The Canada Lancet

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EDITORIAL.

THE ONTARIO MEDICAL COUNCIL.

This body has been attacked for months by us, and so far there has not been one word of defence. The session this year cost in per diem $2,920 for 28 members in attendance. The total cost for the July sessions of 1907, 1908 and 1909 amounted to $10,730 for an average attendance of members for these three years of 28. At the same cost as this year for 28 members these three sessions would have cost only $8,760. In this way it will be seen that $2,000 of the funds of the College of Physicians and Surgeons have been taken for per diem that we believe to have been an improper charge. The session this year was of the same duration, and required the same time in travelling to and fro. Every dollar of this, we contend, should be paid back, as the per diem allowance was the same.

Then, again, we pointed out that $580 had been improperly paid out for attendance on committees held on at the time of council meetings. We gave the committees, their dates, and those who attended. This money, we contend, should be refunded.

Further, we showed that members of the council had taken $1,591 too much in mileage. There is no justification whatever for 5 cents a mile each when the members receive $20 while travelling as well as when at the session. This should be paid back.

These three sums make up a grand total of $4,171, that we think can not be defended on any grounds. In addition to these sums we think there has been a waste of money on committees that were not at all required. For example, just think of $230 paid out for two meetings of a special committee to report on some system of filing and keeping documents. Any manager of a business who expended money in this manner would soon receive his notice to quit.

There has been also a great waste of money on examinations. In the matter of mileage alone, we think that $1,468 have been thrown away.

We here give some very interesting correspondence, which is well worth careful perusal.

Dr. J. Lane, President, Ontario Medical Council, Mallorytown.

DEAR SIR,—I am writing you to ask you what action you propose taking with regard to the overpayments made to members of the medical

council for per diem, for mileage, and for attendance on committees, the extra time voted by the medical council, the five cents a mile each way, and payments to committees while the council was in session are illegal.

I am, yours truly,

JOHN FERGUSON.

Mallorytown, Aug. 18th, 1910.

John Ferguson, Esq., M.D.

MY DEAR SIR,—Your letter of the 13th to hand, and in reply would say that any action in any matter, would have to come before the council either at its annual session or at a special session called for the purpose. I have no doubt if there is anything wrong the council will give it due consideration at its next session. The council have always avoided calling a special session unless they consider it very essential.

I am, fraternally yours,

J. W. LANE.

Dr. J. L. Bray, Registrar College Physicians and Surgeons, Toronto.

DEAR SIR,—Please send me a copy of the announcement for this year. The elections are coming on soon, and I wish to lay before the readers of THE CANADA LANCET such information as may help to guide them in the choice of their representatives. I am, sir, yours truly,

JOHN FERGUSON.

No reply at the moment of going to press.

It will be seen that nothing will be done in the matter of these wrongful expenditures until a new council is chosen and a meeting held. The letter of Dr. Lane, the President, makes this quite clear.

The nomination papers must be in by 14th November. The members of the profession should have their minds made up long before that date as to the advisability or returning the present member, or electing some one else. But the announcement has not yet appeared. The council adjourned on 9th July, and over two months have gone by and no announcement as yet. The medical professions are thus kept in the dark as to what has been done, as the announcement of this year is to contain the expenditures of the past four years. The medical profession is thus deprived of the means of coming to proper conclusions before the time of handing in nomination papers.

We have some experience in printing and feel free to state that the announcement could have been got out in two or three weeks. There is no need for this delay. On the present occasion, when an election is coming on, and the council is under severe attack for mismanagement of the affairs of the profession, the long delay is absolutely inexcusable, and

the council and its officers should be held to strict account for this delay. In the words of the King in Henry IV., we close for the present—

> Worcester get thee gone; for I do see
> Danger and disobedience in thine eye:
> O, sir, your presence is too bold and peremptory,
> And majesty might never yet endure
> The moody frontier of a servant brow.
> You have good leave to leave us: when we need
> Your use and Counsel, we shall send for thee.

MEDICAL INSPECTION OF SCHOOLS.

The time has gone for the argument of this question, and the time has come for acting upon the knowledge we have. It is quite apparent that the medical inspection of schools cannot be introduced in rural districts, nor is there much need that such should be done. It is quite true on the other hand that in all the larger centres of population there ought to be medical inspection of schools.

In Germany, Britain, the United States, and France, where medical inspection of schools has been put in operation, it has been shown that very many children are attending school with physical defects or diseases that should be under the care of a physician, surgeon, or dentist. The percentage of children so suffering has proven to be alarmingly large in many of the cities. These cases can be followed up and much done to make men and women out of those that, if neglected, would become cripples for life or drift into ill health and go to an early grave. The people of a country are its most valuable asset.

According to the value put on life by the students of this subject in Britain, and adopted by the American committee of one hundred, each person on an average is worth a little more than $1,700. In Canada, with a population of about 7,500,000, this would give a national wealth in human life of the very large sum of twelve billions seven hundred and fifty millions of dollars. It is when human life is thrown into the form of figures that one grasps how very important it is.

But much loss of time and suffering would be avoided by medical inspection. This is a source at present of an enormous amount of waste. In this way medical inspection of schools is a means of vastly conserving the resources of any community. We talk a great deal about race suicide but we go to sleep over the subject of conserving the life and health of those that are born. We cry out for immigration to this country and hope to see it become a populous country, but we give but little attention

to the keeping alive and in good health those that are born in the country.

All the large cities of Canada should arrange for such medical inspection of the schools as will ensure the best physical conditions possible. Thus Halifax, St. Johns, Quebec, Montreal, Ottawa, Kingston, Toronto, Hamilton, London, Winnipeg, Victoria and Vancouver are all large enough to move with approved methods.

Toronto has at last acted and appointed Dr. Helen MacMurchy for the girls and Dr. Wilmot Graham for the boys.

COST OF TYPHOID FEVER TO TORONTO.

Dr. Sheard gives out the statement of the deaths that have occurred in Toronto during each of the past ten years. The total to the end of June of this year is 548. This number of deaths, at the value for each life that has been adopted as a standard in Britain and the United States of $1,700, for each life, gives the grand sum of $931,600.

Allowing that the death-rate was an average one of 7 to 8 per cent. during these ten years, the total number ill would thus have been 7,300. It has been estimated that each case of typhoid fever cost in loss of time, medical attendance, medicines, and nursing, etc., at least $200. This would give a cost for sickness of $1,460,000. These two sums would come to $2,391,600, as the cost of typhoid fever to Toronto during the past ten years. This would go a long way towards a perfect filtration plant, trunk sewer and septic tanks, etc.

But it has been also well made out that for every case of typhoid fever there are three cases of some sort of illness due to the bad water that causes typhoid fever. This must be added to the large figures already given. How much this might amount to it is impossible to state definitely, but the estimate is made that each of these three persons would be ill one week. For the 7,300 cases of typhoid fever there would be 21,900 persons one week in addition. This would mean a monetary loss well up to that caused by the typhoid fever itself.

We hope the day is near at hand when preventive medicine will come into her own. Tariffs are all well and good. So are war vessels. So, too, the raising of good stock. But, greater than all, there is the health of the people.

THE ORILLIA APPOINTMENT AGAIN.

In our previous issue we took exception to the appointment of Mr. J. P. Downey to the superintendency of the Orillia Asylum for the

Feeble-minded. We believe that this principle is bad from every standpoint.

Mr. Downey as a layman can only be supposed to understand the business side of the institution. For this aspect of the institution's working, some one should have been appointed with another title than that of superintendent.

In the future of the Orillia Asylum the medical man or men must work under a lay officer. This we hold is not the best method to secure the best results for the unfortunate inmates of the institution. We feel very strongly that this is a thoroughly retrograde movement, and one that should be resisted by the medical profession.

We do not take this position on the ground that it is offering any slight to the medical profession, nor on the ground that it is giving a position to a layman that should go to a medical man, but solely on the ground that it is wrong in the interests of the institution, and by this we mean those who must be cared for in this and similar institutions.

We have time and again protested against the appointment to the head of asylums medical men who had little else to recommend them than bygone political services. We have always taken the position that the management of our asylums should be a great branch of a well organized and permanent civil service; and that the principle of promotion should hold sway. Until we secure this we cannot hope for the best results in the care of the insane. It is not a good method where everything that has to be done for the treatment of the insane or feeble-minded must be reasoned out with a layman.

DOMINION REGISTRATION.

In season and out of season we have urged the claims of this question. We are not at all discouraged. Progress is being made. Gradually those who oppose Dominion registration are lessening in numbers and in the keenness of their opposition. On the other hand those in its support are increasing in numbers and influence.

We cannot see any valid objection. There would be one common standard, and that no doubt a high one. This would secure for the country in all parts a capable body of medical practitioners. To this no medical man nor province should object, as it is the aim and boast of all that it should be so.

It would open up each province equally to medical practitioners. This has given rise to the fear that some favored parts of the Dominion would have too many practitioners. There is no good foundation for

this. There is no test in force in any province that would keep down the numbers below what ordinary competition or the chances of succeeding in it would do. If a young man now wishes to practise in British Columbia he will soon qualify.

Then the fear that the change might affect some of the medical colleges has been answered effectively. There should be no medical colleges in this country that are not of the best. They should be all able and willing to teach up to any standard such as might be laid down by the Dominion Medical Council. One would think that the medical colleges would be urged for Dominion registration as a means of opening up the whole country to their students and making these colleges national instead of provincial as they are now to a very large extent.

Then the fear that some provincial right would be lost is quite out of date. The provincial medical councils might remain and grant qualifications to such as wished to practise only in any given province. If any doctor wished a small parish no one should object.

We have much pleasure in giving the following resolution adopted at the August meeting of the Alberta Medical Association. Here it is: "Your committee on legislation beg leave to recommend that in the opinion of this Association it would be in the best interests of the medical profession, not only of this province, but of the whole Dominion, that Dominion registration be brought about as soon as possible by the adoption of the Canada Medical Act, 1910." This was carried.

Other provinces should fall in line. We would like to see the concurrence of British Columbia and Quebec. In Quebec the course is now a five-year one. This removes any real difficulty in the way so far as that province is concerned. The standard in it so far as time is concerned is as high as in any other province. The colleges should therefore accept the principle of Dominion registration. Just think of how this would read, "A National Medical Profession."

THE INSANE AT LARGE.

What may pass through the mind of an insane person no man can say. Any one who is the victim of adelusion or has been committed for an insane criminal act should be guarded with the utmost care. It is needless to state that this is necessary for two reasons: The safety of the person who is insane and the safety of others.

Recently there was a sad tragedy in Toronto. A man of 61 years had been committed to the asylum for a criminal offence against a boy. He appeared mild and gentle of disposition to the asylum authorities and

was permitted to walk about the asylum grounds. It appears that he was in the habit of going home on some occasions, and also calling at his daughter's home. His wife was afraid of him and dreaded these visits.

On one occasion he left the asylum grounds and visited his daughter's home. He appeared to be a good deal excited. He left his daughter's house and visited his own home, where he found his wife in and engaged at her usual household duties. He shot her twice through the head. Immediately afterwards he shot himself twice through the head. The first shot did not cause him to fall, and he fired again into his own head. The murdered wife bore an excellent character by all who knew her.

The Coroner's Jury which heard the evidence in this case, after the usual verdict as to the cause of death in these two cases, added the following clauses:

"The jury consider that sufficient care was not exercised by the asylum authorities to prevent the aforesaid Gustave Merkt from leaving the grounds, and censures the management for permitting a criminal insane patient to run at large.

"The jury strongly recommend that proper provision be made in connection with the new Central Prison at Guelph, now in course of erection, for the safe custody of the criminal insane."

We very heartily concur in the views of the jury. It is impossible to be too careful. Some of the most terrible tragedies have been committed by the insane who appeared to be mild and with very little of the dangerous propensities in them. But under this apparent mildness there often lurks a very dangerous unseen current. The language of Macbeth,

> Canst thou not minister to a mind diseased,
> Pluck from the memory a rooted sorrow?

is still true. There is often for these people a rooted sorrow such as haunted the mind of Macbeth when he exclaimed:

> Art thou not, fatal vision, sensible
> To feeling as to sight? Or art thou but
> A dagger of the mind, a false creation
> Proceeding from the heat-oppressed brain.

What false creations may arise in the brains of the insane no one can determine. Therefore, if it behooves those charged with the custody of the insane to be careful.

THE MEDICAL COLLEGES OF CANADA.

In the report of the Carnegie Foundation on the Medical Schools of Canada there are some rather caustic remarks on some of them. From the report we take the following:—

"In the matter of medical schools, Canada reproduces the United States on a greatly reduced scale. Western University (London) is as bad as anything to be found on this side the line; Laval and Halifax Medical Colleges are feeble; Winnipeg and Kingston represent a distinct effort toward higher ideals; McGill and Toronto are excellent. The eight schools of the Dominion thus belong to three different types, the best adding a fifth year to their advantages of superior equipment and instruction.

"At this moment the needs of the Dominion could be met by the four better English schools and the Laval department at Quebec. Toronto has practically reached the limits of efficiency in point of size; McGill and Manitoba are capable of considerable expansion. The future of Kingston is at least doubtful. It could certainly maintain a two-year school; for the Kingston General Hospital would afford pathological and clinical material amply sufficient up to that point. But the clinical years require much more than the town now supplies."

The report speaks in very unfavorable terms of the clinical advantages in Kingston, London, and Halifax. The medical department of Laval University in Montreal is condemned on account of its inadequate laboratory equipment. There were reported to be 217 students and only 8 of a teaching staff. The college is maintained out of the fees paid by the students, most of which is divided among the teachers. The Medical College in Halifax comes in for some very severe remarks. Here they are:—

"It has been stated above that except during part of the first two years Dalhousie University has no teaching responsibility for or connection with Halifax Medical College. On the other hand, students of Halifax Medical College are examined by the Medical Faculty of Dalhousie University and obtain the Dalhousie medical degree. The question may be fairly asked: What is the value of the Dalhousie degree in medicine, won by students whose opportunities have been provided by Halifax Medical College? The connection is, from the standpoint of Dalhousie University, highly objectionable."

What should be done? The answer is easy in theory, but not so easy in practice. The medical colleges that have not sufficient laboratory and clinical facilities must lose no time in securing better opportunities for teaching. The weak point in Kingston is the lack of clinical material. This means a larger hospital, run under such conditions as will secure

patients from the city and surrounding districts and towns. This only requires money; and if the medical college is worth having in Kingston, it is worth while to expend the needed money for more clinical facilities. This must come, and the sooner those interested in the college go to work on this question the better. There is no need to take a pessimistic view of the situation.

The Medical College in Halifax comes in for hard words. The remarks about the laboratory and dissecting rooms are very severe. The clinical opportunities are not so severely condemned. The students have access to the Victoria General Hospital with its 200 beds. The opportunities for practical obstetrics are "barely sufficient."

Here again we would remark that a Medical College in Halifax for the Maritime Provinces is quite necessary. But medical colleges require money for the erection and proper equipment. There is plenty of money in and around Halifax. The Government of the province should lose no time in coming forward with substantial aid to the university. In this way chemistry, biology and physics could be well taught for which the medical students could be charged a reasonable fee. Then the university and rich people should go to work and raise money to provide adequate laboratories and a good dissecting room and other needed lecture rooms. The intelligent citizens of Halifax should surely see at a glance that it is of much importance both to the city and the university to have an efficient medical college in their city. Let them get together and devise ways and means of raising the money. Now is the time. We do not doubt but that in one year there should be the funds on hand for a splendid new medical college in Halifax. Just think what this would mean to the University of Dalhousie?

The criticisms on the medical college in London are very harsh. The laboratory opportunities are condemned in very strong terms. The clinical facilities are entirely inadequate. "They are confined almost wholly to a small number of beds in the municipal hospital."

For London the remedy is right at hand. There are citizens in London who could give a present of a good medical college and never feel the gift. There are over 100 students. These will spend in London in fees, board and other ways easily $300 a year. This means to the city $30,000 a year that the college means now for the city. With a little energy this could easily be doubled. It is the duty of the people of London to do this for their university and their city.

The Laval Medical College in Montreal needs a shaking up. The rich French citizens should see that this is done. Just imagine, if one can imagine such a thing, as 217 students being taught by a staff of 8! How in the name of common sense 8 men can cover the ground of a

modern medical curriculum we leave to those with more rubber in their imagination than we claim to possess. It is a positive cruelty to the students to attempt to teach modern medicine in this way. The whole business should be regulated without delay either by the University of Laval or the Provincial Government. The French people are entitled to an educated body of doctors and they cannot hope for such in this way. Awake Laval Medical College for you have a great opportunity.

MEDICAL CLASS REUNION.

A unique gathering was the second reunion of the 1892 class in medicine of the University of Toronto held in the Toronto Club. Those present were:—Dr. H. A. Bruce, President, in the chair; Drs. A. H. Wright and F. W. Fenton, Toronto, guests; R. F. Forrest, Port Hope; Geo. Bowles, D. A. Clark, Toronto; J. A. Heaslip, Owen Sound; J. C. Smith, Grimsby; E. G. Smith, India; J. N. E. Brown, General Hospital; H. J. Way, Chicago; T. H. Middleboro, Owen Sound; J. A. C. Evans, Barrie; R. H. Green, Embro, and Wm. Crawford, Hamilton.

The next reunion will be held in 1912, and the 1892 class of Trinity will join in that event.

Dr. A. H. Wright, Toronto, was elected Honorary President; Dr. H. J. Way, Chicago, President; Dr. F. W. Fenton, Toronto, Vice-President, and these, with all the members of the classes of 1892 of the University of Toronto and of Trinity College of the same year who reside in Toronto, will form the Executive Committee.

The gathering was a most enjoyable one, and many amusing stories were told of the student days of those present.

MEDICAL COUNCIL ELECTION.

The nomination papers for members of the Medical Council of Ontario must be in the hands of the Returning Officer for each division by Monday, November 14th, at two p.m., and the voting papers by Monday, December 5th, 1910, at the same hour.

By order,

J. LANE, President.

J. L. BRAY, Registrar.

ORIGINAL CONTRIBUTIONS.

COMPLICATIONS OF RECURRENT CARCINOMA OF THE BREAST.*

By J. M. ELDER, M.D., C.M., Montreal.

I OFFER no apology for a paper upon such a well-worn theme, because any new light upon a subject of such general interest to all practitioners of medicine will, I take it, be most welcome.

I shall make no pretense, either, to enumerate *all* the complications of recurrent carcinoma of the mammary gland, but would ask your attention to those which recent cases in my hospital beds have forced upon my notice, and which, though fairly frequent, have not, perhaps, received the attention their importance merits.

I. Bone Metastases.

Osler, in 1902, published a very instructive monograph on this subject. Many other writers, both before and since, have drawn attention to this complication of mammary cancer. Wharton in the *Annals of Surgery*, July, 1907, and Hawley in the same journal for May, 1910, both give fairly good resumes of the subject, and report cases. Hawley makes the statement that spontaneous fracture is a rare occurrence in the long bones in skeletal carcinomatosis! Most observers will differ from him there.

Bones Involved.—Vertebræ, femur, ribs and sternum, humerus, cranial bones, in the order named, are generally accepted, and I now report one in the tibia.

Time of appearance.—Usually after Volkmann's triennial limit. It is more apt to follow unsuccessful attempts to operate upon a recurrence. Not seldom the spontaneous fracture may be the first symptom of a metastasis, and the local breast recurrence only develops later on.

What is the method of involvement? By metastasis through the blood stream—a sort of cancer-like embolus—or by direct extension through the lymphatics? Authorities differ much about this. One can easily see how the ribs and sternum might be directly infected, and there may well be much truth in the contention that because the breast lymphatics run directly into the second and fourth intercostal spaces, and thence deliver their lymph into the venæ azygos at the spine, that this explains the frequency of attack upon the spinal vertebræ. But this does not explain the frequency with which the femur is attacked, nor does it explain why the metastasis begins in the bone marrow and extends out

* Read at the Toronto Meeting of the Canadian Medical Association, June 3rd, 1910.

through the canaliculi to the cancellous tissue, so weakening it as to cause fracture (Fig. I). We are forced, I think, to concede the blood current as an agent in this distribution of the infection.

Symptoms.—Often are slight, or absent, until fracture occurs, other from trifling traumatism, or spontaneously. Occasionally is a dull, periosteal pain at site of bone metastasis. Is always suspicious in these cases and was the reason for our taking the skiagram of tibia (Fig. II).

These spontaneous fractures are generally remarkably free from pain upon manipulation, and give a soft crepitus. If in the spine, one often gets symptoms of pressure upon the cord. I had such a case who, upon

Fig. 1.

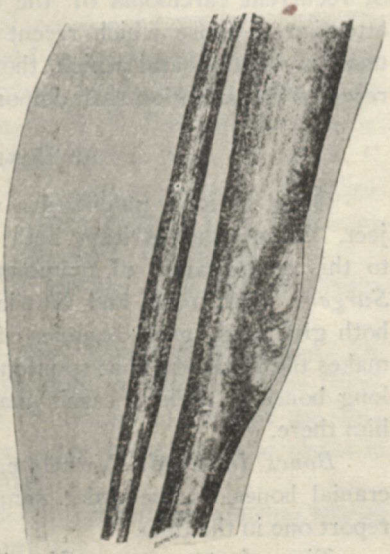

Fig. 2.

Fig. 1.—Spontaneous Fracture of Humerus, showing fair attempt at union.
Fig. 2.—Metastasis in tibia in case of recurrent carcinoma of the breast.

attempting to sit up in bed, became as suddenly paraplegic as any ordinary case of broken back (which it really was), but suffered no pain. The post mortem showed great erosion, with fracture-dislocation of the dorsal vertebræ. The bodies were infiltrated with cancer cells, secondary to inoperable cancer of the breast. Of course, spinal symptoms do not always mean vertebral involvement, the recurrence may be a neoplasm in the canal itself, pressing upon the cord.

I am inclined to think that bone metastases are more common than statistics show, because I find that at autopsies they are not systematically looked for; and further, the very class of cases in which we know they most frequently occur,—the late and hopeless recurrences—do not come

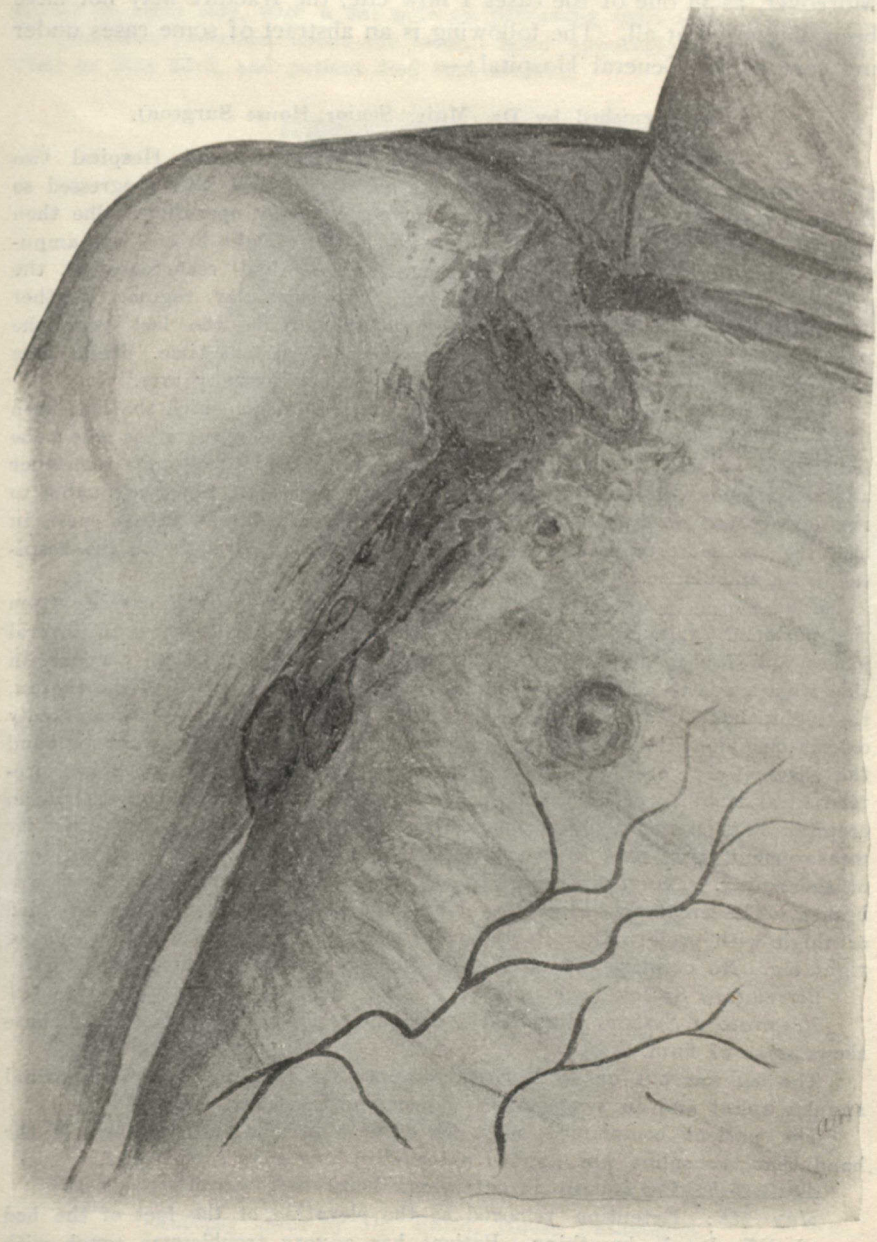

Fig. 4.—Recurrence of Carcinoma after removal of breast.

back to hospital at all, but die at home where no autopsy can be had. Moreover, as in one of the cases I now cite, the fracture may not have been diagnosed at all. The following is an abstract of some cases under my care at the General Hospital:—

(Notes furnished by Dr. Muir, Senior House Surgeon).

J. L., aged 41, single, applied at the Montreal General Hospital two years ago for operation on right breast, but the disease had progressed so far that the attending surgeon refused to perform any operation. She then applied to another hospital and in June, 1908, the right breast was amputated. Within eight months of the operation she had recurrence of the growth in operation wound, axilla and infra-clavicular region. Further operation was refused at any of the hospitals, and for the last year the patient has been confined to her room practically all the time. Right arm has been very much swollen and painful—a typical "brawny arm."

On April 10th, 1910, patient got up from a sofa, on which she had been lying, to walk across the room. She had taken two or three steps when she fell. Does not think she tripped over anything and does not remember any sensation as of something giving way in her leg. She was unable to rise on account of loss of function of right leg and suffered intense pain in that leg and more pain than usual in her right arm. Brought to the hospital in an ambulance.

Condition on Admission: A bluish-red fungating growth extends from the posterior axillary line anteriorly to the clavicle; ulcerated in several places and foul-smelling, (Fig. IV). Numerous hard nodules varying in side from a pea to a filbert are found over the right upper half of the thorax, the right shoulder and in the neck. The right arm and hand are markedly œdematous, the skin being very tense and shiny and the patient cannot bend the elbow, wrist, or fingers. On attempting to bend the elbow marked preternatural mobility of the humerus about its middle was discovered, but no crepitus was elicited and movement caused but little additional pain. By measurement there was, as nearly as could be made out, about half an inch of shortening. The patient herself was quite unaware that the arm was broken. The right foot slighly everted. Marked deformity in upper third of thigh with preternatural mobility. Two and a half inches shortening of right leg. No crepitus obtained until the leg was strongly extended.

Circulatory System negative.

Respiratory System, diminished expansion on right side. Right base shows signs of fluid.

The leg was put up in McEwen's splint; the arm put up with internal angular splint and an x-ray taken of arm and leg. (Fig. III).

The patient complained so much of pain in arm and heaviness of the hand that the splint was applied externally; this gave some relief.

April 29th: Leg put up in extension.

May 4th: Extention removed as the elevating of the foot of the bed caused difficulty in breathing. Patient has a very troublesome cough with considerable expectoration. Has had several attacks of severe dyspnœa lasting about 15 minutes and causing marked cyanosis. Necessary to employ amyl nitrite several times; morphia in ¼ grain doses p.r.n.

May 20th: Extreme difficulty in breathing and complaints of pain in left side of thorax. Examination of chest reveals total absence of breath sounds on right side, with a flat note on percussion from apex to base.

Condition remained about the same. Mind appeared to wander somewhat on May 23rd, and patient died that evening.

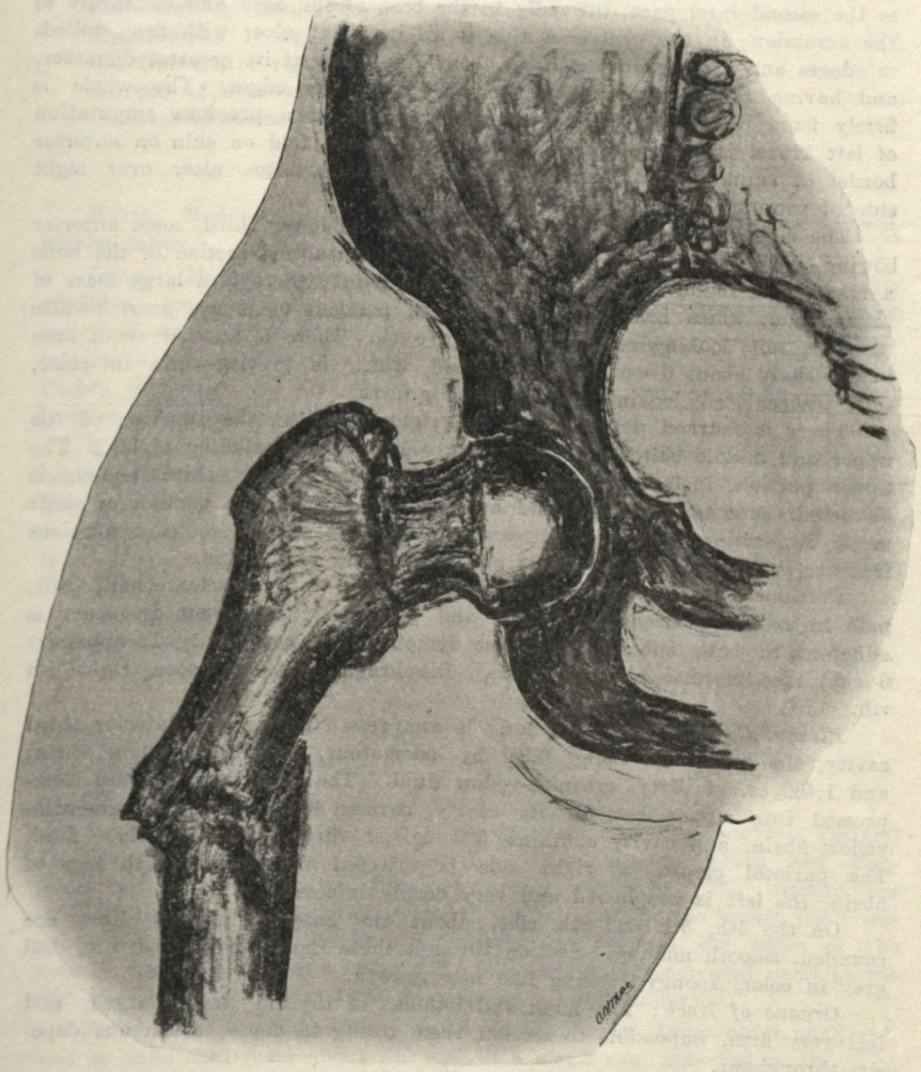

Fig. 3.—Spontaneous Fracture of Right Femur, fair union with malposition.

(Autopsy notes by Dr. Baird, House Pathologist.)

Body that of a poorly developed and nourished adult white female. Rigor mortis absent; lividity of dependent parts; pupils 7 mm., equal. There is very marked œdema of right arm and hand, also of dorsum of left

hand. In skin over 3rd right rib about nipple line is a nodule 2.5 cm. in diameter, with raised, rolled-edges and a small ulcerated centre, very firm, and on section extending to the fascia over the rib, having smooth, dull white surface. There is a firm flattened mass over the right supra-clavicular triangle, extending behind over the border of the trapezius, in front to the second interspace, inwardly to the base of the neck and outwardly to the acromion; in the centre of this is an irregular ulcer with firm, rolled-in edeges and a dirty uneven base, about 7 x 4 cm. at its greatest diameter, and having radial furrows running out from the edges. The whole is firmly fixed to underlying structures. The scar of a previous amputation of left breast is present, and there is a thickened fold on skin on anterior border of right axilla. There is a small recent decubitus ulcer over right side of sacrum.

The right humerus shows deformity about its lower third, some anterior bowing, with enlargement of the shaft. On longitudinal section of the bone a fracture is found to have existed at this point; there is a large mass of tissue about which has formed fair union, portions of it are greyish-white in color, soft, looking rather like new growth. There is another small area in the shaft about 6 cm. below the head, which is greyish-white in color, soft, trabeculated, looking also like new growth.

There is marked deformity of the right femur at the junction of the upper and middle thirds with about three inches of shortening of leg.. The upper portion, including head, trochanters, and upper third femur, is abducted, externally rotated and everted, while the lower portion of shaft meets it forming a very obtuse angle. Exposure of this shows a previous fracture, with considerable callus and moderately firm union.

Peritoneal Cavity: Very little subcutaneous fat; muscles small, soft, pale in color. Peritoneum smooth and glistening; the great omentum is adherent to both tubes. Mesenteric lymph nodes not enlarged; appendix 6 cm., free, normal in appearance. Diaphragm, left 5th space, right 5th rib.

Pleural Cavity: The right lung is compressed into upper anterior third cavity, the remainder being filled by œdematous, gelatinous, yellow fibrin, and 1,400 cc. of dirty, greenish-yellow fluid. The left lung is also compressed into upper half of its cavity, covered with œdematous, greenish-yellow fibrin, and cavity contains 500 cc. of dirty, greenish-yellow fluid. The parietal pleura of right side is injected and covered with tags of fibrin, the left is roughened and very deeply injected.

On the 4th, 5th and 6th ribs, about the anterior axillary line, are rounded, smooth nodules. Section through these show them to be soft, dull grey in color, spongy, looking like new growth.

Organs of Neck: The lobes and isthmus of thyroid are enlarged, and feel very firm, impossible to section them owing to dense, calcareous deposits throughout.

Spinal Cord: Negative, no metastases found in vertebræ.

Anatomical Diagnosis.

Carcinoma of tissues about and in right supra-clavicular triangle with ulceration.

Metastases in left 4th, 5th and 6th ribs, in right humerus, in skin over right 3rd rib.

Oedema and congestion of lungs.

Calcification of thyroid gland and isthmus.

Oedema of right arm and hand, also left hand.

Atelectasis of lungs; Broncho-pneumonia; Bilateral hydrothorax.

Hypertrophy of right ventricle.

Old fracture of right femur.

Atrophy of liver and spleen.

Omental adhesions.

MICROSCOPIC.

Heart: Moderate injection. There is a slight diffuse increase of connective tissue.

Lungs: Marked injection. The pleura is covered with a thick layer of fibrin, the meshes of which contain numerous polymorphonuclears, with mononuclears, and red blood cells. The lower layer shows beginning organization of the exudate, new capillaries with young connective tissue cells. Pleura thickened, contains many injected vessels and is infiltrated with lymphoid and plasma cells.

Humerus: Shows newly formed bone, resembling callus, and in the connective tissue separating the bone trabeculæ are groups of carcinoma cells. The proportion of bone, connective tissue and tumour mass varies greatly. Process is apparently bone formation in the stroma of the carcinoma metastasis. Section contains some old bone undergoing absorption in contact with the tumour.

Rib: Shows a similar picture. The marrow, with exception of some fat, is entirely replaced by tumour.

MICROSCOPICAL DIAGNOSIS.

Organizing pleuritis.

Cloudy swelling of kidneys.

Carcinoma in humerus and ribs.

Case 2. L.B., aged 36, unmarried. Admitted to the Montreal General Hospital in October, 1902, for removal of breast tumour which was diagnosed cyst-adenoma, non-malignant, by the pathologist. The tumour was situated in the outer lower quadrant of the left breast; the breast itself was not removed. About a month after leaving the hospital the edges of the incision were noticed to be indurated. This induration increased until at the end of five months it was about the size of a silver dollar.

Re-admitted November 27th, 1903. In left breast, lower outer quadrant, was an indurated mass about the size of a small egg, attached to the skin, but free of the deeper tissues. Axillary glands enlarged, hard and palpable. The left breast was amputated and axillary contents and pectoral muscles removed.

The patient noticed nothing abnormal about the breast until 1906, when a recurrence took place in the old scar in the upper outer quadrant. This has been allowed to go on, no treatment being sought.

Re-admitted April 17th, 1910. A fungating growth, purplish-red in color and about four inches in diameter, occupies the site of the amputated left breast, (Fig. V). Some hard nodules in axilla and in glands of left side of neck. The growth is firmly fixed to thoracic wall. Several ulcerating areas, size of 10 cent piece, on its surface.

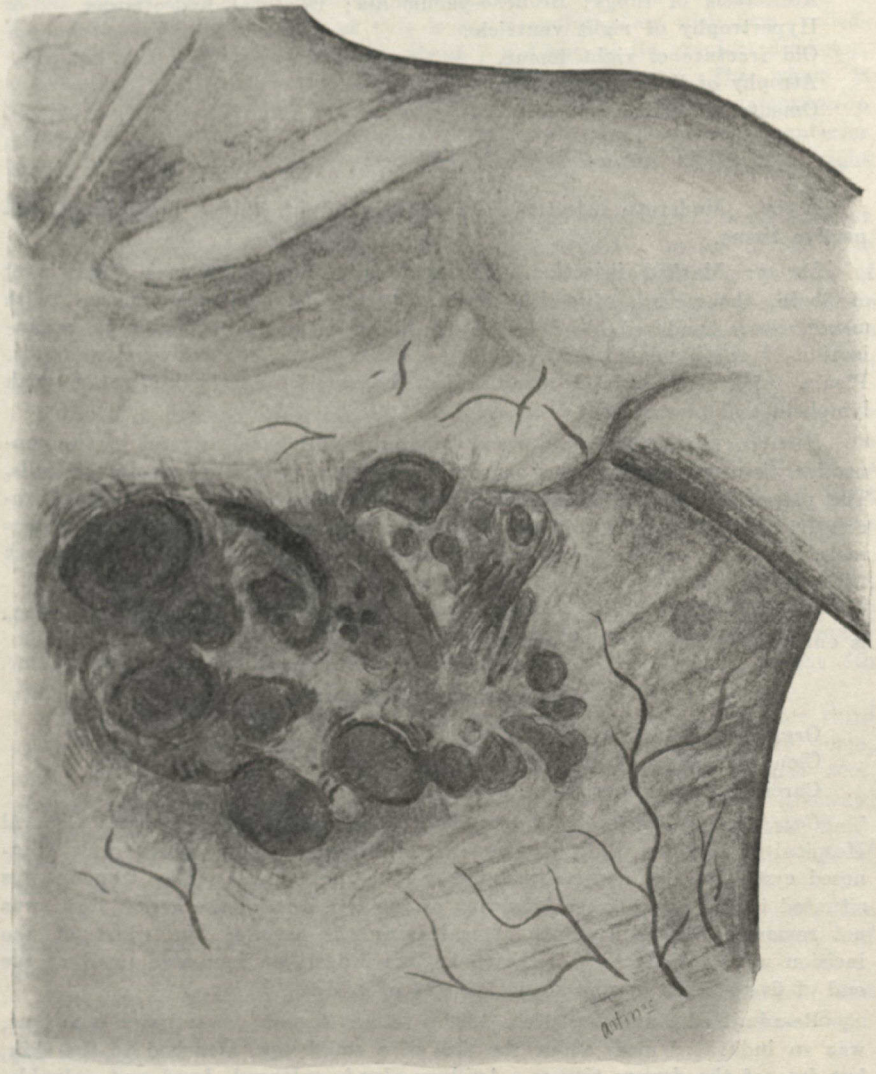

Fig. 5.—Recurrence of Carcinoma after amputation of the breast.

Patient complains of occasional gastric disturbance. Submitted to x-ray treatment, condition being inoperable.

May 28, 1910, complained of pain in left leg, and on examination an enlargement of the tibia about its middle was found. X-ray taken, (Fig. II).

May 30, phlebitis of one of superficial veins on internal aspect of right leg below the knee, which caused elevation of temperature but subsided in a few days. Some days later patient had a violent chill and repeated attacks of vomiting, associated with great pain in the head. Her condition was very alarming for a day, suggesting some brain metastases, but she soon improved and we could demonstrate nothing to account for the symptoms. She is still under observation and x-ray treatment in the hospital ward.

Some years ago I remember a patient, female of middle age, who returned with recurrence of carcinoma of the axilla following a previous amputation of the breast. While we were deciding whether or not to again operate she suddenly fell back in bed as she was attempting to sit up and became at once paraplegic from the level of the 8th or 9th dorsal vertebra. She died in a few days apparently uræmic and the post mortem showed spontaneous fracture, dislocation of both the vertebræ mentioned, which had been invaded by carcinomatous new growth. The pleuræ and peritoneum were free but the kidneys showed marked degenerative changes.

Another case was that of a middle aged maiden lady, whose breast I removed for a typical atrophic scirrhus, situated in the upper and inner quadrant of the gland. She never had any local recurrence, but soon showed symptoms of intra-thoracic pressure, which we attributed to metastases in the mediastinal glands. But although getting weaker she still kept about, until one day when about to sit down in a street car, the power was suddenly turned on, jerking her back into the seat, and fracturing both femurs just below the trochanters. She was taken to the hospital, not suffering much, but quite disabled. She only lived about ten days, and after death we found metastases in both bones, so that the wonder was that they held out as long as they did, and one could easily see how spontaneous fracture might occur. This patient had also metastases in the heart muscle.

Miss C. McM., aged 46, a patient of Dr. Armstrong, to whom I am indebted for the notes of the case and for permission to cite it. Left breast had been amputated for carcinoma in 1904, and right breast for same reason in 1906. Has been more or less of an invalid ever since.

About six weeks before admission patient was returning from a short walk with her nurse and in making a step to get up on a very slightly higher level she felt her leg give way in the thigh and she fell to the ground. The femur was found to be fractured about its middle; the patient suffered very little pain. Taken to hospital and leg put in extension; examination at the end of six weeks revealed no union.

The patient was admitted to the Montreal General Hospital on January 27th, 1909.

Condition on admission, poorly nourished woman; skin doughy and sallow, face wrinkled and expression that of a nervous invalid. Mucous mem-

branes pale. Scars on thorax from removal of both breasts. No glands palpable and no evidence of local recurrence. Left leg functionless; foot everted; muscles very much atrophied. Solution of continuity in middle third of femur; no crepitus obtainable. Very little pain on movement; no callus palpable. No skiagraph.

January 28th, an incision was made with the intention of wiring; but on exposing the fractured ends they were found to be separated by a layer of vastus internus muscle, which at first appeared to explain the non-union after six weeks; but on closer inspection they were found to be eroded, and both medulla and compact bone invaded by a dull white growth. A scraping was immediately sent to the pathological laboratory and pronounced to be malignant, so the femur was disarticulated at the acetabulum.

Following the operation there was slight elevation of temperature and the patient suffered a great deal with dyspnœa. Examined by Dr. Howard, January 30th, and diagnosis of left sided lobar pneumonia made. Sutures were removed on February 8th, and the wound found to be perfectly healed and her condition improved. The lung condition continued almost unchanged for some weeks but gradually there was an increase in intensity of the signs, the blowing, breathing, etc., keeping well to the left front and axilla.

In April definite signs of fluid were evident, reaching as high as the angle of the scapula. The signs remained unchanged, the patient suffering intensely from pain between the shoulders.

On May 14th, 1909, about 5 p.m., the patient became suddenly intensely dyspnœic and slightly cyanosed. Relieved a little by morphia. The patient died soon after 11 p.m. of respiratory failure, the pulse keeping fairly good to the end.

Post Mortem Findings: Peritoneum negative. Mesenteric lymph nodes show nothing abnormal. The left pleural cavity contains about 500 cc. bloody fluid. Cavity much smaller than the right owing to a scoliosis of the spine to the left. Diaphragm puckered and adherent to the body wall in left mid axillary line. Small placques of a whitish color, very thin and varying in size from 0.5 cm. to 1.5 cm. in diameter. The left lung completely collasped and on section presents an atelectatic appearance throughout. Bronchi patent. Right lung normal.

Almost all the bodies of the vertebræ are destroyed and their places taken by tumour, which on section is greyish in color and friable in consistence. Second and third ribs on left side between angles and spinal column are also involved, the new growth replacing the entire bone tissue. In no place does the peritoneum seem to be involved and there is no evidence of metastases within the parenchyma of any of the organs, the tumour growing in the bone and on the serous surfaces.

Microscopically: Section of bone shows a fibrous tissue stroma which contains many moderately congested blood vessels in which are small areas of normal bone tissue, irregular in shape, and apparently undergoing absorption. Around some of these areas are large multi-nucleated cells (osteoclasts); around other areas are single rows of large cells with round nuclei, and these areas appear more like new bone formation. Throughout this section are imbedded irregularly shaped and sized masses of large round and oval-shaped cells, staining purplish-blue and having a round eccentric

nucleus. These individual masses have no connective tissue stroma and are bounded by a fairly definite limiting membrane.

Prognosis and Treatment.—Inasmuch as bone metastases are usually late, the chances are that there are other metastases, and the prognosis after their occurrence is that the term of life will be mercifully short. But can we hope for union? And if so, is it worth while to reduce these fractures and keep the bones in proper position by fixation apparatus? The specimen I just show you and the skiagrams answer both questions in the affirmative, though I quite admit that the task of reduction and fixation of such fractures may often be impossible on account of the patient's condition, dropsy of limbs, or other considerations, and the prognosis is so bad that we are often tempted to pursue the policy of *laisser aller.*

II. "Brawny" or "Lymphatic" Arm.

This is a very common complication of recurrence of breast cancer, especially if the recurrence be in the axillary tissues or the skin over the pectoral region. It is often a troublesome sequel—sometimes a permanent one—of the radical operation for mammary cancer, even when there is no palpable recurrence. Mr. Samson Handley, of London, deals very fully with this question in the last Hunterian Lectures, published in the *British Medical Journal,* April 9th, 1910, page 853, and I would refer the reader to his interesting views on the etiology of this condition. Of course there may be obstruction at axilla due to cicatricial contraction of wound or to development of recurrent neoplasm.

Course and Symptoms.—The condition generally grows gradually worse and the great symptom is *pain.* It is excruciating and drugs soon cease to control it. These patients cry for amputation and they often properly get it. The arm is functionless often, due to paralysis of voluntary muscles resulting from the prolonged nerve pressure. The pain is of two distinct kinds,—(*a*) Axillary and shoulder, due to pressure on the brachial plexus, and only at times referred down the arm; (*b*) but more commonly the pain is very marked in the hand and forearm, due to the pressure of the engorged lymph spaces upon the terminal nerve endings, and analogous to the pain in the leg in phlegmasia, but much more severe.

Treatment.—(*a*) Palliative: By support and elevation of the limb, should always be faithfully tried, and will often succeed, but not seldom it is quite impossible to attain this, because the patient, owing to growth or cicatrix in axilla or over pectoral region, cannot bring arm out from side in order to elevate it.

(*b*) Operative: If the pain is of the shoulder type, (*a*) section of the nerves, or amputation, is all you can offer. But if the pain is of the

other type, (*b*) and due to the lymph stasis then Handley's suggestion (loc cit) of doing a lymphangioplasty is well worthy a trial. I quote his own description of the operation, and reproduce the illustrative cut from the article just mentioned.

"The tissues of the arm are drained by two long U-shaped lines of silk, each line composed of two threads of No. 12 tubular silk. One of these lines drain the front of the arm, the other the back. The bend of the U lies immediately above the wrist and its two limbs occupy respectively the radial and ulnar side of the limb. Thus along the whole length of the limb are found four double lines of silk, spaced out around the limb as nearly as possible at quadrant intervals, (Fig. VI). Towards the shoulder the lines of silk on the flexor aspect curve outwards around the deltoid muscle, and converge to meet the ascending threads from the posterior aspect at a point near the posterior border of the deltoid. From this point the silk

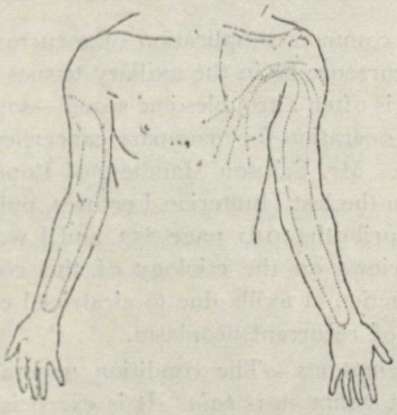

Fig. 6.—Shows the course of the threads in lymphangioplasty for brawny arm—After Handley. *B. M. J.*, 9th April, 1910.

threads again radiate in the subcutaneous tissues of the back, terminating by free ends in the subcutaneous tissues of the scapular region. It is, perhaps, still better to lead some of them to the scapular region of the opposite side, and others to the lumbar region of the same side if there is any sign of the œdema extending from the arm to the trunk.

"The operation is done as follows: Take a double line of silk, rather more than twice as long as the arm, and mark mid-point by clipping on it a pair of artery forceps. Wrap up one half its length in gauze. Thread the two free ends of the other half through the eye of a long probe. Make an incision ½ inch long through the skin at the middle of the front of the forearm just above the wrist joint. Thrust the probe in the desired line upwards in the subcutaneous tissues well away from the skin towards the region of the elbow, as high as is convenient, and cut down upon its point. Withdraw the probe through the incision last made and draw the silk after it as far as it will come. Introduce the probe through the incision from which it has just emerged, thrust it upwards again in the selected line and repeat the foregoing steps until the point selected for the convergence of

the threads is reached. Here an incision one inch long is made, through which the probe with its two silk threads is drawn out. The other half of the silk loop is now led upwards in the selected line along the other border of the flexor surface. The limb is turned over, the extensor loop of silk is similarly introduced. When this has been done eight free ends of silk are hanging out from the incision of convergence at the posterior border of the deltoid. Two at a time these are tucked away in various directions in the subcutaneous tissue of the back by the following manœuvre:—

"Clip a forceps on the selected pair of silk threads just where it emerges from the topmost incision. Take a long probe, cut off the ends of the two threads so that they are four inches shorter than the probe and thread them into the eye. Thrust the probe downwards from the incision in the direction until the probe unthreads itself. Withdraw the probe carefully, leaving the two silk threads to occupy its track. When all the threads have thus been tucked away, the operation is completed by sewing up the incision with horsehair.

"The principal difficulites of the operation are connected with the maintenance of the silk in an aseptic condition. Owing to the large area dealt with, extending on to the back, the necessary changes in the posture of the arm, and the length of the silk threads; accidental contact may very easily occur between the silk and the surface of the skin, the edges of the incisions or surrounding objects. I regard the use of masks as essential, and the silk ends not actually dealt with at the moment must be kept wrapped in sterile gauze, which is also useful to protect them from the edges of the incisions as they are being drawn in after the probe.

"This method contains modifications which my experience has shown to be desirable. My object has been to simplify the operation, to reduce the number of incisions necessary, and as a reasonable precaution to insert the threads in such manner that they can, if necessary, be withdrawn with a minimum of trouble. All the threads can be withdrawn by reopening the two incisions just above the wrist. Fortunateiy I have never been obliged to do this. There is no need to fix the proper ends of the threads by knotting them together, as I formerly thought, for the silk soon becomes adherent along its whole length to the tissues in contact with it."

I have lately carried out this procedure in a case of my own with pectoral and axillary recurrence of cancer following breast amputation. The result has been most gratifying, and this patient who formerly suffered intolerably, in spite of large doses of morphia, has since required no opiate. The arm is greatly reduced in size and weight, though it is still powerless I think the danger of sepsis should not be too much insisted upon for I got primary union of the numerous small incisions, which I at once closed with collodion. I used *braided* instead of tubular silk, and an ordinary long probe with an eye at the end, and a pair of artery forceps, not having the outfit recommended by Handley. The operation was done easily and only requires a short time to accomplish.

Handley reports 15 cases, and in some of these the relief from pain and lymph stasis was permanent for two years.

Unsuitable cases for this operation: (1) Where pain is worse at axilla and evidently due to pressure direct upon brachial plexus. (2) Where patient could not be given a general anæsthetic. (3) *Cancer en cuirass,* involving whole shoulder and where the drains must needs pass through cancerous tissue. (4) Where the danger of sepsis cannot be avoided. (Is very rare.)

III. Interference with Function of Thoracic Duct.

Such a case I have just had in my ward and I append the notes of it with post mortem findings and a drawing made from life. (Fig. VII.)

Mrs. E. H., aged 60, no children. Had her left breast amputated in September, 1906, followed by recurrence and operation in June, 1908.

Re-admitted April 1st, 1910, with enlarged gland size of a walnut just behind the centre of the left clavicle and several smaller glands palpable below and above the clavicle.

Operation performed on April 4th. In order to dissect out the large subclavicular gland it was necessary to resect a portion of the left clavicle. During the dissection the subclavian and internal jugular veins were torn about their junction. The jugular vein was permanently ligated. Temporary ligatures were placed on the subclavian above and below the rent and this was sutured with silk as it was too large to risk a lateral ligature. Upon removing the temporary ligatures no leakage followed.

The day following the operation there was slight serous discharge from the wound, and the edges looked red. Drain removed.

April 7th: Discharge profuse, several sutures removed.

April 10th: Discharge has a milky appearance and surrounding tissues appear necrotic and spongy.

April 12th: Snipping from the tissues show only necrotic material. Some of the discharge collected and examined microscopically, shows numerous fat globules (chylous fluid).

April 14th: Tests carried out show that discharge is much increased after patient had taken food. Appetite good but patient is rapidly losing flesh and complains of feeling very weak and always hungry.

April 23rd: Discharge very much diminished and patient feels better and looks very much better.

April 26th: Discharge again very profuse.

April 29th: Discharge less. Patient feeling better, has more color and appears decidedly brighter.

May 3rd: Discharge very profuse, keeping pillows and bedding soaked in spite of frequent changes of dressings. Patient haggard, pale and very depressed.

Patient died May 14th. Had never complained of pain, only a sense of great weakness, temperature subnormal and pulse weak and rapid.

At autopsy, the thoracic dust was carefully dissected out, and injected with methylene blue solution. No fluid escaped from the upper end, all backing up into lower portion of duct and receptaculum chyli. (The fistula must have become blocked, post mortem, in some way. J. M. E.)

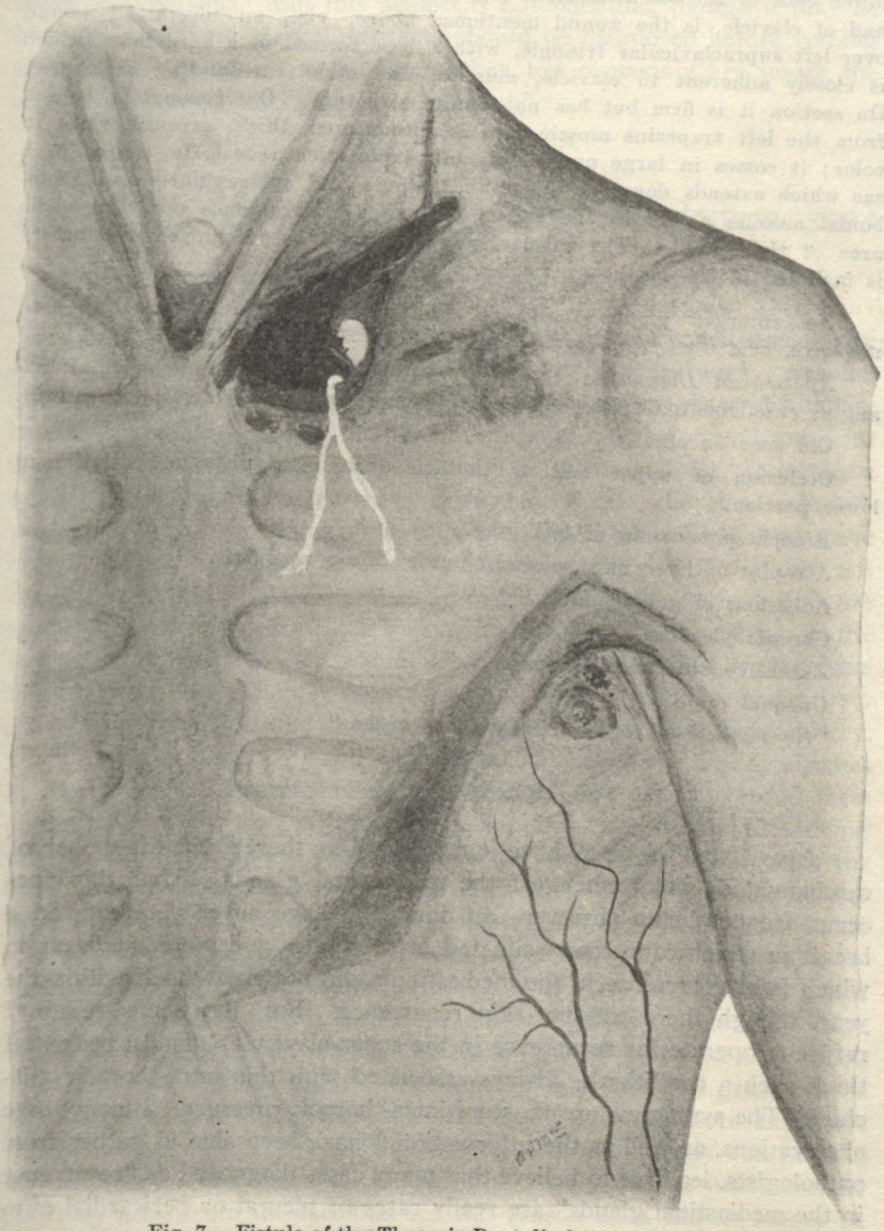

Fig. 7.—Fistula of the Thoracic Duct discharging chyle.

Organs of the Neck: In the left supraclavicular triangle, between the lower ends of the sterno-mastoid and scalenus anticus muscles and the outer end of clavicle, is the wound mentioned above, viz., an ulcerating wound over left supraclavicular triangle, with a base formed of a hard mass, which is closely adherent to clavicle, muscles, and other surrounding structures. On section it is firm but has no definite structure. On freeing it behind from the left trapezius muscle, pus is encountered, thick, greenish-white in color; it comes in large quantities, and exploration reveals its source in a sac which extends down in under the scapula and subscapularis and rhomboidal muscles as far as the fingers can reach, and extends over the whole area of the scapula. The subclavian vein cannot be recognized, the artery is included in the mass.

No enlarged glands found in the neck. Oesophagus, trachea, etc., negative.

Anatomical Diagnosis: Suppurative wound in left supraclavicular triangle; carcinomatous mass in same region; resection of clavicle (operation).

Old scar on chest.

Occlusion of upper end of thoracic duct, with subsequent dilation of lower portion.

Broncho-pneumonia of left lung.

Atrophy of liver and spleen; chronic diffuse nephritis.

Adhesions of gall bladder.

Chronic pleuritis.

Extensive abscess, subscapular.

Unequal pupils.

"No metastases found in any other organ."

IV. Intra-Thoracic Complications.

Apart from the one I have just referred to, there is the oft-spoken of carcinomatous involvement of the mediastinal glands. That this does occur frequently no observer can doubt. I have never yet removed a breast in which cancer was situated in the upper and inner quadrant in which fatal recurrence in the mediastinum did not show itself within the year, though there was no skin recurrence. For the same reason I refuse to operate for recurrence in the supra-clavicular glands, because I think such a condition is always associated with this intra-thoracic mischief. The symptoms are those of intra-thoracic pressure. But my own observations, as well as the information I have been able to gather from pathologists, lead me to believe that many cases diagnosed as "recurrence in the mediastinal glands" are really cases of pleural or pericardial effusion, as some of the cases I have cited will show.

We do not examine these chests carefully enough. To do so is often painful to the patient, is always unpleasant to us, and moreover we are

not sorry that some intercurrent affection should appear and deliver these poor patients. But this neglect is not scientific, though it may be humane, and these pleural effusions should be diagnosed before coming to autopsy and not glossed over as they too commonly are under the caption of "mediastinal gland involvement."

THE RELATION OF INSANITY TO THE PSYCHONEUROSES.*

By Dr. AUGUST HOCH,
Psychiatric Institute, New York State Hospital, and Professor of Psychiatry, Cornell Medical School, New York City.

AT first glance it looks as if, in a symposium on psychoneuroses, a discussion of the more marked conditions of insanity were somewhat out of place, since there has often been made a rather sharp distinction between psychoneuroses on the one, and insanity on the other hand. But it is precisely these studies to which Dr. Putnam and Dr. Jones have called your attention, which have again emphasized the close relationship between the two fields. The principles, which Freud and Jung have taught us, can no longer be overlooked in psychiatry; but they are not equally important in all disorders. In order to show you where they are applicable, and where we think that in the study of the psychoses, in the stricter sense, they, as well as some kindred studies of Adolf Meyer, have furnished us new and important points of view, it will be necessary to give you a very brief and cursory view of the entire field of psychiatry.

In looking over the large array of mental symptoms and syndromes as they occur in all forms of insanity, we find that we may group them under three types. We will attempt to illustrate this by first describing very briefly some clinical pictures which we shall later find to show the essential characteristics of these three groups, and I will choose the dementia of general paralysis, the symptom-picture of acute mania and that of a simple paranoic state. Let us begin with the dementia of general paralysis. Here we observe a defect of memory and of retention of impressions, as well as a defect of judgment. These symptoms increase as the disease progresses, while at the same time the power of elaboration of external impressions suffers, so that the patient loses his grasp on the surroundings; and finally the train of thought becomes more and more fragmentary. The defects which we here observe evidently run parallel with a progressive destruction of the brain tissue, and we justly assume that they arise from the fact that for this reason ideas can no longer be called up or retained. We may speak, therefore, of a defect of activization of ideas or of their physiological dispositions. Hence, we can express it

*Read as a part of a Symposium on Psychoneuroses at the annual meeting of the Canadian Medical Association at Toronto, June, 1910.

that in the dementia of general paralysis we have essentially a diffuse interference with the activization of ideas.

Take on the other hand an acute mania. Here we find no defect of memory or retention and no primary defect of elaboration of impressions, but above all, a change in mood, namely, a marked elation or at any rate an instability of mood with rapid changes, but in addition, a disorder of the train of thought and action. The former is characterized by a quick change of ideas while at the same time the thoughts do not refer to a certain topic, as is the case in normal thinking, adapted to a given situation, but run along side tracks, connected to be sure, but as I said, not belonging to one definite trend. This is what is called flight of ideas. The latter, the activity, is changed in the direction of a more or less marked motor excitement, the patient is constantly on the go and talkative. Hence, the entire clinical picture is made up essentially of diffuse disorders in the sphere of emotions, the train of thought and the train of activity.

If we, finally, look at a patient with a so-called paranoic state we find a very different picture. The patient presents no diffuse disorder of any kind. His actions and speech, his memory, retention, grasp on the surroundings are all normal, but the *content* of his thoughts is abnormal, he has certain false ideas, delusions about his relationship to the environment. Similar disorders of content and attitude, similar delusions may be found in the acute mania or associated with the dementia of general paralysis, just as emotional reactions may be associated with the dementia of general paralysis. But the question is what are the leading and essential features in each disorder, and in this respect, the three cases differ fundamentally inasmuch as the essential features in the one are a diffuse disorder of activization of ideas, *i.e.*, a defect of memory, retention, elaboration, etc.; in the second case a diffuse disorder of emotions, the train of thought and activity; and in the third case, more particularly a change in the patient's responses towards the environment without any diffuse disorders.

I have before stated that these three cases which show the differences particularly clearly are really representatives of larger groups. We will call the first group the *organic reactions*; the second group, *the emotional reactions;* and the third group for want of a better name, the *reactions of faulty adjustment.* Let us look at these groups of reactions more closely and see what clinical entities belong to them, because, by speaking of reactions we do not mean diseases, but rather general types of abnormalities, different general paths along which the mind may become disordered.

To the first, the group of organic reactions belong, besides general paralysis, such disease processes as senile dementia, the dementia due to cerebral arteriosclerosis, brain syphilis, etc., or conditions produced by

intoxication, like alcohol, cocain and other drugs or bacterial poisons, as those of the infectious diseases, or perhaps certain autointoxications. The disorders which are found here are therefore not all chronic, some are subacute, and more or less recoverable, some acute and usually followed by complete restitution. There are, moreover, marked distinctions between the different forms of disorders; in the chronic progressive organic diseases the memory and retention suffer first, the elaboration of impressions only when the disease has advanced to a considerable extent, or suddenly presents an acute exacerbation; in the acute conditions it is essentially the elaboration which suffers so that we have a loss of the grasp on the surroundings, a confusion, or, as we call it, a disorientation; and in certain subacute states, essentially a disorder of retention of impressions. In all of them there is, however, a diffuse interference with activization of ideas, and we therefore, regard them as having a fundamental relationship among each other.

In the second group, the emotional reactions, we have chiefly the manias and melancholias of the older psychiatry. These are reactions which are not qualitatively different from the normal emotional responses, the best known of which are those of happiness and sadness. The former is characterized in normal life by an elevation of mood, an apparently quicker flow of thought and a greater vivacity, in which we recognize the essentials seen in acute mania. The latter is characterized by a depression of mood, a retarded flow of thought and a diminished vivacity. But there are also other normal emotional responses such as anxiety, anger, and the like, in which the combinations of traits are different. If these normal emotional reactions are raised to pathological proportions we get different clinical pictures, chiefly those of simple mania and simple depression, or the anxious depressions; but also conditions which cannot be thus designated, but which nevertheless belong to these emotional reactions, though it is not possible, as yet, to correlate all the clinical pictures with their normal prototypes. What is important for our present consideration is, however, the fact that here is a second set of reactions in which we have essentially again diffuse disorders, this time of the emotions, the train of thought and the train of activity.

Thus far the situation is comparatively simple. Nothing has been said that is probably not familiar to most of you, except that I have possibly arranged the facts differently than is usually done; and it is easy to see why we have called the first group organic reactions, the second emotional reactions, but it is not at once apparent why we call the third group reactions of faulty adjustment. And it will be our duty to show that we are here dealing with specific disorders of adjustment. That this may be so in the case of a paranoic state where we have essentially abnormal ideas, delusions regarding the patient's relationship to the

environment may not be strange, but we shall have to give evidence that this morbid attitude which constitutes the psychosis is a further development of an original abnormal attitude engendered by the lack of adaptation of the personality; we wish, moreover, to make the claim that there is another condition in which without further analysis, this is not at all obvious on the surface, yet which we believe belongs to this group as well. The condition I have in mind constitutes one of the most frequent mental disorders, one from which an unusually large percentage of all the chronic cases which fill our asylums suffer, namely, dementia præcox.

In order to give you an idea of just what is meant by dementia præcox, it may not be out of place to give a brief, summary sketch of the clinical pictures included under this term. We find here conditions which often occur at or about puberty. Frequently the onset is gradual; following upon a premonitory stage during which the patient is apt to appear absorbed, dreamy, and unable to follow the usual occupation satisfactorily, the active stage sets in. This is characterized by delusions or peculiar notions, or ideas which the patient feels are not his own but are forced upon him, or hallucinations of various senses, or bizarre acts often executed with a striking impulsiveness, or peculiar attitudes, sometimes tenaciously held, or a train of thought often strikingly disjointed and incomprehensible—all of which is not accounted for by a diffuse emotional reaction, or such a general disorder as a real delirium; on the contrary the emotions are often shallow, or inappropriate, not fitting the content of the ideas. The interference with elaboration, memory and retention is not general, but only refers to certain topics so that the grasp on the surroundings and on the past experiences is remarkably good, considering the rest of the disturbances. At the same time there is a lack of interest in the environment. The disease very often leads to dementia, which together with the frequent association with puberty has given rise to the name dementia præcox, although not all cases occur in early life and not all deteriorate. This dementia is characterized, not by a memory defect and a defect of elaboration of external impressions, as in the organic dementias—but essentially by a loss of contact with the environemt, an apathy, a lack of objective interests, while the special features above enumerated remain more or less fixed.

While this description shows differences from the organic as well as from the emotional reactions, we have no clue, as yet, as to its real nature or its fundamental kinship to paranoic states. The latter may perhaps be emphasized, at this point, by stating that there is no clear line of demarcation between the two, but for a better understanding of this problem we have to turn now to another side of it, namely, to the factors of mental constitution which are at work in these as well as in

other disorders. And here we shall find that in a general way the three groups we have mentioned again differ in regard to the importance of such constitutional factors or at any rate in regard to the types of constitution.

The term degeneracy has often been used and still is used to designate any sort of constitutional mental defect. It is a distinct advance of modern psychiatry that this conception is assuming a clearer definition; and that the significance of constitutional abnormalities is commencing to be better understood. *Not all forms of constitutional mental abnormalities lead to psychoses nor do the different psychoses develop on the same soil.* Personalities with intellectual defects, or with certain moral defects, seem to be rather free from psychoses, while certain psychasthenic make-ups lead to neuroses, but so rarely to actual mental diseases in the stricter sense of the term, that some have even spoken of an immunity to actual insanity. Again, we begin to see, in outline at least, different constitutional defects, often not very marked and less pronounced than those which rarely lead to actual mental break-downs, upon which different and more or less specific psychoses are apt to develop.

The differences in the constitution met with in our three groups may be thus briefly described: In the organic reactions constitutional abnormalities play a subordinate rôle, at any rate it is plain that the essential traits of the clinical pictures do not grow, as it were, out of the personality, and we would hardly expect this considering the fact that the clinical pictures are due to plainly organic disorders of the brain tissue.

In the emotional reactions this is different—here we often find, even in the normal period, in the individuals who develop manias, or melancholias, a certain tendency to readily swing in one direction of another; the constitution therefore, clearly foreshadows, the direction in which these disorders occur, along lines, as we have said, which correspond to the normal emotional responses. That the break-down follows the direction of normal emotional responses would seem to account for their benign nature, that is, for the fact that they represent recoverable diseases.

In the third group constitutional abnormalities also play an important part, but they are of a different nature than those of the emotional reactions. Paranoic states seem to occur chiefly in individuals who are not well adapted to the environment, but who present some such traits as the following: They are habitually finding fault, are apt to blame others for their defects, they are egotistical, stubborn, suspicious, much concerned about what others think of them, with constant attempts to get thus a certain satisfaction from the outside without actually squaring their difficulties, hence, not without a certain, though ill-directed, aggressiveness.

In dementia præcox the constitution most often seen is also one which represents a poor adaptation, but without the self-assertion of the paranoic type; where the latter reacts with a certain one-sided aggressiveness, as we have said, the dementia præcox personality shrinks from any energetic activity, and hence, is much less in contact with the environment, on the contrary is reticent, seclusive and shy, tends to shut himself away from the world around him, to turn inward, to live in fancies, rather than in reality.

Such personal peculiarities we are just beginning to appreciate in their full importance, and therefore, we know them only in broad outlines without the finer shades, and it will be the task of the near future to enter further into the significance which such personal peculiarities have for psychiatry as well as for the psychoneuroses.

It is apparent then that the personalities which develop paranoic states or conditions of dementia præcox, have certain traits in common, namely, a certain lack of adaptation, although in other ways they diverge, but it is also apparent that in this fundamental lack of adaptation they differ from the other two groups. For the organic reactions we have seen that the personality plays no rôle. For the emotional reactions our further studies may sometimes show us that in them defects of adaptation also exist, but the very reactions are prescribed by the most prominent traits of these personalities. They show emotional responses which are more pronounced than those of ordinary persons, but which are nevertheless natural. Hence, the leading factors and those which determine the clinical pictures are very different from those of our third group.

Therefore, the consideration of the personalities alone shows us that in this third group of reactions we are dealing with individuals in whom the principle of faulty adjustment to difficulties may very well be the correct expression of the situation, for they are persons who, as Adolf Meyer has expressed it, have inadequate mental habits, *i.e.*, habits of handling external and more particularly internal difficulties, which do not tend to a sound management of these conflicts, but which bear in them dangers for the development of a frequently permanently poor adjustment, and hence a disturbance of mental balance.

We are now prepared to look at the clinical pictures to see whether these ideas are further borne out. By doing this I hope to be able to show you that the relation of mental disorders to the psychoneuroses is evident, and that the mechanisms with which Freud and Jung have made us acquainted, and to which Dr. Putnam and Dr. Jones have called your attention, are at work, here as well as in the psychoneuroses.

Let us consider first some paranoic states, for example, the case of a man whom I had occasion to observe recently. He is an inventor who never has been successful, which means a man who is not able to adjust

his activity to his ability so that he can get satisfaction from it. Owing to this and his temperament in general, he got out of harmony with the environment. This man has gradually developed the delusion that he *is* important, that he *can* do many things, *has* made wonderful inventions, later also that he can cure cancer and leprosy, etc., and his general bearing is now in harmony with this opinion of himself. At one time he also had the idea that a rich lady was in love with him so that he wrote to her. It was this which led to his commitment some year ago. This latter idea is still clung to, but not further elaborated; the further elaboration has taken place rather in the direction of the importance of his personality in other ways.

Then we may take another man who for years had difficulty in getting along in business and in supporting himself—he began to think that he had a claim against a company for which he worked. There was perhaps a certain foundation for this, but this was so insufficient that several lawyers in succession refused to take up his case. He began to think that these lawyers were in collusion with the company; he went to the district attorney but got no satisfaction. He was given some work by the company but had to be discharged for incapacity, he tried work at several other places but with little success, and all these failures he also interpreted in a delusional manner as persecutions. By that time, therefore, he was fully launched on his paranoic development. Later his ideas spread to certain physical discomforts, which he also attributed to his persecutors.

Here are then cases in whom we have essentially disorders of attitude towards the environment, based upon external situations which were too much for their particular personalities to get square with and which finally led to a permanently wrong adjustment in the form of delusions. The delusions represent the principle of wish-fulfilment in a special form —special, probably because it occurred in a certain type of personality.

While here the fact of a faulty reaction to a plainly external situation, owing to an inadequately adapted personality is obvious, we find more often paranoic states in which the abnormality of the original personality may be more or less clear, but where the external situation scarcely furnishes difficulties which, from the standpoint of the normal mind, seems adequate to account for the break-down. In such cases only a thorough analysis of the experiences and conflicts behind this final stumbling block will put us in a position to estimate its dynamic value.

Much more complicated is the situation in dementia præcox. Let us briefly describe two cases.

The first is a young girl of 16; a case who presented a certain account of excitement, yet without real distress. She made many incomprehensible, disconnected utterances and spoke of electricity being applied

to her, of feeling connected in some way. She heard voices which said "stand still," "get up," "look out," "danger," and the like—or she had sudden visions, a fog and in it a railroad train or a face. She often would not go to bed, and, without being able to explain it, would violently oppose any attempt at putting her there, or she would not eat, would not pass her urine, etc. Before she had come to the hospital she had had various other ideas about electricity and various other visions—she suddenly said one day that she was married, and, before that, had made the statement that she was in love with different men, all of whom she knew but superficially. This condition, of which I have, for the sake of brevity, described only some of the symptoms briefly, had for some time been preceded by an absorbed, dreamy state which made any objective interests impossible. Hence, a picture characterized by a peculiar impulsive behaviour which, so far as we could see, was never accounted for by the situation in which she found herself, or by a definite emotional change; by hallucinations, odd ideas, disconnected irrevalant utterances, all of which lacked transparency and connection. When the condition was analyzed it was found that the girl had had an early concrete sexual experience which may in part have been the cause which led her thoughts into the direction of sexual day-dreaming. This, probably owing to a peculiar attitude towards sexual matters, went beyond the normal fancies of this sort because all along certain features pointed to the fact that they were really disturbing factors. Thus she had a tendency to lose much sleep by sitting at the window at night, thinking about the men who passed by or whom she heard at a distance. She had a certain pedantry which we also see in some of the psychoneuroses as a compensation for a feeling of guilt about sexual matters. At one time, some years before the onset of the psychosis, she suddenly woke up one night and had a vision of Christ on the cross, and then at once worried over her masturbation, and over the concrete sexual experience, and confessed to her grandmother. It would be difficult not to assume that this vision and her sexual fancies were connected. Finally, before the outbreak, came the absorbed period of which we have spoken and which terminated with the psychosis. The analysis further showed that the electricity had really no relation to anything like electricity, but that she had sexual sensations for which the idea of electricity was substituted in such a complete manner that she no longer knew, without analysis, what these sensations really meant; these sensations increased when she remained in any position for any length of time and were especially marked in bed; hence, came the warning voices "stand up," "sit down," "danger," and her intense disinclination to go to bed; her refusal of food and her retention of urine could be traced to similar causes and the hallucinations of the railroad train, the face, and other symptoms also had a significance connected with this underlying

sexual trend, which owing to its very nature was repressed and yet accounted for most of her thoughts and actions.

We see then that here a sexual trend, badly managed, gradually assumed a dominating rôle until it broke out in the full-fledged psychosis, yet it appeared in a peculiarly distorted form, so that it was largely unrecognizable. This was due evidently to the fact that it was repressed from full consciousness so that only small parts of the undercurrent appeared while compensatory attempts also manifested themselves, partly in her excitement, the warning voices, partly in her peculiar attempts at shunning anything which would increase the offending tendencies.

We may look at another case. A woman of 34, who was always jealous of her husband, a little stubborn and rather quiet, but otherwise not plainly the type of personality most frequently found in such cases. She became cold to her husband and absent-minded. She then began to consult a physician for headaches. This was in October, 1908. By Christmas, 1908, after a visit from the physician, she grew more absorbed, and it was noticed that she sometimes smiled to herself. Soon she began to make peculiar allusions to the physician and said he was hypnotizing her. Suddenly hallucinations appeared. She heard the physician say that a year before, he had had intercouse with her when he had examined her gynecologically. After some weeks she presented still other symptoms, she lay in constrained positions, with an ecstatic expression, had religious visions. She claimed God spoke to her, told her she was St. Ann, and it was her mission to purify the world, yet this was peculiarly intermingled with voices of a sexual content. What does all this mean? We have learned that marital jealousy when it is not a reaction to a real situation, is a special way in which an inadequate sexual adaptation, a dissatisfaction with the existing relationship may manifest itself in *certain persons*. This lingering maladjustment in this case found its expression later in the patient's turning away from her husband, her falling in love with the physician, as the analysis brought out, but this took place not in a natural, manageable way, but rather in a manner which led to half conscious fancies interpreted by her as a hypnotic influence exerted by the physician and associated with a peculiar state of absorbation, as such fancies often are; all this culminating in the hearing of his voice, telling her of sexual relations with him. This in turn liberated as a compensation the religious trend, the ideas that she was a saint, that she was to purify the world, the ecstatic state and other symptoms which it would take too long to enter upon. I may add that she finally recovered, owing to the fact probably that her make-up was not one which naturally led to a deterioration.

I am well aware that these cases are described only very summarily and inadequately, but time does not permit me to enter into them more

deeply, nor to give you other examples. You will see, however, that we have here the same mechanisms as we find in dreams and in the neuroses, but in a different setting. In the simple paranoic cases which I presented we had an external situation which formed the conflict, and the symptoms seemed more lucid and connected—here the picture is more confused and disconnected; that a conflict existed could be brought out only by analysis.

These cases, as well as some others of the same sort (though it must be frankly admitted that not many have been analyzed thus far) showed on analysis that in the complex picture with apparently disjointed symptoms, all these peculiar manifestations were not arbitrary, and that they could scarcely be regarded as the outcome of some diffuse disorder*; that instead of there being a lack of connection, of significance in them, they *all meant something to the patient,* although this meaning was often not conscious. It could also be shown that definite principles of dependence of individual symptoms could be made out, and that instead of an arbitrary diffuseness, there is in these manifestations a limitation to definite trends. The symptoms are, therefore, not connected with each other in the sense in which those of an organic or an emotional reaction are connected, but in the sense that they all represent attitudes towards certain situations, partly external, but here chiefly internal; *faulty attempts at adjustment* as we have called it above. But this can only be understood when the principles which Freud and Jung have taught us are understood, when we know the mechanisms which are at work in dreams and in the psychoneuroses; for we find in these psychoses the same attempts at wish-fulfilment, the same repression of ideas, the same undue emphasis upon acts and thoughts and attitudes which the actual situation does not warrant, but which is explicable only when we know that the emphasis belongs to some repressed thoughts. We find, therefore, present the same substitutions, the same compensatory mechanisms, the same symbolisms and distortions, *but everything is coarser, cruder, with much less reference to the environment.*

The reason why in these cases particularly we should have essentially disorders of adjustment is due, I think, to the peculiar constitutional traits which we have above described as occurring in paranoic states and in dementia præcox. And it may be well now to devote a few more moments to their significance. It cannot be accidental that persons constitutionally unfit to take a reasonable view of their own conflicts should end with a permanent shifting of their attitude as is the case in paranoic states, and it cannot be accidental that the shut-in personality is so often found in dementia præcox. As you will recall we have pointed out that the disease usually begins with a premonitory period characterized by

*Against which assumption also speak the reasons before mentioned.

absent-mindedness, dreaminess, absorption, which after all means nothing more nor less than a greater turning away from the outside world, hence an increase of the shut-in tendencies so often seen in these persons in their normal period; and the very dementia which is frequently the outcome of this disease shows itself again in the same thing—a lack of objective interests, an apathy, a shutting out of the outside world—hence, again, something which was predestined by the peculiar constitution of these individuals. And the same argument becomes still stronger when we remember that other disorders, such as the hysterical psychoses, or the simple paranoic states (the former an eminently recoverable mental disease, the latter a chronic but not deteriorating one) lack in their constitution precisely that shut-in tendency which we claim to be of importance for the development and, eventually, the outcome of dementia præcox.

A word should be said regarding the fact that both of the cases which I briefly sketched had symptoms related primarily to disturbances in the sexual instinct. That this is not accidental is shown by the fact that any one who will take the trouble to analyze even superficially his cases of dementia præcox, will find that sexual trends are exceedingly common, and that some disturbances of the instinct have played a considerable rôle in the lives of these persons. This is another point of contact between dementia præcox and the psychoneuroses for which Freud has made an inadequate adaptation of the sexual instinct responsible.

There is a tendency to attribute dementia præcox to some autointoxication; to put it, therefore, in the class of the really organic reactions. Although it has been possible to demonstrate changes in the cortex of some acute states of dementia præcox, we are nevertheless, not in a position to understand their significance fully. As Adolf Meyer has pointed out it is by no means clear that the grave psychobiological change which occur in such individuals may not express themselves in such changes—at any rate all the factors which we have adduced speak against an assumption that we are dealing with a type of reactions similar to the frankly organic or toxic diseases. Indeed, what we have said about the clinical differences between reactions of the third group and those of the organic type, or what we have claimed for the constitutional make-up—and finally what has been said about the analysis of the symptom picture, all this goes to show that these cases are akin more to the psychoneuroses than to the other disorders.

We must state, however, that similar mechanisms may occur in the organic as well as in the emotional reactions. This is not to be wondered at since the normal mind works with such mechanisms, and Dr. Jones, has described an analysis in a mania, in which such mechanisms were very excellently demonstrated. It will be the task of the future to show

whether there are not transitions between the emotional mechanisms and the mechanisms of faulty adjustment. Nothing in nature is clean-cut, and such a possibility is by no means excluded. For the present we have to state that in dementia præcox and in paranoic states, such mechanisms are the leading features, whereas in the others they are not. We might say that in the organic and emotional reactions the undercurrents are as it were, uncovered by a general disorder—whereas in dementia præcox and paranoia the undercurrents break through to the surface because they can no longer be managed.

The question finally arises whether this knowledge has a practical value, whether it gives us any help for our treatment and prophylaxis. In milder cases I think this may be affirmed. It is not at all impossible, and certain facts go to show, that by careful analyses, and by bringing the individual to see what his real difficulties are, so that he can consciously handle them, just as we do in the neuroses, that something may be done. But, as I say, our experiences thus far are hardly sufficient, and unfortunately many of the individuals who thus break down, are, owing to their very constitution, inaccessible. Again, our increasing study of the personal peculiarities which seem to lead to such defects may teach us more and more to appreciate dangerous mental traits, so that by proper training it may be possible to do something in forestalling a break-down. All this means that an early diagnosis will be of importance; what frequently appears merely as a neurasthenia and is thus diagnosed and treated, is often the beginning of a more serious condition which perhaps, if taken in time, may be averted.

SCHOOL INSPECTION.

By SIR JAMES GRANT, K.C.M.G., F.R.C.P. (Lond.)

President International Congress of School Hygiene Branch, Canada, and representative to the Congress for the Government of Canada.

GENTLEMEN, kindly accept my warmest congratulations on the marked success which has thus far attended this assembly of the 3rd International Congress of School Hygiene. What is the source of your enthusiasm? A well defined effort, in every possible way, in keeping with the progress of science, to guard the lives and aspirations of the young generation, on whom rests the future progress and prosperity of the world. Education and health must be in close relationship, and the upholding of the correlation of these forces depends greatly on school hygiene, in order to promote a *"mens sana in corpore sano."* When we consider the large area here represented by leaders in science, from many centres of the world, the comparing of notes cannot fail to be

productive of beneficial and practical results to the race of this 20th century.

Public hygiene may be defined as a branch of sanitary science in relation to the physical condition of our people. In fact, it aims at the prevention of disease by the removal of avoidable causes. The science of public hygiene enlists the timely co-operation of the people themselves by continuous and well directed efforts, counteracting as far as possible the invasion of epidemics, *much* of which depends on personal efforts. The practical and scientific education of the masses is the correct basis on which national health rests, much preferable to any compulsory efforts, the outcome of police regulations, or such like. Mental and physical training must be partners in the guidance of youth towards health. In Canada, forty years ago, the College of Physicians and Surgeons, Ontario, passed a resolution, recommending the local government, to make the study of hygiene compulsory in our schools and colleges, which has been productive of the most telling results, as far as the health of our people is concerned. With the ancients, sanitary science figured prominently. The Mosaic Code of the Jewish race, with its instructions and preventive measures, led chiefly to the longevity and actual freedom, from epidemics in the middle ages. The grand old Greeks, by their Sanitary Code, became in a measure not only by philosophy, literature and art the civilizers of the world, but as well by a most striking example as to the cultivation of bodily physique and intellectual faculties. The Romans, though not remarkable in sanitary science, left undoubted evidences of most extensive sanitary engineering. In the middle ages the history of England defines the visitation of plagues, pestilence, and famines, at which period, strange to say, there was belief in the supernatural as to epidemic diseases. In those days conditions favorable to health were little known. Epidemics were regarded, from their far and widespread, as visitations of national disaster. Gradually new light was thrown on the entire subject of sanitary science, marked by well defined advancement in agriculture, manufactures and commerce, stimulating an awakening, productive of the most happy results as far as health is concerned. Improvement in ventilation and house accommodation followed in quick succession, lessening greatly not alone the death rate but as well the prevalence of fevers and epidemics. What a relief such marked changes in sanitary science are to the poor, the ignorant, the helpless, classess upon whom, through a want of knowledge, the chief source of trouble falls.

Public hygiene is by far the most important subject of the present day, as on it actually depends the moral, intellectual and physical powers of the present generation. It is only within a few years that the public have become alive to the great importance of this subject.

In Britain, Europe, Canada and America there is an evident awakening in sanitary science, as carried out in state and preventive medicine, which are bound up together. The sciences and arts grow, and divide, and then hygiene cannot be considered an exception to a well established principle. School hygiene is closely allied to the claims of the body, in relation to health and education, and fortunately we have with us on the present occasion, many who, by wide knowledge, and diversified experience, can formulate ideas as to physical welfare in school life, co-incident with growth, and training in childhood. The efforts of different and diversified workers may thus be co-ordinated and lead to united action in advancing the interests of the coming generation, to promote increased strength, contentment, and unity, in the mental and physical development of a coming race.

Few subjects before the public deserve closer enquiry than the health of children, and their environment in school life, where overcrowding must be avoided, to prevent an impure atmosphere, frequently the initial factor, in the development of disease, tuberculous, and otherwise. Under such circumstances the medical examination of school children becomes a necessity in every well regulated and progressive community. In some parts of Canada, particularly in the Province of Quebec (Montreal city) and in the Province of Ontario (Toronto), the authorities have established a system of school examination of children, which we trust will become general throughout our Dominion. So far as Ontario is concerned, the work in that province was begun in 1894, on the occasion of an outbreak of diphtheria, and has been continued ever since under the control of the Board of Health. As to School Inspection in New York city, with one of the ablest health officers in America, Dr. Briggs, everything is conducted in a most up-to-date manner, through regularly appointed medical inspectors, and *school nurses,* the latter a most progressive advance, in this noble work.

In the County Borough of Blackburn, England, the report of Dr. Alfred Greenwood, Health Officer, has attracted wide attention. Of 338 school children taken at random for examination, no fewer than 54 had indications of tuberculous disease. Such facts are truly alarming, and demand, the most careful scrutiny. Generally, young children are not supposed to be tuberculous, which doubtless has led to indifference as to through examination. It is a well established fact, that tuberculosis is really not caused by overwork, poor food, or foul air, as man can live in these indefinitely, provided he has never gotten the tubercle bacillus, that tiny microscopic plant, into his system. Beyond doubt, tuberculosis is a home disease, contracted indoors and rarely, if ever, in the open air, where good ventilation, and sunlight are present. True, tuberculous

infection may be dormant for years, and requires the most searching expert examination to arrive at a correct diagnosis. Over work and foul air never really cause tuberculosis, but take a child, who from some unforeseen circumstances, has the bacillus tuberculosis in its system, with such abnormal influences, a mild benign infection soon lights up into a serious disease, the latent and closed lesion converted into an active, open and dangerous one, and this is the actual condition that demands the most careful and rigid school inspection of a highly scientific character to guard the lives and to protect the interests of parents and children. Such figures will surprise many. One point which should not be lost sight of, is the fact, that *your children or mine* may be occupying *a seat next* to a *consumptive* child without being aware of the fact until too late, and doubtless in a manner, clouded by total ignorance, many a valuable life is lost. Who will say, under such telling circumstances, that Medical Inspection of Schools is not an absolute necessity, and early isolation, in the incipient development of the disease, a most valuable asset for prevention and protection against communication. This one measure in a short time *would stamp out tuberculosis* and make its fatal record *a matter of surprise.* What we actually most require in educational institutions are health officers, such as scientific inspectors, health laws and regulations, government equipment for disinfection, all of which are of value and the result achieved *a most marked lessening in the death rate from tuberculosis,* ere the close of *the present century.* In addition to hygiene measures the food supply of school children requires careful examination. How frequently the morning appetite is destroyed by unhygienic surroundings.

Robert Hunter (Literary Digest, July 10th, 1909, New York) records, that of 40,746 children, 12,121 or 34.63 per cent. had gone to school breakfastless, or nothing more than bread and tea, or coffee, a poor outfit for a day's work. Poverty or want of food is not the real trouble, but usually the personal hygiene of the poorer classes, careless mothers, unclean bedrooms, close and badly ventilated, late retiring hours, unsuitable dinners, neglect of the morning tub, hurried off to school, badly cared for, and not unfrequently with a very defective breakfast. These varied conditions doubtless help on disease in children from 6 to 14 years of age, the period in which fully 30 per cent. present stigmata of tuberculosis, and the ratio of increase is greatest *about the time the child enters school.* This is the period for action, as in youth, the corner stones of future strength, as so placed, as to fortify the system against the lurking inroads of tuberculosis.

Science in its diversified aspects owes much to the great educational centres of Europe, the pride of your country and your people. The first

system of medical school inspection originated in the City of Brussels over thirty years ago. Other cities followed in quick succession, Frankfort, Wiesbaden, Dresden, and Leipsic, in which latter city, with a population of 67,000, there are eighteen school inspectors. In Zurich, Switzerland, there is a regular system of school inspections under a central school board. The medical examination of the schools in England is well endorsed by the "Educational Committee of the London County Council," and the Scientific Medical School Inspector is to-day an established principle in the land.

In Japan, where science is rapidly in the ascendant, the medical inspection of schools is general, there being a strong concensus of opinion in favor of so progressive a move for the protection of child life, and in fact, no form of educational organization can be considered complete which neglects the systematic reference of the health of school children, *to medical experts, chosen for that special and far seeing purpose.*

The doctor and educated trained nurse guard carefully and prudently the school and the home where tuberculosis is born and bred, and this fortunate union is the outcome of education and observation in the ordinary affairs of life and disease. The hygiene of the child aims to preserve mental, as well as physical power, a stocktaking in fact, by which we estimate fitness or unfitness for the mental training about to be undertaken. The most perfect development for a growing and expanding organism is what is required. It is during childhood that even brain power is exposed to serious danger. The building of a brain is a social problem of more than ordinary interest to the home circle. The brain of youth is in a sense crude and rudimentary, a cerebral pulp, soft, pliant, and may by over pressure be so overstrained as to *be cloudy* ever afterwards in the duties of life. It is this stage of mental hygiene demands the most careful consideration. The development and permanency of brain power in child life demands the closest possible scrutiny in the midst of the formative process of thought. In the youthful period of life the receptive faculties in the process of education should proceed slowly, gradually and cautiously, to avoid as far as possible overstraining brain tissue, the importance of which cannot be overestimated. For children under seven years of age, teaching should be playful and encouraging to develop with as little strain as possible the germinal evidence of intellectual power. *Child power* thus preserved, becomes in time *good man power, ready for the varied emergencies of life.* In this line of observation the importance of careful scrutiny and most searching enquiry cannot be overestimated. *The cramming system* of the present day is not likely to produce a generation possessed *of high*

intellectual power. To force on the brain functions in advance is likely to endanger the very structure of the brain and lessen intellectual activity. The aim of education should be, *to get the best out of each individual* and not to obtain *an average of mediocrity.* Right judgment is only developed by discipline, the outcome of method and study. What we most need in this era of the world's history are young people trained by enlightened education to become useful members of society and take their part manfully in the varied spheres of duty which demand the exercise of their energy and ability.

All circumstances considered, the task of school hygiene is no easy one, so much depends on careful scientific enquiry on the various points referred to. Parents are anxious their children should make a mark in life, notwithstanding the *fact* that no educational training of the pabulum of thought, the brain will at once fit a lad for any particular calling in life. What is required is that the mind should be so equipped as to be equal to the emergencies of life, and the school inspector becomes a supervisor of mental development in the progress of which the strength of brain and body must be well balanced to ensure the practical outcome in the varied responsibilities of a trying age.

This Congress has a noble object in view, and the earnest wish is that a generation, strong, healthy, and vigorous, intellectually and physically, will result from its deliberations.

PRENATAL INFLUENCES.

By JENNIE GRAY, M.D., Toronto.

WHEN requested to give a paper to this association, I consented if the Committee cared to have one on the subject allotted to me on your programme.

I selected this subject for two reasons, viz.—*first* because I believed it to be one of greater importance than almost any other in the realm of medicine, and—*secondly* because it has not received the direct practical attention from physicians which is due it.

It is an important subject because of the ignorance, because of the fatal and awful results of ignorance or wilful violation of the known laws, by those who know little and care less for responsible acts; the results of which the *world* has to bear, though the individual may suffer most keenly.

First it appears to me the highest patriotism to spend time and effort on this matter.

This fair land of America—United States and Canada—has been blessed for 300 years with freedom of speech and religion and with constitutional government.

That this fredom has not resulted as yet in all round good may be judged by the writings of Prince A. Morrow of New York, Robt. N. Willson of Philadelphia, J. Tabor Johnson of Washington, Krafts, in his Psychopathy Sexualis and Dr. Winfield S. Hall of Chicago, and Dr. L. Barker of Johns Hopkins.

It is evident that all the wonder-working discoveries of science and medicine, all the increase in general knowledge and intelligence has not yet stayed the increase in diseases that destroy children, make invalids of men and women, break up homes, and wreck nations.

Note the immense amount of time, money and skill expended in devising ways and means for the treatment of gonorrhoea, syphilis and their after coming results.

Science sought and found the cause of African fever, yellow fever, typhoid, pneumonia, tuberculosis and many other diseases, and having found the cause at once went to work to find means to remove or overcome it.

The cause of gonorrhoea and syphilis is known. What scientific definite systematic means have been used to *prevent* the wholesale devastation wrought by these evils?

It is an anomaly. It is just one thing of a kind. We isolate scarlet fever, measles, small pox, etc. We are teaching consumptives how to live so as not to infect others. We guard people from septicaemia and erysipelas. We muzzle the dogs to prevent the spread of Rabies. We warn; we guard; we teach; we talk, and it is all good. But here are two diseases which according to Dr. P. A. Morrow produce, 1ST, 42 per cent. of all absorption—2ND, kills 60 per cent. to 80 per cent. of all children affected with it before birth or shortly after; while the other 20 to 40 per cent. are subjects of degeneration and susceptible of transmitting it to the 3rd generation—3RD, cause 80 per cent. of deaths from inflammatory diseases peculiar to women—4TH, makes 50 per cent. of women affected sterile.—5TH, causes 10 to 30 per cent. of all blindness.

Dr. J. F. Johnson of Baston, declares that 75 per cent. of men are subjects of venereal disease and we well know what this means in the production of sickness, death and sterility.

Science has been applied for the production of better cattle, better horses, better sheep. Hens have been made more productive.

The breeding of dogs is scientifically and systematically studied and practised.

Almost every State has an experimental farm belonging to the Government, cared for and directed by trained men whose work is to

find out ways and means of improving grain, fruit or flowers that grow in that State. For example—science has changed the common little chrysanthemum that we find in the woods into all the varied forms of beauty that we find in our flower shows.

We have our Bells, Edisons, Marconis, Oslers, Kellys, Mayos, and each has brought his quota of good and given it to the world.

Now what lesson does each teach as he wins from nature her treasures and turns them to account by the magic of his intellect?

N. N. Riddill says, "It is a noticeable thing in the ruling and guiding of this world, there is absolutely nothing done by chance."

Everything is subjected to a system and anything that is not *scientific* is thought not worth consideration.

Great systems of railroads form a network for communication through the countries. Automobiles and flying machines almost annihilate space. Floating palaces make ocean voyages short pleasure trips.

It is true, this question of child culture with its prenatal and post natal training is now written about and spoken of to-day, in a manner and to a degree, that could not have been conceived of, five years ago. So there is advancement.

But are we as physicians and physical instructors, scientists in this matter? Are we, in our high and most responsible position as scientific and trustworthy, as advisors, as your gardener and veterinary surgeons are in theirs?

But what about scientific child-culture? Is it not time to apply the common well known laws governing the production of new life in all the world around us, to the production of new child life?

As the value of the coin that comes from the mint depends on the metal used and the impressions put upon it—so is the value of the child. The essential character of the parents is the first consideration but special form and fine definition of value for currency in the world is decided by the state of the father and mother, physicial, mental, and spiritual, for some weeks before and at the time of conception, and by the impressions put upon the mother, during the time of gestation.

The value that has been given to ancestry from the beginning of the ages is marked by the pride of lineage, by writers giving their family history to account for themselves. For example, Marcus Aurelius Napoleon—John Patton—King Edward VII, etc.

The "class" distinctions in all lands arise from this; from India and its "Caste" system around the world to Great Britain.

We cannot ignore this force of heredity and we don't—but do we get the whole lesson there is in it for us?

Some of us know that there are the few that have grasped the thought, that to pro-create a human being in love and purity and thus give it its *first* rights is the *greatest* and best gift that anyone may bequeath to the world. But the great mass of the people is in the deepest ignorance concerning these things and their children are fit products of this ignorance.

The following reports bear out, only too graphically this fact.

In the United States idiots, blind, deaf-mutes, and insane have increased nearly five times as fast as the population in the past 40 years. In 1850 there was one criminal for every 3,400 of population. In 1900 there was one for every 560 persons. Crimes are nearly five times as numerous as 40 years ago.

Homicide and suicide are alarmingly on the increase.

In the United Kingdom (England, Ireland and Scotland) crime and evil are also on the increase and it costs them 165,000,000 dollars each year for the upkeep of its defectives.

Statistics are such dry reading we are apt to pass over the fact that the sum is made up of individual units, each helping to swell the number for or against.

Now let us look at some other facts.

The large majority of children are born because of selfish or thoughtless indulgence of desire, either in ignorance or in defiance of nature's laws on the part of one or both of those concerned. The mental, spiritual or physical fitness for parenthood has not been considered by a large majority of those who undertake to become parents.

Undesired children.

The first three months of prenatal life is the time when the foetus is most susceptible of impression, both physical, mental and spiritual. The brain and nervous system take precedence in the order of development.

Anger, fear, disgust, sorrow all create poisons in the blood which more or less affect the growth and development of the new life. These are sufficient at times to produce the death of the child.

Drugs used to produce abortion also more or less injure or destroy the new life. What a heritage for the thousands of unwelcome little ones.

Prof. Elmer Gates, (Laboratory of Psychology and Mind-Art at Chevy Chase, Md.), published a report of experiments in 1879 and in it showed that the breath of a patient condensed and precipitated by Iodide of Rhodopsin gave various results according to the state of the patient. In the normal state no precipitate was produced—but within five minutes after the patient became angry a brownish precipatate was formed, sorrow produced a grey precipitate, remorse a pink, etc.

These deposits being collected and administered to men and animals produced either stimulation or depression and were nutritive or poisonous according to the nature—pleasurable or otherwise.

We know that anger so poisons the system as to produce depression, exhaustion or even death. Joy on the other hand or devotion may produce a remarkable endurance, as shown in the mother's care of a sick child.

Another consideration that is often overlooked is that the health and vitality of the child is injured if the mother be overworked or ill nourished before conception during gestation, or during lactation.

The thought of the government care for the indigent women in this condition is finding its way gradually, and presently we shall see a sum of money set aside to provide that pregnant women may not have to wash and scrub for a living for their families.

Still the general darkness on this subject is rather dense, and it does seem to me the physicians of our land could and should give more help than they are doing in dispelling this darkness.

Is it any wonder so many children are failures in life? And the pity is the mothers do not know what they are doing. Most people want to be fair to their children. The *only* remedy for this condition manifestly is, to teach the laws governing pro-creation and prenatal influences.

Let us consider first that all the father is able to give as his part in the new life, is, what he has been previous to conception with the strong impress of what he is physically, mentally and spiritually at the time of conception.

2nd. Alcohol and tobacco are both poisons.

Dr. Rentoul says, "In any case it cannot be denied that alchohol is a brain poison." Dr. Elam says, "When duty was removed from spirits in Norway idiocy increased 150 per cent. insanity 50 per cent.

Howe found that 50 per cent. of parents of idiots were drunkards.

As to tobacco Riddell says, "The hereditary effects of tobacco are not unlike those of chronic alcholism. The tendency towards its use is transmited from one generation to another."

Its effects on the brain and nervous system may be well studied in the reports of those who examine applicants for the army.

Cigarette-smokers are found not to be desirable in business and are not employed in the best establishments.

The Law of Continence.

Perhaps the most important law for right development is that of continence during gestation. It is also probably the one most often broken. That the breaking of this law before conception and during

gestation means to the individual and to the state is absolutely beyond computation.

Dr. Cowan says, "Do you know why a son while yet a boy practises self abuse? Do you know why a son before even he has reached manhood seeks through prostitution and seduction to foul, blot and weaken his soul and body?"

Then he goes on to show, it is because of incontinence on the part of parents before, and during the prenatal life of the child that these things are so. Inquire in your own clientelle as I have done and you will verify these statements.

You as physicians know how general is this practice—even among the religious, sober and otherwise good citizens. Prof. Cates has shown in his experiments on puppies that repeated use of certain faculties increase the number of brain cells in that region of the brain that presides over the part controlling that function and makes them of a higher grade of development. This fact alone will account for the abnormal development of the sexual nature in a large part of the human race.

We have thus far looked at the dark side of the picture. Let us turn now to the consideration of what may be, ought to be and in a few years will largely be, when humanity has evolved and wakened up to the fact that the science of child culture is of all the ologies the greatest and most productive of good.

Dr. Rentoul thus describes a child's birthright.

"The right to be healthy and to be happy. The right to be useful citizens and the healthy begettors of a strong race.

The child is given what the parents have attained to by their previous life. If, therefore, the child is to have its *first* right,—*health* and that in the *first degree*—no man or woman should become a parent until he can bequeath that most precious gift. This would also mean that a possible conception must not be thought of, except under the most favorable, mental and spiritual conditions. If sorrow and anger create poisons, joy, love, happiness and peace produce a stimulating tonic to the organism. Children born under these favorable conditions will be better specimens of humanity than their parents.

Case 1 in California,
" 2 Mrs. B.
Toronto, case 3 Mrs. H.—Toronto.
" 3 Dr. B.

Dr. Cowan in his chapter on "Genius," gives the laws to be followed in order to produce children with, *first*, a strong physique and *secondly*, any special line of genius that may be desired.

This is done constantly with flowers, fruit and animals, why not with children? If it be possible at all for ordinary men and women to so live as to be assured of good, talented, healthy children that will grow up to be a blessing and joy to all, and a success in the world, isn't it worth study and work and planning for ten to 20 months? What is that in a lifetime? Case A., Baby H—a much desired and planned for child—compare case B., an undesired one.

I have personally noted the end uring powers of both classes and believe Dr. Cowan to be right.

The Jewish race is an example of what obedience to the laws of health will do in preserving a people. They are a wonder to the world. If they disobeyed the Jewish laws and followed the rest of the world with regard to sex life, would their history differ from that of the Ancient Romans and Greeks and Egyptians think you? The whole secret is in *obedience* to nature's law.

Now let us sum up.

1. There is no doubt about the evil conditions.

2. The cause without question is the *world thought,* that the organs of generation are for the gratification of the individual, whereas it is as clear by analogy that these are only for the individual to use for the good of the race—as is clearly understood in the world of flowers and fruit as well as among lower animals.

3. Reproduction in all departments of nature has its well defined laws, the breaking of which produces chaos—in a greater or lesser degree according to the extent of the departure from the normal.

4. By obedience to known rules, children—beautiful—honest—talented and physically strong, are assured.

Can you conceive of a greater service to the world than to spread abroad every bit of real light on this subject?

Is it not cruel, unpatriotic and destructive to allow any one in this fair land to remain in ignorance of these truths?

Think of the absolute ignorance and unpreparedness of the couples who undertake to people our countries.

Is it not time to wake out of sleep?

No one is more fully aware of the magnitude of this question and of the difficulties attending it than I am, and after much thought, if asked for an all round working rule for the governing of conduct in these matters I have found this beautiful old fashioned and long tried one, "Love worketh no ill to his neighbor."

CURRENT MEDICAL LITERATURE.

MEDICINE.

Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.

THE WASSERMANN REACTION.

A preliminary report on 57 cases of syphilis treated from the standpoint of the Wassermann reaction is given by B. C. Corbus, Chicago (*Journal A. M. A.*, September 3), which comprises 2 years' experience with the method. For convenience, he divides the cases into 2 groups, the first comprising new cases in which the patients were treated entirely after the biologic method, and the other, old cases in which the patients had been treated before this method was used. He also adds a third group of apparently cured patients who have been treated by the method. In the first group he mentions cases of chancre before the Wassermann reaction was positive. In this series there were 7 cases. In 5, excision was employed. One other could not be removed without excessive loss of tissue, and one was treated locally with calomel. The treatment was energetic; except for a few injections, rubbing and internal treatment were the rule. Corbus still believes in excision, but mentions the danger to the operator. He believes that relapses would be fewer and our success greater with the disease treated early before saturation of the body with the spirochetes. In this series the 4 cases that have remained with the negative Wassermann reaction have shown no signs of syphilis. One patient relapsed; 2 patients disappeared after 3 months' treatment, but up to that time had not had even an adenopathy. There were 11 patients in the first group where early secondaries had appeared and the blood test was positive: 7 of these became negative. The other 4 would not or could not take continuous treatment. Of the second group, treated previously, before the biologic method, there were 13 patients, all but 2 had had external manifestations within a year, and the infections dated from 3 to 8 years prior to observation. Twelve patients have continued treatment; 1 dropped out. Of the 12 who have continued, a negative Wassermann reaction has been obtained in only the 2 exceptional cases mentioned. The others had been inefficiently treated and were saturated with the spirochete. There were 15 latent cases in which the patients gave typical specific history, but had been free from signs of the disease for 3 years or longer. All gave a positive reaction. In 7 of these, a negative reaction was obtained, but 4 relapsed. One discontinued treatment, and in the remaining 7 the negative reaction was not obtained. There were 2 cases of tertiary disease. In both patients treatment was without

good results. Two patients with congenital syphilis were treated, one of whom showed a negative reaction after treatment, but the other remained positive. In the apparently cured patients, a negative reaction was obtained in all. Corbus advises treatment continued after the negative goal is reached, for how long the future will have to decide. Stopping treatment at the first negative reaction is ineffective.

TYPHOID FEVER PROBLEMS.

W. F. Dutton, Carnegie, Pa. (*Journal A. M. A.*, September 3), criticizes the United States Government for its ineffective work in regard to the prevention of typhoid, as compared with that against some other diseases. It has been a comparatively recent thing for states and municipalities to take up this subject, and it has been especially neglected in the rural districts. In northern Canada, during 1909, typhoid appeared to be generally epidemic, especially in the mining regions. The only preventive measures used are the occasional disinfection of stools and urine with chlorid of lime or bichlorid of mercury, and the boiling of drinking water. Contaminated springs and wells are not condemned, but are cleaned out, sprinkled with lime or salt and used again. Dutton has personal knowledge of wells that have been the source of typhoid for years, but any reference to them as a means of infection is received with apathy by the consumers of the water. Present-day problems concern first the individual; second, the community, and third, the state. The individual in health may be the means of carrying and distributing typhoid germs, and Dutton believes that through errors of diet the colon, paracolon or typhoid bacilli may generate typhoid. The individual must be educated to know the perils and avoid them. The problem of the community is a little more difficult. There may be many sources of infection and the situation may be complicated by restricted powers of control. A commendable procedure, however, is the isolation of bacillus-carriers until microbes are no longer found in them, especially when they are persons employed as teachers, nurses, cooks or employees in bakeries, dairies, restaurants, etc. Hospitals especially should regulate their subordinate staff and physicians should keep a record of all typhoid cases and systematize the record of carriers of the bacillus. The prevailing idea that healthy persons cannot be brought under control like other carriers needs serious consideration. The state is the great supervisor of medicine and public health, and Dutton mentions especially the work done in Pennsylvania in this regard. The water supply in small towns and rural districts presents a more difficult problem than that in larger cities, and he illustrates the sanitary methods that should be used in such communities. Municipal sanitation has taken

a forward step in the disposal of garbage. The present method of constructing cesspools and vaults is faulty and needs strict regulation. The insect problem is also one to be considered. Vaccination against typhoid is in its infancy, but Dutton believes that it has a future and will become effective and valuable. He holds that the state should be the supervisor of all water supplies for cooking and drinking purposes. It should specify the sources and how they are to be protected and otherwise prevent all violations of hygienic or sanitary rules.

SOME OF THE OPEN QUESTIONS IN TUBERCULOSIS.

Thomas E. Satterthwaite, New York, shows that a knowledge of tuberculosis was possessed in the time of Hippocrates, who gave very sensible directions for its treatment by fresh air, outdoor exercise, and rest. What Koch gave to us was the actual knowledge of the bacillary cause, which enabled us to begin the direct fight against tuberculosis. To cure tuberculosis there are two important things to be done, treat the case efficiently while it is a closed case, without ulceration, and isolate the open, advanced cases so that they will not infect others. If the laity are to help us they must better comprehend the problem of sensible treatment of these cases. While tuberculosis is communicated by contract it is not contagious in the same degree as the exanthemata, syphilis, and gonorrhea. It is only communicable under favorable circumstances. Fully 50 per cent. of the adults contract the disease at some time during life and are cured. It is contracted in various ways; to determine the ratio of the different methods of infection is very important. Many of the problems of tuberculosis are complex. There is a humanitarian side to the question; measures of prevention must not entail unnecessary hardship on the sick man, lest the success of the movement be retarded. We have reached a point where it is of importance for the National Government to create a Board of Health for the handling of this important work all over the country with uniformity of effort. It has become an interstate matter and can only be dealt with as a national matter.—*Medical Record,* September 3, 1910.

SURGERY.

Under the charge of H. A. BEATTY, M.B., M.R.C.S., Eng., and A. H. PERFECT, M.D., C.M., Surgeons to the Toronto Western Hospital.

CHRONIC APPENDICULAR INFLAMMATION.

Dr. J. S. Myer, in the *Interstate Medical Journal* for August, emphasizes the following points in arriving at a diagnosis of chronic

appendicular inflammation with gastric phenomena: 1. A careful history should be taken with special reference to the previous existence of acute abdominal attacks, perhaps as far back as childhood. 2. Primary gastric diseases should be excluded through a determination of the motility of the stomach, careful, and if necessary, repeated examination of the stomach contents, bearing in mind that there may be coexisting lesions in the stomach and appendix and that in a small percentage of cases the acidity may be greatly increased simulating ulcer, may be diminished arousing fears of carcinoma, but as a rule is found within normal limits. In a distinctive diagnosis careful examinations of the fæces for blood, and of the urine, and examinations of the blood itself, will often throw light upon obscure cases. 3. Especial care must be taken in cases of habitus enteroptoticus not to mis-interpret the physical signs often elicited in these cases in both the epigastric and right iliac regions. 4. Through the careful physical examination other organs, especially the abdominal, must be excluded as a causative factor, not forgetting again that two lesions such as gallstones and appendicular inflammation are not uncommon in the same individual. 5. Lastly, there must be a most careful examination of the right iliac region for positive findings, bearing in mind that in exceptional cases of chronic appendicitis no local signs can be elicited. In the examination of the appendicular region one or more of the following signs may be present. Local pain on pressure over McBurney's point. Pain rediating toward the epigastrium on pressure over the cæcum without, perhaps, any pain at the point of pressure. Epigastric distress and nausea on pressure in the appendix region. Meltzer's sign, which consists in pain produced through the elevation of the right leg of the patient while exerting pressure over McBurney's point. Pressure on the left iliac region or other portions of the lower abdomen may cause pain to radiate to the right iliac region. Spasticity of the cæcum. Borborygmus in the cæcal region on manipulation. Exceptionally, in very slendor individuals, the palpation of the thickened appendix. Pain and infiltration on right side occasionally elicited through rectal examination.

OPERATIVE REMODELLING OF THE TARSUS IN CLUB-FOOT.

Bartow (*Amer. Jour. of Orth. Surg.*, May, 1910) writes in favor of Ogston's method of correcting severe forms of congenital club-foot, which purposes, by the immediate reshaping of the deformed tarsus, to place the foot quickly in a position for improved weight bearing. The chief feature of this operative treatment is the removal by means of a

Volkmann's spoon of a sufficient amount of the cancellous tissue of the astragalus, cuboid and os calcis, and, if necessary, the other tarsal bones, to convert them in whole or part into plastic shells. Changes are thus effected in the form and position of the malformed bones, allowing the foot to be easily placed in the desired posture. From an experience of twelve cases the author has been led to suggest some additions to the technique which could, he believes, extend the scope and value of this operation. Ogston, it is held, attached too little importance to conditions in cases of club-foot of contracture of the soft tissues, the division of the Achilles tendon being, in this surgeon's opinion, the only necessary measure of that character to be considered in connection with the operation on the bones. It is pointed out that unless there has been a preliminary elongation of all shortened muscles, fasciae, and ligaments by one or other of the usual methods of unfolding the foot, the tarsal operation will fail to overcome the undue shortening of the extremity. Ogston's operation, therefore, should be preceded by, in addition to section of the Achilles tendon, forcible stretching, open or subcutaneous fasciotomy, or tenotomy, or even Phelps's operation. This combination possesses advantages over astragalectomy and cuneiform excision for the higher degrees of deformity, as it diminishes interference with the tarsus as a whole, and conserves both tissue and articular relations. In applying this combined method in the treatment of congenital talipes, the surgeon can dispense with the prolonged use of splints and braces, and thus further the subsequent development of the foot. This plan of treatment has also been applied by the author to ten instances of equino-varus of the paralytic type. In most of these cases the degree of muscular impairment contraindicated tendon transposition. Tarsal remodelling suggested itself not only for rectifying the deformed and rigid tarsus, but also for lowering the height of the tarsal arch by excavating the astragalus and causing it to collapse. As a substitute for arthrodesis the author's modification of Ogston's method has, it is stated, the advantage of preserving a greater degree of elasticity in the foot, and consequently of keeping under control the increased tendency to deflection.—*British Medical Journal*, Aug. 27.

FISTULA IN ANO; EXCISION AND SUTURE.

Dr. E. C. Beck (*Med. Record*, July 16, 1910) reports seventeen cases operated on, and describes the method used as follows: The patient is admitted to the hospital on the day before operation and is well purged. He is allowed no solid food whatever, and his colon is thoroughly evacuated by enema one hour before operation. Anesthesia is usually by ethyl

chloride, as the operation is a short one, and the patient later on is the better for it. A probe is inserted into the canal and pushed through until it can be felt by the finger in the rectum. A grooved director is now slipped in over the probe. This is used because it is a more powerful instrument and will not bend when traction is exerted with it. Running the tip of the scalpel along the groove the tissues are slit open with one sweep. Be sure to cut through the sphincter at right angles and it will reunite perfectly. Have the wound surfaces spread well apart and carefully remove all scar tissue in view with a sharp, blunt-pointed scissors. If in doubt rather cut away a little too much than not enough. Pay particular attention to the internal end of the wound. When all the offending tissue has been removed paint the whole surface with tincture of iodine. The scanty bleeding can easily be controlled by sponging. Great care must be exercised in bringing the severed tissues together closely and accurately. For suturing material silk worm gut answers the purpose. The first suture is placed at the inner angle of the wound. The edges of the gut and sphincter are brought together with mouse-toothed forceps and a generous bite taken with the needle. A strong needle is imperative. Be sure that enough tissue has been taken in with the suture, as it will form a cushion when pressure is exerted, and will tend to keep the wound surfaces closely approximated. Sometimes it is necessary to make the suture for the sphincter an extra one, especially in those cases in which the fistula opens fairly high up in the gut. Leave the ends of the suture long, clamp it, and let them hang down out of the way. Sew up the rest of the wound in like manner, placing a stitch about every half inch and burying the needle deeply each time. Leave all the ends long, and when finished carry them all to one side, and fasten them to the buttock with adhesive plaster. This will prevent irritation of the parts and add to the comfort of the patient. When the operation is completed a T binder is applied. The patient is kept on his back and in bed, and his persistalsis held in check for at least four days by the administration of bismuth and opium. Only such nourishment is given as will leave the least amount of residue. When the patient begins to complain of cramps and colic his bowels are evacuated by means of an oil enema. He is usually allowed to go home at the end of the seventh day. At the end of ten days all sutures are removed excepting the innermost one, which should remain for two weeks to insure a perfect result.—*Medical Times,* September, 1910.

SPINAL ANÆSTHESIA WITH STOVAIN-BILLON.

Dr. F. Michelsson's article on spinal anesthesia (*Archiv. für Klin Chirurgie,* Band 92, Heft 3) is a critical review of 400 cases treated by

this method at the clinic of Von Bergmann at Riga, between May, 1906, and February, 1909. He precedes this review by a discussion of the technic of the indications for spinal anesthesia. Stovain is his choice rather than tropacocain or novocain, and the preparation of stovain which he uses is that of Billon. This comes in sealed ampullæ, each containing 2 ccm. of a 4 per cent. (equal to 0.08 gm.) solution of stovain with a slight addition of common salt (0.11 per cent.) and boric acid epirennin (0.00013 per cent.). This solution is isotonic with spinal fluid. Stovain is only one-half to one-third as poisonous as cocaine, but has an affinity for motor nerves and is slightly irritating to the tissues. It remains for about seven hours in the spinal fluid.

Michelsson favors a preliminary dose of scopolamine and morphine; he then inserts his needle containing an obturator through the skin in the median line, between the spinous processes of the second and third lumbar vertebræ. After the needle has penetrated a distance of 1 cm., the obturator is withdrawn and the hollow needle pushed in until spinal fluid is reached. The amount of this withdrawn depends upon the force with which it is expelled. Michelsson withdraws from 1 to 3 ccm. before injecting 1.4 ccm. of the solution.

After the injection of the solution with a syringe, and the withdrawal of the needle, the patient lies horizontal, with head and shoulders slightly raised, for from five to ten minutes. Formerly the pelvis was raised, but it is to this maneuver that Michelsson ascribes most of their untoward results.

In the selection of cases for this method of anesthesia, the old, feeble and cachectic patients and those with the acute surgical emergencies, such as strangulated hernia, are considered most fitting. People with pulmonary or renal or cardiac disease run less risk by this method, and it gives good results with acoholics and diabetics. Syphilis is a contra-indication. Young people take it rather badly, and Michelsson avoids it in extra-painful operations, in septic cases and in those with nervous disease.

The 400 cases in his series formed 10 per cent. of all the operations done in that clinical during that period; 261 were abdominal operations, 71 were upon the urogenital system or the rectum, 68 upon the legs. In 83.25 per cent. the anesthesia was complete for the region of operation; in 14.25 per cent. it was complete, but still satisfactory; in 2.5 per cent., or 10 cases, it was insufficient, and general or local anesthesia had to be resorted to. Of these 10 failures, 5 were due to technical errors; the other 5 were unexplained. Of 9 deahs, 4 were attributed in part at least to the action of the stovain. Other complications were, collapse in 4.5 per cent., vomiting in 6 per cent., head and back pains in 13 per cent., transient paralyses in 1.5 per cent., cramps in .75 per cent., and psychical

disturbances in 1.25 per cent. Curiously enough, 11.6 per cent. had lung complications, while in 250 laparotomies with ether, only 7.6 per cent. were so affected. Michelsson believes that although spinal anesthesia is a valuable aid to surgery, it will never, because of its after-effects, supplant ether narcosis. He concludes with the histories of those cases which were not absolutely successful.—*Boston Medical and Surgical Journal,* September 8.

GYNÆCOLOGY AND ABDOMINAL SURGERY.

Under the charge of S. M. HAY, M.D., C.M., Gynæcologist to the Toronto Western Hospital, and Consulting Surgeon, Toronto Orthopedic Hospital.

CONSERVATISM IN GYNÆCOLOGY.

"A Plea for Conservatism in Some Gynæcological Conditions" is the subject of an article well worth our perusal. It is written by Dr. James P. Glynn, of Brooklyn, N.Y., and appears in the *American Journal of Surgery.* Although there is nothing particularly new in the contribution, still he makes very plain the safest methods of procedure in some septic conditions. Some of these paragraphs are well worth quoting:

"The conditions I refer to are infection after childbirth, and acute gonorrheal salpingitis. There were many valuable lessons absorbed during a twelve years' association with our late esteemed fellow member, Dr. Walter Corcoran, and the writer is glad to acknowledge this debt. But there was no lesson more valuable than that of the practice of conservatism in post-partem sepsis. I often admired the courage Dr. Corcoran displayed in maintaining an attitude of calm and well-advised restraint in this condition, for it does require courage to withstand the clamor of friends, the insistence of the family physician, and the scarcely veiled ridicule of the radically inclined house staff."

Treatment.—Ulcers of the vulva or vagina should be touched with tincture of iodin. If the repaired pelvic floor breaks down and suppurates, the stitches should be removed, and the wound laid wide open so as to drain.

As soon as the patient's temperature reaches 102 degrees unless there be other fair explanation, a specimen of the lochia should be obtained for microscopical examination, if this be possible. A word here about the gross appearance of the lochia. In spite of all that has been dinned into our ears, in school and out, it is a very common thing for me to be assured by the accoucheur that the lochia were not foul-smelling, as an evidence that the fever must be of other than uterine origin. As a matter of fact, the reverse is almost always true, for in pure streptococcic infection the odor is very little changed from normal.

To resume—the sterilized finger should be introduced and the interior of the uterus gently and thoroughly explored, after which the appendages should be investigated with the two hands. If the uterine cavity is smooth curettage should not be thought of, but a douche of several quarts of saline solution should be given. On the other hand, if the endometrium is rough and contains shreds, it should be cleaned out with the finger and followed by plenty of saline douching. As has been said, in the severe cases there is nothing to be removed by a curette, and harm is inflicted by breaking down nature's protecting wall of leucocytes; and in the mild cases where there is much débris the finger can remove it as readily as the curette.

I have said *saline* douches, because the various antiseptics do not add to the effect and may do damage. The utility of the douche in this instance is purely mechanical. It is not rational to suppose that we get a chemical action penetrating deep into the tissues when the bacteria lie, from the transitory passage of the fluid over the intrauterine surface. If one has to deal with a putrid endometritis, and the symptoms do not yield to the first washing, the douche may be repeated. When the infection has extended beyond the uterus local measures should not be persisted in.

Gonorrheal endometritis needs no active treatment directed toward the uterus until later, as in most cases the temperature does not rise high, and soon falls, the patient recovering or being left with a chronic endometritis and diseased appendages, which can be attended to more properly later.

For the rest, the treatment is expectant and supportive. The most reliable drugs are alcohol and strychnia. Large doses of alcohol are tolerated here. Absolute rest and a carefully selected diet are of course enjoined. Ergot may be used advantageously in conditions of delayed involution.

If parametritic abscesses make their appearance they should be incised and evacuated. When pus tubes or ovarian abscesses can be made out by bi-manual examination, they should be removed by laparotomy, if they are movable; or if bound down they should be drained through the cul-de-sac.

A great deal has been written and discussed about hysterectomy, at an early period. This step I have never regarded with favor for two reasons, well expressed by Williams of the Johns Hopkins. He says: "If one operates at a period sufficiently early to prevent the extension of the process to other organs, a large number of uteri will undoubtedly be removed unnecessarily. On the other hand, if we wait till a later period, when other organs have been implicated, the operation will be useless."

When in 1895, Marmorek announced the discovery of his anti-streptococcic serum, the outlook for these cases seemed brighter, but the usual enthusiasm was succeeded by the usual disappointment, and later experience seems not to have borne out our expectations. There is some hope that our relative helplessness in the face of septicemias of this class may be relieved in the future by the use of autovaccines, although I am informed that careful and extensive experiments at the Massachusetts General Hospital and elsewhere have resulted negatively.

The second condition for which I bespeak conservatism is acute gonorrheal salpingitis. It is an almost daily occurrence to have physicians send cases of this kind to the gynecologist for immediate operation, and we have to bear with considerable importunity when we follow a course of wait and sustain, and operate later if necessary, when nature has done its excellent work of walling off, and time has rendered the pus in the sacs less virulent, or in many cases innocuous.

Now the particular phase of conservatism which I favor is in the treatment of these cases when we do come to operate on them. The usual radical ex-section of both tubes and ovaries can not be justified in many cases. Briefly, when there is a healthy patulous portion of the tube, next the uterus, shut off from the diseased outer end, when the ovary is healthy, and the fimbriated end not adherent to it, leave the ovary, amputate the tube at the outer end of the healthy portion, wash it out, slit it up a short distance, and unite its peritoneal and mucous coats with catgut, making an artificial ostium. This, of course, when the age of the woman, and the condition of the adnexa on the other side render the retention of the ovary desirable. Even if it be necessary to remove the entire tube, the ovary should not be exsected, as a matter of routine.

END RESULTS OF SURGERY FOR THE RELIEF OF NEURASTHENIC CONDITIONS WITH VISCERAL PTOSES.

Joseph A. Blake, New York, *Surgery, Gynecology and Obstetrics*, July, 1910, states that in order to obviate failures or worse, from surgical attack in these cases "four conditions must be satisfied before an operation is undertaken. Firstly: That there is a definite morbid of mechanical perversion of the normal conditions of the viscera; secondly. That it is the chief underlying cause of the neurasthenic state; thirdly: That the neurasthenic condition cannot be cured without its correction, and fourthly: That it can be corrected by a definite operative procedure of only moderate danger to life." Blake regards Lane's operation—resection of the ascending and transverse colon—as too severe to be considered

except in those few patients in which radiography supports the indication and whose "condition is lamentable and who even welcome a lethal termination of their sufferings."—*American Journal of Surgery*, Aug., 1910.

PROLAPSE OF THE URETHRAL MUCOSA IN WOMEN.

R. Pichevin (*Jour. de méd. de. Paris*, April 12, 1910) describes a case of prolapse of the urethral mucous membrane in a woman, which simulated a tumor of considerable size between the labia. The tumor became very much swollen at one time. Such a pro lapsus may occur in elderly women, by the gliding on itself of an entire cylindrical section of the mucosa of the urethra. The symptoms are increased frequency of urination and some pressure feeling in walking. The predisposing causes are unusual efforts, as in coughing, and age. The walls of the urethra become hypertrophied, and inflammation may occur, which may cause cystitis or urethritis. The tumor may even become gengrenous. The treatment is destruction of the superabundant mucosa by ligature or cautery.—*American Journal of Obs. and Dis. of Women of Children*, Aug., 1910.

PELVIC METASTASIS IN THE DIAGNOSIS OF HOPELESS ABDOMINAL CARCINOMA.

D. W. Palmer (*Surg. Gyn. Obst.*, Feb., 1910) has studied the records of 435 consecutive cases of carcinoma of the upper part of the abdomen from the histories of the Mayo clinic in Rochester, Minn. He found that of these, 6½ per cent. showed pelvic transplantation deposits as the earliest clinical sign of inoperability. Seven and two-tenths of stomach carcinomas had this sign. Fifty-five per cent. more cases were shown to be inoperable through a thorough rectal examination for pelvic metastasis than because of the presence of supra-clavicular gland metastasis warrants a most unfavorable prognosis as regards life expectancy. The pelvic metastasis is found at a point about 3 to 5 inches from the anus along the anterior rectal wall.—*Am. Jour. of Obs. and Dis. of Women and Children*, Aug., 1910.

Dr. Price Brown has removed to 28 College St., Toronto.

OBSTETRICS AND DISEASES OF CHILDREN.

Under the charge of D. J. EVANS, M.D., C.M., Lecturer on Obstetrics, Medical Faculty McGill University, Montreal.

BLOOD PRESSURES IN THE TOXÆMIAS OF PREGNANCY.

Robert M. Green made certain observations (*Boston Med. and Surg.*, April, 1910), during his services as intern in the Boston Lying-in Hospital which are embodied in this paper. Brief summaries of the histories of each case is given and a chart showing the temperature, pulse and blood pressure curves. In all, twenty cases were studied. These have been divided by the author into seven groups, according to the clinical pictures they presented.

There were three cases which he calls normal, in which the blood pressure averaged 130, remaining stationary after delivery. In these cases all the clinical phenonema were perfectly normal.

In the second class of cases he includes all cases of impending eclampsia, five in number. All were primiperæ at or near term. Albumin was present in varying degrees in the urine of each case. The blood pressure was moderately increased ranging from 140 to 190, averaging 165. After delivery the blood pressure fell to normal, and the urine became clear.

These cases apparently represent a moderate toxæmia affecting previously healthy kidneys and leaving them undamaged.

Two cases of acute eclampsia are mentioned, developing about the 7th month. There was, however, ½ to 1 per cent. of albumin in the urine, and the blood pressure was high, 185 to 190. Operative delivery resulted in the blood pressure dropping more or less gradually to the normal level. The urine did not, however, clear up promptly. Here evidently there was permanent damage to the kidneys from the toxæmia.

The next group includes two cases of fulminating eclampsia. After some edema, in both cases primiperæ, severe eclamptic symptoms developed. Albumin was present in the urine from ¼ to ½ per cent. Accouchement forcé. Blood pressure rising afterwards from 180 to 210. Both cases died from shock without recovery from eclamptic condition. These cases represent a toxæmia of extreme grade.

Two cases are recorded as suffering from chronic nephritis. Both entered the clinic showing slight eclamptic symptoms. There was a very moderate amount of albumin in the urine and the blood pressure remained from 150 to 190, which, however, did not fall after delivery below 160. These cases, the author considers, represents a toxæmia not of fœtal origin, arising during pregnancy in patients with pre-existing

chronic renal disease characterized by high blood pressure and not relieved by delivery.

In another group he includes five cases of non-toxic conditions, the patient suffering from various renal conditions complicating pregnancy without toxic manifestations. In these there was a normal or subnormal blood pressure.

The next group includes three cases of pyelitis.

In the next, one of glycosuria.

One case is mentioned where there was some subacute kidney lesion which was not associated with high blood pressure. The urine failed to clear up after delivery.

There was one case also of purely mechanical, nontoxic albuminuria. It was a twin pregnancy with enormous abdominal distention. There was a large amount of albumin in the urine, and the blood pressure recorded 210. After delivery the albumin disappeared and the blood pressure fell to normal.

Thus the author differentiates among the toxæmias of pregnancy. In one class he puts eclampsias, a toxic condition depending upon fœtal development. It may present in varying grades of intensity, each group showing a more or less definite clinical picture and with a varying increase of blood pressure in proportion to the amount of toxæmia present. In the severe cases the blood pressure fails to fall after delivery.

Chronic nephritis occurring during pregnancy is another form of toxæmia of pregnancy. In such cases the toxæmia is relieved by delivery, but the cause is not removed and the high blood pressure and evidence of a renal disease remain.

In addition there are non-toxic renal diseases complicating pregnancy, differentiated by their persistantly low blood pressure. There exists also a non-toxic albuminuria of purely normal type.

The author concludes that blood pressure bears a fairly constant relation to the other signs of toxæmia and is in general an index to the severity of the process. Observations of the blood pressure in conjunction with the other clinical data are of great value in determining the prognosis and indications for treatment.

THE TREATMET OF INTESTINAL INDIGESTION IN CHILDREN ON THE BASIS OF THE EXAMINATION OF THE STOOLS AND CALORIC VALUES.

J. L. Morse and F. B. Talbot were led to undertake (*Amer. Jour. Med. Sc.*, June, 1910) the study which resulted in the publication of this

paper because they thought that if the stools of children suffering from some disturbance of digestion, especially of the intestinal type, were examined in order to determine what constituents of the food were not being utilized, and the diet regulated on the basis of these findings, due regard being paid to the caloric needs, much better results would be obtained than by the usual empirical methods.

With regard to the caloric needs of children the authors state that the average child of four years requires about 1,200 calories, or 70 calories per kilo in 24 hours; the average child of eight years 1,400 calories, or 60 calories per kilo in 24 hours; and the average child of twelve years 1,600 calories or 50 calories per kilo in 24 hours.

The protein need of children per 24 hours is given in the following table:—

Age.	Total protein need.	Protein need per kilo.
4 years	55 grams	3.5 grams.
8 years	60 grams	3.0 grams.
12 years	75 grams	2.5 grams.

Girls should get about 5 grams less and boys 5 grams more than the above tables indicate, according to the vigour and activity.

In disturbance of digestion fat may be substituted for carbohydrates and carbohydrates for a fat with great advantage, provided the totol caloric value of the food be kept up.

A table of the caloric value of the articles of food commonly used by children is included in the paper.

Speaking of the character of the stools in children the authors state that lumpy, and mushy stools are pathological. Lumpy stools indicate that there is an excess of milk, meat, or eggs in the diet, or that the child is under fed. Mushy stools occur when there is an excess of fat in the diet which have a considerable indigestible residue, such as coarse bread, fruit and vegetables. Large masses of undigested food are usually the result of improper mastication. Normal stools are usually weakly alkaline or neutral. A strong alkaline reaction associated with a putrefactive odor, indicated protein putrefaction. When the motion is strongly acid and has a rancid odor the fat digestion is at fault. If of acid reaction associated with lactic or acetic acid, carbohydrates are at fault. In the latter instance the movements are often frothy in character.

The pathological stools are of three distinct types at least. First, the fat stools which are grey or white in colour. They may be dry or clay like or creamy in consistency, acid in reaction and of rancid odor. Microscopically they show a large excess of fat in various forms.

The carbohydrate stools are brown or golden-yellow in colour, salve-like in consistency, acid in reaction, and of acid or sour odor. Microscopically they show indigested starch and often an excess of Gram-positive bacteria.

The catarrhal stools show an excess of mucus associated with protein putrefaction and a foul odor.

The authors studied the microscopic character of the stools, the following being the ordinary procedure. The form, consistency, colour and odor, and the presence or absence of extraneous matters such as pus, blood, mucous, parasites and curds are noted. If the stool is homogeneous one part is tested with litmus paper for the reaction. If the stool varies in composition the reaction is tried in several portions by means of litmus paper.

Microscopically the specimens from the stool are examined first with the low power and then with the No. 7 objective. Three small portions are placed on a slide. The first is crushed out very thin under the cover glass and examined in the fresh condition. Another is stained with Lugol's Solution (iodine 2, potassium 4, distilled water 100), and examined under the cover glass for starch. The third is saturated with alcohol solution of Sudan III.

In the first specimen indigested muscle fibre, connective tissue or vegetable matters may be noted, while blood, pus and parasitic eggs may be differentiated. Neutral fat, fatty acids, soaps and starches may be estimated. The starch granules will be stained blue or violet. There are practically no unchanged starch granules in the normal stool. Under the third cover glass neutral fat drops and fat acid crystals stained red.

A small amount of glacial acetic acid is allowed to run under the cover glass and then heated to boiling point. Thus the soaps are turned into neutral fat and fatty acid and appear as large red stained drops. An excess of neutral fat indicates that the digestion of fat is not carried on normally, and an excess of fatty acids and soaps that the digestion is normal but assimilation is abnormal.

The paper concludes by a series of interesting cases, the histories of which are recorded in detail.

PERSONAL AND NEWS ITEMS.

ONTARIO.

Dr. J. Harvey Todd, 163 College St., announces that he has a well equipped laboratory for radiography and radiotherapy.

Dr. Sheard has decided to resign his office as Medical Health Officer for Toronto.

Dr. and Mrs. James H. Cotton, Spadina Avenue, have returned from spending the summer at their cottage at Windermere, Muskoka.

Dr. G. W. Anderson, who was interne at St. Michael's Hospital, Toronto, is taking a post-graduate course in London.

Dr. E. Boyd, of Toronto, obtained the license of the Royal College of Physicians, London, recently.

Dr. Palmer, 40 College Street, Toronto, who has been seriously ill for the past nine weeks, is slowly convalescing, and will soon be able to go out.

Drs. R. J. Dwyer and J. D. Thorburn spent their summer vacation in the territory adjacent to Hudson's Bay. They enjoyed the trip and gained much information about the region.

The Ontario Government has issued a bulletin on "The Care of the Teeth." It contains much useful information and ought to receive careful study.

Dr. J. M. McCallum of Bloor Street west, and Dr. S. Cummings of Queens Park, Toronto, have sailed for Europe, where they intend spending some time.

Dr. Louis Wickham, of Paris, was in Toronto recently. He gave an address at a special meeting of the Academy of Medicine, on 30th September. He was the guest of Dr. W. H. B. Aikins.

There was much discontent in Hamilton over the slow progress made by the contractors for the Isolation Hospital. The governors of the hospital decided to give the contractors three weeks to finish the work.

Rev. W. H. L. Batstone, M.D., formerly of Toronto, but for 18 years past a missionary in India, is home to Toronto on furlough, and will likely remain in Toronto. He was the only missionary in a region 50 by 100 miles, with about 3,000 villages, and with a population of at least 1,000,000.

Listowel recently had a scare over smallpox. One of the doctors of the town had been up at the Georgian Bay and contracted the disease. On his return he had seen a number of patients, and had gone into the barber shop for a shave. That evening his trouble was diagnosed to be smallpox. The municipality had to expend $20 a day for persons to look after the doctor and his premises.

Typhoid fever has become very prevalent in Toronto. It said there have been 107 deaths from 1st January to 1st September. At a death-rate of 7½ per cent., this would mean 1,500 cases. Each case costs $200, or a total loss on sickness of $300,000. Each life is worth, accord-

ing best authorities, $1,700. At this estimate 107 deaths would mean a loss of $181,900; or a grand total of $481,900 that this disease cost Toronto in six months.

Dr. G. Sterling Ryerson, who has been in Paris for some time looking into the treatment of cancer by radium, is strong in his belief of its value. He is sure that radium will cure epithelioma of the skin, rodent ulcer, simple or pigmented naevi, and cheloids. It will also remove scars following suppurating glands and abscesses. In eye diseases it will cure corneal ulcers, and will benefit trachoma, paunus, and interstitial keratitis. He has purchased a considerable quantity of radium with the view of treating such cases.

About thirty prominent business men assembled at the residence of Dr. A. H. Beaton, Orillia, on the evening of 9th September, and presented him with a very handsome oak cabinet of sterling silver, as a mark of esteem. Dr. Beaton has resided there for 35 years, for 33 of which he was Superintendent of the Provincial Asylum for Idiots, and has just been retired after a very eminent career. The gathering was representative of both political parties. An illuminated address was read by Dr. Ainslie P. Ardagh, and the presentation was made, on behalf of those present, by Dr. W. C. Gilchrist. The address referred to Dr. Beaton's long career as a public servant, and his usefulness as a citizen, the interest he has always taken in educational matters, and his activity in the church. After the presentation, Dr. Beaton made a feeling reply, refreshments were served, and a pleasant hour was spent socially.

QUEBEC.

The August number of the Montreal *Medical Journal* came to hand about the 10th of September, containing a notice of the American Public Health Association which met in Milwaukee on 5th September.

The Province of Quebec sought medical reciprocity with Great Britain which would have been granted; but the province would not in turn recognize the licenses of other provinces enjoying reciprocity. This has held the matter over for the present.

The St. George Tuberculosis Class of Montreal is doing good work. Dr. C. P. Howard directs the class. Much valuable information is imparted to the members of the class, in the way of teaching how to prevent and how to treat the disease.

It has been estimated that there were 3,000 cases of typhoid fever in Montreal last year. At the moderate cost of $200 per case for all expenses, this would mean a loss of $600,000. It is quite safe to add another $600,000 as the value of the lives lost. This would make the total loss $1,200,000. The same thing is being repeated this year.

Dr. Paquin, Civic Health Officer for Quebec city, repudiates the reports published to the effect that seven officers of the Queen's Own Rifles had contracted typhoid fever at a dinner given by the 8th R. R. officers at the Quebec Garrison Club previous to their departure for England. Dr. Paquin remarks that there was no typhoid fever in that city this summer and that the Toronto regiment spent a day or two in Montreal, where typhoid was raging at the time. Moreover, the regiment camped for several days at Levis, and it is reported that officers bathed in a pond situated in the camping ground which had been condemned as infectious and dangerous.

MARITIME PROVINCES.

Nova Scotia has enjoyed the privileges of reciprocity with Britain for some time. When New Brunswick completes her arrangements all the Maritime Provinces will have interchange of registration with Britain.

The total number of registered medical practitioners in Nova Scotia is 649. The receipts of the medical board from all sources for the year amounted to $1,539.

It has been decided by the general medical council for Britain that the license of Prince Edward Island shall be accepted for registration in the colonial list of the medical register.

The council of the College of Physicians and Surgeons of New Brunswick is in negotiations with the general medical council of Britain with the object of securing reciprocity. The province has now adopted a five years' course of study, and will, no doubt, soon complete arrangements with the medical council of Britain.

Mr. George G. McKenzie, the Chairman of the Relief Committee of Campbellford, in forwarding a list of cash and supplies received by him for the relief of the Campbellton, N.B., fire sufferers, says typhoid and diphtheria have broken out, and the temporary hospital is full of patients. "We have to erect tents on the hospital grounds to accommodate the overflow. Weather lately fine through the day but very cold at nights."

WESTERN PROVINCES.

Dr. R. H. Mason has removed from Setter, Sask., to Carlstadt, Alta.

Miss Chalmers, who has been at the head of the Regina General Hospital for four years, has resigned. She was a very efficient superintendent.

The registration fee for Manitoba remains at $125 as heretofore. An attempt was made to reduce it to $100.

Dr. W. A. Lincoln has been appointed to the position of Medical Superintendent of the Calgary General Hospital.

Dr. H. E. Tremayne, of Prince Rupert, has been appointed Medical Quarantine Officer under the Dominion Government.

The Government of Saskatchewan will erect at a cost of $50,000 a sanatorium at Lake Manitou. There will be a mile frontage on the lake.

Dr. F. C. Bell has been appointed superintendent of the Winnipeg General Hospital, succeeding Dr. Gunn, resigned.

Dr. Roddick, of Montreal, has informed the Manitoba Medical Council that the delay in passing the Amended Medical Bill is due to the non-consent of British Columbia.

Dr. T. H. Whitelaw, of Edmonton, has his troubles with infectious cases in the Isolation Hospital there. It appears that cases of one of the infectious diseases have contracted one of the other infections.

Dr. T. Douglas, of Moose Jaw, has qualified and will be gazetted Major. Dr. Harry Morell, of Regina, has been gazetted Lieutenant, Royal Army Medical Corps.

Dr. and Mrs. J. McDiarmid, of Brandon, Man., are the guests of their daughter, Mrs. Alexander R. Cochrane, 1030 Bathurst Street, Toronto.

The Commissioner of Public Health for Saskatchewan has given much offence by passing over all the registered Canadian physicians and bringing Dr. Hendricks from Chicago. One would think that the province would have furnished at least *one* who could have filled the position. But prophets do not have honor in their own country.

From the pages of the Saskatchewan *Medical Journal* the following is taken: "We believe that the time has come to give up our so-called fee bills which established a fixed price for each visit and for each service, and have a general understanding that it is impossible to itemize our accounts at all. Let each physician when he has completed his attendance upon a patient under his bill for such an amount as in his opinion his services have been worth to the patient, taking into consideration not only the amount of time he has given to the case, but also the circumstances of the patient, and his ability to pay."

The College of Physicians and Surgeons of Saskatchewan has granted licenses to the following after passing the required examinations: W. A. Clarke, G. W. Beaver, L. A. B. Grier, J. E. Hutton, Charles McArthur, A. T. W. Myers, T. W. Walker, C. W. Hurlburt, A. McDonald, F. R. Chapman, M. I. Humphries, L. E. Downing, D. C. Hart, R. G. Scott, W. Oliver, F. C. Clarke, D. W. Graham, P. J. McCue, R. P. Mulholland, L. A. Patton, R. N. Shay, J. D. Neville, R. A. Donahue, R. J. McEwen, J. W. Eede, A. T. Malloy, W. A. Robertson, J. B. Scott, H. B. Moore, S. C. Moore, L. A. Douglas, J. E. Galbraith, and T. B. Underhill.

FROM ABROAD.

Colonel Dr. Gorgas, who has had charge for the United States, of the sanitary affairs of the canal Zone, states that the white man is now enjoying good health there.

Mrs. Marshall, M.D., died at Walford, England, recently, in her 73rd year. She was well known as an able practitioner and was on the staff of the Women's Hospital, London.

An International Congress on Pathology will be held in Turin in 1911. Arrangements are now being carried on to make the congress a successful one.

Dr. George Danford Thomas, the Senior Coroner for London, Dr. John E. Platt, Surgeon, Manchester Royal Infirmary, and William Berry, Senior Surgeon, Albert Edward Infirmary, Wiggin, died recently.

There is a bill before the House of Commons, Britain, for purposes to compel the medical profession to fill out certain death certificates without granting any compensation for this extra duty. The reason assigned is that the bill is in the public interest.

In the United States up to 30th June, 60 cases of persons bitten by rabid animals, or with wounds that had been infected with saliva from rabid animals, had been treated by the Pasteur method. So far none had died.

The infant mortality in Ireland is 92 per 1,000 as against 116 for Scotland and 126 for England. In Dublin the infant mortality rate is 141 per 1,000, in Belfast 139, and in Cork 126. The Women's National Health Association is taking this matter up.

Sir Constantine Holman, M.D., died in his 81st year at Ramsgate on 18th August. He took a great interest in the British Medical Association and in Epsom College. He was a remarkably successful practitioner.

In Manchester, England, an investigation into the death-rate of infants shows that when breast-fed for the first six months the death-rate is 113 per 1,000, but when fed on other foods for the same period the rate rose to 314.

In Great Britain during the past 50 years the certified insane have increased by 255 per cent., while the population has increased by 83 per cent. In recent years the increase in the population is more nearly of an equal percentage with the increase in the insane, the ratio being as 12 per cent. is to 22 per cent.

Dr. Robert R. Rentoul, in a letter in the *Medical Press*, strongly advocates the sterilization of degenerates. He claims that this would be better than building more asylums and heaping more taxes upon the

people. He refers to the laws in some of the U. S. states where this has been adopted, and is working well.

The Infectious Diseases Hospital, of Melbourne, is very much overcrowded. The Brisbane General Hospital had 213 patients under treatment at last report. In the Hobart General Hospital the daily number of occupied beds were 108. The hospital for infectious diseases at Hobart treated 36 cases of diphtheria at a cost of $3,000.

John Bale, Sons and Danielsson, of London, England, announce that in the autumn of this year they will commence the publication of a monthly journal called *"The Child."* The journal will be edited by Dr. T. N. Kelynack and will be devoted to the welfare and betterment of child life.

In the case of the Stevens' Consumption Cure, which advertised a guarantee of a stated sum if the cure failed when directions were followed, Judge Gye gave a verdict for £10 to a widow who brought action for recovery under the guarantee. The judge stated that any attempt at fraud should be suppressed.

Dr. Babinski, the eminent neurologist, has recently published an article on hypnotism. He does not give it a very prominent place among therapeutic agents; and says that it has fallen almost into disuse. There are a few hysterics, the victims of unto-suggestion, who may be benefited by it. Thus has the great idol of thirty years ago fallen!

Among the proposals of the Mansion House Committee, London, England, was one to buy up the whole medical profession of Britain. There are about 32,000 in actual practice in the British Isles and their total income is placed at £8,000,000 per annum. This capitalized at 5 per cent. would require $160,000,000 to endow the whole medical profession of Britain and enable every one to attend free any one who sought advice. The scheme is regarded by *some* as rather visionary.

Mr. Bramwell Booth is urging in Britain that steps be taken to prevent feeble-minded persons marrying; and also to take charge of them in such a way that they can neither become criminals, nor give birth to illegitimate children. He claims that this plan would cost less in the end than the present method of allowing these persons a good deal of personal liberty. The birth-rate in Germany has begun to decline. Last year it was only 23.9 per 1,000 inhabitants. In 1899 it was 37.

David Livingstone, the noted explorer, was a student of Charing Cross Hospital, London. The year 1913 will be the centenary of his birth, and it is proposed to open a million shilling fund for the purpose of equipping the hospital in an up-to-date manner. Communications should be sent to Rev. A. W. Oxford, M.D., Charing Cross Hospital. One would think there should be more than a million shillings for such a purpose. Livingstone was one of Britain's true empire builders.

OBITUARY.

WM. H. DRAKE, M.D.

Dr. Wm. H. Drake, the oldest physician in Essex County, died on 6th September. He lived and practised medicine for forty years in Kingsville, moved to Windsor twelve years ago and lived retired. Dr. F. P. Drake, of London, and F. A. Drake, barrister, are sons.

ISAAC WOOD, M.D.

The medical profession of Kingston has sustained a distinct loss by the death of Dr. Isaac Wood, who passed away at his late residence, corner of King and Johnson Streets, at an early hour 1st September. On Monday afternoon, 29th August, Dr. Wood was stricken with apoplexy after returning home from the General Hospital, where he had performed an operation for appendicitis. He remained unconscious till the last.

The late Dr. Wood was born in the Township of Augusta, County of Grenville, fifty-seven years ago. After being a public school and business college principal, in 1891 he took his M. A. degree at Queen's, and in 1892 he graduated as doctor of medicine at the same institution. Then he crossed to the Old Land and took the degree of M.R.C.S. (England), and F.O.S. (Edinburgh). For the past seventeen years he practised his profession in Kingston.

A year ago Dr. Wood retired from general practice, and became a consulting physician and surgeon. In Queen's Medical College Dr. Wood occupied several positions. He was professor of pediatrics, assistant professor of obstetrics and gynaecology, and lecturer in chemistry. Dr. Wood is survived by one daughter, Olivia, at home.

JAMES K. JOHNSTONE, M.D.

Dr. Johnstone died in Toronto, August 10th. He graduated in 1870, and was 61 at the time of his death. Many years ago he retired from practice and subsequently held the position of government inspector of electric meters.

JAMES M. McCARTER, M.D.

Dr. J. M. McCarter, of Verona, Ontario, died in the General Hospital in Kingston, on 16th September, 1910. He was operated upon for

appendicitis, but succumbed to the conditions that had developed before the operation. He had been advised to have an operation two years ago, but kept putting it off in his attention to his own large practice. He leaves a widow, whom he married six months ago. He was in his 37th year and was a graduate of Toronto University. He enjoyed a large practice and was very popular. He very truly died in action.

R. O. SNIDER, M.D.

Dr. Snider was found dead in bed, on 16th September, 1910. He was in his 46th year. For some years he was interested in a drug store, but latterly devoted his whole time to office practice. For the past year he had been in poor health as the result of an injury he sustained through his auto-car having been struck by a street car. He was a graduate of Trinity Medical College. He is survived by his widow and five children. To those who knew him he was quiet but of a most genial disposition.

JAMES E. THOMPSON, M.D.

Dr. James E. Thompson, Scranton, Pa., 28 years of age, a former resident of Toronto, Ont., was found dead in bed with a bullet in his head. The deceased was a prominently-connected physician. His uncle, Dr. Charles E. Thompson, is the proprietor of the Scranton Private Hospital. The revolver from which the fateful bullet was fired was clutched in the dead man's hand. Dr. Thompson, who had recently returned from a visit to Toronto, was given to melancholia.

The deceased's mother lives in Wychwood, a suburb of Toronto.

BOOK REVIEWS.

TEXT BOOK OF THE TREATMENT OF CHILDREN.

A work for the practitioner and student, by Professor Dr. Bernard Bendix, Privatdozent for the Treatment of Children's Diseases, Directing Physician for the Charlottenberger Nurslings' Clinic. Sixth edition, enlarged and revised, with 83 illustrations in the text. Urban & Sehwarzenberg, Friedrich Str., Berlin, and Maximilian Str., Vienna; 1910; Price, in paper binding, 15 marks.

This is an exceedingly well written work on the diseases of children. The diseases of children are discussed under the headings of the organs

and systems affected. There are chapters devoted to the general diseases and the infectious diseases. The work is in German; but should find its way into English, in order that its circle of readers might be greatly enlarged. The author writes in a very clear style and sustains interest in his discussion of the various diseases throughout. To those who can read German we can very cordially recommend this work. We would like to see an English translation of it. The paper, type, and illustrations are the best.

DISLOCATIONS AND JOINT-FRACTURES.

Dislocations and Joint-Fractures, by Frederic Jay Cotton, A.M., M.D., First Assistant Surgeon, Boston City Hospital. Octavo of 654 pages, 1201 original illustrations. Philadelphia and London: W. B. Saunders Company; 1910. Cloth, $6.00 net; half Morocco, $7.50 net. Canadian agents—The J. F. Hartz Co., Limited, Toronto.

This is undoubtedly a work of much experience, research, and labor. A book, such as this, must have cost the author much hard toil in its production. The object of the author is to discuss the subject of dislocations and fractures involving the joints. The work is well done. The text is very clear and sets forth diagnosis and treatment in such a manner that any one can understand the author's teachings. The illustrations are very numerous and very good. The application of x-ray methods to the diagnosis of fractures and dislocations, and the preparation of illustrations for such a work as this has completely revolutionized the whole art side of such a work as this. We have examined this work with the utmost care, and feel sure that it will be received by the medical profession as a welcome addition to the list of works on the same subject. We are glad to be able to recommend the book in unqualified terms. The publishers have done their share well; and so the press work and binding are in keeping with the merits of the book.

DYSPEPSIA: ITS VARIETIES AND TREATMENT.

Dyspepsia: its varieties and treatment, by W. Soltau Fenwick, M.D. (Lond.), Doctor of Medicine of the University of Strassburg. Octavo of 485 pages, illustrated. Philadelphia and London: W. B. Saunders Company; 1910. Cloth, $3.00 net. Canadian agents—The J. F. Hartz Co., Limited, Toronto.

Dr. Fenwick is such a well known writer on diseases and disorders of the digestive organs that the fact merely needs mention to give any work coming from him on these subjects a good standing. The subject of dyspepsia is a very important one, and a good book on it is ever welcome to the medical practitioner. The author tells us that he began this

work more than sixteen years ago, and that he basis his teaching on an experience of more than eighteen thousand cases of indigestion. One thousand typical cases, however, form the real ground work of the volume. The volume opens with a volume on the varieties of dyspepsia. This is followed by the abnormalities of secretion. Then the author discusses the loss of muscular power. Inflammation of the stomach is next considered. The nervous disturbances are then considered. This is followed by dyspepsia from displacements. The author next discusses foreign bodies and living creatures in the stomach. There is a chapter on dyspepsia in infancy and old age. There is full attention given to dyspepsia due to disease of other organs. The book closes with a section on intestinal dyspepsia. Throughout the treatment is of the most practical character. The book is full of valuable suggestions.

NORMAL HISTOLOGY.

With Special Reference to the Structure of the Human Body. By George A. Piersol, M.D., Sc.D., Professor of Anatomy in the University of Pennsylvania. With 438 illustrations, many of which are in colors. Eighth Edition (Rewritten). Philadelphia and London: J. B. Lippincott Company. Montreal: Charles Roberts.

This book has been before the student of medicine for a considerable time. It is now in its 8th edition which speaks well for it. We have examined this volume carefully and can recommend it cordially to all who wish a book on the study of human histology. The publishers have done their part with much taste, and have given the reader a very pleasing volume, and one of convenient size.

MEDICAL DICTIONARY.

Lippincott's New Medical Dictionary: A Vocabulary of the Terms used in Medicine and the Allied Sciences, with their Pronunciation, Etymology and Signification, including much Collateral Information of a Descriptive and Encyclopædic Character. By Henry W. Cuttell, A.M. (Laf.), M.D. (U. of P.), Editor of International Clinics, Fellow of the College of Physicians and Surgeons of Philadelphia, etc. Freely illustrated with figures in the text. Flexible morocco; thumb index. Price, $5.00 net. Philadelphia and London: J. B. Lippincott Company. Canadian agent: Charles Roberts, Montreal.

This is an exceptionally attractive-looking book. The binding, paper, type, illustrations, and thumb index all go to make it a most convenient and useful volume. The arrangement of the matter is after the best methods. For example, take the word "abductor." Under this term are arranged and defined all the words with "abductor," A. indicis, etc. Under the term "spondyl" or "spondylo," come all the words and terms

that combine with this. The pronunciation we have examined with care and tested many of the words where there is likely to be difficulty or difference of opinion, and find that the best standards have been followed. The etymology and derivation of the words and terms are carefully set out. The definitions are brief, but well phrased. This is a very important feature in any dictionary. The illustrations are well executed and well selected. They add much to the value of the work. Scattered throughout the volume are many illustrations of persons who have distinguished themselves in medical science, such as Boerhaave, Hunter, Lister, Harvey, etc. This a pleasing feature.

A MANUAL OF PERSONAL HYGIENE.

The New (4th) Edition, Revised. A Manual of Personal Hygiene: Proper Living upon a Physiologic Basis, by Eminent Specialists. Edited by Walter L. Pyle, M.D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Fourth revised edition. 12mo of 472 pages, illustrated. Philadelphia and London: W. B. Saunders Company; 1910. Cloth, $1.50 net. Canadian agents—The J. F. Hartz Co., Limited, Toronto.

We have had the pleasure of reviewing this book on the appearance of former editions. This edition is well up to date. Drs. D. H. Bergey, J. W. Courtney, George H. Fox, J. E. Goldthwaite, G. F. Ingals, W. L. Pyle, B. A. Randall, G. N. Stewart, and C. G. Stockton contribute chapters to this edition. This is a very useful book for the student in medicine, the young practitioner and the trained nurse to read. We think it could be studied to much advantage by the heads of colleges, high schools, academics, etc. The inculcation of the teachings of this book would save much discomfort and ill health.

A MANUAL OF OBSTETRICS.

By A. F. King, M.D., Professor of Obstetrics and Diseases of Women in the Medical Department of the George Washington University, Washington, D.C., and in the Medical Department of the University of Vermont, etc. Eleventh edition, enlarged and thoroughly revised. 12mo, 713 pages, with 341 illustrations and three colored plates. Cloth, $2.75 net. Lea & Febiger, Philadelphia and New York 1910.

The rapid passage of Professor King's Manual of Obstetrics to an eleventh edition, stamps the volume as possessing in high degree the essentials required in a work of this kind.

The original aim of the author has in this revision been judiciously maintained. Brevity and lucidity of statement mark its pages without sacrifice of completeness, and as a text-book for the elementary student

or work of reference for the overbusy practitioner, it will continue to enjoy its well merited reputation.

Among the more important additions may be mentioned the subjects of pubiotomy, spontaneous version by posture and the factor of thigh-pressure upon the abdomen considered as one of the auxiliary forces of labor. The section on hyperemesis has been rewritten and the illustrations have been increased by the addition of thirty-seven new figures.

The sale and appreciation of this book are the best evidences of its many merits. It has been a favorite for many a year. Few authors live to see any of their books reach an eleventh edition; but Dr. King has enjoyed this unique distinction, while he is still an active teacher. This shows that no great time elapsed between the editions. It is really a most excellent work on obstetrics; and with this we leave it with our readers.

THE MAC'S OF '37.

A Story of the Canadian Rebellion, by Price-Brown, author of "In the Van," etc. Toronto: McLeod & Allen, Publishers.

Dr. Price-Brown, of Toronto, has already done some good work along the line of the Canadian Historical Novel. This volume gives a stirring tale of a very stirring period in Canadian History. Some of our best story writings have come from the pen in the hands of medical men, as witness John Brown, Weir Mitchell, and others. We are glad that we can claim a novelist of distinction for the profession of Canada, and especially of Toronto. Those who wish a good Canadian story can find it in the Mac's of 37 by Dr. Price-Brown.

MEDICAL PREPARATIONS, ETC.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Again are we nearing the season when the problem of diphtheria and its treatment must be met and solved. The writer of this paragraph is forcibly reminded of the fact by the receipt of a modest but important brochure of sixteen pages bearing the title "Antidiphtheric Serum and Antidiphtheria Globulins." A second thought is that here is a little work that every general practitioner ought to send for and read. Not that the booklet is in any sense an argument for serum therapy. It is nothing of

the kind. Indeed, the efficacy of the antitoxin treatment of diphtheria is no longer a debatable question, that method of procedure having long since attained the position of an established therapeutic measure. The pamphlet is noteworthy because of the timeliness of its appearance, the mass of useful information which it presents in comparatively limited compass, and the interest and freshness with which its author has been able to invest a subject that has been much written about in the past dozen or fifteen years. Its tendency, one may as well admit, is to foster a preference for a particular brand of serum, but that fact lessens not one whit its value and authoritativeness.

Here is a specimen paragraph, reprinted in this space not so much to show the scope and character of the offering as to emphasize its helpful tone and to point out the fact that its author was not actuated wholly by motives of commercialism:

"Medical practitioners have learned that, inasmuch as the main problem presented in the treatment of a case of diphtheria is the nutralization of a specific toxin, the true antitoxin cannot too soon be administered; moreover, that, antitoxin being a product of definite strength, a little too little of it may fail when a little more would have succeeded—hence larger or more frequently repeated doses are becoming more and more the rule. One more point: if the medical attendant is prompt, as he must be, and fearless, as he has a right to be, the full justification of his course will hinge upon the choice of the best and most reliable antidiphtheric serum to be had; for while there is little or no danger of harm ensuing from the use of any brand issued by a reputable house, the best results—which may mean recovery as the alternative of death—can only be hoped for from the use of the best serum."

The brochure is from the press of Parke, Davis & Co., who will doubtless be pleased to send a copy to any physician upon receipt of a request addressed to them at their main offices, Walkerville, Ontario.

MOIST HEAT.

Thermotherapy in inflammatory conditions seems to prove most effective when applied in the form of moist heat.

The relaxation of pressure by infiltrated and swollen tissues upon nerve endings, as experienced by the relief of pain, specifically proves this.

The advantages of moist heat where indicated is generally acknowledged. The method of its application from professional preferment seems to be in the form of antiphlogistine. By this method, a high temperature

can be maintained in contact with the affected part for hours without exposure to the patient for re-dressing.

The superior advantages of antiphlogistine over other forms of moist dressings, such as poultices, hot packs, etc., are that it is easily applied, retains its heat for hours, is antiseptic in action, and above all produces satisfactory therapeutic results.

MEDICAL GYNECOLOGY.

The value of internal medication in certain gynecological and obstetrical conditions is so firmly fixed that even the enthusiasm of the surgeon specialists can not set aside well tried and well proven facts.

That Hayden's Viburnum Compound, after an existence of over one quarter of a century is still growing in professional popularity, best demonstrates its usefulness in the treatment of diseases of women, such as dysmenorrhea, amenorrhea, menorrhagia, threatened abortion, etc.

The New York Pharmaceutical Company, Bedford Spring, Bedford, Mass., have just issued a brochure entitled " Medical Gynecology and Therapy in Obstetrics," and upon request will send you a copy also samples of Hayden's Viburnum Compound. If you have never given "H.V.C." a trial you will never appreciate its value over the many substitutes that are trading upon its reputation.

WHEN SUSPICIOUS EXAMINE THE URINE.

Of all body excretions the urine offers the best index of threatening maladies and pathological changes. For this reason a little brochure just issued by the New York Pharmaceutical Company of Bedford Springs, Bedford, Mass., is not only timely but useful, and from its arrangements, extremely practical. Besides presenting working tests for the detection of albumen, sugar, phosphates, uric acid, etc., their significance when found is clearly set forth. The few moments spent in reading this booklet will be time well devoted. Send for a copy.

A VALUABLE AND SEASONABLE REMEDY.

To reduce fever, quiet pain, and at the same time administer a laxative and tonic is to accomplish a great deal with a single tablet, and we

would especially call attention to the wide use of Laxative Antikamnia and Quinine Tablets in chronic or semi-chronic diseases which begin with a severe "cold." Among the many diseases and affections which call for such a combination, we might mention la grippe, influenza, coryza, coughs and colds, chills and fever, and malaria with its general discomfort and great debility. Attention is particularly called to the therapeutics of this tablet. One of its ingredients acts especially by increasing intestinal secretion, another by increasing the flow of bile, another by stimulating peristaltic action, and still another by its special power to unload the colon. When the temperature of the body is above normal, conditions are especially favorable for germ development. It is a matter of every day observation that a simple laxative is often sufficient to relieve the most serious complications.—*Archives of Pediatrics.*

APPENDICOSTOMY AS AN AID TO THE TREATMENT OF MALIGANT AND INTRACTABLE DYSENTERY.

By JOHN L. JELKS, M.D., Memphis, Tenn.

In reference to this subject, the author stated that when amebic infection had become very chronic or had extended into all parts of the colon beyond the use of local measures, and, in some instances, of acute malignant cases, appendicostomy should be performed and irrigation practiced through the appendiceal stump. The water is allowed to pass out through the rectum into a catch-basin and is not an unpleasant method of treatment. Dr. Jelks prefers the method suggested by Dr. James P. Tuttle, of New York City, who conceived the plan of allowing the appendix to remain undisturbed after anchorage, for a sufficient time, (three or four days), to establish adhesions about the proximal end, before cutting away the distal portion and using the appendical stump-lumen through which to irrigate with the desired solutions.

Dr. Jelks practiced this method and irrigated the colon with formalin-boric, copper-phenol-sulphonate, quinine and normal salt solutions with gratifying results. It was observed, however, that irrigations thus given did not effect a cure. Topical applications (per sigmoidoscope or recto-scope) were in all cases used in conjunction.

Prof. J. G. Adami delivered the opening lecture of the Medical Faculty, Toronto University, on 27 September.

CIRCULATORY FAILURE IN THE ACUTE INFECTIONS OF CHILDREN.—CAUSES AND TREATMENT.

J. Howland in *Archiv. of Ped.*, May, 1910, deals with a review of the opinions as to the cause of circulatory failure occurring in infectious processes in children, of the experimental work that has been done in the effort to explain its production and a consideration of those measures and drugs that theoretically would seem to be experimental have proved to be of value.

The paper is extraordinary interesting and the review of the work of the author has been extremely well done.

Three explanations as to the causation of circulatory failure have been advanced. First, that the anatomically diseased heart is responsible. Secondly, that functional disability arises as a result of the action of toxins with or without anatomical changes. Thirdly, that a paralysis of the vessels from central incisions is the cause, the heart being exonnerated chiefly or entirely.

Krehl states that the fat content of the heart muscle bears no relationship to its capacity for work. Others have proved that a heart degenerated by phosporous, even to the most extreme degree, was able to respond to tests almost as well as a normal heart. Thus, it is evident that the heart has an enormous factor of safety, and that in the cases here considered, heart failure can scarcely be responsible for the condition.

Details of the experiments of Romburg and Passler, and of Bassler and Rolly are then given. These experiments have been universally accepted as proving that the paralysis of the vasomoter center is the chief cause of death in the circulatory collapse due to acute infections, due to dyphtheria bacillus, neumococcus and pyocaneneous organisms.

The experiments of Raczynski and Heineke conducted in investigating the cause of death in rabbits suffering from perforation peritonitis. They proved that the cause of death is a paralysis of the centres in the medulla. Primarily the vasomotor center and secondly the respiratory. The circulation shows striking symptoms earlier, but respiration ceases first; the paralysis of the vasomoter center is the cause of the circulatory symptoms, the heart is comparatively unaffected.

Speaking of the clinical symptoms in the case of children the author states that circulatory failure comes on rapidly or slowly, but when fully developed it causes pallor, cold extremities, rapid soft pulse, or its almost complete absence, with a heart whose sounds are usually clear, endeavoring by its over activity to compensate for the emptyness of the arterial symptoms.