark I shall conclude. I have found chloroform to be the best if not the only preventive of laceration of the perineum so common in primiparæ over twenty-five, whether the forceps are employed or not.—Sidcup, Kent. *The Lancet.*

On Strapping the Chest in Phthisis. By JOHN MCCREA, M.A., M.D., Medical Officer to the Belfast Dispensary.

The treatment of phthisis by restraining chest-movement deserves more attention than it has yet received. Partly for this reason, and partly to describe the appliance which I have latterly found most effective, I wish again to direct inquiry to the subject.

In the large number of cases which have come before me in the practice of the Belfast Dispensary, I have seen no remedy equal strapping the chest in efficiency and general applicability. At the same time the use of other remedies is not interfered with. The plasters used in strapping are quite able to bear the strain of walking and talking, so that gentle exercise and conversation are not forbidden; and, indeed, I have seen both rendered enjoyable where they had previously been irksome. I have not met with a case in any stage of the disease in which there was ground for attributing any bad result to the restraint of the chest. I say this because a paper on the subject threatened grave consequences if cases were not most thoughtfully selected after an exact measurement of the proportion of lung involved. An extensive trial has convinced me that this dread is a dream and this refinement finical.

Since writing a paper which appeared in the November number of the *Dublin Journal of Medical Science,* I have made an improvement in the apparatus, which diminishes

the frequency of the renewal of the plasters and strengthens their grip. The following description contemplates their application to the upper part of the chest. I have principally used emplastrum roborans spread on swan's-down. The sheet, which is half a yard wide, is to be cut into transverse strips. Each strip is eighteen inches long; the breadth should be about three-quarters of an inch. The plasters should be only very slightly heated. The first strip runs up the back in the space between the spinal column and the posterior body of the scapula on the affected side, its starting-point being well below the level of the inferior angle of the scapula. It is to be applied gradually and deliberately, every portion being well rubbed in before the next portion is brought into contact with the skin. It is to be carried over the shoulder and down the front of the chest. In rounding the shoulder it is to be pulled tight and held so while it is being, bit by bit, brought into contact with the front of the chest, the chest just at this period being in the act of strong expiration. The next strip, which is horizontal, commences at the spine, crosses the posterior end of the first strip, passes under the axilla and on towards the sternum. It also is to be applied deliberately and with friction; as it is rounding the chest it is to be pulled tight, the patient at the same time making a forced expiration. Other strips are to be applied in a similar manner, vertically and horizontally time about, until it is judged that a proper grasp of the chest has been obtained. I avoid the scapula as much as possible. Some of the horizontal strips should cross the sternum, and some the spine. A large rectangular piece of plaster should now be applied, occupying the inter scapular space and reaching down to the last dorsal spine. Another squarish piece is to cover the front and upper part of the chest between the clavicles and mammæ. These, if smoothly applied, secure the ends of the strips from ruffling up, and give additional *points d'appui*. Finally, the whole is to be well rubbed in all over. The patient is to sit quiet for a few minutes before dressing. The plaster

soils the fingers, which, however, may be easily cleaned by rubbing with coarse paper and washing with a few drops of ether. The length of strip required of course depends upon the size of the chest and the extent of the disease. I always endeavour to control more of the lung than the portion apparently diseased. I have found it generally suitable to cut the plaster as above described. If too long, that may be easily remedied with scissors as each strip is applied. If too short—if, for instance, a vertical plaster beginning on the back does not reach sufficiently far down the front of the chest, let the next vertical plaster commence its course in front and at a sufficiently low point, and then be made to cover the former. This, besides, increases the rigidity of the apparatus, and rigidity undoubtedly is one source of its power.

In a fortnight a reapplication will probably be required. This will give a good opportnnity for a careful examination of the condition of the lung. While the plasters are still on the indications of the thermometer will be most valuable. If there be an exacerbation of the symptoms, particularly of the cough, dyspnœa, or pain, if the temperature rise, or if the plasters be obviously slack, apply new ones. In an advanced case of phthisis in a girl, the girl's mother told me that she herself could tell the proper time for renewal by observing the cough become distressing at night; and, indeed, it is common for patients to ask for a reapplication. This illustrates, besides, the confidence felt in the plasters by those who have had experience of their effects. In early phthisis it is necessary to warn the patients not to mistake the amelioration of their symtoms for recovery; they should always be directed to come back. Possibly when they consider themselves quite well the thermometer or the stethoscope will indicate differently. These are the cases in which, by reapplications, repeated reapplications if necessary, we may hope for the most brilliant results.

In the paper already referred to I have related a few cases, selected with the aim of illustrating the effects of

this line of treatment in different stages of the disease. We obtain immediate and marked diminution of the cough, cessation of pain, relief of dyspnœa, and reduction of temperature; and the patient usually expresses at once a feeling of great comfort. In short, I am so satisfied with the results of the numerous cases in which I have tried this method that I give it the first place among all the remedies for phthisis.

Papers on the subject—Berkart on "Rest," &c., THE LANCET, Oct. 18th, 1873; a letter from myself in the following number of the same journal; my paper in the *Dublin Medical Journal*, Nov., 1873; Dobell on the "Importance and Dangers of Rest in Pulmonary Consumption," in the *British Medical Journal*, Nov. 22nd, 1873.—*The Lancet.*

The treatment of Corns and Bunions.

In a lecture reported in the *Medical Press and Circular*, Mr. Ormsby, F.R.C.S., said on this subject:—

The treatment of these two affections agrees very much in at once removing the tight boots and undue pressure, and soft pliable leather shoes recommended, applying simple cold-water dressings to the painful bunion; in the inflammatory stage, if suppuration occurs in its cavity, it should be cut into by early incision. To prevent undue pressure various methods have been suggested from time to time; a round piece of leather or condensed piece of wool having an adhesive side next the skin, and a round hole cut out of its centre to receive the corn or bunion, and this then applied round the periphery of the swelling; this, no doubt, is a very useful plan, but act, as it may do, most efficaciously for a time, it is only palliative, and does not effect a permanent cure. The topical application of nitrate of silver produces a hardened black portion of epidermis over its summit; this, after a time, gets detached, and you can peel it off, and when this is removed touch it again with the nitrate

of silver, and so on until all traces of the callosity disappear. I have over and over again tried this plan, and it has seldom failed in my hands, but it must be persisted in. Chiropodists, a class of people who think themselves very clever, profess to take a "corn out by the roots," a most unscientific observation, to say the least of it, and in reality all they do is, by a patient and gentle paring process, remove a great part of the thickened cuticle, and recommend a well-fitting boot, and simply by removing the cause it often effects a cure. You must also bear in mind that a very loose boot is nearly as bad as a very tight one. Glacial acetic acid is also recommended to be applied after the callosity has been well softened by keeping the feet in warm water for a short time. When the callosity occurs in the sole of the foot and a circumscribed enlargement is seen, if directions are given to a bootmaker, he can make an allowance in the sole and form a slight depression, so as to prevent undue pressure to the foot; in fact, boots of any dimensions and shape can be made by an intelligent bootmaker to suit any deformity occurring in the toes or feet. Well-made boots prevent much annoyance and deformity, while badly-made and ill adapted boots are a very frequent cause of deformity, corns, bunions, limping, etc. Another distortion often seen is what is called *Hammer-Toe*; it is caused generally by wearing boots of insufficient length, and the toes are bent up and considerably flexed to accommodate themselves to their cramped position; after a time the flexor tendons become permanently contracted, and the toes assume a form not unlike the appearance of a hammer, hence the name; the great, second, and last toes are most often affected.

Treatment.—To recommend longer boots, and allow the toes space to travel forward. Tenotomy of the contracted flexor tendons may be resorted to, and a spring-pad attached to a sole of leather or other light material, and the toes bent forcibly down and bandaged to this sole, which may have slits in it corresponding to the interdigital spaces, which facilitate the bandage passing between the toes and keep them permanently extended.—*Medical and Surgical Reporter.*

Varicella and Variola.

The relationship of these two complaints was discussed by a correspondent of this journal some months back. Professor Henoch, of Berlin, in a paper recently published in the *Klinische Wochenschrift*, argues strongly in favor of their radical diversity. He says:—

"It is not singularities that settle the matter here, not the circumstances that individual vesicles of varicella have a central depression, and that their contents may become purulent. Taken altogether, the differences are always so marked, that, to me, a perfect separation of varicella from the variola group seems indispensable. Compare the exception of scarlatina, which in almost all cases commences as a diffuse erythema, but, under very severe cutaneous inflamation, is often enough mixed with papules or with vesicles, which may even have puriform contents. In spite of this, the disease is still scarlet fever. Just in the same way I regard these exceptional cases of chicken-pox. Two cases came under my care in private practice, in circumstances which to me were decisive. Two sisters, both vaccinated, were ill with varicella at the same time; one had the disease in a severe form, having a strong fever, with severe headache, and the body thickly covered with vesicles, some of which underwent purulent change; the other had no constitutional symptoms of importance, and only a very few clear watery vesicles. In another family, a child three years old, who had been successfully vaccinated, was so severely ill that I should have been misled, had I not seen the eruption of clear vesicles. In a fortnight, the elder brother had a very mild attack of vesicular chicken-pox. The extension of the disease among the grown members of the family, or of the household, such as often occurs in variola, was not observed in one of these cases."

These views strike us as very just. All the exanthemata have these exceptional appearances.—*Medical and Surgical Reporter.*

CANADA

Medical and Surgical Journal.

MONTREAL, AUGUST, 1874.

VACCINATION EXTRAORDINARY.

The anti-vaccinationists, headed by the irrepressible Dr. Coderre, have just had a new sensation. There is in this city a certain Dr. Roy, of whose existence not many persons have been until recently aware. A short time ago he vaccinated an infant, and not being satisfied with the result wrote a letter to the great champion of non-vaccination, who accordingly found a mare's nest at once, and heralded the same to his confiding compatriots in a long communication to the *Minerve* newspaper. The facts are briefly as follows. On the 26th June an infant thirteen months old was vaccinated by Dr. Roy from lymph obtained from Dr. Larocque, one of the Health Officers. On the 27th, the child became extremely feverish and had severe diarrhœa. On the 9th July there was enlargement of the *inguinal* glands (which Dr. Roy tells us with the greatest *naïveté*, he mistook for an inguinal hernia !). At this time when the pustule had formed and was commencing to dry, he applied a firm bandage over the part, and subsequently on removing the bandage, was surprised to find the scab sticking to this and a rather nasty sore left behind. The description of this sore in the above-named paper must be taken *cum grano salis* as emanating from the excited imaginations of rabid opponents of the practice. Shortly after, the sore cicatrised and the child was well. But so much had been said about it, and such perniciously erroneous ideas were

likely to be entertained by the public concerning the bearing of these garbled facts as thus presented, that it was thought advisable to call together a committee of medical gentlemen of various shades of opinion, to hear the evidence and give an intelligent verdict concerning it. Accordingly, on the 2nd August the following gentlemen met at the parent's house to institute the necessary enquiry, viz: Drs. Larocque, Dugdale, Howard, Rottot, Ricard, Trenholme, Mount, Desrosiers, Lussier, Craik, together with Drs. Roy, Gauthier and Coderre. Having examined the child, and enquired into the case, the following resolution, which was moved by Dr. Howard, seconded by Dr. Mount, was adopted.—Resolved "That after having carefully examined the child of Widow Leblanc, said to have been seriously affected by the effects of vaccination, this assembly is of opinion that there has been no proof of such being the case."

Now this case, instead of being what the Coderre school have been trying to make the public believe it is—a terrible instance of the dire effects necessarily following upon this dangerous operation—is, instead, simply an instance of the manner in which casual and coincident illness is readily by ignorant, or greedily by prejudiced persons, attributed to an antecedent circumstance with which this has no connection as a cause. The vaccination was performed at a time when diarrhœa—generally with more or less febrile reaction—was excessively prevalent amongst children in this city; these symptoms occured the *day after* the vaccination was performed, and yet we are asked to believe that these symptoms are to be referred to the entrance into the system of a morbid poison of some sort—Credat Judæus. Next we are told there was enlargement of the inguinal glands; now, the pustule being on the arm, how are we to believe that any deleterious agent from this point is to pass over the axillary glands, and fly to those so far remote? Besides, what sort of confidence can we place in the descriptions and observations of one who does not hesitate to tell us himself that for a whole day he was under

the impression that he was dealing with a hernia! Moreover, as a matter of fact, the child was admitted to have previously suffered from some inflammatory trouble about one knee-joint. Besides, as suggested by Dr. Howard, the profuse diarrhœa would almost certainly be accompanied by excoriation of the parts about the perineum; and this is recognised as a common cause of such adenoid swellings.

Dr. Roy appears to be a person content with an infinitesimal amount of personal experience to have enabled him to become an anti-vaccinationist for, according to his own statement he is individually utterly unacquainted with the practice. He says "Having for some time followed the animated discussion regarding vaccination I was longing for the day to come to prove the good or bad effects of vaccine." His devout aspirations were answered at last. An unfortunate infant was entrusted to him to vaccinate—happened to take ill the following day and lo! Dr. Roy has solved his problem and proved to his own entire satisfaction that vaccination is the arch-enemy of human life!

We should be only too glad if every case of this kind could be submitted to a tribunal of the same character. Then we should not find Dr. Coderre in a position to refer triumphantly by name to this one and that one and the other whom he boldly asserts have fallen victims to what he calls vaccine-poison, every one of which cases we have not the slightest doubt, if examined into by intelligent physicians, would have been traced to their true cause.

McGILL UNIVERSITY.

The following changes have recently been made in the teaching staff of the Medical Faculty of McGill University. Professor Drake has, owing to ill-health, been obliged to retire from the performance of the active duties of his responsible position as teacher of Institutes of Medicine. He will still, however, retain his Professorship. Dr. William Osler has, in consequence, been appointed by the

Faculty as Lecturer on Physiology and Pathology, and will begin his course at the opening of the session in October next. There can be no doubt that through the retirement of Professor Drake, the Faculty have lost one, who from the very commencement of his teachings, has proved himself to be a thorough master of the difficult and now complex subject treated of, and at the same time to be endowed with the gift not in the possession of every one, of imparting to others the knowledge acquired by oneself. We particularly regret to observe the cause assigned by Dr. Drake for his withdrawal, but we hope, and have every reason to believe, that by the increased rest he may thus enjoy, he will find his health completely restored. We must congratulate the Faculty upon the choice they have made of a successor. Dr. Osler graduated at this University with much credit to himself, and at that time the evidence he gave of previous devotion to original physiological research were such as to deserve and receive the highest encomiums from the Dean and Professors. Since then he has been unremittingly employed in the pursuit of physiological knowledge in the laboratory of Prof. Burdon-Sanderson, in Berlin, and in Vienna. We are certain, therefore, that Dr. Osler will be well-fitted to give instruction in every branch of recent Physiology.

Dr. Fuller, having resigned as Demonstrator of Anatomy, the position has been filled by the appointment of T. G. Roddick, M.D., late House Surgeon, Montreal General Hospital.

ENCYCLOPEDIA OF THE PRACTICE OF MEDICINE.

We have received an announcement of the intention on the part of William Wood & Co., of 27 Great Jones street, New York, to publish by subscription a translation from the German, of a work which is about to be issued from the press of that country. The work consists of a series of

independent treatises by a number of the most prominent clinical teachers in Germany. It is to consist of fifteen volumes, and, we should imagine, the names of the authors, many of whom are eminent in their speciality, will be sufficient to ensure the success of the undertaking. This certainly is an age of bookmaking, but works of this character can hardly be classed under such a heading. When we announce the names as contributors of Merkel, Traube, Rindfleisch, Kussmaul, Schroeder, &c., it should be sufficient guarantee of a work in every way in keeping with the very eminent positions held by these gentlemen in the scientific world. From the announcement it would appear to be a work on the same plan as that of Reynolds, or of Holmes' Surgery. Vol. 1, which is to embrace Public Hygiene, and diseases of special trades or professions, will be edited by Prof. Giegel and Drs. Hirt & Merkel.

Vol. 2, on Acute Infectious Diseases will be prepared by no less than 12 Medical Gentlemen, each man taking up and discussing a separate subject, and so on throughout the series of fifteen volumes.

We wish Messrs. Wood & Co., every success in their undertaking, and can only remark in conclusion that if carried out on the part of the authors with that spirit which their names would imply, it will be a most valuable addition to the literature on the subject. Messrs. Wood & Co., being desirous to publish the work by subscription, request the names of intending subscribers to be sent in to their address without delay.

We have received from Dr. Wheeler a specimen of his "Compound Elixir of Phosphates and Calisaya, a Chemical Food and Nutritive Tonic," prepared after the formula of Dr. Dusart of Paris. It contains Lactophosphate of Lime, Lactophosphate of Iron, Quinine, Quinidine, and Cinchonine, together with free Phosphoric Acid. It has an agreeable flavour, and cannot be objected to by the most delicate palate, and from its composition it will probably be useful in most cases where a Quinine and Iron Tonic is indicated. The addition of the Phosphates and Phosphoric Acid probably increase its value and efficacy as a nerve tonic and food. Altogether, this is the most satisfactory preparation of the kind, that we have hitherto met with.