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Original Communications.

REPORT ON CORONERS' INQUESTS.

THE HONORABLE THE ATTORNEY GENERAL,
Quebec.

SIR,—For the sake of convenience, I have placed in an appendix the information obtained during my recent trip to Coroner's Courts in the United States; and have also added some other statistics, etc., bearing upon the subject of reforming the Coroner law, with comments.

In the past, the chief complaints in regard to the Coroner's Courts of this Province seem to have been that (1) deaths were investigated which were not, in the first instance, strongly suspicious; (2) that the investigations were unsatisfactory and inconclusive; and (3) that the expense appeared excessive in proportion to the results obtained.

The various changes in the Coroner law of the Province do not appear to have removed these objections, and the new arrangement made in Montreal, at the commencement of the present year, of having a lawyer appointed as Coroner, with an official physician to make all medical examinations, has not, as yet, greatly improved matters.

In this connection, it must be remembered that the plan of an official medical examiner has not had a fair trial during the nine months for which it has been in force, as the medical expert has only been consulted in less than one-half of the inquests; and in eighty-five of the eighty-eight preliminary enquiries, made from January to May, 1893, was not consulted at all; owing, no doubt, to the absence of definite instructions from head-quarters upon this point. It is evident that, where the official physician is not summoned, the Coroner becomes responsible for the investigation of both medical and legal sides of the case.

NUMBER OF INQUESTS HELD.

The number of deaths investigated in the Montreal district by the Coroner has been at the rate of 1.3 per annum per 1,000 population, and the number of inquests at the rate of 1.0. These numbers, judging by the experience of cities elsewhere, do not appear to be excessive, the number in all parts of the world ranging between 1 and 3 per 1,000. New York investigates 3.0; Philadelphia 2.7; London 2.0; Pittsburg 2.0; Buffalo 2.0; Baltimore 2.4; Washington 2.5; Birmingham 2.4; Liverpool 3.0; Charlestown 4.0; Newark 2.3; Chicago 1.5; Cleveland 1.3; Wilmington 1.3; St. Louis 2.4; Boston 1.2; New Haven 1.1; and Milwaukee 1.5; while, of a number of the other cities, of which I have reliable returns, there is not one where less than one death is investigated yearly for every thousand inhabitants.

While this, no doubt, shows that about this proportion of deaths may be expected to occur annually in a large city, under circumstances calling for an investigation of some sort, it does not necessarily follow that inquests should be held and a jury summoned in all these cases. It seems customary, in most places, to make a preliminary enquiry, in order to see whether the death is really due to violence. According to the thoroughness with which this enquiry is made, the number of deaths calling for an inquest is reduced to three-fourths, one-half, or even one-fourth of the total number reported for investigation.

The Quebec statute of 1892 necessitates a preliminary enquiry by the Coroner before deciding to hold an inquest; and, if a careful and satisfactory enquiry could be enforced, there would be no grounds for holding inquests in more than one-fourth of the total number of deaths reported as suspicious in Montreal; in other words, less than 100 inquests would be held in each year. The Quebec statute differs materially from that of England, which

compels Coroners to hold public inquests in all cases of deaths not due to natural causes, and in all deaths in prison from any cause whatever. In Ontario, where the statute is the same as Quebec, no inquests are held in cases of accident from negligence of the deceased or cases of suicide.

It seems better in the interest of society that inquests should be held in cases of suicide, in order to check its frequency; as, in countries where this is not done, suicide is decidedly more frequent; but the present Quebec statute leaves it doubtful whether inquests must be held on suicides or not.

The idea of the Quebec statute of 1892 seems excellent in principle, as the State can have no interest in investigating deaths not due to violence. The only defect is that, without a medical examination or inquiry, it is impossible, in most cases, to determine whether death is due to violence or not; and a knowledge of the cause of death is, in most instances, the first step necessary.

PRELIMINARY MEDICAL EXAMINATION.

In the United States this fact is taken advantage of, and the preliminary examination is always made by a medical man. Most of the American and Canadian coroners are, on this account, physicians; and when such is not the case, are provided with medical officers who make the preliminary enquiry. The result being, that inquests are only held upon violent deaths.

AUTOPSIES.

The best results are obtained when an autopsy is permissible at the preliminary inquiry. In Massachusetts, in spite of the fact that nearly \$40 is paid for each autopsy, the average cost of investigating suspicious deaths is \$12.80, or \$10 less than in Montreal; and, in New York, the average cost of each death investigated is only \$10; including all the expenses of conducting the Coroner's Court.

The Quebec law, instead of attempting to utilize the medical examination as a means of reducing expenses, has avoided all medical evidence as much as possible, and has placed so many restrictions upon the performance of autopsies that the number of these has been reduced to a minimum. This has had the undesired effect of giving a very unsatisfactory service, without securing the economy aimed at, as may be judged from the fact that, in London, where autopsies are ordered in fifty per cent. of all the deaths investigated, the average cost is only \$15.35 for each case; while, in Montreal, with autopsies in only 13 per cent. of the cases, the cost has averaged \$22.28.

During the period from January 1st to September 30th, there were 301 deaths investigated in the district of Montreal. The expense, after deducting \$150 allowed for my trip, amounted to \$6,705.85, or \$22.28 for each case investigated; in spite of the fact that no medical fees at all were paid in 98 cases, or nearly one-third of the whole.

Of this sum, \$295, or an average of 98 cents for each case, was directly spent for autopsies, this amount representing the additional fee of \$5 over the cost of an external examination; and the full fee of \$10 in 17 cases, where external examination fees were paid to other medical witnesses, and the official physician called simply to do the autopsy. After deducting this \$295 and also \$200 charged to chemical analyses, arising indirectly out of the results of the autopsies from the total expense (\$6,705.85), there remain \$6,210.85, or \$20.63 spent on an average in each case for coroners' and physicians' fees, constables' fees, clerk hire, transport and care of bodies, rent of rooms, mileage and other incidental expenses before the investigation had reached a stage when an autopsy could be legally authorized:—much more than is spent for the entire investigations in Lon-

don, although autopsies are performed there in 50 per cent. of all the cases. This looks rather as if article 268g led to twenty dollars being spent in every ten dollars saved. In 1890-92, the average cost of 240 inquests held yearly was \$22.50 each, of which 37 cents was directly paid for autopsies.

On the other hand, the early performance of an autopsy would certainly have shown, in half the cases, that no grounds existed for holding an inquest, and so have saved a large number of inquests; the average cost of which was more than double that of an autopsy, while the verdicts were often absurdly at variance with the facts (or absence of facts) elicited by the enquiry.

It is evident that too large a proportion of the money spent in Montreal for Coroners' investigations is frittered away in fees and expenses (which may be perfectly legal and permissible under the law, but are absolutely useless in furthering the investigation), and this has led to an undesirable economy in which the real objects of the enquiry are lost sight of.

As some doubt existed as to the power of the Province to pass a statute, authorizing the performance of autopsies as a preliminary means of investigating deaths from unknown causes, under suspicious circumstances, I have made careful enquiries on the subject of the Department of Justice at Ottawa. I was informed the Province has a perfect right to authorize this, and that there is nothing in British or Canadian criminal law to prevent it, or render it inadvisable.

I am not advocating the indiscriminate and wholesale performance of autopsies when they are not needed to show whether death was due to violence or not; but no restriction should be placed upon their being made when really called for.

Even without autopsies, a preliminary inquiry and view of the body often yield satisfactory information that death has been

natural, in cases which seem suspicious to persons not having a medical training.

In American cities, where official medical experts are attached to the Coroner's Court, no fees are paid to other medical witnesses. In England no fees are paid to medical officers of public institutions in connection with deaths occurring in them. In all American cities as large as Montreal, the coroner and, usually, the official physician are paid fixed salaries. There were no complaints that the work was neglected on this account.

MEDICAL FEES.

In the Quebec tariff there is no fee arranged for medical evidence apart from that obtained from examination of the body, and there is no arrangement at all for paying medical fees where inquests are not held.

Independent of the examination of the body, the information furnished by physicians who have seen the deceased during life is often of much value. Without this it is often impossible to give a correct opinion as to the cause of death, even after an autopsy, and the testimony of physicians who have attended the case often enables an autopsy to be dispensed with.

While some provision is needed to ensure that all medical opinions should be founded on facts which bear them out, and that such opinions are, generally, more correct when given by an expert, it is equally true that all medical testimony at inquests, whether of fact or opinion, is, in a sense, expert evidence, and is recognized and paid for as such in our Courts.

It has been found elsewhere that proper use of medical evidence forms the best means of avoiding unnecessary inquests without running a risk of serious mistakes, and any arrangement tending to secure such evidence, before an inquest is decided upon, would certainly lead to economy.

The presence of a medical attendant at an

autopsy is often of the greatest assistance to the expert performing it; and affords the additional security that the medical evidence in Court, subsequently, will not suffer in case of absence or death of the official physician. For this reason a special fee is provided in States where the medical examiner system has been adopted for physicians acting as witnesses at autopsies.

In addition, it has been found in the United States that a written statement of medical fact or opinion by a medical man usually suffices for the purposes of an inquest, so that his personal attendance is seldom necessary. This privilege is highly appreciated by the medical profession, and the legal officials did not consider that the interests of justice suffer. Of course, in all cases when the presence of a physician at an inquest is necessary it must be insisted upon.

I think it would be well to provide a special fee, say \$2, for a verbal or written statement of medical facts or opinion without examination of the body, and without attendance at an inquest; also to pay a separate fee of, say, \$1 for attendance of a physician at an inquest or autopsy. The medical examiner would probably be the best judge of when and to what extent outside medical evidence or assistance is necessary.

I did not find that the practice of obtaining medical evidence *gratis* led to any good results. Unless the co-operation of physicians is secured in preliminary inquiries unnecessary inquests have to be held at a much greater expense than is incurred by a medical fee.

VIEW OF BODY.

The view of the body by non-medical persons appears to be a perfectly useless proceeding. Such persons constantly detect external signs of violence where none exist or overlook, or fail to understand them when present. This is constantly seen

under the present regulations which necessitate the jury viewing all bodies, and brings about so much unnecessary intrusion upon households in mourning.

Doing away with the view by the jury has now become general in the United States, and has the advantage of enabling all inquests to be held at convenient hours in a central locality, besides saving the cost of transport in all cases where this is not necessary for the purpose of medical examination, and enabling the body to be buried as soon as the medical examination is completed. In addition, as the jury do not have to be summoned before the evidence is complete, an adjournment is seldom necessary. The establishment of the fact of death and identity by sworn testimony fulfils everything that is attained through the view by the jury. I learned at the Department of Justice that the view by the jury forms no part of criminal procedure, and is not necessary in order to legalize a verdict of homicide in Canada.

MEDICAL EXAMINER SYSTEM.

Nearly all the difficulties in connection with Coroner's law arise from the fact that it is attempted to place both medical and legal powers and duties in the hands of one individual, who very often knows little or nothing about either law or medicine.

A solution of the problem appears to have been found in the United States, by separating, as far as possible, the medical and legal sides of the investigation, leaving all medical matters to competent physicians, known as Medical Examiners; and all legal matters, either to the regular judicial and police authorities in Massachusetts, or to coroners having legal knowledge in Connecticut.

It seems sufficiently obvious that the deciding whether a death is due to violence or not is a purely medical matter, and deciding whether the violence is criminal or not, a purely legal one. Further, that

until death has been shown to be due to violence there is no legal question at all. For this reason, the preliminary investigation is made by the Medical Examiner; who, if he is satisfied that death is due to violence, or, if he is in doubt, refers the case to the legal authorities for further investigation.

I have given, in the appendix, details of the "Medical Examiners'" systems and their results. The Connecticut law, which provides for medical examiners, acting under the direction of the Coroners, appears to me the best; and could be adopted almost as it stands by the Province of Quebec, with the effect of greatly improving medico-legal investigations; and, at the same time, materially lessening the expenses.

In Massachusetts, Coroners have been abolished, with very happy results; and this could be done in Quebec, if desired, as the office is not constitutional in Canada. If the office is retained, it should be so regulated as to give better results than would be obtained without Coroners.

It is preferable to make the medical examiner, to some extent, independent of the Coroner; instances have come before my notice where Coroners have tried to compel the medical deputies to give certain opinions not justified by the facts, or have prevented them from doing their work thoroughly. The Coroner, however, should have the right to investigate any case not considered suspicious by the Medical Examiner, if he sees fit.

A joint preliminary examination by the Coroner and Medical Examiner appears to be the best means of proceeding in cases not obviously due to natural causes. As a large number of the deaths reported as suspicious are always found due to natural causes, the Coroner would, in these cases, have almost nothing to do; and, in many deaths, especially by those from accidents, where the cause of death was perfectly plain,

a careful inquiry, by the Coroner, into the outside circumstances might be necessary.

On this account, if a joint inquiry were made, either the Coroner or Medical Examiner would, in many cases, have very little work; and, therefore, a reduced fee paid in all cases would be fair to both. One Coroner could easily take charge of a district requiring several Medical Examiners; and, in the country, where the outside circumstances are readily ascertained, the medical examiner might take entire charge of the preliminary investigation, only notifying the Coroner when the case proved really suspicious. In the country, we have, already, medical men now acting as Coroners who could be appointed Medical Examiners.

It is very important that the Medical Examiner should *make inquiry* into medical matters, in addition to examining the body, and should aid the Coroner in making any medical enquiries. In any case, the first thing to be established is whether death is due to violence or not, before the legal question of responsibility can be considered at all.

Juries should only be summoned when their assistance is really necessary. It seems safer to call them in all cases of homicide and, possibly, of suicide, but their real usefulness would lie in considering cases supposed to be due to negligence, especially railway and industrial accidents. The verdicts given in such cases, though they never result in a conviction for homicide, no doubt indirectly tend to ensure public safety.

In many parts of the United States inquests are held privately, but this plan would scarcely be tolerated here. Publicity, by juries, is a protection to a Coroner, as the blame for any mistake, of course, rests with the jury.

DEATH FROM NATURAL CAUSES.

Respecting the large number of natural deaths reported as suspicious, it may be

said that the proportion they form in Montreal cases, viz., 42 p.c., is not unusually high;—the number in New York being 68 p.c., in Philadelphia 72 p.c., in Liverpool 72.3 p.c., in Charleston 77 p.c., and in Chicago 47 p.c. In Boston they form 36.6 p.c.

The best means of excluding these cases from Coroners' Courts is by establishing some good system of registration of deaths, and enforcing a preliminary medical investigation by the Local Boards of Health into deaths not properly certified, before reporting them to the Coroner. I am glad to learn that there is a prospect of the charter of the city of Montreal being amended in this respect during the present session.

CONCLUSION.

In conclusion, I have only to state that, in my opinion, what is needed to improve the Coroner's Court of the Province of Quebec is the introduction of a law similar to that now existing in Connecticut, providing for coroners with legal knowledge and official medical examiners, with definite instructions as to the duties of both.

I would, therefore, respectfully suggest:—

1. The appointment, in each district, of official medical examiners, to determine whether death is due to violence or not; and of magistrates or lawyers, as coroners, to decide whether such violence is criminal and calls for inquest before a jury.

2. A preliminary inquiry and examination of the body in all cases reported; made jointly by the medical examiner and coroner in cities, and by the medical examiner alone in rural districts;—the facts obtained to be recorded in writing.

3. Autopsies to be ordered when the cause of death is unknown and the circumstances of the death suspicious. Juries to be summoned when evidence is obtained pointing to criminal violence.

4. Salaries to be substituted for fees in the case of large cities.

If desired to do so, I am prepared to frame an Act which will provide for this

system of investigation ; but it appears to me that the Connecticut law is almost exactly what is required. Even, under the present law, a preliminary inquiry would greatly improve matters.

Attempts at economy, by trying to do away with the medical investigation, have only resulted in producing a system which is so inefficient as to be a constant subject of public ridicule, which makes the average investigation much more expensive than in London, Massachusetts or New York, and which has not yet trained in this Province any official whose experience in medico-legal examinations is sufficient to make his opinion, as an expert, of much value.

If the useless fees and expenses now made necessary by the "pomp and circumstance" of coroners' inquests were dispensed with, a more efficient service would be obtained and less money spent.

I have the honor to be,

Your obedient servant,

WYATT JOHNSTON.

Montreal, November 21st, 1893.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 30th, 1894.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Drs. J. A. Henderson and E. D. Aylen were elected ordinary members.

Two Cases of Skin Grafting.—Dr. ARMSTRONG showed a man and a boy on whom he had recently performed the operation of skin grafting.

The boy, aged 16, was burned in rather an unusual way some time before. A gentleman walking along the street in front of him, after lighting a cigar, had thrown the match behind, and ignited the boy's clothes, severely burning him about the arm and chest.

The cicatrix following the burn had bound the arm to the chest, in such a manner that he had only the use of his forearm, and the operation was undertaken to relieve this condition.

The arm was freed by dividing the cicatrix, and it and the corresponding side of the chest were grafted with skin taken from other parts of the body.

The result was very good ; the arm and chest, including even the axilla, over the area corresponding to the cicatrix, were now covered with healthy skin, and the upper arm was quite moveable. Sensation over the grafted area, while not perfect, was all that could be expected, and was improving daily. Sensation in these cases first appeared at the periphery and worked towards the centre.

In the case of the man, there had been malignant disease of the skin in the region of the temple, reported to be endothelioma. It had all the characteristics of a rodent ulcer. Until recently, it had been the custom to wait, after preparing the region, until granulations had appeared before applying the graft. Lately, however, both time and pain had been saved by applying the grafts to the raw surface, and completing the whole operation at once. Dr. Armstrong had adopted the latter method in this case, and the result proved successful. He covered the area, which appeared to be about $1\frac{1}{2}$ to 2 inches in diameter, and fully $\frac{3}{8}$ of an inch deep, by a single graft. At the time shown, it was almost on a level with the surrounding surface and approaching nearer to that point daily. He had encountered some difficulty in rendering that portion of the skin which bordered on the hair of the scalp aseptic, not being able to obtain any chemical capable of disinfecting without destroying the tissues, and in consequence the grafting had not done quite as well in this region. The quality of the skin appeared to be very good, it was quite moveable over the underlying tissue, and sensation was present at the periphery and increasing towards the centre daily.

Dr. GORDON CAMPBELL was present at the operation. At the time it seemed to him that the patient, though benefited by removal of the ulcer, would still be disfigured by the depression in the temple, which, as Dr. Armstrong had stated, was fully $\frac{3}{8}$ of an inch below the surrounding surface. The amount of filling in that had gone on would hardly be credited by one who had not seen the previous condition.

Aortic Stenosis and Incompetence with Tricuspid Involvement.—Dr. McCONNELL read the report.

Dr. ARMSTRONG remarked that the apparent cure of the appendicitis had proved nothing. Only a short time before he operated upon a man for this disease twelve hours after the onset, and yet the operation was too late to save the patient. He had had previous attacks, but had been free from any for the past fifteen years.

Dr. JAMES BELL had a student now under his care in the hospital who had an attack of

appendicitis about 15 years ago. He recovered without operation, and felt no further trouble until about three months ago, since which time he has had five different attacks.

Dr. LAFLEUR after examining the condition of the heart failed to see any tricuspid involvement, the valve appeared perfectly normal. He did not, therefore, think Dr. McConnell's diagnosis borne out in this respect.

Dr. FINLEY thought the presystolic murmur here might be explained on Dr. Austin Flint's theory, that in a certain number of cases of aortic regurgitation, a presystolic murmur heard at the apex was the result of the floating upwards of the mitral segments, thus narrowing the orifice, and producing this sound.

Notes on a Cerebral Tumor.—Dr. JAMES STEWART read a paper on this subject.

Dr. C. E. CAMERON said this patient had come under his care two years ago last summer. At that time he had hallucinations; he thought some beasts, as he called them, were crawling round his neck, and wanted the doctor to remove them; he also believed he had worms in his stomach, which he said were interfering with his digestion. Shortly after this he took to bed, and never left it till he died. Latterly, he never made any complaints, never even sought his meals; he lived, but his life was more like that of a vegetable, than animal. He lost control of his sphincters during the last year.

Dr. SHEPHERD regretted that Dr. Buller was not present, as he had for some years under his care a patient suffering from a tumor not unlike this. It grew from the pituitary body, and after lasting some years, involved the ethmoid and the palate bones, until you could finally see the tumor through the mouth. The specimen existed in the museum of McGill University.

Dr. MILLS regretted that the condition of the brain was so far advanced in decomposition at the time of the autopsy, otherwise he believed the microscope should reveal some other degenerated conditions besides the presence of this tumor to account for all the symptoms in the case. Of course it was possible that the connection of the tumor with the pituitary body was capable of causing all these complex symptoms. Some said that this organ was allied to the thyroid, and being a blood viscus it might explain the anæmia. It would at any rate be important to ascertain definitely whether or not the pituitary body was involved in the tumor, and if it was, many of the symptoms could be explained.

Dr. ADAMI, replying to Dr. Mills' remarks, said he had looked carefully through a large number of sections taken from that region, but had been unable to find any pituitary substance, which had apparently completely atrophied.

End to End Anastomosis of Intestines by means of the Murphy Button.—Dr. JAMES BELL read a paper as follows:

I am able to report three cases in which I have used the Murphy button to secure end to end union of intestine after resection. In two the results were completely successful and most satisfactory. In one thus made there was non-union, sloughing of the apposed ends of the bowel, escape of contents, and death from peritonitis. Two of the three operations were upon the same patient, and it was the second operation upon this patient which proved fatal. I am, therefore, enabled to present specimens showing (1) the union which had resulted from the first operation, as well as (2) the sloughing of the bowel which resulted from the second operation. This case is, moreover, a most interesting and puzzling one from a pathological standpoint, although I wish for the present to direct attention specially to the use of the Murphy button.

The second case was one of femoral hernia, in which 39 hours of strangulation had produced complete gangrene of the extruded loop of bowel. Until very recently such cases were the *bête noire* of the surgeon, and the question, "What shall be done with cases of gangrenous hernia?" has been much discussed. This case and others, now a goodly number, of recoveries after resection of the bowel, indicate the only rational treatment, and it is particularly in this very class of cases, where rapidity of operation is frequently such an important consideration, that artificial aids are, if useful at all, of the greatest service.

CASE I.—J. W. McC., male, æt. 40, had always enjoyed good health until June, 1893, when, while in Chicago attending the World's Fair, he was suddenly seized with severe and painful diarrhoea. The diarrhoea subsided in four or five days, but pain remained, and he felt so badly that he came home and was unable to work for six weeks. His bowels had never been quite regular since this attack. He recovered fairly well, however, until December, 1893, when he had another attack of pain and a hæmorrhage from the bowels. Since that time he had never had a natural movement of the bowels without a purgative, and he had suffered greatly from wind, which after rumbling about for some time finally escaped in an explosive manner, giving great relief. In February, 1894, he was seized with faintness, and some hours afterwards passed a large quantity of blood per rectum. A similar attack had occurred once since. On the 14th June, 1893, he was admitted to the Royal Victoria Hospital, with complete obstruction of the bowels of six days' standing, and for which he had been given various kinds of purgatives, as well as enemata, but without any effect. His abdomen was greatly distended. The

principal distress was referred, vaguely, to the hypogastrium, and bimanual examination (with a finger in the rectum) discovered an ill-defined mass in the middle line, about midway between the umbilicus and the pubes. This examination gave a good deal of pain, and was followed by the passage of a little flatus and soon afterwards by a liquid stool. The symptoms were at once relieved, and free evacuation of liquid fæces continued for two or three days. He remained well, with the exception of the wind and constipation, which was relieved from time to time by purgatives until the 14th of July, when he was seized with faintness, and became quite pale. This condition lasted all the afternoon, and the patient stated that he knew from his past experiences that he was about to have a hæmorrhage, and within a few hours a large quantity of dark clotted blood was passed per rectum. I now advised operation, to which he readily consented, and on the 19th of July I opened the abdomen in the middle line below the umbilicus and directly over the part at which the mass had been felt, although it had disappeared with the free evacuation of the bowels and had not since been discoverable. Two loops of small intestine, each acutely bent upon itself, were found attached to a mass which overhung the brim of the pelvis. These were carefully separated, when it was found that they both communicated with a free cavity, bounded posteriorly by the mass above mentioned, and in which lay a long irregular mass of inspissated fæcal matter. The obstruction was at the upper of the two acutely bent portions of the ileum, and the bowel above this angle was three times as large as it was below it. Over a space of two inches in length, and involving one-third of the circumference of the bowel, the wall of the gut was entirely absent. This portion was excised and the ends united by the Murphy button. At the lower attached loop the destruction of the bowel was less, being about one inch in length, and involving a narrow strip along the mesenteric border. These deficiencies in the wall of the bowel were apparently the result of a destructive ulcerative process. It was from this point that the hæmorrhages had occurred, and a small artery, which was ulcerated through, bled very freely. The vessel was ligatured and the opening in the bowel closed by a continuous Lembert suture running obliquely from the mesenteric border to near the free border of the bowel. This, of course, narrowed the lumen of the gut somewhat, and gave me some anxiety as to the possibility of the passage of the button, which, it will be noted, was on the proximal side of this suture. My only alternative, however, was another resection and end to end anastomosis, and I decided to leave it as it was, as I had

still to turn my attention to the mass overhanging the pelvis, and which had been in such intimate relation with the bowel already operated upon. Careful examination of the mass led me to the conclusion that it was simply cicatricial, and that it did not involve any other part of the intestinal canal. The subsequent history shows that I was wrong in the conclusion arrived at, as to the character of the mass, but right as to its not then involving any other portion of the bowel. The patient made an excellent recovery, and after a week or ten days his bowels moved regularly and he passed large, well formed stools (showing that there was then no obstruction in the rectum or sigmoid flexure), but the button never came away. With the exception of some discomfort after an enormous dinner of corned beef and cabbage and several summer apples, he continued well, and left the hospital on the 12th of August in first rate condition. (He wrote me the day after leaving the hospital, to say that he had not felt so well for two years.) On the 11th September he returned, again suffering from obstruction. He had enjoyed good health for from one to two weeks after leaving the hospital. Then diarrhoea set in for a few days, after which it was succeeded by constipation and rumbling of wind in the intestines, ending as before in painful and explosive evacuations with temporary relief. This continued until September 18th at 4 p.m., when obstructive symptoms (inability to pass even flatus, vomiting, etc.) came on. These were attributed by the patient to the arrest and impaction of the button (which had never been found), in some portion of the ileum or large intestine. In this condition he reached the hospital on the night of the 11th of September, and on the following day at 2 p.m., forty-six hours after the onset of the symptoms, I reopened the abdomen through the original median incision. The button was found free in the splenic flexure of the colon, and removed through a small incision on its free surface, which was closed by Lembert sutures. I had previously discovered the obstruction in the lower portion of the sigmoid flexure by passing the button down through the descending colon and attempting to expel it per anum. The site of the previous resection could only be located by the irregularity in the mesentery, and the bowel was of uniform size above and below it. The mass overhanging the brim of the pelvis was apparently smaller, and was certainly much more movable than at the previous operation. The site of the obstruction having been located in the lowermost portion of the sigmoid flexure, I proceeded to remove it, together with the tumor overhanging the brim of the pelvis, with which it was continuous. This was finally accomplished after some difficulty, owing to the depth in the pelvis at

which the manipulations had to be carried on. The mass, which was dense and hard, surrounded the bowel as a narrow band (about an inch in width externally), and nearly closed its lumen, leaving only a narrow slit about as large as a waistcoat buttonhole. It was infiltrating, and was evidently either cicatricial tissue or scirrhus cancer. It has since been demonstrated to be the latter. During the operation the bowel was occluded on either side by a piece of hollow rubber tubing. About three inches of the bowel was removed, and the ends united by the largest sized Murphy button. The operation lasted about two hours, and was well borne. There was little loss of blood and no fouling of the peritoneal cavity. A glass drainage tube was carried down to the bottom of the pelvis and exhausted from time to time. A small quantity only of odorless fluid—at first blood-stained and afterwards colorless—was all that was withdrawn from the tube for forty-eight hours, during which the patient did typically well in every respect. Several copious evacuations of dark liquid fæces occurred, the first about three hours after the completion of the operation. There was no vomiting, the pulse ran from 88 to 94, and the temperature from 98.5° to 99.5° F., and with the exception of the thirst and restlessness usually observed after severe abdominal operations, he was perfectly comfortable. About 2 p.m., on the 14th (48 hours after operation), the patient was seized with very severe pain, which was not sensibly relieved by a moderate quantity of *Lig. opii sed.* (Battley) injected hypodermically. The dressing was removed and the glass drainage tube found filled with liquid fæcal matter. From this time he sank rapidly, and died in about 18 hours. Post-mortem examination discovered a general peritonitis, with quantities of liquid fæcal matter free in the peritoneal cavity. The button remained in situ, but the approximated ends of the bowel were completely gangrenous in their whole circumference, and had given way just beyond the border of the button. I cannot offer any satisfactory explanation of this unfortunate result. Dr. Murphy states, in a letter to me, that "this is an exceptional case," and has not occurred so far, except where there was infection from without, preventing the union, and where the post-mortem showed that there was no effort at union at any portion of the circumference, as well as at the point where the perforation occurred. This condition was certainly shown by the post-mortem in this case, but I cannot believe that it was primarily due to infection from without. I cannot believe that with such symptoms as I have narrated in the history of the first forty-eight hours after operation there could have been infection from without. I am much more

inclined to attribute it to one of two things, either (1) impairment of the vitality of the ends of the bowel by the use of the elastic ligature; or (2) pressure upon the wall of the bowel between the end of the glass drainage tube externally and the button internally, producing erosion and escape of intestinal contents, and then infection from without. Finally, it is perhaps open to question, whether the vitality of the bowel was not already impaired by its great distension about the stricture, and also whether, considering the thickness of the wall of the bowel in this situation, the button may not have been closed too tightly.

CASE II.—Mrs. M., at 49; strangulated femoral hernia. Operation in the Royal Victoria Hospital, October 20th, 1894, at 11 a.m., thirty-nine hours after onset of symptoms. The patient, a stoutly built woman, had always enjoyed good health. About fifteen years ago a hernia first appeared in the right femoral region. It had always been reducible, and had never given her much trouble. She had not worn a truss. Symptoms of strangulation came on about 8 o'clock in the evening (October 18th), severe pain, swelling of the mass, which could not be reduced, great tenderness (a specially marked symptom), and frequent vomiting which soon became fæcal in character. On admission these symptoms persisted, but in a modified degree. The pulse was 96 and the temperature 100°F. The abdomen was moderately distended. No attempt was made to reduce the hernia. On making the incision through the skin and fascia, brownish serum exuded from the cellular tissue having a strongly putrefactive odor. The sac was greatly thickened, dark, cedematous and friable, and contained a couple of drams of dark blood-stained serum, which also gave off a strong odor of putrefaction. The hernia consisted of about three inches of ileum tightly caught and quite gangrenous. When the opening was enlarged by incision of Gimbernat's ligament and healthy bowel brought down, the gangrenous part lay collapsed and empty, and almost separated from the healthy gut at both ends where it had been constricted. The bowel was emptied and compressed by the fingers of an assistant, and six and a half inches removed, and the ends united by the Murphy button. The mesentery corresponding to this portion had been ligated off at some distance from the bowel through healthy tissue. In spite of the greatest precautions, however, the mesentery stripped itself away from the bowel at either end. There was no great bleeding, but I felt that I could not leave the patient in that condition, for fear of hæmorrhage in the first place, and secondly, for fear of sloughing of the bowel which had been thus deprived of its vascular supply. I therefore continued my incision upwards, and out-

wards through Poupart's ligament, and opened the abdominal cavity. I again resected; this time five inches, going well within the border of the attached mesentery, united the ends with the Murphy button, ligatured the mesenteric vessels, and brought the mesenteric borders together with catgut sutures close up to the bowel. There were thus 11 inches of bowel removed. The hernial sac was excised, and the peritoneal wound closed with mattress sutures of silk. The muscular borders were next closed with buried sutures of silk-worm gut, and the pectineal fascia was attached to the re-united Poupart's ligament by three sutures of catgut. Finally the skin was closed by a separate layer of silk-worm gut sutures, and a small tent of iodoform gauze introduced at the lower angle of the wound. The operation lasted two hours, and was well borne. The patient never had a bad symptom, and made an uneventful recovery. A liquid motion (with flatus) was expelled at the end of twenty-four hours (after administration of an enema). A regular movement occurred again next day, and on the fifth, sixth, ninth and tenth days. The button was found imbedded in a well formed stool, which was passed at 1.30 p.m., October 30th, just ten full days after operation. The wound was perfectly healed, and the patient allowed up on the 22nd. Healing per primam.

My experience in these three cases leads me to the conclusion that the Murphy button is a valuable aid in end to end anastomosis of intestine. So many artificial aids have been introduced for this purpose, have had their day and have been discarded, that most surgeons are now sceptical about anything of this kind. It is, of course, not to be assumed that union of intestine cannot be secured without such aids, for it undoubtedly can; but the great desiderata, rapidity of operation and accuracy and security of co-aptation are both admirably effected by this instrument. I cannot agree with the view which has recently been promulgated, that the Murphy button is useful in the hands of the tyro and is not necessary to the experienced surgeon. The actual union of the intestinal ends is but one part of the operation, even if it be the culminating point, and the surgeon who is not possessed of the necessary skill to unite the ends of the intestine by suture is certainly not fitted to undertake any such operation by any method. In my experience the most difficult part of such operations, and the part which most requires surgical skill, is that which is preliminary to the intestinal co-aptation. Again the button may be used (as in my second operation) deep down in the pelvis, where accurate union by suture would be almost impossible.

The great want of intestinal surgery at the present time is a suitable clamp, a clamp which

will occlude the lumen of the bowel, without too much pressure upon its delicate walls, and without exercising pressure upon the arterial supply at the mesenteric border. Dr. Murphy's ingenious contrivance to exercise a uniform spring pressure gives, I think, a clue which may be utilized to effect this purpose,—I mean to produce a clamp to be locked like an ordinary artery forceps (Péan), with smooth blades capable of being armed with rubber tubing, and upon a spinal spring which will make the pressure indirect rather than direct uniform and capable of regulation. I know of no clamp at present in use which is not open to serious objection. The use of rubber tubing is, perhaps, open to less objection than any other device, but it is not by any means satisfactory. As it surrounds the bowel, the wall must be puckered considerably in order to occlude the canal—especially in the large intestine—hence more pressure is required than should be necessary if applied so as to evenly appose the inner surfaces. It also cuts off the circulation for a time completely, and the proper regulation of the degree of pressure is extremely difficult. If one could always have the ideal assistant, I believe that the best clamp is the thumb and forefinger, but a serious objection to this is, that at best, the assistant's hands are greatly in the way of the operator, and worse still, there is the constant danger that by relaxing or moving his fingers the contents of the bowel may be allowed to escape and prove disastrous to the operation.

THE BALTIMORE MEETINGS.

THE AMERICAN ACADEMY OF MEDICINE. PRELIMINARY PROGRAMME.

The twentieth Annual Meeting of the American Academy of Medicine will be held in one of the buildings of the Johns Hopkins University, Baltimore, on Saturday, May 4th, and on Monday, May 6th, 1895. The "Headquarters" of the Fellows of the Academy and the meetings of the Council will be at the "Stafford."

The meeting will open at ten o'clock on Saturday morning with an executive session of the Fellows of the Academy exclusively; the reading of the papers will begin at about eleven. The morning session will close at one o'clock, and the session of Saturday afternoon will extend from three to six. The "Re-union Session" will be held on Saturday evening. By a standing rule the price of the tickets for the supper is fixed at two dollars. Attendance at the reunion session is not confined to the fellows exclusively, hence any member may bring friends with him by arranging for their tickets with the committee. For the past two years ladies have been present at this session, and have added to the enjoyment. The session

of Monday will begin with a short executive meeting; after which the reading of papers will be resumed; after a recess at one, the afternoon session will begin at three and continue until adjournment.

Members of the profession, and others who may be interested in the topics treated by the papers, are cordially invited to attend the open sessions of the Academy.

The following are the titles of the papers that have been promised:

1. The Address of the retiring president, J. McFadden Gaston, Atlanta, Ga.
2. "Expert Testimony," Henry Leffmann, Philadelphia.
3. "Hospital Management," W. L. Estes, South Bethlehem, Pa.
4. "The Proper Teaching of Physiology in the Public Schools as a Means of Preventing Intemperance and Venereal Disease," DeLancey Rochester, Buffalo, N.Y.
5. "The Problem of Dependency as Influenced by the Chinese in America," W. F. Southard, San Francisco.
6. "What Agencies Conspire to Check Development in the Minds of Children," J. Madison Taylor, Philadelphia.
7. "How to Avoid the Dispensary Abuse?" Emma B. Culbertson, Boston.
8. "Contract Medical Work and Fees," Charles P. Knapp, Wyoming, Pa.
9. "What shall we do with our Alcoholic Inebriate?" J. W. Grosvenor, Buffalo, N.Y.
10. "Life Insurance in its Relation to one of the Dependent Classes," E. O. Bardwell, Emporium, Pa.
11. "Some Results of Competitive Medical Charity," George M. Gould, Philadelphia, Pa.
12. "Criminal Anthropology," E. V. Stoddard, Rochester, N.Y.
13. Title to be announced, Leartus Connor, Detroit, Mich.
14. "The Increase of Insanity," Gershom H. Hill, Independence, Ia.
15. "A Perfect Consultation," L. Duncan Bulkley, New York.
16. "An Analysis of the Reports of the Examinations by the State Boards of Medical Examiners," Perry H. Millard, St. Paul, Minn.
17. "The Limits of a Physician's Duty to the Dependent Classes," James W. Walk, Philadelphia.
18. "The Economic Aspect of American Charities," Bayard Holmes, Chicago.
19. "Is our Financial Relation to our Patients and Community the best Possible," Woods Hutchinson, Des Moines, Iowa.

Partial promises have been made for several additional papers; it is hoped that these can be definitely mentioned when the complete programme is issued.

Members preparing papers are urged to send a copy of the paper, or an abstract, to the

Secretary as soon as possible, in order that time may be given him to prepare the press-reports. If others than those mentioned contemplate the preparation of papers, information should at once be sent to the Secretary, as the completed programme must be issued early in April.

EIGHTH FRENCH CONGRESS OF SURGERY.

CONTAGION OF CANCER.—M. Guelliot, of Reims, presented a communication embodying the results of an inquiry as to the contagiousness of cancer, begun in 1891. The number of cases collected by him in which cancer appeared to have been communicated by contagion was forty. In the author's opinion, his facts show: 1. That cancerous affections are unequally distributed in adjoining districts, and that neither heredity nor consanguinity is adequate to account for this. 2. That there are real cancer-houses, the dwellers in which, though having no link of blood-relationship between them, are successively or simultaneously attacked by malignant tumors. 3. That cases of cancer attacking two persons living together are relatively frequent. Of 100 such cases, published and unpublished, in 85 the persons attacked were man and wife; in 8 they were medical practitioners who had been specially engaged in the treatment of cases of malignant disease. According to the author, these facts tend to show that cancer is transmitted, directly or indirectly, and that it runs its course as an infectious disease with an average incubation of from a few months to two years, a primary lesion, then generalization.

Delore, of Lyons, stated that cancer seemed to him capable of being transmitted by pregnancy. Fifteen years ago, at the Congress of Blois, he had brought forward a case in point.—*British Medical Journal*, October 20, 1894.

MIDLAND MEDICAL SOCIETY.

MODERN TREATMENT OF PULMONARY PHTHISIS.—Dr. C. Theodore Williams, in his inaugural address, observed that the various specific modes of treatment of phthisis seem to ignore one great factor,—viz., the resisting power of the organism to disease. A glance at the history of the treatment of phthisis will show that whatever success has been attained has been due to strengthening and fortifying treatment, whether by diet, climate, or medicines; and not by so-called specific treatment. Life in the pure air, judicious exercise, a light nourishing dietary, and such aids as cod liver oil and tonics have effected more than all the bacillicide treatments put together. All act on the old principle of helping nature to help herself against her foes and reducing the vulnerability of the patient to attack.

The problem of treatment resolves itself principally into means to increase the number and activity of the phagocytes, thus rendering more probable the destruction of the tubercle bacilli. To promote the formation of lymph and of blood rich in leucocytes, experience teaches that the surest method is in supplying a large quantity of oleaginous food under conditions which promote its absorption and assimilation. Among this class cod liver oil is pre-eminent, on account of its penetrative power and the ease with which, with pancreatic juice, it forms a rich emulsion capable of absorption. It is probably this which has caused cod liver oil to do so much good in the treatment of phthisis; and when we reflect on the number of poor phthisical patients in the out-patient departments of hospitals, who enjoy no advantage of climate, whose surroundings are the reverse of sanitary, whose food is scanty, and whose trade or occupation is by no means salubrious, yet who hold their own by steadily persevering for months and years with cod liver oil, it must be admitted that it does in some subtle way supply the requisite nourishment and augment the resisting force of the system; the diminution of the usual phthisical symptoms and the rapid gain of weight and strength confirm this. With regard to substitutes for cod liver oil,—and they are legion,—he has given a fair trial to most of them, and has not yet found any at all comparable; but the combination of the oil with the preparations of hypophosphites, of phosphorus, and arsenic have proved very useful. The introduction of a large amount of milk into the dietary is to be aimed at.

The most important factor in the treatment, however, is pure air, and on its thorough application to the system of the patient most success depends. Sunshine and pure air are the best bacillicides. A leaf might with advantage be taken by English physicians out of the book of some of our Continental friends, and phthisical patients be fearlessly trusted to a little more open-air life than is at present done. Undoubtedly the treacherous climate of the British Isles, especially in winter and spring, is the great excuse. At most English health stations a wet or snowy day means confinement to the house, and generally to the fire-side, for the whole twenty-four hours, the usual plea being the great tendency of phthisical patients to catch cold and contract fresh catarrh. From what goes on at Davos, St. Moritz, and Falkenstein, the probability of catching cold, if ordinary precautions are taken, is very doubtful. These phthisical patients almost invariably sleep with open windows throughout the winter, when the thermometer not uncommonly registers 4° F. (15.6° C.), or 36° F. below the freezing-point, care, of course, being taken to heat the rooms with stoves, to provide plenty of blankets and coverlets, and to see that the current of external air is not directed on to the patient, but

that it first ascends to the ceiling. The universal testimony of medical men is that no harm, and much good, results from this practice. One effect is that patients accustom themselves to live at a lower temperature without noticing it. At Davos, Leysin, and Falkenstein there are covered terraces, or long, sheltered corridors open on one side to the air and protected from wind, where a large number of phthisical patients in various stages of disease recline on couches for the greater part of the day in all weathers. These galleries are deep and lofty, generally facing the south, sheltered from too much sun and from rain and snow by curtains. The patients lie on well-cushioned basket-work or bamboo couches for from seven to ten hours daily, only leaving them for meals or exercise. In the winter there is no heating apparatus, and warmth is kept up by fur clothing and abundant covering. At Falkenstein, on the slopes of the Tauern, about four hundred and sixty feet above sea-level, this seems to be sufficient. Besides these terraces at Falkenstein there are a number of pavilions in the park-like gardens, some holding two or four invalids, which rotate so as always to insure protection from wind and rain. The patients seem quite at their ease, and may be seen reading, writing, knitting, and playing cards and games all day. They can keep warm even at Davos. Dr. Williams objected to a continued recumbent position, as not favoring expectoration, and as involving a want of exercise. For the cases of consolidation or of excavation with pyrexia, exercise is undesirable, and a continuously-recumbent position the best; but in cases of limited apical lesions and limited cavities without fever, it is desirable for the patient to take as much exercise as his strength will permit, in order to develop and extend the healthy portions of the lung and to increase the muscular power. This, however, need not prevent the patient from spending the resting times of the day in the recumbent position in the open air.

The speaker then made some remarks on the medical treatment of the disease suggested by thirty years' experience. Cough should always be treated by promoting expectoration, one of the best forms of expectorant being the effervescent carbonate-of-ammonia draught night and morning, which will generally clear the bronchial passages for several hours. If there be a good deal of fruitless hacking before expectoration, causing annoyance to the patient, the addition of a few minims of dilute hydrocyanic acid and $\frac{1}{2}$ drachm (2 grammes) of syrup of poppy or codeia will do no harm and considerably allay the reflex irritation. Where the cavities are large, deep, or basilar, and consequently require great expiratory effort to clear, combinations of sal volatile and spirit of ether with camphor-water answer admirably, while

for old or feeble persons champagne will often serve the same purpose. But the most satisfactory way to reduce the cough of chronic phthisis is by counter-irritation to the chest-wall—best by blistering. It will be found that relief will follow in proportion to the amount of serum drawn by vesication, and fly-blisters or acetum cantharidis, or the strong, but very efficient, liquor epispasticus, answer the purpose. Night-sweats, when they are a mere flux from the vessels or lymphatics, and not a relief of pyrexial processes, ought to be checked, and this can generally be done by arseniate of iron, $\frac{1}{8}$ grain to $\frac{1}{2}$ grain (0.01 to 0.02 gramme) at bedtime; picrotoxin, $\frac{1}{60}$ grain to $\frac{1}{30}$ grain (0.0013 to 0.0026 gramme); or nitrate of pilocarpine, $\frac{1}{20}$ grain (0.003 gramme); or the old-fashioned oxide of zinc in from 3-grain to 5-grain (0.2 to 0.32 gramme) doses, which generally succeed and do no harm. Preparations of belladonna and atropine, though they are effectual controllers of night-sweats, are less satisfactory, because their continuance for a long period often induces dryness of throat and mouth, dilatation of the pupils, and disturbance of accommodation. The treatment of pyrexia depends very much on its cause. Where it accompanies tuberculization, it probably will subside of itself when the tuberculous process becomes quiescent, and even if persistent will only prevail in the afternoon. An effervescent saline, with a few drops of tincture of aconite or a few grains of quinine, is all that is then wanted. But pyrexia accompanying acute excavation, or acute excavation and tuberculization, is very troublesome and sometimes quite intractable. Antipyretics only give temporary relief, and often do harm by depressing the patient's constitutional powers and producing collapse. The great object is to keep the patient quiet in bed or lying on a couch, and, if possible, in the open air; to feed him frequently; and to supply alcohol to repair tissue-waste, while administering only sufficient antipyretics to keep the temperature within moderate bounds. Quinine in small doses in effervescence before or during the rise of temperature will often suffice, or Henn's well-known pill twice a day. The diarrhoea which accompanies tuberculous ulceration may be checked by sulphate of copper and opium if the ulcerative process be limited in extent, but if there is much ulceration, and the ileum and large intestine are involved, injections are best. The enema opii of the British Pharmacopœia is excellent, but some most obstinate cases yield to large injections of lin seed-tea, which has a most soothing influence on the irritable ulcers.—*Lancet*, November 3, 1894.

EIGHTH INTERNATIONAL CONGRESS OF DEMOGRAPHY AND HYGIENE.

DIPHTHERIA.—Professor Loeffler, of Greifswald, President of the German Committee on

Diphtheria, stated that the etiological importance of the diphtheria bacillus—was no longer open to doubt. Certain other affections of the upper respiratory tract present the same clinical picture as true diphtheria, and may have the same evolution; hence statistics of an epidemic of diphtheria and the character of such an epidemic have no positive value unless the differential diagnosis has been made by bacteriological examination. The progress of epidemic diphtheria depends (1) upon the number and virulence of the diphtheria bacilli; (2) upon the pathogenic or non-pathogenic bacteria associated with the diphtheria bacillus, increasing its virulence or weakening the organism by their products; (3) upon individual predisposition. The diphtheria bacillus may be found in the nose or mouth of healthy individuals without causing any lesion whatever, producing disease only when it becomes fixed on the mucous membrane,—a condition favored by previous affections. Atmospheric changes, especially dampness, seems to influence the appearance of diphtheria, which is most frequently transmitted by direct contact, coughing, kissing, hands which have touched the fresh secretion, by food, or linen, and that often after a long period has elapsed.

To prevent as much as possible the spread of the bacilli by the diseased person, local antibacillar treatment should be instituted from the beginning, whenever possible. The most effective means, in the opinion of the speaker, was the use of Behring's antidiphtheric serum.

Dr. Billings, President of the American Committee, believed that the name "pseudodiphtheria" should be reserved for pseudomembranous inflammations of the upper respiratory passages, produced not by the diphtheria bacillus, but by the streptococcus and other bacteria. The mortality of these cases is low, being only 1.7 per cent. in private practice and 25 per cent. in hospitals.

As regards the disappearance of the bacillus, of 752 cases it was absent in 325 three days after the disappearance of the exudate; in the rest it was present from five days to five weeks afterward. In 14 families, with 48 children, where isolation was imperfect or not carried out at all, the bacillus was observed in half the persons, 40 per cent. of whom were afterward affected with diphtheria. In families where the patients were properly isolated, the bacillus was found only in 10 per cent. The inhabitants of an infected house should therefore be regarded as suspects, and, if not isolated, at least frequently examined.

Dr. Edward Scaton, President of the English Committee, remarked that whereas in England, within the last ten years, infectious diseases had diminished as the improvements in drainage had progressed, the contrary was the case with diphtheria, which had greatly increased within the last decade. It was also to be noted

that, while formerly a rural disease, it had now become a city one, the schools being an important factor in its propagation. The investigations of the Medical Department Board show that children from 3 to 12 years are most frequently affected, and that the disease is often associated in the beginning with affections of the upper air-passages.

M. Filatow, of Moscow, President of the Russian Committee, said that, though the contagiousness of diphtheria was undoubted, there were still certain epidemiological facts not explained by contagion alone. Sporadic cases are usually seen long before the appearance of an epidemic. In certain countries, epidemics of diphtheria are observed after fatal throat disease in hogs and other animals. The epidemics are influenced by seasons and local conditions, generally increasing in autumn and diminishing in summer.

Mr. M. A. Adams, of Maidstone, England, concluded that damp, close, stagnant conditions of the atmosphere favored the increase of diphtheria, and that its virulence increased with the soil-air, showing that it depended upon the movements of the subsoil-water.

M. Roux, President of the French Committee, gave the statistics of treatment of diphtheria with antitoxin at the Hôpital des Enfants Malades, Paris. From February 1 to July 24, 1894, 448 children were thus treated, the mortality being 109, or 24.33 per cent. The average mortality from 1890 to 1894 was 51.71 per cent. in a total of 3971 children. The benefit from the antitoxin treatment, the conditions being the same, was therefore 27.38 per cent. Within the same period 500 cases of diphtheria were entered at the Hôpital Trousseau, 316, or 63.20 per cent. of whom died. Of the 448 children treated by antitoxin, 128 were found, by bacteriological examination, not to be suffering from true diphtheria; 20 other cases were in a dying condition when brought in. Of the 300 cases remaining, there were 78 deaths, or 26 per cent., instead of 50 per cent., as in former statistics, before the use of antitoxin. The serum used was taken from immunized horses, with a strength of between 50,000 and 100,000. Of this, 20 cubic centimetres (5 drachms) were injected under the skin of the thigh. This was not renewed if the patient was found not to be suffering from the true diphtheria; otherwise, a second injection was made twenty-four hours later, 0.10 or 0.20 gramme ($1\frac{1}{2}$ to 3 minims) being used. This was usually sufficient to bring about recovery. If the temperature remained elevated, however, a third-injection of the same amount was made. The average weight of the children being 14 kilogrammes (28 pounds), the amount of serum injected, as a general rule, equaled 1-1000th part of their body-weight, and in exceptional cases 1-100th part. Under the influence of the

injections the general condition remained excellent; the false membranes ceased to form within twenty-four hours after the first treatment; in thirty-six or at most seventy-two hours they became detached. In only 7 of the cases did they persist longer. The temperature frequently fell suddenly after the first injection; if it remained elevated in the cases of severe angina, it fell only after the second or third injection in lysis. The pulse returned to normal less rapidly than the temperature. A third of the cases of diphtheria, according to statistics, show albuminuria; and this having been present in only 54 out of the 120 cases treated with serum, it seemed evident to M. Roux that the remedy diminished the frequency of the symptom.

The mortality in cases of croup treated with the serum was also much less than with other methods. The author believes it possible to obtain much better results if the treatment be instituted earlier, and also believes that tracheotomy will become more and more rare, being superseded by intubation, combined with injections of serum.

Dr. Heubner, of Berlin, read a paper in the name of Professor Behring, stating that the action of the antitoxin was all the more certain the earlier it was administered in any given case. The injections should be aseptic, a sterilized Koch syringe being employed, from 0.10 to 0.12 gramme ($1\frac{1}{2}$ to 1.45ths minims) being injected at a time. Massage is not necessary afterward, the absorption of the liquid being more rapid and the pain less when it is not practised.

Dr. Aronson, of Berlin, like M. Roux, regarded the serum of the horse as the most efficacious, taken from animals immunized with cultures through which a current of oxygen had been passed. This serum is three times stronger than that used by Professor Behring. From March to the end of July he had treated 192 cases of true diphtheria by means of the serum, 14 per cent. dying. Of these children 23 were moribund when brought into hospital, leaving 169 cases with 19 deaths, or a mortality of 11.2 per cent. In the same hospital the mortality was, in 1891, 32.5 per cent. in 203 cases; 1892, 35.4 per cent. in 341 cases; in 1893, 41.7 per cent. in 426 cases; and from January to March, 1894, 41.8 per cent. The serum treatment was also employed in 82 cases in other hospitals, making 274 cases, with a mortality of 15.3 per cent.

Dr. Aronson also made use of the serum to render immune the children of families in which diphtheria had occurred, and, of 130 such, only 2 were affected with diphtheria, and that of a mild form. The dose used was 1 cubic centimetre ($15\frac{1}{2}$ minims).—*La Semaine Médicale*, September 8, 1894.

Progress of Science.

TREATMENT OF SEVERE ALBUMINURIA ASSOCIATED WITH PREGNANCY.

In a paper read at the last meeting of the Obstetrical Society, Dr. Herman (*Med. Press and Circular*) concluded a valuable series of observations on albuminuria associated with pregnancy and labor. Every practitioner who observes his cases must have noticed that there are at least two main groups of kidney disease in this association. Albuminuria in a more or less marked degree is a very common complication of pregnancy, but in a large proportion (the majority) of the cases it does not lead to any of the graver symptoms to which pregnant albuminuric women are liable. In a certain number of such patients, however, not only is the disease acute in its onset and violent in its manifestations, but we get the dreaded eclamptic convulsions which threaten the life of the mother and jeopardize that of the unborn infant. The risks dependent upon the renal disease are, then, first, the life of the mother; secondly, that of the fœtus; and, lastly, the danger of the acute phase giving place to a chronic form of Bright's disease after delivery. The main points which still call for discussion are the means of distinguishing between the cases which are likely to import a grave sequel, and the best method of obviating the danger of usual defects and renal disease as a sequel. Dr. Herman tells us that the acute form attacks mainly women who are pregnant for the first time, and he points out that when the albumen in the urine consists mostly of serum albumen the prognosis is grave. It is, therefore, necessary for the practitioner to accustom himself to testing for the presence of paraglobulin as compared with serum albumen. One of the common symptoms associated with the albuminuria of pregnant women, as in albuminuria from other causes, is failure of vision, attributable to the presence of albuminuric retinitis, and possibly subretinal hemorrhages. In the graver cases this may go on to complete loss of perception of light. Although in most cases the opacity passes off more or less when delivery has been safely accomplished, this is by no means always the case, and the preservation or protection of sight becomes one of the points to which treatment must be directed. Now, the treatment of the albuminuria of pregnant females is practically confined to the induction of premature labor. As soon as the uterus has been emptied, the symptoms usually promptly subside; indeed, the promptness of this subsidence is one of the most remarkable features of renal disease associated with pregnancy. The speakers in the discussion that followed

accepted this conclusion, and did not hesitate to recommend that the uterus should be emptied forthwith in all really serious cases of albuminuria associated with pregnancy. The child is sacrificed, it is true, but its chances of survival in the presence of eclampsia, or even of severe albuminuria, are small indeed, so that this fact cannot and ought not to be allowed to weigh in the balance, especially as the mother is thereby rescued from one of the most terrible complications that can threaten the pregnant woman. Then, too, in the cases presenting indications of albuminuric retinitis. These are always severe cases, and most of them die if left unrelieved. Moreover, the further the case is allowed to go on the greater is the damage done to the delicate structures of the eye and the greater are the risks of permanent impairment of vision. This is a serious point well worthy consideration; and in future, obstetricians will be well advised if they adopt the suggestion to empty the uterus as soon as, at latest, ophthalmoscopic examination reveals the familiar and easily recognized signs of albuminuric retinitis. There remains as an additional reason for adopting this course the fact that, even in women who either do not have, or who survive, the fits, the kidneys do not always recover from the disturbance to which they have been subjected, and the patient not infrequently remains the victim of chronic Bright's disease. On these grounds, therefore, severe albuminuria ought to be added to the list of indications for the induction of premature labor, without waiting for the supervention of eclamptic convulsions before coming to a decision. This is not a specialist's question. It is one which any practitioner may be called upon to consider at any moment, and it is to be hoped, in the best interests of his patient, that he will henceforth recognize the extreme and manifold gravity of the risks attending the continuance of albuminuria in pregnant women.—*Therapeutic Gazette.*

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Reports from various parts of England show that in a very large proportion of cases complete success has attended the use of the antitoxin serum in the treatment of diphtheria. Dr. Watkin Hughes, for instance, states that during the present severe epidemic of diphtheria at Barnham Broom, Norfolk, he has attended 40 cases; of the first 30 treated by ordinary methods, 10 died; in the next following 10 cases, which were very severe, the serum treatment was used, and every patient recovered after a single injection. To obtain the best results, experience already accumulated proves that the treatment must be adopted at an early stage of the disease; but at the present time, unfortunately, there is

considerable difficulty in obtaining a sufficient supply of the serum. In France its preparation on a large scale has been undertaken by the Pasteur Institute, and it is hoped that in a couple of months' time the supply will be sufficient for the needs of France. The British Institute of Preventive Medicine expects shortly to be in a position to supply a considerable quantity. The treatment, however, is rapidly passing out of the experimental stage, and in the case of a disease so murderous as diphtheria, which produces annually so fearful a mortality, especially among children, the public may well look to the State to take steps to insure a constant and adequate supply of the remedy at a reasonable cost. Professor Behring, in an address before the German Naturalists' Society of Vienna, stated that in Germany and Austria alone the mortality from diphtheria might be estimated to be about 2,000,000 in every ten years. The serum treatment would reduce this high mortality, amounting to over 50 per cent. of the persons attacked, to 10 per cent., and, if employed in the early stage, to 5 per cent. "In other words," he added, "about 1,500,000 lives may be saved every ten years, but of course the serum must be obtainable in large quantities. This is not now the case, and will not be the case until the State takes the matter in hand and prepares it at the public cost." The mode in which the serum is obtained at the Pasteur Institute is as follows: The animals which are to furnish the antitoxic serum are rendered immune by the injection, under certain precautions, of the toxin of diphtheria. This toxin is formed when the virulent bacillus is grown in broth, and in practice the rate at which it is produced is increased by drawing a current of air through the culture liquid. After three or four weeks the culture is sufficiently rich in toxin to be used. The animals employed are horses in good health, and previously tested by the injection of mallein to prove that they are free from glanders. The culture, filtered through a porcelain filter, yields a clear liquid, with which the horse is inoculated by injection under the skin. Gradually, by repeated injections over a period of two or three months, the horse is brought into a condition in which its serum possesses very high antitoxic properties. The animal does not suffer in health at all, or only to a very slight degree. The efficacy of its serum having been ascertained by a test experiment on a guinea-pig, the animal is bled. It suffers little from this operation, and it is possible, if necessary, to bleed it again in two or three weeks, but it is advisable in the interval to strengthen its immunity by some further injections of the toxin. The animals used are cab-horses, sound in constitution, but broken down in limb, who after inoculation live a life

of ease and luxury, varied by a periodical phlebotomy, such as our grandfathers submitted to voluntarily two or three times a year.—*British Medical Journal*, Oct. 6, 1894.

Behring's Antitoxin.—Dr. H. U. Walker, in reporting a successful case, states, with regard to Behring's solution, that it has been proven that if a mixture of 0.001 cubic centimetre (1-64th grain), with the same amount of poison, is subcutaneously administered to guinea-pigs, not only are no symptoms of disease caused, but also no local symptoms are observable, especially no infiltration at the place of injection. The antitoxin solution contains 2 to 2.5 per cent. egg-albumen and a further admixture of 0.4 per cent. trikresol for preservation purposes. For the immunization of adults and elder children 1 cubic centimetre (15½ minims) of the solution is injected subcutaneously by means of a Pravaz syringe, which has been previously sterilized by alcohol and 3-per-cent. carbolic-acid or 1-per-cent. trikresol solution. For young children up to 2 years the dose should be 0.55 cubic centimetre (8 minims). The above quantity of antitoxin thus administered to persons threatened by diphtheria is at least ten times as much as is required to render them immune. The immunity from diphtheria is therefore much more lasting.—*Lancet*, October 6, 1894.

Manner of Using Antitoxin.—In order to arrive at any satisfactory conclusions, it is all important that in every instance where antitoxin is used there should be a bacteriological examination of the throat. It is also important that the urine of the patient should be examined for albumen before and after the injection. The dose for procuring immunity, according to some observers, is 1 cubic centimetre (15½ minims) for any age over 3 years, and half that for younger children. For a cure of the disease during the first 2 or three days, under 2 years of age, 2 to 3 cubic centimetres (31 to 46 minims); from 2 to 10 years, 5 cubic centimetres (1¼ fluidrachms); over 10 years of age, 10 cubic centimetres (2½ fluidrachms). After the third day, in a severe case, twice as much may be used with positive advantage. If the disease does not seem to be ameliorated by the first dose, a second should be given in twelve hours. The question of dosage is one that can only be decided by a more extended use of this agent. In the account of the cases treated there is no evidence of any distressing or annoying symptoms caused by the injection. One advantage of this treatment is that, after the injection, into the back or abdomen, there is no interference with the patient; no swabbing of the throat; no tearing of the mucous membrane. It is stated that even in the worst cases that proceed to a fatal end there

is a marked amelioration in the suffering; that the dyspnoea is relieved to a certain extent. If the patient dies, his death is comparatively painless. In regard to the kind of syringe that should be used, it must be said that the common subcutaneous syringe is not adapted for the purpose, because it cannot be properly sterilized by heat. Koch's syringe, which consists of a detachable rubber bulb, a glass barrel, and a needle, is the most satisfactory instrument for this purpose. The barrel and steel needle can be put into a test-tube, in the bottom of which a little cotton is placed, the tube plugged with cotton, and then put in the oven of a cooking-stove and kept at a temperature of 150° C. (302° F.) for half an hour or more, or until the cotton is slightly singed. A syringe prepared in this way will remain sterile for four or five days.—*Boston Medical and Surgical Journal*, September 20, 1894.

FOREIGN BODY IN THE GULLET; SUBHYOID PHARYNGOTOMY; RECOVERY.

The foreign body removed by E. Schmiegelow, of Copenhagen, consisted of a plate of India rubber, with an artificial tooth, 4 centimetres long and 3 centimetres broad, which had been lodged in the œsophagus of a peasant, aged 38 years, for four weeks. The symptoms caused were sudden fits of suffocation during the night, the India-rubber plate being missed the following day. There was considerable dysphagia.—*Ugeskrift for Læger*, No. 14, 1894.

CASTRATION FOR HYPERTROPHY OF THE PROSTATE.

Ramm, of Christiania, successfully castrated two patients for hypertrophy of the prostate, a third patient dying from pyæmia a fortnight after the operation. He advances the following conclusions, based upon his own and other investigations: (1) the prostate belongs to the genital organs; (2) it retains its infantile size in cases of malformations of the genital organs and in castration before puberty; (3) it shrinks in adults after castration; (4) an hypertrophied prostate shrinks after castration, the diminution of volume beginning a few days after the castration and continuing later on; (5) this diminution of volume is of therapeutic importance in cases of dysuria caused by mechanical obstruction from an hypertrophied prostate.—*Norsk Magazin for Lægevidenskab*, No. 3, 1894.

ELECTROLYTIC TREATMENT OF TUMORS.

J. Kaarsberg, of Copenhagen, has tried treatment with electrolytic currents of very considerable strength in cases of different tumors.

In cases of large, subcutaneous, cavernous angiomata he applied two or more needles connected with either electrode for a few minutes in different parts of the tumor, using a strength of 50 to 135 milliampères, the patient being under chloroform. The advantages of this method of treatment are: (1) that it is without any danger, (2) that there is no loss of blood, (3) that the loss of substance is very slight, and (4) that one or a few *séances* are sufficient. Kaarsberg also tried this method in cases of superficial angioma, the results being excellent, especially in cases of large subcutaneous angioma of the face in children. The cosmetic results, however, were not so satisfactory.

In four cases of fibrous growths of the nasopharynx, the author increased the strength of the current to 140-340 milliampères, generally using two steel needles (No. 10 Charrière), of which the one was introduced through the nose, the other through the mouth, each one being connected with each of the two poles. The patient was placed under chloroform, and the head lowered so as to prevent blood from flowing down into the trachea, the hæmorrhage often being considerable. During the after-treatment it was sometimes necessary to use the galvano-cautery or scissors to remove fragments which could not be reached by means of the needles. In all cases complete recovery occurred after one or, at the most, two *séances*, and there has been no recurrence.

In two cases of inoperable cancer of the breast, death took place from recurrence, but the examination showed that the tissue of the axilla treated by electrolysis was transformed into firm connective tissue, free from all traces of cancer except around the sheaths of the nerves, and the author is inclined to think that recovery would have been permanent if the electrolytic treatment had been instituted before the growth had invaded the nerves. In a third case of inoperable cancer of the breast recurrence has not taken place for three years. In the three cases mentioned, the strength of the current applied was enormous, once reaching 680 milliampères. Before commencing the treatment with currents of such great strength, the author made experiments on rats and dogs. The highest strength which could be obtained was 760 milliampères; this current a large dog was able to stand without showing any ill effects.—*Hospitals-Tidende*, Nos. 6-8, 1894.

ACETANILIDE FOR VOMITING.

Among the many uses to which acetanilide has been put, other than that of an analgesic, we desire to call attention to its employment in the treatment of obstinate vomiting, particularly when that vomiting seems to be due chiefly to nervous disturbance or marked gastric irritability. In the treatment of the vomit-

ing following operations, acetanilide is particularly useful, and the administration of 2 grains every hour until 6 grains are taken will often prevent this unpleasant sequel of operative interference. We have used acetanilide for this purpose a number of times with very satisfactory results, our attention having first been called to it by Dr. Brown, of Sioux Falls, S.D., who told us that it was his custom in country practice to leave acetanilide with the nurse after the operation, with instructions to administer the drug should vomiting after recovery from the anæsthetic be an annoying symptom.

Whether it is of value in the treatment of the vomiting of pregnancy we do not know, but we would suggest its further trial. Probably the best way to administer it is to place the powdered drug in a little brandy, and then to add to a spoon some ice which has been finely pulverized. In this way we not only get the stimulating and anti-emetic powers of the brandy, but we aid in the solution and therefore in the rapid absorption of the acetanilide. It is possible that the drug exercises its anti-emetic effects chiefly by its influence upon the stomach itself, but we are inclined to think that the benefit is derived not only from this, but also from its influence on the nervous system after it is absorbed.—*Therapeutic Gazette.*

THE VALUE OF CHLOROFORM IN INTERNAL MEDICINE.

We are so apt to regard chloroform as a pure anæsthetic when taken by inhalation, that many of us are wont to overlook its value as an internal medicament, and, as a result of this oversight, lose a valuable aid to treatment in many affections, some of which are apt to obstinately resist the ordinary remedial measures. One of the most important applications of chloroform is its internal use for the relief of pain either in the chest or abdomen, pain in the latter region yielding naturally more readily to its influence. Particularly is this the case where the pain is of a griping character, either due to irritability of unstriped muscular tissue in the wall of the intestine or to the presence of irritating foods or large quantities of flatus. Under such circumstances 20 to 40 drops of the spirit of chloroform added to two tablespoonfuls of water, and perhaps aided by 10 to 20 drops of the spirit of camphor, is one of the very best prescriptions that we can give. Further than this, those of us who believe in the value of antiseptic medication will recognize the fact that chloroform, under the circumstances which we have named, not only relieves the pain, but acts as one of the most powerful antiseptics which can be taken internally with moderate impunity. It is a well-recognized fact in therapeutics that many volatile substances seem to exercise very considerable

power in checking all forms of watery diarrhoea, and where pain in the abdomen is associated with liquid movements, chloroform possesses a third scope for usefulness. Not only is it of value in the forms of pain which are due to direct irritation or inflammation in the abdomen, but it is also useful in those pains which are due to nervous disturbance, such, for example, as in ordinary neuralgia of the stomach or true gastralgia. In obstinate vomiting, 2 to 5 drops of pure chloroform in a little water, taken in teaspoonful doses, will often act advantageously, and when the vomiting is due to the ingestion of bad food, particularly food which has undergone some decomposition process, it is especially indicated. In the vomiting of pregnancy, with some practitioners, it is held to be the best remedy. Another very valuable application of chloroform is its employment externally in liniments in cases of muscular rheumatism for stiffness of the muscles due to strain or excessive exercise. Possessing, as it does, not only counter-irritant, but anæsthetic effects, its employment in this manner is most advantageous. Another use to which it is too rarely put is for the production of counter-irritation varying from slight reddening to actual blistering of the skin. Slight reddening is rapidly produced by applying a cloth saturated with chloroform to some portion of the skin so remote from the respiratory apparatus as to avoid inhalation in any large quantity, and the blisters may be formed by placing chloroform on the skin under a watch-glass, so that too rapid evaporation will not take place. For those who are unable to take opium in any combination for the relief of pain in any part of the body, a prescription composed of 30 drops of spirit of chloroform and 10 minims of the fluid extract of a good cannabis indica is a valuable prescription.—*Therapeutic Gazette.*

FISTULA IN ANO.

Dr. John E. Platt has analyzed 76 cases of this affection treated by him, and concludes that fistula is very much more common in men than women, only 8 of the 76 cases being females. The great majority occurred between the ages of 20 and 50 years, only 4 being under 20 years. There were definite signs of phthisis in 21 (28.7 per cent.), and a family history of consumption in 5 or 6 others who themselves showed no sign of the disease. As pointed out by Allingham, phthisical fistulæ usually present certain well-marked characteristics. The internal opening is large and open, being often large enough to admit the tip of the finger. The external opening is also large and irregular, its edges livid and flapping, and the surrounding skin undermined. The discharge is thin, watery, and curdy; the sphincter muscles are weak, the ischial tuberosities are

prominent from wasting of the fat in the ischio-rectal fossæ, and the hairs of the part are long, soft, and silky.

He calls attention to the necessity of carefully exploring the fistula and laying it open. He met with many cases which would not heal because this measure had been neglected. If the track be lined with indolent granulations or low vitality, these should be scraped away with a Volkmann spoon. This is especially necessary in phthysical subjects. The cases should be carefully watched after operation, until the wound is perfectly healed. Phthysical fistulæ require a longer time, after operation, for healing than non-phthysical fistulæ, the average time required being nine and seven weeks respectively. The bad results said to occur after operation in phthisis are almost, if not quite, non-existent. Operation can be performed with safety and with good results in a larger number of cases than is usually supposed. The activity of the lung disease should determine the question of operating. If this is great, operation should not be undertaken unless the fistula is the cause of much pain and distress. If the phthisis is comparatively quiescent, the results of operating may be good. Cavitation of the lungs is not an absolute contra-indication to surgical treatment of the fistula, which is often followed by improvement in the general health.—*Medical Chronicle*, June, 1894.

ON THE USE OF ANTIPYRIN IN LARGE DOSES.

The writer advocates the use of very large doses of antipyrin in certain neurotic cases. He says that personally he has hardly any experience of its deleterious effects—at least of a serious nature—when employed with due precautions. He details the case of a boy, aged nine years, who had suffered for the previous two and a half years from severe fits of hystero-epileptic character, sometimes as many as 30 or 40 attacks occurring in a day. The treatment consisted of rest in bed, regulation of the bowels, and the exhibition of antipyrin in gradually-increasing doses, commencing with five grains, thrice daily. In three weeks he was taking twenty-five grains three times a day, with complete cessation of the attacks. The dose was then slightly lowered. The lad was dismissed from the hospital in two months as quite well, and it was reported later that there had been no recurrence of the attacks. In another case a lad of thirteen years, suffering from choreic movements of the right side, received under gradually increasing doses as much as 50 grains thrice daily. He left the hospital in six weeks quite well. In another violent case improvement was very rapid under similar treatment. Dr. Anderson sums

up his experience in the following aphorisms: 1. Antipyrin is not the dangerous drug that some observers have led us to suppose. 2. It may be given with safety in large doses, but the initial dose must be small, and it must be slowly and cautiously increased under careful supervision. 3. In large doses it often yields surprisingly good results, and in chorea it is the only medicine from which cures may confidently be expected.—*Brit. Med. Jour.*

POTASSIUM NITRATE IN THE TREATMENT OF PHEGGMASIA ALBA DOLENS.

Hovnanian describes his use of nitrate of potassium in this affection in the *Medical News* of July 28, 1894.

It has fallen to his lot to treat three well-marked cases of phlegmasia alba dolens with potassium nitrate with such gratifying results as to seem to justify publication.

Mrs. H., twenty-three years old, was delivered of her first child by her family physician with instruments, and sustained extensive lacerations of the cervix uteri and perineum, which at the time were not repaired, but were left for a secondary operation. Twelve days after delivery she complained of pain and heaviness in the left leg, and within three days there developed well-marked phlegmasia. On the fourth day of this complication the writer saw the patient in great agony, with a temperature of 105.2° F., a pulse of 130, and respirations 25. The limb was so turgid and swollen that there seemed to be great danger of gangrene or rupture. The woman was at once given morphine sulphate ($\frac{1}{2}$ grain) hypodermically, and her limb was wrapped with cotton and placed on a feather pillow at a very obtuse angle. Hovnanian then prescribed a solution of potassium nitrate in water, representing 5 grain doses, to be given every hour until his return. Seven hours later he found his patient in better condition, with a temperature of 103° F., a pulse of 112, and respirations 22, and with less pain and discomfort. The swelling seemed to be less tense and the veins less engorged. The nitrate was continued as before until morning, when he found her in yet better condition. She had slept well during the night, although she had been awakened regularly for her medicine. Her temperature was 100° F., her pulse 95, her respirations 20. The swelling was reduced to less than half, and the returning circulation was fairly well established. There was no pain whatever and but slight tenderness on pressure. The medicine was continued every two hours during the day, until the author saw her late in the evening, with a temperature of 99° F., a pulse of 90, and respirations 18. The swelling had almost entirely gone, and everything was in good condition. The nitrate was continued

for two days in smaller doses and at longer intervals, and then discontinued.

Two other equally typical cases are also recorded in this paper.

PHYSIOLOGICAL REST IN THE TREATMENT OF PROLAPSE OF THE RECTUM.

Bryant (*Mathew's Medical Quarterly*, vol. i., No. 4) reports the case of a man operated on seven times for the relief of extensive prolapse of the anus, with its attendant distressing symptoms. Until the last operation, surgical intervention had been of little benefit. Bryant, to whom he finally came, made an artificial anus in the left groin, putting the patient to bed for two weeks, meaning to proceed to further treatment. But this operation was followed by so much relief and by such a marked diminution in the pressure that he was content to adopt no further procedure. He submits the following propositions as a conclusion to his paper:

That the proper performance of the physiological functions of the rectum contributes greatly to the advancement of rectal disease and to the sufferings of the afflicted.

That the complete vicarious discharge of the feces through an artificial anus located in the sigmoid flexure reduces the physiological demands on each structure of the rectum to a minimum.

That the lessening of the physiological requirements is commonly in direct proportion to the diminution of the fecal flow through the rectum.

That the cessation or lessening of the fecal discharge per rectum exercises a palliative and curative influence on diseases of the rectum.

That in certain cases of obstinate rectal prolapse the formation of a vicarious channel for fecal discharge is justifiable, both as a palliative and curative measure.

That the preliminary establishment of such a channel for the purposes of cleanliness and the prevention of infection is justifiable in many grave operations for the prolapse of the rectum.

That the dangers attendant on the formation of an inguinal anus are much less than those invited by the contact of fecal discharges with large operative surfaces of the rectum.

That the case just presented has been, without special risk, greatly benefited, and may be finally cured, through the agency of an artificial anus.

That when cure takes place, great care must be exercised thereafter, otherwise the prolapse will return.

DIAGNOSIS OF APPENDICITIS BY PALPATION.

Dr. George M. Edebohls strongly advocates this method of diagnosing disease of the ver-

iform appendix. He uses the right hand only, externally, for palpation, placing two, three or four fingers, palmar surface downward, almost flatly upon the abdomen, at or near the umbilicus. While he draws the fingers over the abdomen, in a straight line from the umbilicus to the anterior superior spine of the right ilium, he notices carefully the character of the various structures as they come beneath and escape from the fingers passing over them. In doing this the pressure exerted must be deep enough to recognize distinctly the resistant surfaces of the posterior abdominal wall and of the pelvic brim. Pressure less than this will fail of its object. The appendix is recognized, on exerting this necessary pressure, as a more or less flattened, ribbon-like structure, when normal, or as a more or less rounded and firm organ, of varying diameter, when its walls have been thickened by past or present inflammation. When it is the seat of inflammatory changes, it is always more or less sensitive on pressure; normally it is not so. A good guide is formed by the right common and external iliac arteries, the pulsation of which can easily be felt. The appendix is generally found almost immediately outside of them. Its origin is practically always at McBurney's point, and at its base it is separated from the iliac arteries by a space of one-half to one inch, while lower down in its course it usually crosses very obliquely the line of the arteries. Starting from McBurney's point, any deviation from its usual course can easily be recognized.

The author gives one broad rule as regards operative interference in appendicitis: not to operate in chronic cases unless you can feel the diseased appendix, nor in acute cases unless by palpation you can recognize either the diseased appendix or the presence of a tumor. Anæsthesia, in some exceptional cases, may be necessary to decide the question.—*American Journal of the Medical Sciences*, May, 1894.

THE DANGER OF ANÆSTHETIZING DIABETICS.

Baxer (*Deut. Med. Woch.*, 1894) calls attention to the danger of narcotizing diabetics. He has reported three of his own cases and nine collected from medical literature. Even in slight cases of diabetics the patients became comatose and died. Coma did not develop until after the chloroform narcosis had passed off, in twenty-four to forty-eight hours. The patients then became indifferent, stupid, and confused. Finally, lost consciousness, urine and feces were passed involuntarily, and they perished in coma. This communication is important, since it shows that the administration of chloroform is dangerous even when there is a slight degree of diabetes, it being impossible to predict whether or not coma will develop.

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MONTREAL, MARCH, 1895.

THE SAMARITAN HOSPITAL FOR WOMEN, MONTREAL.

A new hospital for women, with the above name, was opened by Her Excellency the Countess of Aberdeen, wife of the Governor General of Canada, on the 17th of January, 1895.

It is non sectarian, and supported entirely by voluntary contributions, of which latter enough were handed in during the first month to carry on the work during a whole year. It is the only special hospital for diseases of women in Montreal, and will be moulded on the pattern of the celebrated New York State Women's Hospital in New York city. It is managed by a board of thirty of the principal ladies of the city, assisted by an advisory board of three laymen and three physicians. The staff consists of Sir James Grant, M.D., K.C.M.G., consulting physician; Wm. H. Hingston, M.D., LL.D., consulting surgeon; A. Laphorn Smith, B.A., M.D., M.R.C.S. England, surgeon-in-chief; H. Lionel Reddy, C.M., M.D., surgeon; S. F. Wilson, C.M., M.D., assistant surgeon and registrar; Dr. Sylvester, assistant surgeon, and Dr. Letellier de St. Just, assistant surgeon. An anæsthetist and a pathologist will be appointed shortly. The outdoor service is attended to by the assistant surgeons from 4 to 5 p.m. every day, at which hour the surgeon-in-chief makes his daily visit, and the most urgent cases are admitted. The hospital is absolutely free to

women who are poor and sick, and who are residents of the city. Patients from outside the city will be admitted on payment of a nominal charge. The operation days are Tuesdays and Fridays at 10.30 a.m., when physicians who have not been attending infectious diseases will receive a hearty welcome. The hospital is situated in the choicest and healthiest part of the city, 1000 Dorchester street, near Mackay street, and may be reached by the St. Catherine and St. Antoine St. cars, which each pass within one block of the door.

OVERCROWDED PROFESSIONS.

We have more than once called attention to the overcrowded condition of the Medical Profession in England, and we have expressed the hope that a similar state of affairs will never be seen in Canada. From the letter which we copy hereunder from a recent issue of the *Mail and Empire* of Toronto, it appears that the profession in Canada is rapidly becoming filled to overflowing. The Medical Colleges of course have no interest in curtailing the number of students, so the profession must look to the Medical Council of each province to either raise the license fees or raise the standard of the entrance examinations in order to keep down the number of practitioners to 1 per 1000 of inhabitants. Neither should we admit graduates from other countries who have not complied with the same requirements as are demanded from our own graduates. The simplest and best standard for admission to study is the B.A. degree of a recognized University, simply because it is a guarantee that its possessor has gone through a long course of intellectual training, which is of great advantage to those who are to be the Medical men of the future.

"Sir,—A very serious problem has arisen of late years—What are the professions coming to? Every farmer wants his sons to embark upon the troubled sea of professional life, and cheap education, together with the glittering clap-trap literature with which this province is flooded by the Medical Colleges, is doing untold harm to hundreds of young men who might make successful mechanics, farmers, or business men, instead of disappointed, starving lawyers or doctors. The *Canadian Medical Review*, in an editorial headed 'Wanted—A Medical Practice,' draws a dark picture of pros-

pects of success in medicine. When we consider that the proportion of doctors is as 1 to 100 of the population, and that the medical schools of the cities are crowded with hundreds of boys scarcely more than children, who are galloping carelessly into a profession which doesn't even promise a living, we may well consider it time to utter a word of warning to parents who have their sons' welfare at heart."

You often hear people say "Look at the fine houses medical men live in." In the past, no doubt, such was the case; but at present a vast number of city doctors are running boarding houses or taking rooms with families. A friend of the writer, who recently advertised for lodgings, received forty replies, of which eighteen were from medical men in the city, offering every inducement to a prospective boarder or lodger. In the editorial referred to we find the following:

"One doctor to every 900 inhabitants is an abnormal proportion—greater than that of lawyers, who are as 1 to 1,100. What are the causes? Over education is the main one. Ploughboys and mechanics aspire to higher things, and get them: so that poor doctors take the place of good mechanics..... There are medical men in this city who are not making \$2 a day, mechanics' wages, yet they pour in." The writer can assure the readers of *The Mail and Empire* that there are over 100 medical men in the city who do not make even \$2 a day, and meets with many clever men in the prime of life who eight or nine years ago were doing fairly well, and find themselves scarcely able to support themselves by their profession at present. This is as true of law as of medicine.

The struggle for existence is so keen that every day we see the pitiable and degrading sight of men struggling and fighting for lodge practice at one dollar per head a year.

You may rest assured of one fact, that every young man who is making \$50 a month in business or teaching school is much better off and can save more money than can the possessor of a legal or medical degree who finds it necessary to keep up a brave front on an insufficient income. You don't, as a rule, see the young men in the cities going into professions. It is the peasantry who desire to live in the cities and imagine the streets are paved with gold. Let the boys stick to the farm or stock raising, and help to build up their country, instead of becoming unproductive drones of society, dragging out a sour, embittered existence. To the

young man who enters the portals of a medical college, with the few exceptions of those having great influence and personal ability, the writer would say: "Abandon all hope who enter here."

MEDICAL ITEMS.

Sir William Savory, the celebrated London surgeon, and for many years an examiner of the Royal College of Surgeons, has recently died at an advanced age.

Mr. J. W. Hulke, who was President of the Royal College of Surgeons at the time of his death, has also passed away.

A new medical journal, *La Clinique*, has been established by Dr. H. M. Duhamel.

Dr. Roddick, who has been having a delightful trip to the Mediterranean, is shortly expected to return to the city.

Dr. F. W. Campbell's beautiful residence on Sherbrooke St., Montreal, will be ready for occupation next month.

Beaver Hall Terrace, Montreal, which was for many years first the fashionable residence quarter of rich merchants, then became the stronghold of the principal doctors, was then gradually abandoned to the dentists, and is now being filled with shops. Union Avenue is going through the same process, the older physicians retiring to Sherbrooke Street and other residence streets in the West End. The centre of the city has moved at least a mile westward during the last ten years.

BOOK NOTICES.

DISEASES OF THE EAR.—A text-book for practitioners and students of Medicine, by Edward Brandford Dench, Ph.B., M.D., Professor of Diseases of the Ear in the Bellevue Hospital Medical College; Aural Surgeon New York Eye and Ear Infirmary; Fellow of the American Otological Society, of the New York Academy of Medicine, of the New York Otological Society, of the New York County Medical Society, etc. With eight colored plates and one hundred and fifty-two illustrations in the text. New York: D. Appleton & Company, 1894.

The author gives the aims and scope of the work in the following terms:

In the preparation of the present work it has been my aim to adapt it to the needs both of the general practitioner and the special surgeon. For this reason minute pathology has not been considered extensively.

In detailing the various manipulative procedures, I have preferred to err on the side of prolixity, for the benefit of those not familiar with the subject. It has also been my purpose to keep constantly before the reader, the fact that many diseases of the ear should not be

considered by themselves, for the reason that they are often local manifestations of systemic condition.

Many works upon otology have failed to emphasize the importance of a thorough functional examination; and none have placed the results of recent investigations at the disposal of the reader in such a manner as to enable him to use them in diagnosis. In consequence, I have written at length upon this subject.

In advocating operative procedures upon the middle ear, and in devoting much space to the subject of middle-ear operations, I am aware that I shall not have the support of many distinguished colleagues. As a careful reading of the chapter will show, I have written from personal experience; and if my results differ from those of other operators, I suggest that the selection of cases suitable for operation, according to the principles detailed in previous chapters, may account for the favorable outcome of the operations.

In illustrating the gross pathological lesions of the conducting mechanism and the various manipulative measures instituted for their relief, I have adopted the plan of showing the auricle, meatus, and middle ear in the same drawing. The drawings are of natural size, and the technique of the various procedures seems to be made more clear in this manner than by any other method.

In the colored plates of the membrana tympani, the adjacent portion of the meatus is also shown, thus reproducing as completely as possible the picture seen upon speculum examination, and rendering the relative position of the parts more intelligible.

The absence of extensive bibliographical citations may seem a defect, but in a work intended as a clinical guide, a complete bibliography would be impossible, and unless complete it would be useless. No attempt has been made, therefore, to collate the entire literature of any subject, and the citations have been limited to those necessary to give individual investigators the proper credit for their researches.

We may add that the work does credit alike to the author and publishers. It is one of the most complete works on the subject that we have yet seen, and the printing and binding are up to the usual high standard maintained by the Appletons. It may be obtained from their agent, Geo. N. Morang, Traders Bank building, 63 Yonge Street, Toronto.

PUBLISHERS DEPARTMENT.

CASCARA SAGRADA.

Among the many drugs which have been brought to the notice of the profession during the last ten or fifteen years, how few have come to stay? The majority of them have had but a brief period of popularity, and after having been tried and having disappointed those who pinned their faith to them, they have finally disappeared.

This fate has not fallen to Cascara; it has been found to be such a reliable and gentle laxative or cathartic, and acting in such small doses, that it has become a general favorite with the profession, which, now that it has proved the virtues of the drug, would be loth to be without it. If any of our readers have not yet employed Cascara, we would urge them to give it a trial, as there is now no longer the slightest doubt as to its value. Hitherto the only objections that could be raised against it were its bitterness and the uncertainty as to its effective dose, more being required to produce the effect where certain preparations of it were used. These objections have been entirely removed by Messrs. Kenneth Campbell & Co., wholesale druggists of Montreal, who have placed a fluid extract of Cascara on the market, the bitterness of which is entirely disguised, and which we have invariably found, after repeated trials, to be effective at the uniform dose of ten minims 3 times a day. Added to preparations of iron, it entirely counteracts the latter's constipatory effect, and enables persons to take iron mixtures who for the above reason were formerly unable to take them. Cascara also acts like a charm in many cases of hemorrhoids, which, as we have often pointed out in these columns, are in many cases due to constipation alone. By softening the solid masses of fecal matter, the obstruction to the circulation in the hæmorrhoidal veins is removed, and the little blood tumor gradually disappears. Care must be taken to employ the smallest possible dose, as active catharsis in hæmorrhoids greatly increases the patient's sufferings. Cascara is an especial boon to those patients with constipation who cannot swallow a laxative or cathartic pill. It is also claimed for it that its effect is permanent,—that is, that after having taken it for a time, the intestines become so toned up that they no longer require any artificial stimulus; but for this we cannot answer positively. All we can say is that Kenneth Campbell's Cascara is a pleasant and reliable laxative. We may add that these remarks are written more for the sake of our readers than for the benefit of the manufacturer, although we have known him and used his preparations for nearly twenty years.

NEW REMEDY IN OPHTHALMOLOGY.

The newest remedy in ophthalmological practice is Antikamnia. It will afford prompt relief in those cases of intense pain in and about the eyes, where heretofore nothing but the strongest anodynes would answer. This is well illustrated in the case of the Editor of the *Southern Medical Record*, Dr. D. H. Howell. Under date of Dec. 5th, 1894, Dr. Howell writes that he has been a great sufferer with his eyes for a number of months, at times suffering the most intense pain. After trying a number of remedies in vain, he thought he would try Antikamnia. Relief followed in less than two hours, and now he says he carries Antikamnia in his pocket all the time.

LITERARY NOTE.

"The Beautiful Models of Paris," in the March *Cosmopolitan*, satisfy a long-felt curiosity in regard to the women who have been posing for the world's famous paintings. The *Cosmopolitan* has carefully gathered a collection of the most famous of these portraits, and used them to illustrate an interesting article by a distinguished French critic, Fr. Thiébauld Sisson. Nor does the beauty of the originals fall short of the ideal on the painter's canvas. In the same number is a delightful article about the famed sea-girt Isle, for so many centuries a fortress and prison—Mont-Saint-Michel. "Pearl-Diving and Its Perils," by an English naval officer, written from personal experiences, is perhaps the most thrilling tale of exploration of the ocean's depths ever put on paper. The fiction of this number is unusually entertaining.