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Original Communications.

TRAUMATIC SEPARATION OF THE LOWER EPIPHYSIS OF THE FEMUR.*

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Mr. President and Gentlemen,—The scant attention given to the subject of separation of the condyloid epiphysis of the femur by the standard works on surgery, coupled with a conviction that the accident is not as rare as was at one time supposed, has led me to hope that a short paper on this subject might prove interesting to the members of this Association, and at the same time might add somewhat to our knowledge on this question. In connection with the paper I am fortunately able to show you an example of this surgical accident in the person of this young man; and I think, when you hear the report of his case, you will agree that he is fortunate in being able to carry with him this specimen, at one time the lower diaphysis of his femur, even if he has to do so in his pocket.

In a clinical lecture on the surgery of the epiphysis, delivered in 1885,† Wheelhouse drew attention to the important part played by the epiphyses in all dislocations and fractures in the neighbourhood of joints, and hinted that many supposed cases of dislocations in young persons have really been fractures through the epiphyseal line, as shown by the frequency with which de-

* A paper, with illustrative case, read before the Canadian Medical Association, at Montreal, September, 1891.

† British Medical Journal, Vol. I, 1885, p. 475.

formity has followed their reduction, and that this may account for the paucity of literature on this subject.*

A glance at these specimens, kindly put at my disposal by Dr. Shepherd, will enable you to see how easily, in the case of young patients, any one might mistake fracture through the lower femoral or humeral epiphyseal line for dislocation of knee or elbow. Moreover, in the case of the femur, the liability to just this kind of accident extends over a goodly period of time, for you will recollect that while this epiphysis is one of the first to be formed (9th month, foetal), it is one of the last to join its corresponding diaphysis (21st year). While I have these specimens in hand, I would ask your attention to the mechanism of this form of injury. When fracture takes place, the epiphysis will be tilted forward by the two heads of the gastrocnemius, thus presenting its articular surface to the patella. At the same time the diaphysis will be thrust backwards and downwards by the pull of the quadriceps extensor muscles in front and the ham-string muscles behind, and will impinge on the vessels and nerves in the popliteal space, or slipping past them, may be forced out through the skin altogether, and thus become compound. One peculiarity of the injury, when compound, is that the protruding diaphysis is always stripped of its periosteum, which is turned back like a stocking on a foot.

I have premised thus far that we may be able to see clearly what has happened in the case of this young fellow whom I accidentally stumbled upon a couple of years ago in my last practice.

When seven years old, he was standing on one foot, with the other resting on the hub of a waggon wheel; a pile of lumber behind him fell forward and struck the standing limb just below the knee, driving the lower part of the leg violently forward, and letting the lower part of the femur impinge on and perforate the popliteal space, through which the bone protruded for about three and a half inches, letting the boy down as it were. The two nearest medical men were at once summoned, and diagnosed compound dislocation backward of the femur, not noticing the absence of the condyloid cartilage on the protruding bone. Two

* cf. Erichsen's and Holmes' "System of Surgery."

different attempts, under chloroform, were made at reduction, but neither successful, so amputation above the knee was advised. To this the boy's father strongly objected, and failing this they sawed off what they could not reduce (about an inch and a half), tucked in the remainder, and left the case in disgust at the obduracy of the father. It was hot weather and before the days of modern antisepticism, so that the neglected wound soon became septic. The father (an intelligent French-Canadian blacksmith) then took the case in hand, and henceforward was the only surgeon employed. He killed the maggots by pouring whiskey into the wound, improvised a sole-leather back-splint, and in four weeks the lad was propelling himself around the garden, and in two months was walking, at first stiffly, but as time went on he got the perfectly good knee-joint, which he now presents. The injured limb is shorter than the other by exactly the amount of bone removed thirteen years ago ($1\frac{1}{2}$ inches), but in every other respect is as strong as its fellow, and he is able to do any kind of work. The specimen of bone is not quite perfect, owing to the father having singed it at his forge "to burn off the stink," but anyone can see it is the lower end of a femur.

The above history (which I took pains to verify by the doctors who attended) puzzled me not a little; and I exhibited the case to several of the medical men here a couple of years ago, when Dr. Shepherd suggested the explanation of what had occurred as a compound separation of the lower epiphysis of the femur.

In the *New York Medical Record* for Jan. 3rd last (1891) a case is reported by Dr. John H. Owings almost identical with this one, and the treatment and result tally so well that I will ask your forbearance to quote it in a condensed form.

"On Aug. 29th, 1890, was called to see a ten-year-old girl whose left leg had been caught in a waggon wheel and fractured at the knee. A careful examination under an anæsthetic showed that the condyloid epiphysis had been separated from the diaphysis, and that the shaft of the femur had lacerated the soft parts and was protruding through the skin over the popliteal space fully five inches. Amputation was advised, but owing to absence of the father, the strenuous objections of the mother, and

a tendency to collapse on the part of the patient herself, we deemed it best to attempt reduction. We did so, but much to our surprise, we utterly failed to reduce the protruding shaft of the femur. Dr. Minshall and I called Dr. Douglass to our aid, and we made another attempt at reduction, but with no better result. As the patient now began to show signs of suffering from the continued anæsthetic (one hour), I advised amputation of the protruding end of bone to facilitate reduction, and my confrères concurring, I removed three-quarters of an inch, which allowed us easily to reduce the remainder.

Beyond the impossibility of reduction, I had other reasons for the course I pursued, viz. (1), the danger of pinching some important vessel or nerve between the diaphysis and epiphysis; (2) the probability of necrosis following the denudation of periosteum; (3) the greater probability of bony union between the fragments if the smooth end were sawed off.

The wound was then thoroughly douched out with bichloride solution, and the external wound closed by ten silk sutures. Iodoform was dusted over the parts, antiseptic dressings applied, and the limb left in a flexed condition at both hip and knee. The only antipyretic ordered was quin. sulph. gr. i, 4tâ horâ. Next day we put up the leg on Smith's anterior wire splint, and suspended the limb from the ceiling. The temperature was then $101\frac{1}{2}^{\circ}$, but gradually subsided to normal on Sept. 3rd, patient having suffered very little in the meantime. But next day (probably owing to want of drainage) temperature went up a little, and wound showed signs of sloughing. We removed sutures and gave vent to some bloody serum, and by Sept. 8th temperature was normal again, and we removed all sutures and held the edges together by adhesive strips. The wound then healed rapidly, and on Oct. 25th I removed the splint and found no articular effusion and some motion. Put leg up again on anterior copper splint and starch bandage, and left it until Nov. 14th, when I substituted a short knee splint, and found more motion and evidently good bony union. Ordered patient up on crutches, and from that on her improvement was rapid. On Dec. 1st she walked with only a slight limp, had a good moveable knee-joint, with one inch shortening of the affected leg."

An exhaustive article on this same subject, by Dr. Packard of Philadelphia, appeared some time ago in the *Annals of Gynecology and Pædriatics* (vol. iv, p. 111), and to this I am indebted for many references; though, as Dr. Packard says, many of the cases have been so carelessly reported as to leave room for doubt whether they were not simple supra-condyloid fractures instead of simple diastases: regarding the compound cases there is no room for doubt. Dr. Packard at the same time relates a compound case of his own where amputation was necessary, and figures the specimen removed, with the gastrocnemius, as we have seen, attached to and tilting the epiphysis, and the bare diaphysis sticking out. I mention this particularly, because Mr. Mayo Robson,* in an article on this same subject in which he cites several cases and gives drawings of specimens in Guy's Hospital museum, makes the strange statement that the gastrocnemius is attached to the diaphysis, and that it is the muscles of the calf instead of the muscles of the thigh which prevent reduction. Accordingly, in his remarks on treatment, he logically enough recommends tenotomy of the tendo-Achillis to assist reduction, which he practically regards as impossible in compound cases, and his conclusion is that amputation above the knee is the correct surgical procedure in these cases.

An analysis of the seventy (70) odd cases I have managed to disinter from medical journals, with a view to determining the kind of violence most likely to produce this form of injury, gives the following facts: Entanglement of the limb in a moving wheel (as of a carriage), 33 cases; a fall while running, 3 cases; one case of a fall from eighty feet; body thrown forwards while leg was in a hole up to knee, 2 cases; one case while boy was playing leap-frog, and alighted with feet widely separated; direct blow to lower part of limb (as in this case), 4 cases; run over by vehicles, 4 cases; and finally, as result of surgical procedures for correction of ankylosis or deformities, five cases. In 33 of the cases the compound character of the lesion is mentioned.

* *Annals of Surgery*, Feb. 1889. Quoted by Dr. Shepherd, in *Montreal Medical Journal*, vol. xviii, p. 198.

In conclusion, I think we are justified in drawing the following deductions regarding the proper treatment of this form of injury :

1. In all cases, simple as well as compound, there is danger to the popliteal vessels, and the first thing to be done is to ascertain their condition. If ruptured, or in any way irreparably damaged by pressure of the diaphysis, our plain duty is to amputate, and thus prevent gangrene.

2. But if we have reason to think the popliteal vessels are functionally intact, we should, in simple cases, reduce the injury by traction (and possibly tenotomy of the tendo-Achillis), and then put up the leg in plaster or on a McIntyre splint, with the knee semiflexed.

3. In compound cases, we should first try reduction of the protruding fragment. For my own part, I cannot see why every attempt to do this has hitherto failed. But failing this, I think these cases we have would justify the surgeon in cutting off what he could not reduce, and then put the leg up in plaster, with a window through which to dress the wound. I do not think we can any longer justify the classical treatment of amputation above the knee, at least as a first resort, for I am sure you will agree with me that the result before you to-day, even though not premeditated, is infinitely better for the patient than a wooden leg would be.

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DIAGNOSIS OF ANEURYSM OF THE DESCENDING THORACIC AORTA.*

By J. ELSDALE MOLSON, M.B., B.C. CAMB., M.R.C.S. ENG.

I was led to the consideration some time ago of this question, from the fact that there occurred, within a fortnight, in the Middlesex Hospital two deaths from rupture of the aorta in its descending thoracic portion.

In the first case the rupture was into the left bronchus, the patient dying in five minutes. In the entry book the case was put down as one of phthisis. The patient had been in good health till fifteen months before, when one day he was seized by a sharp pain in the left side. He attended as an out-patient, and was told that it was pleurisy; at the same time he had a bad cough, and used to spit up a good deal of frothy expectoration. He attended six or seven months. The pain did not get much better; however, it almost went away in the summer. He was one day doing some heavy cleaning work, when, about 4 P.M., without any preliminary feeling of faintness, he felt his mouth full of something, and on spitting it out, found it was blood. He then had a severe fit of coughing and brought up a good deal more, in all about one and a half pints, in appearance light red and frothy. He walked to the hospital, about a quarter of a mile. While waiting for admission he brought up some more blood, and the same evening about half a pint more while lying in bed. He was not examined because of the hæmoptysis, except for auscultating the left apex, the same side on which the pleurisy had been; it shewed signs of phthisis. It was regarded as an aneurysmal dilatation into a phthisical cavity. In three days the fatal rupture occurred.

In the second case the rupture was into the œsophagus. This patient took his daily walk about the garden, enjoying it. When at dinner one day in the ward, he suddenly rose, took a couple of steps towards his bed, and fell on the floor insensible. I happened to be the one to help to lift him into bed. In a few minutes

* Read before the Medico-Chirurgical Society of Montreal.

he revived, and then vomited about a couple of pints of blood. A further rupture occurring in two days, he died.

Two such striking cases happening within a short time impressed me most forcibly. They both were of the descending thoracic aorta. I can neither hear of nor find much written on this subdivision of thoracic aneurysms. Its signs and symptoms being very different and much less definite than those of the ascending or transverse portions of the aorta, I think it might well deserve a subdivision of its own and repay in the future a close observation and classification of its signs and symptoms, in proof of which is the case of an old woman who died of phthisis in the hospital during the last year. At the post-mortem examination a partially cured sacculated aneurysm of the descending thoracic aorta was found, which had eroded the bodies of three of the dorsal vertebræ. This aneurysm was not in the least suspected during life. It was somewhat larger than a big tangerine orange, and as far as I can see in the spirit specimen now, there is laminated clot up to the lumen of the vessel, but I am told that at the autopsy part of the aneurysm was not filled with laminated clot, and that the bodies of the vertebræ showed signs of active inflammation. However, though it was not cured, it would repay us, and we may hope to cure these aneurysms if we can discover means of diagnosing them in a fairly early stage. For we can hopefully look at the very different state of this last mentioned aneurysm, caused, probably, by the enforced rest due to illness, in comparison with the opening case, in which partial rupture occurred when doing some heavy work, and fatal rupture followed in three days. Even taking the least hopeful view, and having the smallest confidence in our own powers, if we only knew that the aneurysm was there we might give the patient the considerable advantages of diagnosis and prognosis.

From the fact that so little is given in text-books or in other books, as far as I can find, on its diagnosis, though it is a very rare form of aneurysm, still the terrible circumstances attending the usual fatal result will make its consideration not a complete waste of time.

I intend considering the subject from the clinical records of

cases, the nature of the aneurysms being proved by the notes of the post-mortem examinations. Any which are not clearly aneurysms of the descending thoracic aorta are excluded. Thus following up evidence to see whether the opening case can be considered as a typical case in an early stage, and if its sudden fatal result was not greatly due to unfavourable circumstances and hard occupation, and, lastly, whether we can diagnose such a case in an early stage and thus avoid such unwarmed and sudden fatal endings.

By only taking those cases which have had post-mortem examinations, we are to a certain extent sure of our facts, and have a correct groundwork on which to build our conclusions, and anyone can draw his own inferences from given facts.

I have searched the Middlesex Hospital post-mortem records of the last ten years for undoubted cases of aneurysms of the descending thoracic aorta. That gives me ten cases, but the notes of one case being missing, I have substituted the notes of a case which died in Brompton Hospital.

I must most heartily thank Dr. W. E. Wynter, the Middlesex Hospital Medical Registrar, for his kindness in giving me every facility for examining the hospital records.

The cases selected were under the care of Drs. Cayley, Coup-land, Powell, Finlay, and Mr. Andrew Clarke, and to these gentlemen I am indebted for their notes, as well as to the pathologists Mr. Leopold Hudson and Dr. Sidney Martin.

The first thing one notices is the rarity of these cases. Only ten were found in 2,982 post-mortem examinations. So it has occurred once in 298 or 0.33 per cent. of a general hospital's post-mortem examinations. It must also be remembered that probably there would be nothing like so many out of a corresponding number of ordinary deaths. Hospitals tend to collect rare cases. I do not think any London general hospital would intentionally, if it could possibly admit the case, refuse admission to an urgent case of intra-thoracic aneurysm. However, I think there is a great likelihood of it happening unintentionally. I mean that the admitting officer with no lack of ability or care fails to recognize the nature of these cases, which are so difficult to recognize in an early stage.

As regards the sex, eight were males and two were females. That is simply what one would expect, from the general higher proportion of aneurysms in males than in females.

The ages of the patients were 43, 42, 43, 50, 37, 33, 37, 47, 59, and in the remaining case the age is not given, but she is mentioned as an old woman. She had died of phthisis and a partially cured aneurysm was found at the autopsy. So the average age was just over $44\frac{1}{2}$ years.

The occupations did not point much to strains and severe work. They were given as a carpenter, traveller, hawker, mechanical engineer, artist, blacksmith, labourer, housewife, and the old woman with occupation not mentioned. So I think no opinion can be formed about any style of work predisposing, especially on such a small number of cases.

There is nothing to point to lead poisoning occurring in any of these cases, and in only one is there distinct mention of high tension of the vessels and evidence of Bright's disease.

In none of the cases is any history of syphilis given, nor that any signs of it were found. Though in only two is it distinctly negated.

Now taking some of the common signs of thoracic aneurysm as differences in the radial pulses of the two arms, or in the size of the two pupils, or paralysis of the vocal cords, all these we should expect to be wanting in an aneurysm confined to the descending portion of the aorta. This seems to be exactly the case. Two of the cases tend to prove this point. Aneurysm being diagnosed with different sized pupils, a paralysed vocal cord, hoarseness, and brassy cough, but in each a dilated arch was found which probably alone accounted for the pupil and vocal cord signs. If the aneurysm has extended and become superficial with obvious dullness, tumour and pulsation, we only have, then, signs and symptoms common to all thoracic aneurysms, and they need not be considered separately in our present subject, except to mention that, if the bulging be backwards, erosion of the bodies of the dorsal vertebræ occurs without angular curvature, as in Pott's disease, and, I am inclined to believe, with no pain or only slight indefinite pain.

This latter point of absence of pain I gather because, in the patient above mentioned who died of phthisis, an unsuspected aneurysm deeply eroded into three dorsal vertebræ was found. She had been in the hospital some time, and there is no mention of pain in the notes of the case which had been carefully taken. Further, in Pott's disease with angular curvature there is usually no pain except on movement and jarring. When the aneurysm presses on the intercostal nerves there is severe neuralgic pain.

Bearing on this last point, I heard of an instructive case which occurred at St. Bartholomew's Hospital some time past. Persistent neuralgia of the 12th dorsal nerve, after careful exclusion of other causes, led to the diagnosis of aneurysm at the origin of the nerve. Several authorities considered there were not sufficient grounds for the diagnosis. However the autopsy verified the diagnosis.

Now to consider the signs that may occur and in an advanced state probably do more or less occur. Interference with the expansion of the left side, together with weaker breath sounds and diminished vocal fremitus and vocal resonance, and perhaps sonorous and sibilant rhonchi, occasionally increased dullness at base of lung. These signs are often found in cases already by other means diagnosed as aneurysm, but to diagnose an aneurysm by these means alone would seem to me rash and not justifiable.

These lung pressure signs were noted as more or less present in five out of the ten cases, but of these three showed visible pulsation and tumour. So as an early diagnostic sign this is scarcely to be mentioned. Thickened pleura with a gumma or a malignant growth on the bronchus would be a so much more likely cause to be first considered. And further, the aneurysm might enlarge considerably without happening to press upon a bronchus and interfere with the breathing.

Stridor was noted in three out of the ten cases, but it is due to so many other causes that it again can only be a confirmatory sign.

Dyspnœa and palpitation, increased by lying on the left side, though noted in six out of the ten cases, can again, I think, only be considered as a confirmatory sign. No one would probably

think of, much less diagnose, such a rare disease on account of an every-day symptom due to numberless other causes.

Now we come to the two most trustworthy signs, and the most commonly found in an early stage of the aneurysm. I refer to cough and pain in the left side and between the shoulders. Cough is noted in eight out of the ten cases. In one of the remaining two cases the patient had phthisis, so she certainly had a cough, but it could not be considered in the present question. No mention is made of any laryngeal character or brassy ring about the cough, but it might have been hidden and disguised by the phthisical factor of the cough. The only patient in whom cough was distinctly wanting was in a case in which the ribs were eroded at their angles and an enormous pulsating tumour found in the back. So I think cough continuing persistently with a brassy ring about it, which does not answer to remedies, for which no obvious cause can be found after careful investigation of pleura, lungs, tubes and throat, also excluding less common causes of cough, as teeth, ear, hysteria and habit, may perhaps lead a careful physician to think if an aneurysm were possible, and to watch for any signs of its development. I do not think that, on the solitary symptom of cough, one can go much beyond that mild statement.

Now, coming to the consideration of pain. This appears to be the most trustworthy symptom of any. It is mentioned prominently in the notes of all the cases except one, namely, that of the patient who died of phthisis. The pain was described in the majority of cases as of a dull, aching character in the chest, left side and between the shoulders; in two of the cases pain in the head is noted. In three out of the nine cases with pain, instead of a dull, aching pain it was of a sharp paroxysmal and anginal character. In one of the cases a most clear description is given of the pain, beginning as sharp paroxysms of 10 to 15 minutes, these gradually increased in length till they lasted 30 to 45 minutes, and also a dull, aching pain became continuous between the paroxysms.

Now to consider the diagnoses in detail that were arrived at in all these ten cases before death, as far as can be judged by the written notes.

No. 1, diagnosed : had a large pulsating tumour in the intra-scapular region.

No. 2, diagnosed : there was pulsation in the 2nd left interspace.

No. 3, not diagnosed ; filled up in the ward papers as morbus cordis. It was a large fusiform aneurysm.

No. 4, diagnosed : had ruptured into the tissues of the back and formed a pulsating tumour $16\frac{1}{2}$ inches long and $12\frac{1}{2}$ wide, increasing for two months before death.

No. 5, diagnosed : pulsation of sternal end of clavicle.

No. 6, not diagnosed ; this was put in the notes as (?) carcinoma of lung.

No. 7, diagnosed : dilated aortic arch probably caused the paralysed left vocal cord and dilated left pupil, which I remember were, with the brassy cough, the chief means of diagnosis.

No. 8, not diagnosed ; even after a primary rupture three days before death, it was thought to be a pulmonary aneurysm into a cavity at left apex.

No. 9, not diagnosed ; died of phthisis.

No. 10, diagnosed : dilated arch probably caused symptoms. There was surprise at the post-mortem at finding the aneurysm on the level of the 6th dorsal vertebra.

So on summing up these cases one is driven to the most startling and unsatisfactory result that four out of these ten cases were not diagnosed till the fatal rupture or the autopsy. Out of the six that were diagnosed, four had obvious superficial pulsation and the remaining two had a dilated aortic arch, probably alone enabling them to be diagnosed. Therefore as a conclusion to the study of the signs and symptoms and afterwards the diagnosis of the above cases, it would seem that—

Firstly, pain and a cough brassy and laryngeal are the earliest and most reliable signs of a descending thoracic aneurysm. Dyspnoea, palpitation and stridor may occur with, perhaps, weakened breathing, diminished vocal fremitus and vocal resonance, and sonorous and sibilant rhonchi occasionally.

These appear to be the only early signs peculiar to this kind of aneurysm. When the case is advanced, and we get superficial

dullness, tumour and pulsation, any refinements are no longer required. The time has then slipped by when the chief advantage of a correct diagnosis would have been given to the patient by attempting to arrest and cure the aneurysm by vigorous and persevering treatment. At this early stage reasonable hope might be held of absolutely curing the aneurysm and restoring the patient to active and sound health. In the later stage the treatment can only be expected, at its best, to avoid a fatal rupture and considerably prolong the patient's life as an absolute invalid till he dies, worn out with weakness and the complications due to the large intra-thoracic mass.

A very important point to be considered in the prognosis, when these cases are under treatment, is that the large vessels to the head and upper extremities have been given off, so the flow of blood is enormously diminished. This is a most important factor, and gives aneurysm of this part a better prognosis than that of the transverse or ascending portion of the aorta if diagnosed at an equally early stage. However, owing to being placed so deeply in the thorax and not near organs or nerves that would readily indicate its presence, as the pupils or vocal cords, it often advances insidiously till it is beyond hope of successful treatment before being recognized.

Secondly, that aneurysm of the descending thoracic aorta cannot be diagnosed in an early stage with our present means of investigation.

This is certainly a most discouraging statement to make, and I should only too readily wish to be convinced to the contrary. But looking back on the facts of the above mentioned cases—

(1) They were under the care of able physicians; many of these patients had been a considerable time in the hospital.

(2) They were seen and examined by several observers, thus there was less probability of an individually biassed opinion, and only one view of the case considered.

(3) Probably most of these cases would be taken as examples about which to give clinical teaching to students, which would cause stimulation for as correct and full a diagnosis to be made as was possible.

I think we must accept the results of carefully recorded work,

as many of the notes of these cases were, together with the inferences which they necessitate, till we obtain better and more correct results.

REPORT OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND ON THE CARE AND THE TREATMENT OF THE INSANE.*

By E. E. DUQUET, M.D.,
Medical Superintendent of the Longue Pointe Asylum.

Mr. President and Gentlemen,—I received a letter from our secretary on the 24th day of January last asking me for a paper for this meeting. I was then writing my annual report, and I answered that I would not have time to write anything for that date, but that I could prepare a few notes on the "Report of the Medico-Psychological Association on the Care and Treatment of the Insane," and read them at the meeting of the 5th. My intention is to give the circumstances in which that report was prepared as a preface, and to read the report, hoping to interest you with it.

In the course of the year 1889 the London (Eng.) County Council named a committee composed of some of its members to inquire into the workings of the present asylum system, and to find out if it would not be possible to improve the existing system of the care and the curative treatment of the insane.

The committee went to work; they sent letters to the superintendents of all the asylums in England and Wales, and to a few others, to ascertain their views on the present system and on the improvements they would propose in this report.

In the beginning of the year 1890 the committee prepared a report and presented it to the council. This report, which was addressed to non-professional men, was a popular lecture of the wants and alleged shortcomings in the present asylum system. It recommended the establishment of a special hospital in or near the city of London for the treatment of some of its curable insane. This hospital to be visited and treatment given by the

* Read before the Medico-Chirurgical Society of Montreal.

most eminent physicians and surgeons of the London hospitals. The intention of the committee, as stated in the report, was the improvement of the treatment and knowledge of insanity by placing a certain number of the curable insane under conditions similar to those which have been conducive to progress in the study and treatment of other diseases, or in other words, by placing the curable insane under ordinary hospital treatment.

The report, after showing its good intentions of helping the existing system, attacked the asylum physicians by implying that the present system had failed in the study and curative treatment of insanity; that the treatment of the insane had not shared in the great progress of other branches of the medical sciences, except as regards nursing and environment; and that this last amelioration was due more to humanity than to medical skill. It asserted that medical superintendents are mere administrators or house stewards, and have neither the training, the time, nor the capacity for medical investigation.

The report deploras the ignorance of medical practitioners on matters connected with insanity, the want of means of acquiring this special knowledge, and shows the importance of the proposed hospital for this special purpose.

This attack on the part of the committee on a body of such learned men was quickly resented. It formed the subject of the annual address of the President of the Medico-Psychological Association for the year 1890, wherein he disposed of and refuted all the charges brought against them in the report. During the discussion of the president's address it was suggested by some of the members of the Society that they should take this opportunity to give information to the medical profession and to the public at large on the subject treated in the report of the County Council, and by a series of propositions to exhibit the feelings of its members in regard to this question. Some of the best men of the Association were chosen to form a committee, and they presented at the annual meeting of 1891 the following report. They do not pretend that it is perfect; they had to compromise on a great many points, for some of the members had more advanced ideas than those laid down in some of the propositions.

The report can be taken as a summary of the present knowledge on the subject of the care and treatment of the insane in our days :—

CARE AND TREATMENT OF THE INSANE.

The following is the report of a committee appointed by the Medico-Psychological Association of Great Britain and Ireland at the annual meeting in 1890, to formulate propositions as to the care and treatment of the insane. This report was adopted at the annual meeting in 1891.

Members of the Committee,—Dr. Yellowlees, president; and Drs. Clouston, Ley, E. W. McDowall, Needham, Hayes, Newington, Rogers, Savage, Hack Tuke, Urquhart, Whitcombe, Ernest White.

The fundamental resolution passed on the founding of the Medico-Psychological Association of Great Britain and Ireland in 1841 was “that an association be formed of the medical officers attached to hospitals for the insane, whose object shall be improvement in the management of such institutions and the treatment of the insane; and the acquirement of a more extensive and more correct knowledge of insanity.”

In pursuance of these objects, the Medico-Psychological Association considers it right to formulate and make public its deliberate opinion on the following most important subjects :—

It is of opinion that—

Regarding Insanity Generally.

1. Insanity is a symptom of a physical disorder, and results from derangement, primary or secondary, of the nerve centres.

2. This disorder may originate in mental or in physical causes, or in both combined, but is most frequently due to inherited instability, undue worry in daily life, hurtful excesses, and disease in the brain or other organs disturbing it.

3. Marriage into a family mentally unstable is a great risk, and the marriage of two persons from such families is much to be deprecated, since it tends to induce insanity in the offspring.

4. Insanity can be lessened by the avoidance of unwise marriages, by careful obedience to physiological laws, by moderation

in all things, by judicious training and education, both mental and physical, in youth, by adopting such conditions of life and occupations as counteract morbid tendencies, and by the preservation of a calm and equal mind amid the cares and perplexities of life.

5. When the mental disturbance is such as to render home-treatment inadvisable, but yet not such as to demand certification, every facility should be afforded to the patient for placing himself voluntarily under asylum treatment; and the consent of the proper authorities should be obtained after, and not before, admission.

6. It is proper and necessary from both the scientific and economical points of view that provision for the early treatment as out-patients of persons threatened with insanity, or a recurrence of insanity, should be provided for by all committees managing county and borough asylums; and for this purpose the services of the medical staff of such asylums should be made available to the public, under such regulations as may seem to be most convenient to the circumstances of each asylum. Further, it is very desirable that in all hospitals and infirmaries to which a medical school is attached with a lectureship on mental diseases, the physician or surgeon holding the appointment should also be attached to the medical staff of the hospital.

7. While an asylum exists primarily for the benefit of patients resident therein, it should also subserve the public good; and, therefore, every asylum superintendent should be allowed, as a general rule, to meet general practitioners in consultation in mental cases, and, to prevent any possible abuse, each consultation should be reported to the committee of management, if the committee so desire.

8. Every public asylum should be available for scientific research and clinical teaching of insanity to students of medicine, and to qualified teachers.

9. There is a most necessitous class of the insane who are not paupers, and whose means cannot procure for them in asylums the comfort and the care to which they were accustomed in health. It is therefore matter for deep regret and public concern that so

little of our wealth is given to aid this class ; and that the existing institutions, which were mostly founded for such cases, are thus limited in their sphere of action.

Regarding Patients in Asylums.

10. Every patient should be medically examined on admission in the most careful and complete manner, and the results, both negative and positive, should be accurately recorded.

11. The rectification of bodily disorders, even of those which may seem trivial, is most important ; and much more so when such disorders have relation, as they so often have, to the mental disturbance. All the resources of medical and surgical skill and experience should be devoted to this end ; no form of treatment which affords hope of success should be left untried. When the condition is obscure, or the proper treatment doubtful, the superintendent should have power to call in consultants.

12. It is essential in every case to secure and maintain the highest possible standard of bodily health both by medical treatment and by healthful conditions of daily life, as regards air, food, baths, clothing, occupation and recreation.

13. In cases where the nerve-centres are primarily affected, a healthy condition of all the vital processes is of the greatest importance, as tending to lessen functional disturbance and to retard the progress of organic change.

14. The treatment of brain disorder demands caution as well as skill ; a mere repression of symptoms does not prove the wisdom of the treatment. It is often better to guide the superfluous energy into harmless or useful channels, than to administer drugs which shall arrest it for a time by merely stupefying the patient.

15. Concurrent moral or non-medicinal treatment of insanity, or to speak more correctly, the treatment of insanity from the mental side, is of paramount importance. It is essential to convey to the patient a sense of kindly sympathy, help and guidance, with, behind this, a suggestion of order and discipline, the more potent because less prominent and quite impersonal.

16. An essential part of the mental treatment is to distract the mind from insane ideas and to suggest new and healthy

thought by means of suitable employment and recreation. Employment should be prescribed and watched by the physician as carefully as any medicine, it should be applied like medicine to the needs of each individual case, and it should be varied according to the condition of the patient and his previous history. Amusement and recreation come next in value, they should be used on the same principles as employment, and they are most useful when the patients take an active part in them and are not merely spectators. Intellectual recreations in books, magazines and newspapers is very important to many patients. Everything which tends to assimilate asylum to ordinary home life, and which can lessen the inevitable differences between them, is of the first importance. The whole surroundings and conditions of life in asylums should be as home-like and as little irksome as possible; and every patient should have the utmost amount of personal liberty consistent with safety and the proper treatment of his disease.

17. The application of these general principles must, of course, vary according to differences in the patients, the locality, and the individuality of the superintendent.

Regarding Special Classes of Patients.

18. Too strict classification of patients is to be deprecated. It is not desirable that a ward should contain patients of only one type.

19. As a rule, *recent cases* should, unless obviously incurable, be received in a special ward or block, or building, where the number and experience of the attendants would secure the needful care and the special observation of symptoms, and where the character of the other residents would afford the needful example of order, industry, cheerfulness and obedience. It is essential for proper treatment to acquire as early as possible an exact knowledge of the patient's condition and symptoms, and it is very important that the patient's first impressions of the asylum should be favourable to his recovery. A hospital should not be placed in such a position as to deprive patients of out-door exercise and occupation, which are essential as a means of cure in the case of recent as well as other forms of insanity.

20. It is not desirable to associate too many *suicidal cases* with each other during the day, if this can be avoided. The great protection against suicide is the presence of an attendant, but he must rouse, occupy, and interest the patient, not merely match him. By night such cases should be under the observation of a special attendant.

21. Concerning *dangerous and destructive cases*, abundant exercise or occupation in the open air, an ample staff of attendants, attractive surroundings and the wise use of baths and of calmative medicine suffice for the care and treatment of many cases of this class without any need for restraint or seclusion. The admission into county and borough asylums of prisoners who have become insane is much deprecated, since their influence is subversive of morality and discipline.

22. In exceptional cases seclusion and restraint are needful and beneficial. They should then be used without hesitation, but only as a means of treatment and by medical order, and their use should be recorded with punctilious care.

23. The recovery of *convalescent patients* should be tested by greater freedom and increased privileges, by parole, by removal to branch institutions or other suitable private houses, by temporary leave of absence, or by probationary discharge.

24. Although the whole asylum is a hospital, a special *infirmary ward* or block is essential. It should receive cases of advanced brain disease and recent cases requiring bodily nursing as well as cases of ordinary illness. This ward or block should be fully equipped, like an ordinary infirmary, with every appliance for the mitigation and cure of disease.

25. It is advisable to pass all the attendants through a course of service in this ward or block that they may more fully realize that insanity in all its stages is the manifestation and result of disease.

Regarding Administration, Staff, etc., of Asylums.

26. The proportion of medical officers needful depends largely on the class of patients.

27. In a county asylum receiving only recent cases there

should be an assistant medical officer for about every 60 yearly admissions. In a county asylum receiving only chronic cases there should be an assistant medical officer for about every 400 in residence. In an asylum receiving both recent and chronic cases one assistant medical officer to every 100 yearly admissions might suffice.

28. No public asylum should be without an assistant medical officer, and the superintendent and medical officers should not be so tied by routine ward-work as to have no time for unexpected visits, for special attention to new cases, for taking an active interest in the amusements of the patients, and for the cultivation of personal influence and friendliness with all. Resident assistants acting under the medical officers are a very valuable addition to the medical staff of an asylum, and the appointment of such officers forms an important means of extending the knowledge of insanity in the profession. Pathological work is a most important part of the duty of the medical staff, and, while all should share in such work, one member of the staff in large asylums should be specially devoted to it. The results should be carefully recorded.

29. An asylum and everything about it exist for and concern the welfare of the patients, and should be made subservient to that end. Everything, therefore, should be under the control of the medical superintendent. In administrative and non-medical affairs his position should be purely that of a director, with responsible lay officers under him. Such duties may thus be made a relaxation instead of a burden.

The selection and training of attendants demand the utmost care, and every asylum should have arrangements for instructing them in their difficult and trying duties as recommended by the Association at the annual meeting of 1890. The wisest plan of treatment is in vain unless it can be carried out by a competent nursing staff.

31. The services of attendants should be acknowledged not only by good wages and comfortable quarters, but for the better discharge of duty they should be frequently relieved from its burden.

32. The best size for an asylum depends on the class of patients and on the construction of the asylum buildings. A county asylum which receives only recent cases and passes them on when they become probably incurable should not have more than 200 to 300 patients; an asylum which has both recent and chronic cases should not have more than 600 or 700; while an asylum for chronic cases might easily supply proper care and treatment for 1,000 patients or more.

A COMPLICATED CASE OF LA GRIPPE.*

By J. A. GRANT, JUN., M.D., OTTAWA, ONT.

Mrs. C., an extremely robust, healthy married woman, *æt.* 28, who has never had any illness except a confinement two years ago, which she came through in a model manner. Her husband first took the grippe, then her daughter, aged two years; both of these I put to bed early, and although the onset in each case was severe, the attack proved mild, and they recovered with no complication save nervous prostration. I am sorry to say that the subject of these notes did not complain to me until twenty-four hours after she had been attacked with the grippe, but remained up nursing the other two, and thus aggravated her attack greatly. She is at present seven months pregnant. When I first saw her on the morning of December 23rd, 1891, she was complaining of pain in her limbs and very severe headache. Temperature 104° ; pulse 130. I put her on antipyrin gr. viii every two hours. In the evening I found her headache had improved; temperature $104\frac{1}{4}^{\circ}$ and pulse 135. For the first time she had a slight dry cough and complained of a "soreness in the back." More as a matter of routine that I always follow in grippe, I examined her chest and found pneumonic consolidation of the right base involving half the lung. I then questioned her about having had any chill or rigor, but could get no history of an onset further than a slight pain in that side, which came on shortly after my morning visit, and only lasted a few minutes. I then put her on a mixture of ammon. carb., liq. ammon. acet.,

* Read before the Ottawa Medico-Chirurgical Society, January, 1892.

and syr. pruni virg. ; commenced poulticing her side, adding mustard to the first. In the morning (24th) I found her temperature 102° , pulse 140, and respirations 38 ; she had rested poorly, complaining more of her side. On examination, I found there had been no extension of the trouble in her lung ; she was taking nourishment fairly ; her skin was moist, her kidneys had acted, and her tongue was slightly coated but moist. In the evening her temperature was 104° , pulse 160, and respirations 45 ; a pulse respiration ratio of 1 to $3\frac{1}{4}$. As her bowels had not been opened for two days, I ordered a dose of castor oil. For the next two days there was not much change in her condition, the pulse ranging from 140 to 160, the temperature between 101° and $103\frac{1}{4}^{\circ}$, and respirations between 26 and 31. On the 27th she was complaining of some uterine pain, and fearing a premature labour, Dr. H. P. Wright saw the case with me in the evening ; her temperature was then $103\frac{1}{2}^{\circ}$, pulse 140, and respirations 32 (the uterine pain had ceased), and with a view to reducing her pulse we gave her pulv. opii gr. $\frac{1}{2}$, with ipecac. gr. $\frac{1}{2}$ and quinae sulph. gr. ii every two hours while awake. On the morning of the 29th her temperature fell to normal and her respirations to 30, but her pulse was 120. From this time on her pneumonia made rapid progress for the better, and by the end of the second week the hepatized portion of the lung had almost completely cleared, but her pulse remained high, ranging between 100 and 115, being at the same time of poor volume, and it was not until two weeks after the lung had cleared that her pulse went below 100 ; and during all this time the slightest exertion would cause an intense feeling of faintness. Latterly I had her on a tonic with digitalis, and was on the point of changing it for strophanthus when I found a slight improvement in the pulse, which continued.

The points of interest in this case are :

(1) The insidious onset of the pneumonia ; this I have noticed in nearly all my cases of pneumonia complicating "grippe," and they are so frequently associated that one is always on the watch, otherwise the disease might be overlooked for twenty-four or forty-eight hours.

(2) There being no history of exposure or other cause, further than what might be called the septic influence of the grippal poison, or "grippal toxine" as some call it.

(3) The extremely high pulse from first to last, which was out of proportion to the temperature, respiration, and other pneumonic symptoms. Dr. Althaus says that the various neuroses, such as headache and other kinds of pain, delirium, insomnia, coma, cardiac and respiratory crises, are caused by the action of the grippal toxine on the various centres in the bulb, and I think that the tachycardia in my case was due to the direct influence of the grippal poison on the inhibitory centres in the bulb, affecting the heart through the pneumogastric. The pulse respiration ratio, being nearly normal throughout the illness, never falling below 1 to $3\frac{1}{2}$, which it did on the 24th, and the manner in which the lung cleared up shows that there was very slight tax upon the heart as far as the pneumonia was concerned.

A REMARKABLE CASE OF QUININE RASH PRODUCED BY VERY SMALL DOSES OF THE DRUG.

BY FRANCIS J. SHEPHERD, M.D.

The rashes produced by the internal administration of drugs are sufficiently uncommon to be of interest. Many drugs, it is well known, will produce rashes, more or less severe, in individuals with an idiosyncrasy. Some drugs, however, produce a rash merely by long-continued administration in large doses in persons without any special idiosyncrasy—*e.g.*, iodine, bromine, etc. Among the many drugs which produce rashes, the most familiar are copaiba, bromides, iodides, tar, turpentine, cubebs, belladonna, arsenic, antipyrin, etc. One of the most frequently administered drugs is quinine, and considering the enormous number of times it is given in large and small doses, the number of cases reported in which it produces rashes is comparatively few. All practitioners have seen quinine rashes from the administration of large doses of the drug. The most common forms are the erythematous; the urticarial, the purpuric, bullous vesicular, and gangrenous forms are much more uncommon. In

some cases the rashes produced by quinine and other drugs have been mistaken for scarlatina.

The case I am about to relate is a somewhat rare one, both because of the severity of the rash and the small dose which produced it :

A. B., a strong, robust man, aged 41, whom I had frequently treated for eczema and rhus poisoning, and whose skin was easily irritated, consulted me in June, 1889, for an eruption of boils which had been troubling him for some time past. He felt rather out of sorts, and I prescribed for him citrate of iron and quinine in five-grain doses. Next evening he came complaining of great heat, soreness, and a burning sensation in groins and on inner sides of thighs. On examining him I found these parts covered with large claret-coloured patches, which also extended a short distance up the abdomen. The skin was swollen and tender ; in the centre of the red patches purpuric spots could be seen, which did not disappear on pressure. The peripheral portions of the patches were purely erythematous, the colour rapidly disappearing on pressure. As he had always perspired a great deal about the groins, he attributed this rash to having over-heated himself, although he affirms that he thought the medicine had something to do with it. He had only taken three doses of the citrate, or 15 grains (three grains of quinine). I prescribed a lead lotion for him, and told him to stop his medicine. The next day the eruption had spread to the feet, and the hands were also beginning to be affected. On both wrists was a well-marked vesicular eruption, which did not itch. The eruption was confined to the abdomen, thighs, hands and feet. As it was accompanied by a great deal of burning and soreness, the patient was confined to the house, being unable even to wear slippers. At the end of ten days desquamation began, comparatively small flakes of skin coming away from the thighs, but the skin of the palms of hands and soles of feet coming away in one piece. In a few days more the patient was able to attend to his business.

The strangest part of the story is yet to come. About a month later, towards the end of July, coming home one evening fagged out, he thought he would take a dose of his old medicine as a

pick-me-up. This he did, taking the usual dessert-spoonful (five grains) in a little water. Immediately he felt the old sensation in his thighs and about scrotum, and by next morning the same claret-coloured patches with purpuric spots reappeared on thighs and abdomen, and were followed next day by a similar rash on hands and feet. The sensation of burning, itching and soreness was quite as severe as during the first attack, and the eruption acted in exactly the same way, the skin desquamating in large flakes in about ten days. Since that time he has carefully avoided quinine in any form, for the last eruption was brought on by a very small dose of quinine, viz., one grain. It is fortunate that a large dose of quinine was not exhibited, for there is no knowing what untoward effects it might have produced. No doubt there would have been extensive sloughing of the skin, as has occurred in some reported cases.

I omitted to mention that in neither of these attacks was there any elevation of temperature or other constitutional disturbance.

Retrospect Department.

QUARTERLY RETROSPECT OF GYNÆCOLOGY.

PREPARED BY T. JOHNSON-ALLOWAY, M.D.,
 Instructor in Gynæcology, McGill University.

Medical Gynæcology, by J. H. ETHERIDGE, M.D., Chicago. (*Amer. Jour. Med. Sci.*, Jan. 1892.)—Dr. Etheridge says that many symptoms in gynæcological patients are reflexes from functional derangements arising from the original gynæcological malady. He gives in illustration the case of a patient confined to bed with an acute metritis suffering from cephalalgia, and traces a pathological chain, not from the uterine engorgement to the headache, but from the physical quietude enforced by the uterine malady to a gastric dyspepsia, which he would have us believe is the direct cause of the cephalalgia. This is certainly not good pathology, there are so many arguments against it. For instance, every man laid up for long periods with a broken thigh would have constant headache, which we know is not the case clinically, although he may, and often does, have gastric

dyspepsia. Women during the puerperium, if it should be normal, although the bowels may remain unemptied for days at a time, and they complain of gastric disturbance therefrom, have rarely headache without accompanying fever. There is no cephalalgia so severe as that which is recognized and known as ante- and post-menstrual, in chronic metritis. This headache begins before the flow, disappears when the flow is well established, and reappears with greater violence a day or so following the arrest of the flow. The cephalalgia here is simply a reflex manifestation with others—such as nausea, vomiting, facial neuralgia, palpitation, borborigmus, and other functional disturbances—from a uterus the tissues of which have become cicatricial and resisting to the influx of blood due to increased growth of connective tissue in its walls. With such a metritis we have also an ovaritis, the diseased structure of which also resists increased blood pressure and helps in the transmission of abnormal impressions to the nerve centres. From these centres impressions are conveyed to the various viscera, setting up disordered functions in them; the stomach being one of these organs, is affected by a gastric dyspepsia. A strong proof that certain gastric intestinal disturbances are a direct outcome of disorder of some nerve centre is seen in the offensive alvine evacuations of the paralytic and insane. So that Dr. Etheridge must reverse his pathology and admit that the metritis *does* produce the cephalalgia and other reflex neuroses. Dr. Etheridge's paper throughout contends for the treatment of symptoms by the administration of drugs, which from a clinical standpoint is not generally looked upon as good teaching.

At the annual meeting of the American Gynæcological Society held at Washington last September, Dr. Gill Wylie read a paper on "The Influence of Imperfect Development as a cause of Uterine Disease." He said the most important influence at work in causing uterine disease is a tendency to restrict the physical development of females just at the time when they were changing from girls to women. The generative organs are practically dormant until about the tenth year, when they begin to develop and make a large demand on the system up to about the sixteenth

year. To ensure full development during this period the girl must have a surplus of physical and nerve force. If the girl is pushed at school, or her force is used up by constant contact with older intellectual people during this period of development, she is almost certain to have a leucorrhœal discharge and dysmenorrhœa, and an imperfectly developed uterus, with disease of the glands and follicles, which disposes her to catarrhal endometritis and new growths, such as cancer and fibromata. If marriage and pregnancy follow, the labour is apt to result in laceration of the cervix, or the catarrhal condition establish sterility for life. As a remedy for all these evil consequences the author recommends that everything should be done to maintain the general health of the individual,—out-door exercise, pleasing mental occupation, avoidance of forced cramming and contact with older people. The author called special attention to imperfect development of the sexual organs as a cause of serious vitiation of the general health of females.

[There is a great deal of solid truth in Dr. Wylie's views in regard to this subject. It has been the reviewer's experience to daily meet with young women of a delicate frame who have been, we might say, brought up on iron and literature to fit them for school teachers or some such occupation. These girls pass from one physician to another for years, and at last, when driven to the gynæcologist, a badly-displaced small uterus is found, profuse uterine catarrh, endometritis, extensive cervical erosion and great tenderness over the whole pelvic floor. There is constant backache, pain in one or both infra-costal or iliac regions, causing a desire to sit down on every possible occasion; there is more or less constant headache, nasal engorgement, a fulness in the region of the frontal sinus, aggravated at the menstrual periods; pressure-pain at the cranial vertex due to engorgement of the large venous sinuses. In many of these cases we have also an interesting condition which is fairly constant in its occurrence,—I refer to asthenopia and pain in the eye, for which the ophthalmologist is so often consulted, but can find no evidence of local eye disease, nor do glasses effect any improvement. The condition is simply a link in the chain made

up of all the other congestive catarrhs alluded to, and should be treated entirely by rest to the generative organs, and replacement of the dislocated parts. In fact, wherever we have constant irritation and congestion of the female generative organs, no matter what the cause, we will have reflex disturbances in distant parts of the body, so great is the influence exerted on the entire female organism by the generative system.]

Criticism on some of the lesser Gynæcological Manipulations.
—CROOM (*Edin. Med. Jour.*) says three factors seem at work in modifying our opinions very considerably with regard to many of the minor gynæcological operations and appliances which have been in constant use. These three factors are (1) the improvement in and education of practitioners in the simple manual examination of the pelvic organs, (2) an improved and revised pathology of the infra-vaginal portion of the cervix, and (3) perhaps especially, the increased knowledge which abdominal section has thrown upon the contents of the pelvis. The fact has been forced upon the author that a large number of cases where abdominal operations have become imperative, have been distinctly traceable to interference, more or less marked, with the uterus. He condemns, in unmeasured terms, the speculum, the sound, and the intra-uterine stem. He extols dilatation of the cervix and curetting. He calls attention to the three following rules :

1. That the diagnosis of all pelvic and most pelvi-abdominal conditions should be made slowly and gently with the unaided hands, and upon the examination thus made the practitioner should train himself to rely.

2. That no mechanical aids to sight or touch should be employed, except under exceptional circumstances.

3. That as a large proportion of the risks and accidents of *minor* gynæcological operations are due to a want of appreciation on the part of the physician of the condition of the uterine appendages ; no operation, however trivial, should be undertaken until their state and relations have been ascertained with as much accuracy as possible.

Abdominal Abscess and Ventral Hernia.—DR. H. J. HANKS made some suggestions in a paper, to prevent abdominal abscesses

and ventral hernia after laparotomy. He said: Make a clean wound. Do not retract the edges with too much force. Do not use too hot water or too strong germicides. Do an aseptic operation. Remove the dressing every second day. Never use the drainage-tube when not necessary. Never retain it *in situ* more than twenty hours; keep the tube sweet and clean. He said ventral hernia was more frequent than generally supposed. He used silkworm gut. [Dr. Hanks' experience must be peculiar since he thinks it necessary, during the present status of surgery, to caution abdominal surgeons how they are to avoid mural abscess and ventral hernia. These conditions are due to either unavoidable accident, or to ignorance on the part of an inexperienced operator. Dr. Hanks is decidedly wrong when he advises the dressing to be changed every second day, because if the operation has been properly conducted, frequent changing of the dressing is just the way to get suppuration and sepsis. No dressing should be changed without cause until the sutures are removed, about the seventh or eighth day after the operation. The craze with some operators of oversuturing the wound in the form of buried sutures is largely accountable for abscesses and hernia.]

Rupture of the Uterus during Labour.—DR. COE read a paper before the American Medical Association, March 5th, 1891, on "*Cœliotomy for Rupture of the Uterus during Labour.*" The author records his experience of four cases, three of which were fatal, one successful. In the successful case the operation was performed two hours after the accident, the others were seen from twelve to twenty hours after the accident, and were operated on shortly afterwards. The author says many cases of spontaneous rupture are not recognized by the general practitioner. Profound shock after delivery should always awaken suspicion, and a thorough examination should be made. As regards the treatment of rupture, it should be viewed from a purely surgical light, and the fact that cases so far reported have been in the majority fatal is no reason why cœliotomy should not be called for in such cases, as it is in gunshot wounds of the abdomen. In the fatal cases, it will always be found that

valuable time has been allowed to elapse and the operation was done many hours after the infliction of the injury. Two methods of active treatment are here recognized, namely—(1) Drainage per vaginam; (2) abdominal section. Without opening the abdomen it is frequently impossible to determine the nature and extent of the tear; the presence of active hemorrhage; the presence of blood or amniotic fluid in the abdominal cavity. The operation should be done before the uterus is emptied.

The Action of Antiseptics on the Peritoneum.—Drs. Delbet, Grand, Maisson and Brenet (*Annales de Gynécologie*, Jan. 1891) announce the result of a series of experiments performed to ascertain the action of antiseptics upon the peritoneum. They admit that there are certain disadvantages in the use of antiseptics. In the resistance of a healthy system to micro-organisms, cells play an active part. All antiseptics are poisons to bacilli, and if poisonous to these simple unicellular organisms, they are also poisonous to the highly complicated multicellular tissues in the human body. If, then, any antiseptic kills bacilli, it must also destroy some of the cells belonging to the patient's body which it touches. The destruction of these cells diminishes the resisting power of the subjacent tissues, and should the antiseptic have failed to kill all the bacilli in the neighbourhood, some of the surviving germs may enter the unprotected tissues. In the case of superficial wounds dressed with antiseptics, the good done by germ destruction must greatly exceed the harm caused by damage to connective tissue cells, which have feeble resisting powers against bacilli; on the other hand, the peritoneal endothelium is now known to resist the incursion of germs with great vigour as long as it is healthy and uninjured. Larnelle never succeeded in finding a single bacillus within the substance of a peritoneal endothelial cell. Possibly these cells secrete a substance which poisons bacilli. When the endothelium of an area of the peritoneum is damaged or destroyed, the resisting power of that serous membrane is greatly impaired. The common connective tissue cannot offer adequate protection to the system. May not antiseptics destroy the endothelium, or at least set up grave changes, impairing its resisting powers? To settle this

question Dr. Delbet and his colleagues have undertaken the experiments which they now describe. Their method consists in carefully touching up a tract of mesentery in a dog with an antiseptic, and then flushing the peritoneum. Another tract is treated in the same way, and the peritoneal cavity is once more washed out. At the end of a stated time the animal is killed. With manifold precautions pieces of the mesentery treated with the antiseptic are removed and compared with other portions not so treated. The endothelium was stained with nitrate of silver. The nuclei seemed unaffected, but the protoplasm underwent great changes. The first modification was a retraction of the endothelial cells at their pointed prominences. Hence little black spots appeared where the meshes of the well-known network pattern, formed by contiguous endothelial cells, crossed each other. This "angular retraction" passed into "angulo-marginal retraction." Black points appeared at first along each mesh, indicating partial separation of the margins of contiguous cells. When the separation was complete the meshes looked unusually thick. The next stage is "fragmentation," the protoplasm becoming granular and breaking up. Partial, and lastly complete, desquamation follows. The above stages are produced more rapidly or slowly according to the power and nature of the antiseptic, some agents causing desquamation at once. In any case the endothelium, a bulwark against sepsis, is distinctly damaged.

The Prophylaxis of Laceration of the Fascia supporting the Anterior Vaginal Wall. (Dr. Watkins.)—1. In the support of the vesico-vaginal septum while the foetal head is entering the true pelvis; that is, the prevention of the engagement of the vesico-vaginal septum between the head and the pubes. 2. In the prevention of excessive pressure of the head upon the pubic arch (*Schatz*). 3. In the employment of the usual measures for hastening involution.

The Radical Cure of Hernia in Woman.—M. LUCAS (*Med. Press*) presented before the Société de Chirurgie of Paris some observations on the radical cure of hernia in woman. He said that this form of hernia is not at all infrequent in the opposite sex, and when the woman is young she is very much inconvenienced by the bandage; and later on, when pregnancy takes

place, the apparatus is out of necessity laid aside, and consequently the volume of the rupture is increased. Inguinal hernia, on the other hand, differed considerably in woman from what we are accustomed to meet with in man, and he would make a few remarks on the congenital form, which he found to be very frequent. The congenital variety is due to the persistent patency of the canal of Nuck. Out of a total of 231 radical cures which he practiced for non-strangulated hernia, 14 were on women, and of this number 10 were congenital. The anatomical condition of the hernial sac and its connections show clearly that the lesion is congenital; the serous lining of the sac is intimately confounded with the fibres of the cord; it is frequent to find complementary small cysts reaching to the labium majorum. The volume of these hernia is not generally very considerable; he observed, however, one case where it descended nearly to the knee. The hernia is particularly painful and irreducible. For the operation he would advise the incision to be made from above downwards, in order to isolate the sac and the fibrous cord. The round ligament forms an integral part of the sac and impossible to isolate, contrary to that observed in man, where the spermatic cord can always be separated. The sac should be carefully dissected into the abdomen, and then cut across along with the round ligament. When the sac is opened it is frequent to find the ovary in the cavity or at its orifice; it may be normal or atrophied. M. Lucas has frequently removed it. One of the most happy results of the operation is the cessation of pain.

Sponges.—Dr. E. Maylard, in the *Annals of Surgery*, publishes some interesting results of experiments with sponges used in surgery. He finds that fine close sponges are very difficult to sterilize; that the coarse, open texture sponge can be made sterile by a solution of 1–2000 bichloride, but that 1–40 solution of carbolic acid has no sterilizing effect on them. The finer and more expensive the sponge the more difficult it is to make it aseptic. He also discovered that sponges will not stand a higher fluid temperature than 90°F. without becoming impaired by shrinkage.

[The reviewer has of late discarded fine Turkish sponges for the above reasons. When impregnated with blood they are ex-

ceedingly difficult to clean, and must therefore be more difficult to make surgically aseptic. He has adopted a plan which has been very satisfactory, namely, obtaining coarse West Indian sponges highly bleached, the gritty heart completely removed by tearing with the fingers when the sponge is in water, and after washing in about fifteen or sixteen relays of water they are soaked for an hour in strong Condy until they are almost jet black. They are then bleached by dipping for a few minutes in a solution of sulphurous acid, washed again in filtered sterilized water, and put for one week in a solution of 1-1000 sublimate. They are then washed again in filtered sterilized water and put away in cotton bags to dry for use. Before using, however, they are again placed in the bichloride solution the day before the one on which they are to be used. The only objection to the use of these coarse sponges is that they become very friable and tear easily. This objection he has overcome by enclosing each sponge in a small bag made of sterilized bleached cheese-cloth, closed by a running string, tied, and cut short. This adds greatly to the perfection of the sponge in making it more absorbent, protects the parts from actual contact with the sponge texture, it can much more easily be recognized by the fingers amongst the intestines or wherever placed, and withdrawn without danger of tearing and leaving pieces of sponge behind. These bags are put through the same sterilizing process as the sponges.

Menopause, or Change of Life.—T. Gaillard Thomas, M.D., says (*Annals of Gynæcology*, May, 1891):—After passing through the first three great functions peculiar to her sex, viz., ovulation and menstruation, sexual intercourse and maternity or parturition, and having reached about the fiftieth year of her life, a woman is prepared to pass into the period known as the menopause. From this time onward the ovaries, fallopian tubes, uterus and vagina, which have been in a state of busy activity, now undergo a retrograde metamorphosis. The idea of attributing all the symptoms that a woman in this period may have to “the the change of life,” is a common one, but is fallacious. One doctor tells a patient who is suffering from metrorrhagia, has a

great deal of pain and profuse watery discharge, that it is all due to the change of life. Upon being examined by another physician, a steadily progressing cancer of the cervix is discovered. Another patient has an abnormal enlargement of the abdomen and is told the same story. Upon examination a large ovarian cyst is found. The atrophy of the cervix may be more rapid than that of the body of the uterus, and so cause retention of the discharges from the uterine mucous membrane, giving rising to physo-, hydro-, hæmato-, and pyo-metra. These conditions are very rare, the author having seen but three cases. Their rarity should, however, make us all the more careful about recognizing them. When the cervical canal closes abruptly, the discharges may undergo fermentation, and as a result the uterus may become distended with gas. The last case of this nature occurred in the author's practice was that of a lady 60 years of age, upon whom several physicians had made the diagnosis of cancer of the uterus. As she was walking about there occurred suddenly, from the vagina, a gush of fluid of a pinkish, watery character, and of a disagreeable odour. The patient felt entirely relieved from a sensation of abdominal fullness, previously felt, as a result of this explosion. Since that time every two months she had had a similar discharge and the physicians accordingly made a diagnosis of cancer of the endometrium. She had stopped menstruating ten years before. The author found, upon examining the abdomen, a globular mass as large as the head of a young child. Hydro-metra was at once suspected; patient was anæsthetized and a uterine sound forced through the cervical canal, after first snipping the external os with a pair of scissors. A dilator was then passed through the cervical canal, its blades forced apart, and about ten ounces of a dirty pinkish fluid gushed out. The uterus was then moderately scraped with a curette and was found free from hydatids. A glass stem was passed through the cervical canal and the patient was cured.

A peculiar condition affecting the vagina of widows and virgins, but not usually married women, is known as senile vaginitis. Two varieties are known, the adhesive and the hæmorrhagic. The adhesive results in closure of the vaginal canal, wall being glued

to wall, possibly throughout its entire length, by an adhesive inflammation. As such a patient has no use for a vagina, no treatment is necessary. In ninety cases out of a hundred, malignant disease somewhere in the genital tract will be found to be the cause of hemorrhage occurring after menstruation has entirely ceased, but occasionally this recurrence of hemorrhage, when apparently due to cancer, is really due to hemorrhagic vaginitis. The red mucous membrane of the vagina seems to sweat blood. Treat this condition by separating one wall of the vagina from the other constantly by means of a glass vaginal plug, making alterative applications to the parts; at times plug the vagina with iodoform gauze and put the patient upon general tonics for the restoration of her blood state, and you will cure this supposed cancer in two or three months. At the time of the menopause the mind is often affected in sympathy with the sexual organs, and the woman may be troubled for years with what is known as senile hysteria. The uterus may become prolapsed as a result of certain conditions existing at this time of life. Excessive weight above may cause the ligaments to give way and the uterus will come down out of the body. The vagina, after losing its surrounding support of fat, and becoming atrophied, produces traction from below, which causes the uterus to descend. There are four elements that must exist before a woman can present a picture of perfect health. The blood state must be normal, her nerve state must be good, her muscular condition strong, and her mental state well poised. The author warns us against becoming specialists too soon and against becoming specialists in opposition to common sense. Cases of general diseases are met with that have been treated by suture of a small and insignificant laceration of the cervix. Cases of chlorosis, presenting themselves for treatment for amenorrhœa, have been treated by doing the worst possible thing for them—*i.e.*, bringing about the menstrual flow. All roads in pathology do not lead to the pelvic viscera. In conclusion the author says: "Specialism tends to narrow the mental vision, to limit the pathological view, to disturb the mental balance. Beware how you allow it to do so with you. These are its evils; its advantages far outbalance

them, and I look upon specialism in medicine, when freed from the evils which I have mentioned, as one of the great agents of its advance.

Accidental Hæmorrhage occurring during First Stage of Labour, at Term. (COE.)—There are two sets of symptoms, initial and final. Most writers affirm that the latter are alone reliable, and are recognized too late for successful interference. The writer believes that it is possible to diagnose accidental hæmorrhage at its inception by careful attention to the initial phenomena, especially irregularity and feebleness of the labour pains. Sometimes they are strong and then die away, but in many cases they are feeble from the outset. The patient complains of continuous pain in the lower part of abdomen, which gradually grows worse and assumes a bursting character. External palpation may at first reveal nothing abnormal; auscultation shows the heart's action to be feeble and irregular. This shows the fœtus is subjected to some unusual disturbance, not explainable by the ordinary effect of prolonged labour. The patient may be very restless and irritable, the pulse not affected, and she will be able to walk about, thus masking any serious outcome. External bleeding has been absent in three-fourths of the cases reported. As Dr. Goodell says, it should be regarded as a confirmation of a diagnosis already made. The pulse and general appearance now indicate internal hemorrhage; the labour is entirely arrested, she grows weaker, collapses, and may die at any moment, or after rupture of membranes strong pains may come on, and she may be delivered, only to succumb to post-partum hemorrhage, if not to shock.

Treatment.—There is much difference of opinion in regard to treatment in these desperate cases. All things considered, however, the following is the best: Stimulate vigorously the patient by mouth, rectum and hypodermically while aid is being sent for. Under complete ether-anæsthesia the os should be carefully dilated manually. The membranes should not be ruptured. Version should be performed with care, then ergot should be administered hypodermically, and extraction carefully and slowly carried out in order to give the uterus time to recover its tone.

To prevent post-partum hemorrhage, the hand should be rapidly passed into the cavity of uterus, the placenta and clots removed, and the cavity at once packed with iodoform gauze. This will promptly arrest hemorrhage, even if the uterus does not contract. While all this is being enacted by the surgeon, the anæsthetiser should pull the patient's head and shoulders off the bed on to the floor so as to stimulate the brain centres as much and as long as possible. As soon as consciousness returns, large rectal injections of salt solution (5i to the pint) should be given repeatedly.

Pruritus Vulvæ.—Mr. J. C. Webster of Edinburgh publishes an interesting paper on this subject. (*Edin. Med. Jour.*, July, 1891.) Jaggard says that “pruritus (apart from local causes) is a functional disease of sensation of reflex origin without structural alteration of skin.” The latest, however, is that of Bronson's, who says “the disturbance in pruritus is of the nature of a dysæsthesia, due to the accumulated or obstructed nerve excitation with imperfect conduction of the generated force into correlated nervous energy.” Dr. Webster criticises the above two nonsensical theories as follows: “Such statements, made with all the assurance of certainty, are worthless, being mere assumptions unsupported by physiological or pathological evidence. They are scientific expressions of ignorance, and are the common resource of writers who delight in verbose and well-padded paragraphs, and who appear to believe that additional words mean additional facts.” *Pruritus vulvæ* proper, the condition to which there is more or less constant itchiness of the external genitals, is a disease about which nothing is practically known. Apart from local excoriations, eruptions, hypertrophies and malignant disease which may be set up by long-continued scratching, the habit of masturbation may be brought about, the patient's moral balance of mind may become greatly disturbed by the constant torture, and, indeed, sometimes complete nervous break-down may occur. As regards the immediate seat of the itching, observations have been somewhat inexact. Zweifel and Küchenmeister say that the seat is in the clitoris and about it; others make the area somewhat wider.

Pathology.—Mr. Webster gives a short report of three cases

which came under his observation, and the tissues of which were examined microscopically. He found that the changes were of the nature of a slowly progressing *fibrosis*, affecting chiefly the nerves and nerve-endings of the clitoris and labia minora.

Treatment.—Mr. Webster says the orthodox plan of treatment is to cause the patient to apply every known lotion and ointment for several months, until at last in despair she seeks the advice of others, who do just the same and with equal failure. He concludes that the only efficient remedy consists in *complete removal of the affected parts*. Mr. Webster followed this plan of treatment in his three cases with complete and permanent relief.

Concealed Rupture of the Perineum a factor in Puerperal Fever.—Dr. J. H. Thompson writes a paper on this subject in the *British Gynecological Journal*, Nov., 1891. He draws attention to the necessity of examining carefully the vagina as well as the perineum after the labour. Small tears in the vagina just anterior to the perineum opens with a "large lymphatic lacuna" which communicates directly with the lymphatics of the peritoneum. Dr. Thompson has made a series of dissections on the cadaver, and finds that injections of indigo solution pass directly from this lacuna to the lymphatics of the peritoneum. The author says that discharges collecting in such a wound will decompose rapidly and give rise to sepsis quicker than if the whole perineal body down to, or through into, the bowel had been lacerated. As in this case drainage will protect, but in the former no such protection exists. He advises sewing up the wound with *silver wire*.

Dr. Thompson lives in Rome, and if we live in Rome we must do as the Romans do. In the more northern part of the world, however, we make the vagina first aseptic and then sew up the wounds, but we do not use wire, and would advise Dr. Thompson to try sterilized catgut in future. Internal or concealed vaginal lacerations are well recognized as a cause of puerperal sepsis, and have been so for many years.

Perforation of Uterus by Sound and Fatal Sublimate Poisoning.—Dr. Gebhard (*Nouvelles Arch. d'Obst. et de Gynec.*, Aug. 1891) recently observed a patient who had been under treatment

for gonorrhoea. A 1-5000 solution of sublimate was thrown up into the uterus every two or three days in the out-patient room by means of a Bozeman's sound. Upon the third occasion the patient complained of severe pain after about one pint of the solution had been injected. Vomiting and faintness came on rapidly. Perforation of the uterus and entrance of the solution into the peritoneal cavity was diagnosed. Opium was given. Dysentery and complete anuria followed; mucous discharged from rectum constantly; the rectum protruded and was ulcerated: stomatitis with some slight salivation began on the third day. The patient died on the eighth day. Everything seems to have been done by Dr. Gebhard in this case but the right one. When he had discovered his clumsy error in having perforated the uterus, why did he not open the abdomen at once, wash out the cavity of all poisonous fluid, and repair the two perforations of the uterus which were found at the autopsy. There was peritonitis. The entire large intestine and four inches of the ilium were ulcerated and in parts sloughy; one ulcer had perforated the sigmoid flexure.

Correspondence.

To the Editors of THE MONTREAL MEDICAL JOURNAL.

SIRS,—I would like to draw the attention of the readers of your JOURNAL to certain appearances of the tongue, observable in cases of influenza, which I think are characteristic. The literature on this point, as, indeed, on the subject of the disease itself, is none too full, but if each one will contribute his share of the results of observation, this defect can speedily be remedied.

Peacock, in Quain's Dictionary of Medicine, describes the appearance of the tongue, in the simple catarrhal form of the disease, as "usually moist and covered with a white creamy fur, but, occasionally, it is morbidly red at the tip and edges." In the type of the disease with pulmonary complications, the article reads that "the tongue is usually red at the tip and edges, and covered at the dorsum with a creamy mucus or with a whitish-brown fur" and in the gastro-intestinal type, "the tongue is at

first moist, covered with the usual whity-brown fur and red at the tip." So that in the two latter forms of the disease, and occasionally in the first, the tip is red, the dorsum being covered with a whity-brown fur.

Bristowe, in his very short article on Influenza, merely says "the tongue is covered with a moist fur."

Neither author has said anything about the condition of the papillæ, whose state I think constitutes a diagnostic point.

In the course of some 150 cases in the past three months, I have noted that the dorsum of the tongue is covered with a whitish fur of but moderate depth, its thickness diminishing rapidly towards the tip, which is always bare. The edges for about an inch back from the tip may also be bare or may be covered by a delicate whitish film. The tip or edges may or may not be red, but the tip generally is.

The papillæ of the dorsum are not enlarged, but some of those of the edges, for an inch back from the tip, on either side, invariably are, and often a few are found on the tip itself. The rough diagram accompanying will show a typical case, the dots



at the tip representing enlarged papillæ. The size of the papillæ is that of very small rape-seed, and the colour of a bright red. In a slight attack these red points are few in number, and you will need to examine the tongue in a fair light, when you will find, perhaps, four or five on a side. But in a well-marked case, twenty or more may be found on each margin. Even when the edges are covered with the thin whitish film before mentioned, a few papillæ will be seen through it, and it is in such cases that a fair light is needed for the examination.

I have found these appearances so constant that if I fail to find them I do not class the case as influenza—firstly, because its other typical symptoms are not all present; and, secondly, because we may have catarrhal symptoms, due to simple ex-

posure, much resembling the symptoms of some cases of influenza, and with which the profession latterly is too apt to confuse it. So, if the foregoing observation aids towards differentiating a simple from a specific type of disease, a point has been gained.

ROBT. E. MCKECHNIE.

Wellington, B.C., February 17, 1892.

Reviews and Notices of Books.

A System of Practical Therapeutics. Edited by HOBART AMARY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; assisted by WALTER CHRYSTIE, M.D. Vol. I.; pp. 1052. Philadelphia: Lea Bros. & Co. 1891.

Recent medical literature in America tends especially in two very different directions—that of “compend” and that of “systems.” Of the former little good can be said; the latter demand careful consideration, not only because they are the product of much thorough and painstaking labour, but also because, among a number of the profession, these co-operative monographs seem destined to take the place of individual works on various medical subjects. The present series, consisting of three volumes of over one thousand pages each and embracing the entire range of practical therapeutics, will naturally appeal very strongly to the wants of the general practitioner, and indeed neither talent nor space has been spared to make it a complete presentation of the subject in all its details. However one may personally dislike acquiring knowledge through encyclopædic channels and deplore the absence of individuality which such forms of writing entail, one must acknowledge the value of such works which provide complete and authoritative information to which the physician may refer when in doubt, with the saving in both time and money—two factors which apparently cannot nowadays be neglected. It is in keeping with the eternal fitness of things that the introductory chapter on “General Therapeutic Considerations” should come from the pen of Horatio C. Wood. In this article the methods upon

which therapeutics are or should be based are philosophically considered, and are followed by sections on dosage, the physical state of the patient and the combining of remedies.

J. P. Remington contributes an extensive article on Prescription-Writing, illustrated by many examples of good and bad formulæ. In *Electro-Therapeutics*, A. D. Rockwell treats of the dosage of electricity, the methods of its application for diagnostic and therapeutical purposes, with special sections on its use in neurological, gynæcological and obstetrical practice. A short article on "The Rest-Cure for Neurasthenia and Hysteria," by J. R. Mitchell, summarizes the opinions and experience of S. Weir Mitchell, the earliest and still the best known exponent of this method. "Swedish Movements and Massage" and "General Exercise" find competent and enthusiastic advocates in Benj. Lee and E. M. Hartwell, respectively. The former article contains some histological diagrams, the bearing of which on the text is not obvious; the following cuts of the various movements are, however, very good and accompanied by full descriptions in the text. The tone of both these articles is in places slightly aggressive, this being apparently due to the apathetic or even hostile attitude of many members of the profession towards these therapeutic procedures. S. E. Solly discusses the physics of "climate," the effect of heat, cold and moisture on the organism, and the climatic treatment of disease. Concerning tuberculosis the author, while admitting that purity of the air is a most important factor, is driven to the conclusion "that of all factors, climatic or otherwise, in the treatment as well as in the prevention of phthisis, altitude is by far the most powerful of them all." The rationale and the application of the different methods of hydrotherapy are thoroughly considered by Simon Baruch. The value of hydrotherapy in acute febrile diseases, particularly in typhoid fever, is deservedly insisted upon once more, and we hope this article will be widely read in America. H. B. Baker contributes a section on General Sanitation which one is tempted to wish had been allowed more space. It is a strong plea for the establishment of competent health boards such as exist in the State of Michigan. "Disin-

fection," by Sternberg, contains the most valuable additions to our knowledge of this subject, and is supplemented by an ample bibliography reference list. In "Antisepsis and Asepsis," J. William White, after general preliminary considerations, details the technique he has adopted, which is based on Lister's recent work (cyanide of mercury dressings), and concludes with a *résumé* of the methods of the most noted European surgeons. He might with advantage have mentioned the methods adopted in one other great American hospital. The general practitioner will find great comfort in the section on "nutrition and foods," by Burney Yeo, which is an admirable summary of that author's previous work on the same subject. "Tuberculosis," by Solomon Solis-Cohen, is a most elaborate monograph in which no aspect or factor has been neglected. Great stress is laid upon "hypotrophy" as a most important condition underlying the development of tuberculosis. In this connection the writer's reactionary views may best be judged from the following statement:—"I hold, then, that hypotrophy, congenital or acquired, is the starting point of the various morbid processes now, for want of better knowledge, indiscriminatingly called tuberculous; and that the bacillus of Koch, while it is perhaps the most important of several microbes that influence the progress of the lesions and various forms of the disease, does not of itself originate the disease in any form. It is further taken for granted in these pages that tuberculosis is not one disease, but a group of diseases; the group being composed of a number of forms more or less intimately related, and including, moreover, the *pseudo-tubercle* produced by Lebert, Fox, Sanderson, Formad and others in their experiments with indifferent substances upon certain animals known to be especially liable to tuberculosis, and that may therefore be termed in comparison to others, 'normally hypotrophic.'" It is truly depressing to read this. Every one knows that the work of the first three experimenters named was open to grave criticism, and that Cohnheim, who was at first led to similar conclusions, in a subsequent very careful series of experiments confirmed in every respect the results obtained by Koch. We were also under the impression that

the conclusions of Formad had received their quietus at the hands of the most able American pathologist. The innumerable pages on treatment, with the exception of local and symptomatic treatment, may, after all has been said and done, still be summarized in the old way—time, plenty of pure air at all times in a suitable climate, nutritious food, appropriate exercise, good personal hygiene, plus creasote, or cod liver oil, or some other remedy which seems to meet some special indication. One turns with pleasure from this exhaustive and exhausting article to the short and practical sections on “Rheumatism, Rheumatoid Arthritis and Gout,” by James Stewart, which contain all that is definitely known about the treatment of these affections, without any therapeutic chaff. The remaining sections are devoted to “Scrofulosis and Rachitis,” by Walter Chrystie, “Scurvy,” by J. B. Hamilton, and “Diabetes Mellitus,” by F. A. Packard. In the last article the dietetic management receives thorough and careful consideration. H. A. L.

Botany: A Concise Manual for Students of Medicine and Science. By ALEX. JOHNSTONE, F.G.S., Lecturer on Botany, School of Medicine, Edinburgh. With 164 illustrations. New York: D. Appleton & Co. 1891. Montreal: Wm. Foster Brown & Co.

The book before us is a compilation from standard works, and bears the very misleading title of manual. Had it been called a Syllabus of Lectures, it would be properly designated, and as such might serve a useful purpose. The object of the book appears to be to cultivate the art of cramming for examinations without imparting any substantial knowledge to the student. It will, in consequence, be likely to find but little favour with advanced teachers. A text-book in connection with lectures best serves its purpose when it is used as a book of reference, comparison and verification, not as a mere dictionary or as an indication; it should therefore give a fairly full treatment of the various subjects it discusses. The book is commendable in comparison with many of the text-books now in the hands of students, in employing a nomenclature which is in accord with our present knowledge.

The Comparative Anatomy of the Domesticated Animals. By A. CHAUVEAU, M.D., LL.D. Second English edition, translated and edited by GEORGE FLEMING, C.B., LL.D., F.R.C.V.S. New York: D. Appleton & Co. Montreal: Wm. Foster Brown & Co. 1891.

This extensive work has been popular with veterinary students for many years, and in its time has served a good purpose. Some seventeen years ago it was first translated into English. An edition appeared in 1889, and this present edition is a translation of the fourth French edition, with considerable amendments and alterations to suit its purpose as a text-book for English students.

The anatomy of the ass, mule and rabbit has been added, and also the camel, an animal which is now much used by the British army in various parts of the world. Many new illustrations have been inserted, which, with the already large number existing in old editions, makes the work very complete. The English editor has much improved the value of the book by placing at the end a copious index, which was lacking in the French edition.

It is hardly necessary to criticise a work which has deservedly passed through several editions in various languages. At the time it was written no doubt its plan was suitable to the state of the then existing knowledge of anatomy, but now it is rather out of date both as to its morphology and arrangement. It is too fragmentary and too evidently founded on the anatomy of that very specialized animal—*man*. The plan of the work is clumsy and confusing, and too much is attempted. The anatomy of the horse is first given, very fully, then in small print the anatomy of the same part in ruminants, in the pig, perhaps in the dog, cat, and occasionally the rabbit or birds; but these latter are given very irregularly. Then the chapter winds up with a comparison of this part of anatomy (say heart, lungs, kidneys, arteries, etc.) in man with that of animals.

As we remarked above, the anatomy of the horse is very good and well illustrated, though the morphology is in many parts not up to date; but the anatomy of the other animals is so fragmentary as to be often confusing, and any one who wished to

study the anatomy of the ox, cat, dog or rabbit from this work would find the task a difficult, if not an impossible one. He would find many interesting comparative points referred to both in relation to the horse and man, but he could get no connected idea of the anatomy of the animals other than the horse. It seems to us that a proper work on Comparative Anatomy of the Domestic Animals has yet to be written, and we should prefer to have the descriptive anatomy of each animal or class of animals quite separate and distinct, with a common introduction on histological anatomy. However, even the minds of the students of comparative medicine are finite, and too much must not be expected from them; no doubt the method adopted in this work will teach the majority as much as they will be able to digest and remember. The work is well printed and illustrated, and the translator seems to have done his work excellently well.

Syphilis in Ancient and Prehistoric Times. By DR. F. BURET (Paris). Translated from the French, with notes, by A. H. OHMANN-DUMESNIL, M.D. Vol. I. Philadelphia, F. A. Davis.

This work is a compilation of all that is known of the history of syphilis, real and mythical. The author attributes many of the plagues which attacked our ancestors to the ever-present flesh-devouring syphilis. The great plagues which visited Pharaoh and his house were, according to Dr. Buret, produced by syphilis, contracted by Pharaoh from Sarah, and distributed to the rest of the harem. This was veritably "spoiling the Egyptians." He looks upon the disease Job suffered from as probably scurvy, but says David describes excellently well the tertiary symptoms of syphilis. Our author exonerates America from the imputation that she is the source of the introduction of syphilis into Europe. He considers syphilis to be as old as the world, for the Chinese have medical treatises on this disease dating back some five thousand years. He says "syphilis, the daughter of Prostitution, was born as soon as Commerce, chasing Love, presided over the exchange of caresses," and thinks the venereal virus must have marked "the first step of the human race in the highway of

civilization." The worship of Priapus and the games of Flora are described, as well as the licentious practices of the Romans in the latter days of the Empire. The last chapter ends with the general treatment of the disease. The book, though of not much scientific value, contains a large amount of information on syphilis and allied subjects. It no doubt will be popular with the laity.

Surgical Anatomy for Students, By A. MARMADUKE SHIELD, M.B., F.R.C.S. New York: D. Appleton & Co. Montreal: Wm. Foster Brown & Co. 1891.

This little work is the substance of a series of demonstrations on the living subject delivered by Mr. Shield to students in course of preparation for final examinations. It treats of the usual topics which are familiar to us now as *applied surgical anatomy*, consisting of landmarks, parts divided in operations, course of blood-vessels and nerves, relations of organs, etc. Each region is taken up separately. The style is terse, there being no excess of verbiage. It is rather dry reading, however, and is too obviously intended for students wishing to get tips for examinations. As far as we have read, it is accurate, and no doubt will be of much service to those for whom it is intended, if they use it in connection with the living model. The absence of all illustrations seems to us a blemish, for even with a living model the deeper parts cannot be seen without vivisection, which, unfortunately is prohibited in the human subject. Illustrations, even of a diagrammatic character, would, in our opinion, add much to the value of the work.

Outlines of Practical Physiological Chemistry.
By F. CHARLES LARKIN, I.R.C.S., and RANDLE LEIGH, M.B., B.Sc. London: H. K. Lewis.

Embodies all the facts necessary in such investigations to the student or practitioner for diagnostic and therapeutic purposes, though it aims chiefly at being a guide to students working through a course of this kind. As usual the book is the outcome of that laudable desire prevalent among students for succinct teaching which is always observed by authors anxious to

give a new setting to old facts. This little work contains in short compass, fewer than a hundred pages, everything likely to be of use to the average student and brings into prominence those parts of the subject which the experience of actual practice seems to recognize as essential for the examination of the various physiological and pathological substances met with in the daily word. The book is orderly and thorough explicit but not scant and not overloaded with material of doubtful utility.

Microscopical Diagnosis of Tuberculosis. By PAUL PAQUIN. (Little Blue Book Co., Battle Creek, Mich.)

Must appeal to a wide constituency, for its author assumes that the majority of practitioners are in elementary ignorance of all that pertains to scientific medicine. Amongst these the little book will have a wide usefulness. From the minute description of the microscope, this instrument may be recognised even by an eye not accustomed to scientific niceties and the routine of staining is so clearly set forth that not even "the busy man or student" would be likely to err. The essence of the matter appears to be the advantage of using the author's stains, fuchsin dissolved in alcohol, liquor ammonia, and aniline green in alcohol and nitric acid, but his presentment of the case will hardly induce cautious people to abandon Robert Koch's original stain or Gibbe's double process with Rosaniline hydrochlorate and methylene blue.

The Chinese: Medical, Political and Social. By DR. ROBERT COLTMAN. Philadelphia: F. A. Davis.

China is a refuge of lies for those who dwell therein and for those who visit the strange country. The author admits that "lying is a vicious habit universally practised all over the empire." The habit appears to be contagious and to affect all who attempt to write about this uninteresting country. This book is little more than the journal of a medical missionary, but Dr. Colman is content with getting down what he has actually seen, and is singularly free from any desire to tell merely what he thinks it good for a class of the public to know. The non-medical part of the book is a relation of what any traveller may see in China,

most of which is commonplace enough, but when Dr. Coltman begins to describe the diseases prevalent in China, the literature of these diseases and their treatment, he does it with truthfulness and candour, arising from an experience of 35,000 cases in a practice of six years. He speaks of the Chinese with respect, not as if they were degraded heathen "ripe for the missionary sickle," and he doubts "if they are in any respect more immoral than Americans or English." This is a marked advance in missionary literature, and he discovers another family resemblance in saying "there are a few of the Chinese who do not smoke, who do not drink nor use opium, and according to their own statement do nothing bad." Then he adds sententiously, "these are not safe to have around." The whole work is a plain record of what a man saw and what he thought, and all is related without bias or any ulterior motive than to tell a truthful tale. His appreciation of the methods and work of missionaries is accurate, and he also points out where amendment is necessary. He recognizes that "the church of the future in China will not be of Anglo-Saxon mould; it will be of Chinese mould, and of the form which best suits the Oriental mind." His discussion of leprosy is particularly valuable, and no one should be permitted to speak upon this subject who has not had a lengthy experience in China.

History of Circumcision from the Earliest Times to the Present. By P. C. REMANDINO, M.D. Philadelphia: F. A. Davis.

The necessity for this book, looking at it from a medical standpoint, does not exist. We fear it does not fill the void in the shelves of even the long-suffering and needy general practitioner. Apparently it is written for the public, and will have a large sale owing to the many racy stories of somewhat doubtful taste which are scattered through its pages. We do not admire the author's style, it is anything but suited to a scientific treatise (which this is not). We give the following as a sample: "After the operation" (circumcision) "all of his troubles disappeared, and he was soon a hearty and well man, able to chop wood, attend to business, and, in case of need, *do duty for a Turkish harem,*

without recurrence of his old tormenting dyspeptic, palpitation, or sick headache" (p. 272). There is also a good deal of fine writing throughout the work. Certainly the author has managed to collect a wonderful lot of curious, if not very valuable, information on circumcision and kindred topics from the prehistoric days to the present time. Of course the author believes circumcision the panacea for all the ills flesh is heir to, and even goes so far as to attribute the introduction of tuberculosis into the Oceanic Islands to the uncircumcised sailors of Capt. Cook, who carried with them from England tubercle bacilli concealed under their long foreskins and from thence discharged into the innocent vaginæ of the Oceanic virgins.

To anyone who is fond of curious information on sexual subjects, the book will prove interesting.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, February 5th, 1892.

JAMES STEWART, M.D., VICE-PRESIDENT, IN THE CHAIR.

Thrombotic Softening of the Pons Varolii.—DR. LAFLEUR exhibited a specimen of this condition. There was nothing abnormal found in the dura. At the base of the brain there was extensive sclerosis of all the vessels, the left posterior cerebral artery being plugged. In passing below the level of the corpora quadrigemina, the substance of the pons varolii is seen to be softened; the softening affects the left half, leaving only a rim of sound tissue, the line of demarcation being very sharp at the median raphé. Posteriorly the softening does not extend further than the lower third of the pons. The softening affects the fibres going from the cord and not the superficial transverse fibres from the cerebellum. The grey matter in the floor of the fourth ventricle is not affected. No other lesion was found in the brain, and the cord, as far as examined (a little way below the medulla), was healthy.

Echinococcus Cyst of the Liver.—DR. LAFLEUR found in the same patient an echinococcus cyst. It was situated in the upper

part of the right lobe of the liver, just three-quarters of an inch below the diaphragmatic attachment. It was found to be a firm non-infiltrating tumour with walls 1-12th of an inch in thickness, inside of which is a soft lining membrane, and from which spring a number of septa dividing the interior into alveoli, containing cheesy matter and distinct gritty particles of lime salts. At first the exact nature of the tumour was doubtful; whether it was a calcified solitary tubercle, a residual abscess or an echinococcus cyst that had undergone retrograde change. The microscope proved the absence of the tubercle bacilli and, after a careful examination, the presence of the hooklets.

The patient from whom these specimens were taken was brought into the hospital suffering from a right sided motor and sensory paralysis. No history could be obtained from him as his speech was a mixture of bad French and bad German. He was not a native of Canada.

Suppurative Appendicitis.—DR. LAFLEUR exhibited the specimens and gave the account of the autopsy. The abdomen was distended, and on opening it a condition of acute purulent peritonitis was found; 100 c.c. of pus were removed. The coils of intestines were matted together with recent lymph. In the right iliac fossa there was dense matting of the intestines about the head of the cæcum; on dissection a cavity was found full of thin grumous pus containing a number of greyish particles. This was removed with part of the iliac and psoas muscles to show its relationship. The abscess was purely circumscribed, and there was no rupture, the cause of the acute peritonitis being the conveying of the poison through the lymphatics. The abscess was not of long standing, as shown by the moderate thickness of the walls. There was a commencing septic pleurisy on the right side.

DR. JAS. BELL stated that the patient had been under his care for a few hours in the General Hospital. The illness had been a matter of ten days, and she had been attended by Dr. Finley for typical perityphlitis, and it was not until a week after the onset that he was able to detect a fluctuating mass in the right iliac fossa. He then advised her removal to the hospital for operation. At one o'clock on the day she entered the hospital

she became suddenly collapsed, with subnormal temperature, the mercury not registering above 96°F. In this condition she remained for fourteen or fifteen hours, when she died. A consultation had been held, but it was thought, as the peritonitis was general, and as she had œdema of the legs and abdomen, with albumen in the urine, that operative interference would be hopeless, and the autopsy showed the wisdom of this decision.

DR. SHEPHERD had seen the patient and had advised her removal to hospital. He thought that it was a favourable case for operation, as he had found a distinct fluctuating tumour in the right iliac fossa. The extension of the peritonitis was very rapid, and the intense shock with the accompanying low temperature is unusual when there is no perforation. Another point of interest about the case is the age of the patient, she being 52. Authorities say that appendicitis is very rarely met with after 35, but this is the second case that has died in the General Hospital between the age of 50 and 60. The other case was a German aged 60, who was admitted in a moribund condition, and in whom was found a perforative appendicitis.

Anatomical Anomalies.—DR. SHEPHERD exhibited—

(1) *Meckel's diverticulum*, the specimen being of unusual size. This condition exists in about three per cent. of individuals, and is situated ten to sixty inches from the ileo-cæcal valve. It is due to the persistence of the omphalo-mesenteric duct.

(2) *A fetus of a puppy* with closure of the facial and buccal clefts. There were no openings for mouth, eyes or nose. The ears were present, but situated very low down. When the specimen has been more fully examined a further report will be given. The specimen had been sent by Dr. Connell.

(3) *Secondary Astragalus* or *Talus Secundarius* is an ununited epiphysis of the astragalus, and has inserted into it the posterior fasciculus of the external lateral ligament of the ankle-joint, and it overhangs the os calcis. Dr. Shepherd remarked that some ten years ago he published a paper in which he described this condition as due to fracture, but that he had since then altered his opinion and had come to the conclusion that it was due to an ununited epiphysis. It occurs not uncommonly, the speaker having no less than nine specimens in his possession.

(4) *Skeleton of a double monster* with single pelvis but double spinal columns and sacrum. In the lumbar region the union between the two columns is very close, the transverse processes being absent the columns are united by fibrous tissue. In the lower dorsal region the contiguous ribs are continuous, forming an increasing bony arch as they ascend and the vertebral columns diverge. The upper five ribs on the contiguous sides of the monster run forwards together between the two vertebral columns and are attached to the broad upper border of a very irregular, fused sternum between the clavicles. In the dorsal vertebræ some of the bodies have two centres and others have the two halves of the body at a different level, each half having a special centre. In the right monster there are no less than fifteen centres representing bodies of dorsal vertebræ, some of the ribs articulating with two of these bodies.

Quinine Rash.—DR. SHEPHERD read notes of this case. (See page 667.)

Report on the Care and the Treatment of the Insane.—DR. E. E. DUQUET read the report, which appears on page 657.

Discussion.—DR. F. W. CAMPBELL said that far too little attention has been paid by the general practitioner to the subject of insanity. In this city we have not been well placed as far as clinical observation is concerned. The asylum at Longue Pointe has not been a bed of roses either for the superintendent or for the physicians of Montreal. It was a closed borough, and he knew of no one who exercised such supreme power as the late lady (Sister Ste. Thérèse) who had been at the head of the institution, so that up to the present we have been left very much in the dark; but matters have greatly improved, and he hoped that they would continue to do so. He rather objected to the term asylum, and thought that it was one of the greatest objections in the public mind. For the new institution at Verdun the authorities had used the term hospital. Another important point is that of forcible restraint; we all remember the great noise produced a few years ago by the report of the distinguished English alienist, Dr. Tuke, on the treatment at Longue Pointe. In the hospital at Verdun they have gone, perhaps, to the other extreme, for one or two incidents have occurred there which

have rather shaken public confidence. He felt that there is not sufficient clinical instruction for young men. They should learn to recognize this disease early; the early recognition is in proportion to the acuteness of the disease. We recognize and treat acute pneumonia at once, so every one should be able to recognize acute insanity at the outset, that the patients may not be permitted to live in surroundings which do anything but tend to ameliorate their condition.

DR. LACHAPELLE thought that the medical profession has taken too small an interest in mental diseases and in their clinical study. Mental diseases are frequent, and every practitioner is expected to meet many cases in his practice. If such cases were properly diagnosed and treated at first, no doubt many would be cured. We have to blame ourselves in Montreal that we have not been better equipped, and he was glad that the subject had been brought up, for we see that the officers at the head of the asylum are up to modern progress, and we ought to get the students to benefit by bringing them in contact with the patients.

DR. A. D. BLACKADER also felt the need of clinical instruction for students. Looking back on passed years he could recall cases that presented at first only slight departures from health, and felt what an advantage it would have been if he could have recognized these departures earlier. Many of the cases of mental disease which we meet with, if properly recognized, may never need to be sent to an asylum.

DR. SHEPHERD stated that regular clinical instruction had been given once a week at Verdun during the last summer session, and that it would be continued this year.

DR. PROUDFOOT was glad to hear that the hospital at Verdun had been utilized. In many of the colleges of the United States, though they have many disadvantages as compared with ours, regular lectures and clinical instruction on insanity were given, and he hoped to soon see this subject a part of the regular course.

DR. JAS. STEWART thought that the influence of the report would be for great good. The weak point, however, is that the report insists that the superintendent should have the entire control of the administration of asylums. If a man has to be hampered with details of administration, he cannot do justice to the

medical treatment of his patients. In the United States and Ontario the appointment of the superintendent is almost always political, but it is not so in Quebec. In the United States, where politics reign supreme, the superintendents rank far below those of England, France and Germany. In the latter countries there are men who examine the patients from a scientific point of view, and have nothing whatever to do with the administration.

DR. DUQUET, in reply, said that he could not agree with Dr. Stewart. He thought that the superintendent should have complete medical control of his patients. If a physician is named to give medical treatment, the superintendent will look upon him, at first, as an equal and then as an inferior, and then there will be quarrels, as frequently occur in the asylums in France. The superintendent need not look into the details of treatment, for the report says that he may have competent assistants. So he thought that with a good steward and with the necessary trained assistants, it was much better for the superintendent to have supreme control. As for treatment there is no specific for insanity, but every circumstance that has any influence on the minds of the patients must be carefully considered. Drugs have but little influence; the chemical constraint does not do any good, and may conduct the patient into hopeless insanity. Unfortunately, physicians prescribe the bromides for everything, which in many cases do far more harm than good. Clinical teaching has been neglected too much both in this country and elsewhere. He is often surprised and amused to see the statements on the certificates. The subject of insanity should be taught in every school; there should be lectures and clinics during at least three months. When Dr. Tuke visited Longue Pointe he saw the old asylum with its numerous cells and many other defects, so to a man like Dr. Tuke the impression was very poor, and his report was only too true; but since that time the old building has been destroyed by fire and the new buildings are very much better. He (Dr. Duquet) had protested against the use of cells, and they were now seldom used during the day, and altogether there is not now one-fifth the amount of restraint that was formerly used. He had always been opposed to the farming system, as it is hard work to improve it. The State gives \$100 per

annum for each patient, which is very little, but the community will always try to make a little money out of this sum. The State should have the asylum under its own control. As to changing the name to hospital, he did not approve of it. In large buildings with large wards it is impossible to classify the patients, and such a building is not an hospital but an asylum. He strongly favoured separating the curable from the incurable; the former class should be treated in hospitals and the latter in asylums; each patient should be treated individually, and until we get such a division we will not cure as many cases as may be cured, for if not treated in the beginning the patient passes into the chronic state, when the greater number will be incurable.

Stated Meeting, February 19th, 1892.

F. BULLER, M.D., PRESIDENT, IN THE CHAIR.

Plasmodium Malariae.—DR. FINLEY showed under the microscope two red blood cells containing the plasmodium. They had been obtained from a man who had contracted malaria in Cuba, and who is at present in the General Hospital. The plasmodium is seen to be a small amœboid body within the red blood corpuscle and containing grains of pigment due to the breaking up of the hæmoglobin. The specimen had been stained with methyl-blue. In addition to the intra-corpuscular bodies, there are also found certain hyaline and small pigmented bodies lying between the corpuscles. The method of examination is to spread out the fresh blood in a very thin layer and examine it with an immersion lens; staining is not necessary. The presence of this organism is sufficient to establish a diagnosis of malaria. Quinine seems to destroy it, for it cannot be found after the exhibition of the drug.

DR. LAFLEUR said that the specimens deserved much more than a passing notice, for this is the first time that the plasmodium has been demonstrated in Montreal and probably, with one exception, in Canada: for last year, while one of the attendants of Johns Hopkins Hospital was visiting Halifax, he succeeded in demonstrating this characteristic organism to the hospital physi-

cians. During the chill typical segmentation takes place, the plasmodium divides into from ten to twelve small spherical bodies, the pigment collecting in a separate mass at the centre. The bodies form the new brood of plasmodia, which subsequently enter other red corpuscles and grow into the large pigmented forms. In southern climates, where both typhoid fever and malaria frequently occur, a form of fever which presented the characters of both used to be called typho-malaria, but this term is not now recognized; the disease must be either typhoid fever or malaria, and a positive diagnosis can be made by observing the presence or absence of these bodies in the blood.

DR. REED said that there was no malaria in the Province of Quebec, though Dr. Bell, two or three years ago, read the report of three cases which were supposed to have originated in the Province.

The PRESIDENT asked what proportion of blood cells may be expected to contain plasmodia, and if there is any relation between the number of the affected cells and the severity of the disease.

DR. SMITH asked if quinine entirely destroyed these bodies, and if a person would have to be again exposed to the malarial poison to have a second attack.

DR. FINLEY, in answer, said that the bodies were found more frequently in quotidian than in the tertian forms. Several specimens, as a rule, have to be examined, for the number of cells in the field of an immersion lens is very small. Malaria may be cured temporarily by quinine, but symptoms will occur from time to time.

DR. LAFLEUR said that there was a direct relation between the gravity of the attack and the number of corpuscles affected. In pernicious malaria every second or third corpuscle may be involved. The probable reason for a second attack occurring after the use of quinine is that some of the organism are more resistant than the rest and may retire to the spleen, or they may be in a spore state, and under favourable circumstances will produce a new brood.

Cancer of the Liver.—DR. MCCONNELL exhibited the specimen for Dr. Armstrong, and Dr. Smith gave a short history of

the case. The patient came to the Western Hospital during the summer suffering from extensive cancer of the breast with involvement of the axillary glands and extensive sloughing of the skin about the nipple. The case was hopeless, but he thought that an operation was justifiable, in that it removed the sloughing, stinking mass, and that death would be rendered less painful by the involvement of some internal organ. At the operation, after he had removed the breast, he found the pectoralis major greatly infiltrated with the disease, but as the patient was in a very weak condition he did not remove the muscle or the glands, but they were removed later on by Dr. Armstrong. He was of the opinion that the liver was involved at the time of the first operation. The specimen had numerous nodules of cancer scattered throughout the organ. The sections under the microscope showed well marked alveolar cancer, the round, oval and some flattened cells lying loosely in the alveoli.

Cancer of the Breast.—DR. LAPHORN SMITH read the following report :—

Mrs. S., aged 31, consulted me at the Montreal Dispensary in June, 1891, for procidentia of the uterus, which protruded from the vulva about three inches. She had a bad laceration of the cervix, and as all the ordinary measures for retaining the organ within the body proved unsuccessful, I urged her to have the uterus extirpated, an operation which would have been very easy by the vagina, as I could feel the upper margin of the broad ligaments without exerting any traction on the organ. Dr. Perrigo kindly placed a bed in the Western Hospital at my disposal, as it was his term of service, but he advised me to try the effects of an amputation of the cervix before deciding upon the major operation, which I might do later if necessary. I followed his advice, and on the 15th September I performed Schröder's operation. She made a rapid recovery, and the result was fairly satisfactory, the womb no longer coming out of the body, and only when she is very tired does it prolapse at all. Before leaving the hospital she called my attention to a hard nodule in the centre of the breast which she had first noticed last March, at which time it was only the size of a marble ; in June it had grown to the size of a hen's egg, and in September it was as big as a

small orange, and there was slight enlargement of one of the axillary glands. As there was no retraction of the nipple, and as she was so young, I hardly believed that it could be a malignant growth. As her bed was needed, I dismissed her until January, when I was to come on for duty.

Family history.—Father died at the age of 70 from causes unknown. Mother still living at the age of 70. She has had ten brothers and sisters, of whom one brother died in infancy and one at the age of 23 of typhoid fever; one sister died of acute rheumatism, and another at the age of 18 suddenly of disease of the brain.

Patient began to menstruate at the age of 13, and was always regular, though scanty, painless, and lasting two days. Married seven years; one child five years ago; no miscarriages.

On the 23rd January, assisted by Drs. England and Springle, I removed the breast, and in order to avoid recurrence I kept an inch at least outside of the apparent area of the disease. Finding that the disease had apparently spread to the pectoralis major I removed that entire muscle, and then proceeded to clean out the axilla both of its glands and fat. One of the glands was as large as an almond and the others the size of beans. The axillary artery and vein were left bare, but were not injured. The patient was exceedingly weak and anæmic before the operation, and the necessary loss of blood, which, however, was not excessive, caused her pulse to become very attenuated, so that the operation had to be completed with her head inverted and her feet in the air, and several hypodermics of ether were also given. An opening was made in the lowest point of the back of the axilla and a drainage tube inserted and fastened with a safety-pin. The skin surfaces could not be drawn closer together than two inches, the sutures being of silkworm gut; gutta percha tissue was placed over the raw surface. It was dressed on the third, eighth and tenth day, after which the discharge diminished very much. The highest temperature recorded was $99\frac{1}{2}^{\circ}\text{F}$. on the evening of the third day after the operation. The stitches and drainage tube were removed on the 18th day, and on the 29th day it has almost healed.

I would like to take myself to task for not having made greater

efforts to induce this poor woman to submit to operation when I first saw the tumour. Winkel, *Diseases of Women*, Parvin's second edition, Philadelphia, page 657: "If a tumor of the breast has a uniformly continuous growth, it must be extirpated no matter whether benign or malignant. When the tumour is malignant the sound tissues should be excised at least an inch beyond its margin. When the skin is not movable over the tumour, but adherent, or is already diseased, it must be excised far beyond the limits of the involved tissue. When the pectoral muscle is involved, the diseased tissue must be removed, and it may even be necessary to excise a rib. Indurations found in any portions of the adipose tissue or at the base of the wound must be carefully removed with the scissors." This is sound advice, and was followed with, so far, satisfactory results.

As Gerster (*Aseptic and Antiseptic Surgery*, New York, 1888, page 109) points out that this operation in preantiseptic times was as fatal as the major amputation of a limb, while now the risk is almost *nil*. But the death rate from recurrence of the disease has not fallen, because we wait too long before resorting to operative treatment. In the case whose liver has just been exhibited, there was a large sloughing and stinking mass in the breast and the pectoral muscle was completely invaded. No operation could have been of any ultimate avail. In view of the fact that over 90 per cent. of all mammary tumours are carcinomatous, the benefit of the doubt should be given to operating. There were three points of interest in this case, two of which rendered me less vigilant than I would otherwise have been—namely, the absence of the slightest retraction of the nipple and the age of the patient. The third was the presence on the arms of three black eschars, two on one arm and one on the other, resembling burns. On telling the nurse that they were probably burns from contact with too hot bottles, she maintained that they were, on the contrary, due to hypodermics of ether which were given when the patient's pulse began to fail; and such, it seems, is really the case.

DR. McCONNELL exhibited sections which presented all the characters of schirrus cancer.

Intussusception.—DR. GEO. A. BROWN exhibited a specimen of this condition and gave the following history: The patient, a boy of $2\frac{1}{2}$ years old, had been troubled more or less with his stomach and bowels. Ten days (Dec. 15th) before death the boy had been treated for a sore throat, which when first seen looked like diphtheria, but the next day it had cleared up and he remained pretty well until Friday, Dec. 24th. On Friday evening he was seized with incessant vomiting and desire to go to stool, which lasted up to the time of death; he passed small quantities of fæcal matter, but no blood. On Saturday evening Dr. Brown was called in just before the patient died. He found the child suffering from all the symptoms of shock; the abdomen was retracted, very tender, and gave a dull note on percussion. A little above the umbilicus there was a small irregularity on the surface of the abdomen which was exceedingly painful on palpation. At the autopsy, on opening the abdomen, there was complete collapse of the large and small intestines; in the upper part of the jejunum there were two invaginations, one about two feet and the other about three feet from the duodenum. Around the lower one there was a localized peritonitis. The stomach and bowels were empty.

Diagnosis of Aneurism of the Descending Thoracic Aorta.—DR. J. ELSDALE MOLSON read a paper on this subject. (See page 649.)

Discussion.—DR. LAFLEUR said that an ingenious method of diagnosing these aneurisms had been suggested by Ferdinand Schnell in a recent number of the *Münchener Medicinische Wochenschrift*. A long stomach-tube, closed at its lower end and with a glass-tube attached to its upper end, is filled with a coloured liquid. The tube is introduced into the œsophagus, and if an aneurism is present it will act as a manometre, the pulsations being transmitted to the fluid in the tube.

DR. GEORGE ROSS said that the collection of cases was of very great interest, for the subject is surrounded by many difficulties, but he did not think that Dr. Molson's conclusions throw great light upon the subject. One point was not brought out very prominently, and that was the possibility of an aneurism pro-

ducing irritation in the parts in direct contact with it, as in the pleura, and so light up a left-sided pleurisy. In his (Dr. Ross) experience this occurred in most of the cases. If we meet with a case of acute inflammation of the left pleura, accompanied or followed by severe pain of an anomalous character and not like the pain of pleurisy, especially if it continues after a small quantity of fluid has been poured out, and if this occurs in a man over 40, and with a trace of syphilis, we have a collection of facts which point to some irritation, and are very significant of aneurism. He did not see that the cough is diagnostic, because it may arise from so many other causes, nor did he think that it could have any special characters, the brassy cough being associated with dilatation of other parts of the aorta. He looked upon the method of diagnosis spoken of by Dr. Lafleur as very ingenious, for by it we would get a demonstration of localized pulsation just as we do by tracheal tugging when the aneurism occurs higher up.

DR. SHEPHERD cited two cases, one which was under the care of Dr. Ross and the other under the care of the late Dr. MacDonnell, who had shown photographs of the case before the Society last year. He thought that one would have to use Schnell's method of diagnosis very frequently, for he thought that the pulsations of the normal aorta might be indicated, and it would be necessary to distinguish these from the pulsations of an aneurism. He asked Dr. Molson if there was interference with deglutition in any of the cases.

DR. LAFLEUR stated that while washing out the stomach with the stomach-tube he had never perceived any pulsations communicated to the water in the tube.

The PRESIDENT said that as bone is a good conductor of sound, and as we find these tumours, which in many instances must produce an audible sound, lying in direct contact with a bony surface, he did not see how auscultation might not be of some assistance in making a diagnosis.

DR. GEORGE ROSS said that very little is to be learned by the method spoken of by Dr. Buller, for there is not always a murmur in aneurism, it is rather the exception than otherwise. The case spoken of by Dr. Shepherd was a man who was suffering

from valvular disease of the heart, and the condition of aneurism was unsuspected. He (Dr. Ross), however, became convinced that the symptoms were not the result of aortic regurgitation. The pain was excruciating and agonizing in character, and from this fact he felt that there was some trouble in the aorta, and treated him with potass. iodid. and rest with great benefit. The man ultimately died from rupture of the aneurism. In this case he never found any evidence of localized pleurisy, but in all his other cases it was the earliest indication of the disease.

DR. MOLSON, in reply, was pleased to hear that pleurisy was so constant a symptom; it had not been mentioned in any of the cases. Pain was mentioned, but no note was made of attention being directed to pleurisy. There had been no difficulty in swallowing in the cases; in one case the man was eating his dinner when the aneurism burst into the œsophagus, but he had never any difficulty in swallowing.

Selections.

THE OBJECTS, PLANS AND NEEDS OF THE LABORATORY OF HYGIENE.*

By JOHN S. BILLINGS, M.D.

From those who have preceded me you have heard of the origin of this laboratory, and something of the wishes, hopes, and expectations of the public with regard to it, as indicated by the donor, and by representatives of the University and the States.

You see clearly that this magnificent gift imposes a heavy responsibility upon those who are charged with the duty of managing it, and of seeing that it is so used as to meet the many and various demands which may rightfully be made upon it; and, in attempting to explain to you briefly what the laboratory now is, and why it is as it is, I come before you oppressed with a keen sense of this responsibility, which is not lessened but rather increased by the fact that I feel that I am speaking to friendly critics.

For this new building, with its equipment and resources, is

* Extracts from an address delivered at the opening of the Laboratory of the University of Pennsylvania, February 22. 1892.

but an implement—a piece of mechanism—which may be used to shape products of vast importance, not only to the world as it is, but to generations not yet conceived; or which, on the other hand, may be so used as to be of little more importance to humanity than the toy tool chest or the doll's house of a child.

What this use shall be depends upon the force and skill applied to it; upon the materials submitted to it; upon the ability of those who guide it to foresee the direction in which at each moment of time it is best to move it; upon the knowledge and patience of those who are working in it; and, when all these are at their best, the results must still depend upon the decrees of Divine Providence, upon circumstances which no man can fully foresee, and which, therefore, no man can, with certainty, control to the end desired.

The position of laboratories in their relations to education, to science, to technology, and to the executive departments of governments and the welfare of the public, has become a very notable one within the last fifty years. A laboratory—or, as it was called in old times, an "elaboratory"—is, as its name indicates, a place for labor, for work—and especially for skilled labor, in the making of delicate and difficult observations and experiments; for analysis, to determine composition and causes; for synthesis, to determine the results of new combinations; for solving old problems, and for stating new ones. It is not a museum, or a store-room, or a show place, nor does this kind of a laboratory offer much for sale, except opportunity.

Only an opportunity—just a few possibilities, offered to the man who desires knowledge, who wants to see, and touch; and try for himself. Yet this offer of such an opportunity is what distinguishes it from those institutions established for the benefit of individuals.

The ideal laboratory of the alchemist or philosopher of by-gone days was a mysterious, dusky place, the operations in which were kept a profound secret, and which thus gained in repute what they could not have obtained by publicity and free criticism.

Laboratories planned and fitted for public use, offering to any one who is able and willing to pay a moderate fee, and to submit to a few simple regulations, not only opportunities for

learning the details of the processes carried on therein, but also facilities and means for making special research as he could only obtain otherwise at great expense and loss of time; such laboratories, I say, are all of comparatively recent date.

It is not yet twenty years since the first separate institution of this kind was established for hygiene—and even now there are not more than a dozen such laboratories, specially built and fitted for their purpose, in existence throughout the world. Of these, the best known is probably that of the University of Munich, under the direction of Professor Pettenkofer, while the largest is that of Berlin.

This laboratory is the first structure of its kind erected in the United States, and it therefore opens a comparatively new field of work in this country. What is the nature of this field, and what are its boundaries? The object of hygiene is to preserve and to improve health, and there are few matters affecting the physical, intellectual, emotional, and moral condition of man as an individual, or of men in communities, that may not come within the scope of its investigations. The destruction or avoidance of causes of disease is but a part of its objects—it is at least equally concerned with the means of making a man better fitted to resist these causes. "That kind of health," says Montesquieu, "which can be preserved only by a careful and constant regulation of diet is but a tedious disease." Disease, like health, is a vague term, including widely different and often very complex conditions, processes, and results, which must be observed, classified and described in such a way that different men, widely separated in space and time, may know that they are seeing the same things, and thus may have the benefit of each other's experience.

In its scientific aspects, then—those which relate to definite and precise knowledge—hygiene rests largely on physiology and pathology, the third leg of the tripod being formed by vital statistics; while, in its practical aspects, it must rest on chemistry, physics, and the data of sociology and politics.

The physician deals with sick men, and his first question is, What is the matter with this person? That is, what group of symptoms does he present, and to what derangement of his mechanism are these due? The hygienist deals with two sets of problems—the first relating to men who are not sick, and how their health and vital resistance—power are to be not only

preserved but improved and strengthened; the second relating to sick houses, feverish blocks or wards, infected localities—where the first questions to be solved are, What are the causes of this condition of things? how have they found entrance? are they still acting?

In the investigation of causes he must consider not only the immediate or exciting, but also the remote or predisposing; not only those which are preventable, but those which, with our present knowledge, are unpreventable; and thus it is that heredity, race, local meteorology, occupation, and many other circumstances must be studied by him, as well as the effects of food, clothing, habitation, poison and viruses.

The recent advances in our knowledge as to the action of certain micro-organisms in the production of disease in animals and man have been largely made by laboratory methods, and indicate clearly that the study of bacteria and microzoa, and of their development, products, and effects, must be an essential part of the work of a hygienic laboratory, which should provide the peculiar arrangements and apparatus which are required for this sort of work. In fact, several so-called hygienic laboratories are simply bacteriologic laboratories, the interest in this particular branch of investigation having, for the time being, overshadowed all others.

Our laboratory, however, must provide also the means for chemic investigations of air, water, food, sewage, secretions, and excretions, and the products of bacterial growth; for testing the effects of gases, alkaloids, and albumoses of various kinds upon the animal organism; for investigations in the domain of physics pertaining to heating, ventilation, house-drainage, clothing, soils, drainage, etc.

Just at present, research is being specially directed to certain minute animal organisms—the microzoa—such as are found in the blood in malaria and in the skin in certain diseases, and to immunity, especially to that immunity which may be artificially produced.

Experimental investigation is a slow process, and very uncertain in its results.

An experiment may be conceived which seems as if it would give important results. The experiment itself would require only a few moments or a few hours if all the apparatus were ready to produce the required conditions, and to record in

terms of weight and measure the results obtained. But to make this apparatus in the best form, and to provide the means of recording, may take a year or more, and in making this preparation a dozen problems will come up to be solved by other experiments. You are pretty sure to discover something new, but by no means sure that it will be what you began to seek. Every discovery opens new questions and indicates new experiments, and the precise shape in which the work presents itself varies with place and season.

We cannot foresee precisely the demands which will be made upon us, or which we shall make upon ourselves, but we do know that we shall want some large rooms in which a dozen or twenty men can be at one time taught how to investigate, working under the eye of an instructor; and also a number of small rooms, each fitted for the work of one or two men who have attained a certain degree of skill, and are engaged in original research. In all of these rooms we shall at times need to use microscopes, gas-heating and steam; there will be vapors and fumes produced; there will be delicate instruments scattered about, and the rooms must, therefore, be light, have abundance of gas, steam, and water, hoods and flues for conveying away fumes, and they must have plenty of fresh air without dust.

Many of the things that will be seen through the microscopes will be rapidly changing form, and we shall need pictures as well as descriptions of their different shapes.

The most useful drawings for our purposes are those made by sunlight, and therefore, we want photo-micrographic rooms.

We shall wish to test the merits of various articles of house-equipment, such as different patterns of steam radiators, of traps, of sinks, and closets, etc., and for this purpose we must have places where they can be fitted and put into use.

We must know what other investigators in other laboratories, have done and discovered, that time and effort may not be wasted. We must, therefore, have the books and journals in which these are recorded, which are already many, and coming rapidly. A small library and reading-room is therefore essential.

Much of the apparatus to be used must be either made or specially fitted and adjusted on the spot to meet special indi-

cations which it is impossible to foresee, and, therefore, we need a large workshop, with tools and appliances for working in wood, glass and metal, and with power.

The chief object of the existence of this building is to fit a certain number of men from all parts of the country to investigate and solve the problems connected with the securing of the best health and vigor among our people.

We hope, also, that some increase of knowledge will be made here by the workers in the laboratory itself; but the main point to be kept in view is to provide well-trained, scientific, and practical men for other fields of labor. Dr. Mitchell has said that the true rate of advance in medicine is not to be tested by the work of single men, but by what the country doctor is. So, also—and even more so—advance in practical sanitation is not to be measured by laboratory records, but by what health officers and sanitary engineers are able to accomplish.

Even now we *know* much more than we *do*, and the skilled sanitarian too often finds himself in the position of the unhappy daughter of Priam and Hecuba, who could foretell, but to no purpose.

This laboratory is fortunate in being closely connected with, and in the immediate vicinity of, a great medical school, and of great hospitals. As was said before, one of the essential foundations of scientific knowledge of the causes of disease is minute and accurate diagnosis and pathology, and we are, therefore, in constant need of the best knowledge of leaders in these branches of medical science. The hospital is filled with specimens of the results of such causes, acting on the human body—from one point of view, Nature's experiments with poisons cunningly elaborated in the tissues of the body, or with viruses coming from without, upon blood and bone, muscle and brain. Much of the work of this new department will be connected with the results of these experiments.

The laboratory is also fortunate in being located in a great manufacturing city, where the effects of different occupations, of trades dangerous or offensive by reason of dusts, or of vapors, or of waste products, can be readily observed and the materials for study obtained. There is an immense field for a sanitary clinic here, and in the habitations, the streets, the water supply, and the sewers of Philadelphia.

These clinics, however, cannot, as a rule, be reported for the press, either lay or medical, since to do so would, to a great extent, defeat their object; the great majority of sick houses and manufactories must be considered as strictly private patients, and their affairs held as confidential. In the case of public institutions, or of public nuisances, a somewhat different rule may apply.

Practical hygiene is to play an important part in municipal government, to secure the best form of which is now one of the most urgent questions of the day. Many of the questions to be decided by city officials as to water supplies, sewage disposal, etc., require expert knowledge to answer.

Of course, the subject of hygiene and the work of a university department devoted to the increase and diffusion of knowledge in sanitary science extends far beyond the experiments and demonstrations for which this laboratory is specially fitted.

Bacteriology, chemistry, pathology, physics, and medical and vital statistics give us the foundation, but sociology and jurisprudence must also be studied in their relations to sanitation to obtain the best results.

It is in and to the home and the workshop that these results are to be applied, and he who aspires to be his brother's keeper, must know how his brother lives.

Labor questions, education questions, maritime and interstate commerce questions, and methods of municipal finance and government, are all intimately connected with matters of personal and public hygiene, and economic consequences, as well as health, must be considered in the advice and regulations of the sanitarian.

I count it as fortunate, therefore, that there is a law school and a school of finance and political economy in this University to which the Department of Hygiene can look for advice and friendly criticism when these are needed, as they surely will be.

And now a very few words as to the needs of the laboratory. First of all it needs men—men thirsting for knowledge, and fitted by previous training and education to come here and acquire that knowledge, not merely the knowledge that exists in books or that the teachers in this laboratory may possess, but that which is yet unknown, the weight of that

which no one has yet put in the balance—the shape and size, and powers for good or evil of things the existence of which has not yet been demonstrated—men who will patiently and earnestly seek the answers to the questions, “what?” “when?” and “how?” in the hope that thus they may by-and-by obtain some light upon the more difficult problems of “whence?” and “whither?” even if they may never be able to answer “why?”

There are not many such young men whose tastes will be in the direction of these lines of research, and of these there will be very few who will have the means to support themselves while engaged in the work. We need, therefore, the means to help them in the shape of half a dozen fellowships, paying about five hundred dollars a year each, and granted only to those who give satisfactory evidence of capacity and zeal.

The second thing we want is a demand on the part of the public for really skilled, well-trained sanitary investigators and officials, such as we hope to send out from here; we want a market for our product; we want the legislators of this and other States, and of our rapidly-growing municipalities, to be educated to appreciate the importance and practical value of such health officials, and to give the best of them employment

Thirdly, the laboratory wants the co-operation and assistance of sanitary authorities and inspectors, and especially those of this city and States.

It needs to know from time to time what they are interested in and are working at, to have the opportunity of showing to its students cases of special interest—sick houses, localized epidemics, special forms of nuisance.

And, on the same principle, and for the same reasons, it desires to have its attention called to special methods of heating, ventilating, and draining buildings, and especially public buildings, such as schools, hospitals, prisons, churches and theatres, and to matters connected with the hygiene of manufacturing establishments and special occupations, methods of disposal of offensive or dangerous waste-products, of protecting workmen against dust, gases, etc.

In short, we want to know how those things are managed by the men who have a practical interest in them; and if, in

our turn, we can suggest improvements, we shall be glad to do so.

Fourth, the laboratory wants a reference library as complete as it can be made, and always up to date. Many of the books and journals required must be purchased, and for this purpose a special fund is needed, but many of the works required can only be obtained by gift.

Thus, we want all the reports of boards of health—State and municipal—of municipal engineers, waterworks and water commissioners, park commissioners, etc.

We want the catalogues and circulars of all manufacturers of heating and ventilating apparatus, of plumbers' supplies and house fixtures, of electric and gas fixtures, of machinery and apparatus connected with water supply and sewage disposal.

We want copies of plans and specifications of large buildings of all kinds.

And these things can only be obtained through the aid and good will of manufacturers, engineers, architects and sanitarians all over the country; and this aid I venture to ask, feeling sure it will be granted by those who know what is wanted.

I will mention but one more special want to-day, and that is of means for the proper publication of illustrated reports and accounts of the work done in the laboratory.

In the mean time we must be patient, and not too eager to touch the fruit of the blossom that is not yet blown.

In the chambers of this laboratory are to be explored and tested some of the strangest and subtlest of the manifestations of force which surround and are within us.

Here we are to deal with problems of life and death, to seek to unravel some of the webs which bind and choke our children, and which make our strong men helpless, that we may for a time, at least, put the trammels aside or sever them.

I dare not attempt to promise or to prophesy as to the work which will be done here, or as to the future of this new department of the University.

Those who are to be connected with it may not do the best that can be done, but at least they must do the best they can, and, if needful, give place to others who can do better.

Those to whom we owe this laboratory and its equipment

and endowment, have been generous and wise in their generosity, which has been in accord with the teaching of the son of Sirach, "Having grace in the sight of every man living, and detained not for the dead."

Death comes by many paths to one or other of the three porches of the microcosm through which he enters, and brings his poppy flowers to all doors soon or late; but if we knew that which we might know, and did that which we might do, he would be preceded by fewer heralds of suffering, and would arrive only when we were ready to be "hushed in the infinite dusk."

If "ye shall know the truth, the truth shall set you free"—not free from change, or from grief, or from the final passage beyond the veil, but free from causeless fears, from unnecessary pain, from useless labor; and this is a part of that wisdom "which passeth and goeth through all things," and is "the brightness of the everlasting light, the unspotted mirror of the power of God."—*Boston Medical and Surgical Journal*.

The Pathology of Genius.—Huxley defines genius as innate capacity of any kind above the average mental level. Accepting the definition that genius is an inborn tendency to do certain things better than most men, it may be called something abnormal, but to treat it as something pathological is neither new nor true. Nevertheless there will always be people willing to believe that men favoured by Nature with great mental powers have some compensating deficiencies. Genius is perhaps not so uncommon as some assume, but there is a great reluctance to recognise it. There have been men of genius who never gained distinction owing to adverse circumstances. There is always a goodly number of men who step beyond the line in physical and mental endowments, and this superiority is evidently inborn. So far is this from being a proof of any morbid condition, that perfection of function is the highest result of happy heredity and healthy nutrition. Mr. Nisbet, who a short time ago wrote a book on the insanity of genius, does not venture to espouse the statement of Moreau that genius is a neurosis, but he holds that great mental gifts are not obtained as a rule without some disturbance of the brain and nervous system. In favour of this view he quotes, curiously enough, an opinion expressed by Professor Huxley to the effect that a genius among men stands in the same position as a "sport" among animals or plants. He thinks it probable that "a large proportion of 'genius sports' are likely to come to grief physically and socially, and

that the intensity of feeling which is one of the conditions of genius is especially liable to run into the fixed ideas which are at the bottom of so much insanity." Mr. Nisbet is able to enumerate a rather long list of celebrated persons who suffered from diseases more or less remotely connected with the nervous system, but whether in a given number of men of genius more nervous disease would be found in them and in their families than in the same number of ordinary men living under similar circumstances is an inquiry which 't would be very difficult to make. Mr. Nisbet makes the most of the fact that toward the close of his life Julius Cæsar had occasional epileptic fits; nevertheless, Julius Cæsar was a man of astonishing strength both bodily and mental, but the strain to which he subjected his constitution from his ceaseless toils and his sensual excesses seemed sufficient to wear out any human organism. On looking over Mr. Nisbet's list of neurotic great men we miss a large number against whom nothing can be said. He claims Alexander the Great as a neuropathic genius, on the ground that he had an affection of the muscles of the neck, which compelled him to hold his head on one side; and that a brother of his was an idiot. This must be Aridæus, son of Philip by a concubine, who is described as of feeble intelligence, but certainly not an idiot. Plutarch merely says that Alexander had a slight droop of the head, and that the weakness of Aridæus was not congenital, but Olympias destroyed his intellect with her drugs. Besides these two, no other of the great generals of antiquity are claimed as neuropaths. Mr. Nisbet seems satisfied if he can assign any defect or disease against a man of genius, or even against his ancestors. For example, he thinks it worth while to tell us that Southey's father was "passionately fond of field sports," and then observes: "Extraordinary physical energy is often found in connection with nerve disorder, the result of an excessive stimulation of the motor centres of the brain." We are told that Cromwell died of ague at 59, a "malady the exciting causes of which are still unknown, but which is obviously of a nervous character." Then Marlborough was subject to headaches and giddiness; and Turenne had a weak constitution in boyhood, stuttered, and was subject to a convulsive movement of the shoulders. We hear nothing of Condé or other great French generals save Napoleon, as to whom we have the story of his being an epileptic. We are told that Wellington was also an epileptic. Certainly Marlborough, Napoleon, and Wellington were all men of very strong constitutions. All writers who have taken up this view about the unhealthy character of genius soon take us away to poets and painters, who are mostly men of extreme sensibility, and often leading strange and unconventional lives. There have been, no doubt, too many sickly poets who have gained

notoriety by gratifying a morbid taste for unwholesome reading, but Tasso seems the only great poet who ever was insane. Mr. Nisbet tells us he was confined for a time on account of homicidal mania. There is, indeed, a story of Tasso's drawing a knife on a man, but we do not know the provocation; and this is the only record of his trying to injure anyone. The character of his insanity was certainly not homicidal mania. To those who are willing to believe that the poet has a touch of insanity about him, Shakespeare is a great difficulty which Mr. Nisbet evidently prides himself in having done something to remove. He tells us that Masson has discovered that he (Shakespeare) "was, in his solitary hours, an abject and melancholy man." Three of the poet's sisters died in childhood, one brother in early manhood, and two others in what ought to be the prime of life. Mr. Nisbet informs us that the retirement of the great dramatist to Stratford-on-Avon when he was 48 was not owing to his having made a fortune, but owing to his health having broken down, and he assumes, without any adequate proof, that his last illness looks like successive shocks of nervous disorder. Mr. Nisbet gives us the choice between a paralytic or an epileptic seizure or paralysis agitans. As for his children, they either died in infancy or they were stupid. Judith must have been either capricious in her rejection of offers of marriage, or very unattractive, for she was 32 years of age before she secured her husband, Thomas Quincy, a vintner, not of good family nor particularly well-to-do. As for Susannah, who married Dr. Hall in her 25th year, she was a stupid woman who sold her husband's medical manuscripts without reading them. The statement that she was "witty above her sex" Mr. Nisbet regards as conventional "tombstone flattery." Suppressing the continuation of the epitaph. "More than all, wise to salvation was good Mrs. Hall," he observes: "Unfortunately, this is all that can be told to her credit." On the other side of the account, our author lets us know that Mrs. Hall was troubled in childhood with scurvy, and had a daughter who had *tortura oris*, inflammation of the eyes, and ague. So that we are bidden to insist no more about the healthy character of the genius of Shakespeare. The observation that the families of men of genius have a tendency to die out could be better considered under the broader statement that aristocracies and families living in luxurious social conditions do not habitually keep up their numbers. Mr. Nisbet's book is written for the general reader, but his subject will always have a great interest for medical men, who, however, will be cautious in letting their assent wander far beyond the evidence adduced. Perhaps if the author had been more careful in sifting his statements, and had presented his conclusions in less startling terms, his work would have had less attraction for the public.—*British Medical Journal*.

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THE THERAPEUTICS OF ICHTHYOL.

A number of pamphlets received will serve as a text for one or two observations upon Ichthyol. The German experience is given on the authority of Dr. Edgar Kurz, Dr. Kleim, Dr. Muller, and Dr. Hartman; the French by Dr. Stocquart. In English, Dr. Cranstoun Charles relates his trials in the *Lancet*, 26th September, 1891, and in addition Mercks' *Bulletin* devotes a portion of a recent number to this drug. Ichthyol is obtained by distillation of a bituminous quartz, found in the Tyrol, containing fossil fish remains. The only substance so prepared, yields on rectification a colorless green fluorescent body containing about $2\frac{1}{2}$ per cent of sulphur, which when treated with concentrated sulphuric acid yields in turn a new product containing 18 per cent of this element. Combinations with one or other of the caustic alkalies can readily be formed. The ammonium salt is the more common of these and goes by the name of "ichthyol." It is a thick, fatty-looking fluid, with a colour varying from a dark yellow to a brownish black, and possessing a marked bituminous smell and taste. With oils and vaseline it is readily miscible, and is slightly soluble in ether, water and alcohol, but easily soluble in chloroform or in a mixture of ether and alcohol. Ointments can be made with ichthyol and lanoline, zinc ointment and glycerine, varying in strength from 5 to 50 per cent. The ammonium and lithium salts may be given internally in pills containing a grain and a half of the salt or in capsules containing 38 grains; also in the form of an alcoholic ethereal solution containing from 10 to 30 per cent of ichthyol, and an ichthyol soap can often be used with great

advantage. Ichthyol may be given internally up to 15 grains daily without producing any bad effects, and experiments on animals have proved its use to be quite harmless, daily doses of 300 grains only producing diarrhoea. Being very oxidisable. Ichthyol draws oxygen away from the tissues, so that it is a reducing agent; and at the same time it produces an invigorating and antiseptic influence throughout the body and an astringent effect on the vessels, so that it can be used with advantage in many diseases in which there is a dilatation of the capillaries. Details are given of its successful employment in cases of burns, scalds, erythemata, herpes zoster, eczema, acne, syccosis menti, psoriasis, pityriasis capitis, prurigo senilis, boils and carbuncles, erysipelas, rheumatism, gout, neuralgias, contusions and catarrhs. The effects that ichthyol has produced in the hands of these men is such as to warrant a trial. For a good many months it has been employed here, and in one case an erythematous condition with a continuous history of forty years yielded to its use.

PATENT MEDICINES AND THE LAY PRESS.

At the annual meeting in Ottawa, March 3rd and 4th, of the Canadian Press Association, Dr. Playter brought up the subject of patent medicines and cure-all advertisements. Why, the doctor said, should the general press insert such advertisements any more than the medical press? Patent medicines did an incalculable amount of harm. They promoted intemperance and disease, mislead the people in many instances until it was too late, disease having progressed too far for medical skill to apply successful remedies. The most excruciating pain of all pains, to most readers of papers, was "Paine's Celery Compound." The press was a powerful educator, a great power for good or for ill. The time would surely come when the general press would not advertise such humbugs. Dr. Playter asked for a committee to be appointed by the president to report on the subject at the next meeting of the Association. The president referred the question to the executive committee, and said the Association would be pleased to have a paper on the subject for next year's meeting from Dr. Playter. The doctor intends to prepare a paper and to urge upon the Association the desirability of more discrimination in regard to advertisements.