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The Northern Lancet.

Gleans from the journals of the World all that is new in Medicine, Surgery and Pharmacy, placing monthly before its readers in a condensed form Medical, Surgical, Obstetrical and Pharmical advances in both hemispheres.

WINNIPEG, MARCH, 1890.

THE ETIOLOGY OF TYPHOID FEVER.

Dr. Victor C. Vaughan, of Ann Arbor, Michigan, in a paper read before American Medical Association, Section of Practice of Medicine, June 27, 1889, contributes much valuable information on the Eberth bacillus and the ptomaines of typhoid fever. The Eberth bacillus is so rarely absent from the stools of genuine typhoid fever where the examinations have been made by competent men that we are justified in accepting it as the true cause of typhoid fever. Pure cultures of this germ are to be found in every bacteriological laboratory. It grows rapidly in our artificial media, and its characteristics of growth are well known. Drs. Vaughan and Novy obtained from drinking-water from Iron Mountain, where there had been a severe epidemic of typhoid fever, a germ which they could not distinguish by microscopical appearance, reactions with staining reagents, and growth in gelatine tubes and on potatoes, from the Eberth bacillus.

They inoculated three dogs with this germ taken from a beefbroth culture, twenty days old. The germs were washed with sterilized water, then suspended in the same menstruum, and injected into the peritoneal cavity with all suitable precautions. The dogs were placed in a large cage with a fourth one as a control. Twenty-eight days after, one dog had died and the two others had grown thin and sick. Five days later a second dog died. Post-mortem examination on both revealed some of the lesions of typhoid fever; in one, perforation.

Dr. Vaughan has succeeded in isolating a ptomaine from typhoid stools. His process is as follows:—

The stools were received directly from the patient in a sterilized vessel. With a sterilized platinum needle flasks of meat-broth, previously sterilized, were inoculated with these stools. These flasks were then kept at a constant temperature of from 38° to 40° C. (100 4° to 104° F.) for varying periods of time, after which he attempted to isolate any ptomaines that might be present. Thus it will be seen that he worked with a mixed culture containing all germs present in the fæces, that he might ascertain whether or not the basic substance or substances formed in such culture would differ from the ptomaines of Eberth's bacillus.

The method of isolating the ptomaine was as follows:—

After the cultures on meat-broth had been kept in the incubator at the temperature of 38° to 40° C. (100.4° to 104° F.) for from ten to twenty days, they were filtered and rendered feebly acid with hydrochloric acid. At this time the cultures were invariably ammoniacal. The acidified filterate was then evaporated to dryness, or as nearly to dryness as could be done, on the water-bath. The residue was extracted with absolute alcohol, the extract precipitated with an alcoholic solution of mercuric chloride, saturated at the temperature of the water-bath, the precipitate was collected, washed with alcohol, suspended in distilled water, and decomposed with hydrogene sulphide. The mercuric sulphide was removed by filtration, the filtrate evaporated to dryness on the water bath, and this residue extracted with absolute alcohol, the extract precipitated with a solution of platinum chloride in absolute alcohol, the precipitate collected, washed with absolute alcohol, and dissolved in distilled water. The aqueous solution was concentrated on the water-bath until the platinum compounds began to crystallize out. This aqueous solution contained two or more platinum compounds; but so far he had given his attention to only one of them. This forms in rhombic prisms which are purified by repeated crystallization. For purposes of physiological experimentation, this platinum salt was decomposed with hydrogen sulphide, and the filtrate concentrated nearly to dryness on the water-bath, when

the crystals form. This is the hydrochloride of the ptomaine. This ptomaine given to dogs produced an increase of temperature, retching, and vomiting, purging, with watery, mucous, and bloody stools. Taking the syptoms as a group he thought he had reason for hoping that the discovery of this ptomaine might prove of value in elucidating the etiology of typhoid fever. The stools used in these experiments were from genuine cases of typhoid fever, and from three widely separate outbreaks of the disease.

REMARKABLE SURVIVAL AFTER MULTIPLE PISTOL-SHOT WOUNDS.

On the evening of Oct. 13th, 1881, W. L——, aged twenty-one, a rural postman, was seized by a would-be assasin, who fired several shots at him from a revolver, and having expended his own ammunition, called to a companion to "have at him now"; this man then continued the attack, and fired into their victim. *One of the bullets entered the brain, where it still remains and causes little if any inconvenience*, although for nearly two years he could not bend his head or lean forward without giving rise to great pain and unpleasant symptoms. On making my examination I found a bullet wound on the left side of the head, about half an inch posterior to his ear, and immediately beneath the parietal eminence. Through this wound the brain substance exuded, and a small probe passed directly inwards for a distance of about two inches by merely letting it drop into the wound. On examing with tip of little finger, no spicula could be found. Another bullet entered the left temple just above the zygomatic arch, about an inch and a quarter from the edge of the orbit; it took an inward and downward direction; its course however, could not be traced. Another hit the angle of the jaw, took an upward direction, and was held between two molar teeth. One entered the left side of the chest on a line with the nipple, an inch and a half posterior to it, passed through the chest, and was extracted from the right axilla. One glanced off the great trochanter, and became lodged in the lumbar muscles. Two passed through the forearm about the middle. One entered the forearm about two inches above the wrist, took an upward course, and was extracted near the elbow-joint. One passed through the hand between the thumb and index finger. The skin on the left forearm and wrist was destroyed, the clothing having been set on fire by the powder. On the right hand the metacarpophalangeal joint was destroyed by the charge from a pistol loaded with shot, several grains of which and some of the paper used for "wad" were extracted from the palm of the hand. The man was almost pulseless, and the case seeming hopeless, it was decided by Dr. Allan and myself not to interfere except symptoms demanded it further than to cleanse and dress the wounds, carbolic lotion being used. He was given brandy and new milk or beef-tea every half hour. Coughing was severe for some days, and there was considerable hæmorrhage from the lungs. He had also a sharp attack of double pneumonia. He was kept perfectly quiet and cool, morphia being given in minute doses hypodermically to relieve the cough, which caused terrible pain in his head. On the fifth day after being wounded he had considerable delirium, and could hardly be restrained, as he was "afraid of being taken to an asylum" at one time, while at another he thought his assailants were again attacking him.

This case, besides being interesting, I consider very important from the fact that, although being so fearfully wounded, the man did not lose consciousness till some time after he was brought to the police barracks, where he described one of his assailants and fully identified him. He was able to describe a man who passed him soon after the attack: he also dragged himself to a house a few yards from the outrage, begged to be admitted, and when refused, and feeling faint, hid the mail bags, and after "coming to" crawled to another house, prayed for admission, and to send for a priest. Being again refused, he "dropped down to die." He has no idea how long he lay there, but hearing a car pass he made an effort, and got to the road, where he was found in a

fainting state by the police sent to look for him. The bullets removed were .450. or about the same size as those used for the British bulldog revolver.—N. MAYNE, *London Times.*

CASE OF SEVERE COMPOUND COMMINUTED FRACTURE OF THE HUMERUS TREATED BY CONTINUOUS IRRIGATION: RECOVERY.

U., aged 45, fell from a tree on August 5th, 1889, and entered the hospital on August 9th, having been carried two days journey on a bedstead. At the upper third of the left arm, anteriorly, was a wound passing across the front of the limb, and obliquely inwards to the axilla, the deep fascia of which was opened up, due to destruction of the anterior muscular wall. Length of wound 7 inches in breadth (with arm to side) 3½ inches; depth of cavity 4 inches. Bone below tuberosities shattered for 4 inches. No portion absolutely detached. Insertions of pectorales lacerated extensively. Wound intensely septic and sloughing. The patient, a powerful man, was pale and evidently suffering from septic absorption. It almost appeared as if amputation at the shoulder was the only chance of life, but the foul condition of the wound rendered inoculation of any fresh surface only too certain. In consultation, a visitor (Dr. M., Army Medical Staff) advised amputation; it was, however, finally decided to try and save the arm. It was placed in a long posterior splint. Extension with a 3 pound weight was kept on for a few days. Continuous irrigation with dilute permanganate solution was arranged. For the first forty-eight hours the patient "swam" for his life, with sapræmia, and a temperature of 104° F. The fœtor of the wound steadily diminished. Portions of the slough were removed daily.

August 16th: Steady improvement, August 19th; The wound has closed very much, and is covered with pale granulations; no extension of suppuration up or down; arm still swollen and hard; no fœtor; is taking food well. August 23rd: Limb in good position; irrigation still maintained, as wound becomes foul if discontinued. August 29th: Counter-drainage to back of arm; irrigation stopped. August 31st: Loose sequestrum 3½ by ¾ inch removed. September 24th: Wound healed; scar linear; free movement of fingers and wrist; cannot raise arm from side or flex elbow; probably, with consolidation of fibrous tissue of union, and after practice, will recover somewhat the use of the latter joint.

The case is recorded as an illustration of the lengths to which conservative surgery may be safely pushed. It also shows the great value of continuous irrigation. Injuries of such severity may often cause anxiety and often doubt as to whether amputation should be resorted to or not. As far as this case is concerned, the risks of secondary amputation seemed almost as great as those conserving the limb. If the patient had been seen at the time of the injury the balance of opinion might quite possibly, owing to the extensiveness of the wound and shattered condition of the bone, have been in favor of amputation; and yet there would in reality have been a still better chance of saving the limb then, because septic changes would not have supervened.—ERNEST F. NEVE, M. D., F.R.C.S.E.

MEANS FOR THE MORE PERFECT STERILIZATION OF SURGICAL INSTRUMENTS AND DRESSINGS.

BY H. BEECKMAN DELATOUR, M.D.,
Assistant Surgeon Methodist Episcopal Hospital.

Read before the Brooklyn Surgical Society, Oct. 17, 1889.

So much has been written upon the preparation of surgical dressings since the advent of antiseptic surgery that there seems hardly room for more to be said. Yet, with all this literature, opinion is still divided as regards the best means of sterilization, and, as a consequence, the subject appears to be very complicated.

With this state existing, is it not well to look about us and see what means are being employed at our general hospitals? Having this idea in view, I visited some

of our hospitals, and to-night will present you with a summary of what was found.

Let us, while reviewing the sterilization of dressings and instruments, also look at the means used to render aseptic the parts immediately about the field of operation and also the cleansing of the surgeon's hands.

That the seat of operation should be sterile does not admit of question. Too little attention has, as a rule, been given to this subject, for of how much avail can completely aseptic instruments and dressings be if the parts immediately about the wound are not first rendered aseptic? The methods of cleansing the parts, now practised, vary with different surgeons. With some the preparations are very extensive, notably in Germany. Von Bergmann (Centralblatt f. Chir.), for instance, orders the patient a general warm bath, in which he is thoroughly scrubbed with soap and brush, and from this bath is immediately taken to the operating-table. Here the parts are rinsed with alcohol and afterward rubbed with ether and washed again with 1 2000 bichloride solution. At the Presbyterian Hospital, New York, the routine is to give the patient, the night pefore operation, a general warm full bath, and on the morning of the operation the parts are shaved and scrubbed and another warm bath given. Then, for the few hours preceeding the operation, the parts are covered with cloths wet with a one-per-cent mixture of creolin. Immediately before the incision is made the parts are scrubbed with sapo viridis, irrigated with bichloride, 1.2000 then a solution of idoform in ether is scrubbed over the surface.

At the majority of the metropolitan hospitals the preparations are not so elaborate; the general rule being to have the parts about the wound shaved, well scrubbed, and covered by an antiseptic solution for a few hours before operation.

As to the means used by the surgeon to render aseptic the hands: The majority thoroughly scrub the hands with soap and warm water and then *dip* them in a solution of either bichloride or biniodide of mercury just previous to beginning the operation. Others use green soap in place of the ordinary soap, *dip* the hands first in alcohol and then in some antiseptic solution, and from time to time during the operation rinse off the blood in the solution.

The general plan of sterilizing the instruments is to have them thoroughly washed with soap and hot water and well dried after each operation. Before being again used they are placed in an antiseptic solution, either three-per-cent. carbolic or 1.4000 hydronaphthol. In some of the hospitals for the more important operations, as laparotomies, the instruments are either boiled or submitted to dry or moist heat.

The usual method of treating the dressings is to subject them to the action of some chemical germicide. The chemical most used for this purpose is the mercuric chloride in solution of the strength of 1.1000 or 1.2000.

Besides chemicals, the well-known sterilizing properties of *heat* are taken advantage of for rendering sterile both instruments and dressings. The common gas oven, in which dry heat is obtained, the use of superheated steam, and ordinary boiling are examples of this method. It is the object of this paper to more particularly direct attention to this means of sterilization and the facility with which it can be carried out.

Heat has always been considered, by the bacteriologists, as the most efficient of sterilizers. Many varieties of bacteria, in fluids, are killed by a temperature of 100° C., if it be continued long enough. When dry they resist somewhat higher temperatures; the spores being more resistant than the bacteria. Even these may be destroyed by repeating the application of the heat after they have had time to develop. From this it follows that all germs existing in dressings or on instruments can be destroyed without the use of chemicals, provided the exposure to heat be made long enough and the temperature sufficiently high.

Burrell and Tucker (Boston *Med. and Surgical Journal*, Oct. 3, 1889) have made some very interesting experiments testing the efficiency of heat and chemicals to sterilize instruments and dressings. They took a number of instruments from a glass case in the hospital, and found

that they were always covered with bacteria. They then exposed some of these to the action of 1.40 solution of carbolic, and on examination bacteria were found on all but two. The same was true of 1.500 alcoholic solution of hydronaphthol. Next they boiled the instruments for two hours, all sterile; some were simply steamed, and were found to be not entirely sterile. Another lot of instruments were baked, part at a temperature of 130 C. and the remainder at 160 C. These instruments were all sterile and had not been harmed by the temperature.

From these experiments we learn that instruments can be more certainly sterilized by heat than by any of the chemical antiseptics, which will not destroy them.

The only objection to the use of dry heat is that the danger of an excessive temperature damaging the instruments makes very careful watching of the heating-apparatus necessary. That this objection can be easily overcome, I will demonstrate later on.

All dressings can be readily freed of germs by the use of either dry or moist heat.

The dry heat renders the gauze hygroscopic; but this can be obviated by first saturating the gauze with a ten-per-cent. solution of glycerine and drying before placing in the sterilizer.

As to the means of using heat for sterilization: For moist heat we have in the Arnold Steam Sterilizer a simple and efficient apparatus. With it, in a very short time, a temperature of between 212° F. and 215° F. can be obtained, as the steam generated is under moderate pressure.

Dry heat may be obtained by the use of an ordinary gas oven. In this, with the heat of a single Bunsen burner, a temperature of 400° F. can be had. As instruments would probably be damaged by such a temperature, it must be regulated by some automatic device. This can successfully be done by employing Reichert's thermoregulator, by which the temperature can be kept continuously within 5° F. of any given point. The instruments to be sterilized may be placed in the oven, in a tray, and in this removed while still hot, and immediately covered by an antiseptic solution or distilled water. The exposure should be at about 130° C. (266° F.) and continued for an hour.

An objection to using steam as a sterilizer for instruments is that it soon destroys nickel-plating, and rust immediately forms on the steel. This objection does not hold with dry heat. Dry heat is said not to ruin sponges, providing they are dry when placed in the sterilizer.

To sum up, we may say:

That in heat we have a most efficient sterilizer;

That it can be easily obtained, either in a moist or dry state;

That if care be taken not to exceed 150° C., but to go above 130° C., no harm will come to the instruments, and they will be absolutely sterile; and

That all dressings, gowns, towels, etc., can be treated satisfactorily by heat.

Dressings prepared by heat alone (aseptic dressings) are not sufficient for cases that are already septic. In these cases a chemical antiseptic should be added. Dressings sterilized by heat should be prepared just at the time they are to be used, and should be applied directly from the sterilizer.

Again let me repeat that aseptic instruments and dressings are useless without aseptic hands, and to have the hands aseptic they must be exposed to the chemical solution for a longer time than is ordinarily given. Simply dipping the hands in the solution is but to delude one's self. With nail-brush scrub the hands in hot 1.1000 bichloride for five minutes, after having previously washed them with soap and warm water, and see that no dirt remains beneath the nails.

A bacteriologist not long since remarked: "When surgeons use heat as their means of sterilization, they will have reached the ideal of asepsis." I think we may say that this means of sterilization is sure to surpass all others.

DISCUSSION.

Dr. PILCHER.—The paper is before you for discussion, gentlemen, as well as the general subject of sterilization of instruments by heat. Dr. John B. Roberts, of Philadelphia, in response to my invita-

tion, has consented to speak on this subject, and is present with us, and I will ask him to lead in the discussion.

Dr. ROBERTS.—I can say very little except what has been said. My feeling is much the same as Dr. Delatour's, namely, that we are not getting perfect asepsis in our instruments or dressings, and for the last six months I have been trying to get something which would give me a feeling of security when I go to an operation. First I had the idea of using steam heat; but it was unsatisfactory, because the drying of the instruments would make me just as uncertain as if they had not been steamed, because assistants and nurses are not certain to be aseptic, if you do not watch them. I think even we ourselves are not apt to be aseptic unless we are watched by our assistants. Having rejected steam heat, I looked about during the past summer, to find some sort of an oven which would be near the thing I wanted, and finally I had made an ordinary laboratory oven. It is nothing but a copy of the oven that is used by bacteriologists in sterilizing test-tubes, an oven with double walls heated by one or two Bunsen burners. I have it standing in my private office, and have two Bunsen burners under it. I have not put the regulator upon it, because it stands right close to my desk, and I or my assistant watch it during my long office hours, and therefore have not needed the regulator put in, although I have thought of doing so.

In order to get instruments sterile and keept them sterile and not have the bother of carrying around an oven, I had made in Philadelphia a series of copper boxes of different sizes, using copper because it is a particularly good conductor of heat. I have a number of these copper boxes of different sizes with a dust-tight lid fitting exactly. Bacteriologists use sheet-iron boxes, like this one shown, which are dust-tight. This possibly is not quite as dust-tight as the bacteriologist's box. In this box I put loose instruments in the morning, then a copper tray, arranged to hold knives, is put into the top of it. I then shut the lid, and put the whole thing in the sterilizer, and let it stay as long as I think necessary. A little while before I am ready to leave my office I turn out the light and let the instruments cool down. The whole box is then put in my case, and I do not open it until I get to the patient's house. If many instruments are to be used, I turn the lid of the box upside down, and use it for a tray to hold the antiseptic solutions at the time of operation. If only a few are needed, I take them out of the box as I need them, and I feel that I am using instruments that are almost perfectly aseptic. If I do not use them for several days, I am able to believe that no vegetable parasite has been able to gain access to them.

The dressings I treat in the same way. I have a small box in which I put pieces of cheese-cloth which has been boiled in hot water and soda, to get out the greese, and dried. This is baked, as in the instrument-box, and is carried in my bag; thus I always have in my bag instruments sterile and dressings sterile. Such things as needles I prepare in the same way, putting them in bottles and the bottles in a box, so that my case is always primed or charged with aseptic needles, wire, sutures, instruments, and dressings, and I feel that I go to operations with much more comfort than when I used any other method of sterilization, even though I washed them myself with the greatest care.

You cannot bake instruments with cemented handles. The instruments here all have metal handles except in one or two instances, where they have riveted wooden handles. The bone handles, even if riveted, appear to become brittle if heated too high, and possibly at times, on account of the repetition of baking, even when the degree of heat is not very high. I have found practically that I dare not run my thermometer higher than about 130° C., which is about 266° F. Once, my oven, being neglected, ran up so high that the instruments had reached about 150° C. The thermometer being at the top of the oven and the instruments at the bottom, made me believe, knowing the difference to be about fifteen degrees, that the instruments had been heated to that point, and you will see that some of these instruments have become oxidized.

This does not take the temper out, but it makes them look not so pretty. There is no disadvantage in this; in fact there is some advantage, for they are not so likely to rust when imperfectly dried after washing. I have never seen the temper of an instrument spoiled in this way except on one occasion; that was a needle which had been in the oven, I do not know how long. I suspect it had got into the very bottom of the oven and lay directly over the flame, where it had been heated over and over again, and by being in the bottom had reached a higher degree of temperature than anything else.

I have been much interested in the sterilization of cutaneous surfaces. My custom is to carry in my operating-case two or three pieces of the ordinary loofah, or wash-rag gourd, which is used like an ordinary scrub-brush. If it is an operation of importance, I have my patients take a bath, and then in addition I scrub the surface to be operated thoroughly, using this piece of loofah as a skin-comb, afterward throwing it away. This will not do for cleaning nails, because it will not enter underneath them, but it makes a very nice skin scrub for scrubbing the surface of the body. Of course if there is a great amount of dirt, this method is not sufficient, but in ordinary private practice it is hardly necessary to do more than scrub with soap and water and then irrigate with bichloride solution.

(*To be concluded.*)

DISEASES OF CHILDREN—COWS' MILK FOR INFANT FOOD.

Dr. E. F. Brush, Mt. Vernon, N.Y., read a paper before the American Medical Association, Section on Diseases of Children. The medical profession, he averred, is agreed that nothing equals good cows' milk as a food for infants; and, therefore, it was to be regretted that attention had not been given by the profession to reforming the breed of cattle and the handling of milk than to the question of substitutes for it. In milk for infant feeding there should be considered (1) the variety of fats, (2) the amount of albuminoids, (3) the amount of salts, (4) the handling of the milk, and (5) the health of the cow.

First. As regards the fats, he pointed out that the usual processes of chemical analysis led to an underestimate of the fats in cows' milk, and that of these fats we have no late authoritative analysis,—a neglect on the part of chemists which leaves us in doubt as to which of the fatty acids are the mischief-makers in milk. These fatty acids have more to do with the development of poisons than have the albuminoids, and are the cause of digestive derangements.

Second. The albuminoids vary considerably with the time or habit of extracting the milk: milk extracted every two hours not being likely to possess as much or as ripe albumen as that drawn off every twelve hours. In health the albuminoids are constant, but are materially effected in disease. This change is not surprising when we examine the mammary sources of milk in disease, for then there are found inflammations, calculi, clots of fibrin, etc., while the gland is at the same time subject to infiltrations, tubercular deposits, and eruptive diseases. In all cases any variations in the amount of albuminoids must be ascribed to sickness.

Third. The salts also have not lately been determined by chemists; and we do not know how constant the occurrence of these salts may be, though we can assert that they are influenced both by the health and the food of the animal. Hence, the land on which a cow is pastured will indicate fairly what we may expect to find as salts. The nutritive value of the sugar is over-estimated, as is shown by the milk of carnivorous animals. Condensed milk, or concentrated sugar of milk, is not to be recommended as an addition to milk, but cane-sugar should be preferred. The chemists' ideal food is a failure, and the idea that milk must contain such and such constituents in such and such proportions is a popular error.

Fourth. The cow must be studied, "for milk is the scavenger of the cow's body;" and if it does not nourish the infant, she is sick, or the milk is badly handled. A faulty condition of the cow is indicated by the albuminoids, bad food by the fats,

and salts, and bad handling by the ptomaines. The cow has an abnormally high temperature, her organs of generation are in unnatural activity, and she is made a machine for producing milk. It is no wonder, then, that she is, as a rule, an unhealthy animal. This delicate animal is rarely, owing to the low price of milk, fed properly; and the same cause compels the farmer to utilize every drop of milk, be the cow sick or well. Good food is the prime essential for producing good milk.

Fifth. Milk is affected by its surroundings in the cow house; and the method of getting rid of the odor by saltpetre cannot be too severly censured, for the addition of the nitre united with the glycerides may produce poisons approximating to tyrotoxicon. No chemical substance should ever be added. Milk should not be conveyed a long distance, for travel deteriorates milk. Light, like heat, hastens decomposition; therefore, glass bottles should not be used.

The milk ought not to be given to the infant warm, for then it coagulates like too-old milk. Sterilized milk may be employed if we abandon all hope of improving the quality of milk.

To remedy these evils, we should have a better cow, one not closely inbred, well fed with good, sound food, and well attended to. The cheapness of the milk is the reason why we have not better milk; and the inferior milk suggests the use of substitutes. If the price of the latter were added to the price of such milk, the extra money would enable the farmer to buy better cows and better food, and improve the quality of his products. This he ought to be compelled to do. Let us not recommend patent baby foods, but good, high-priced milk, and then, if any trouble arises, we can lay the blame on the milkman. Dairies for supply of infants' food should be under strict sanitary supervision.

Prepared foods of all kinds, even if only sterilized milk, always, take a low place as nourishment compared with fresh milk. Cows may be so fed as to increase the fat but not the albuminoids. The albuminoids change very quickly when the cattle are diseased.

DONT'S IN ANTISEPTIC SURGERY.

Dr. Ap. Morgan Vance, of Louisville, in a paper read before the McDowell Medical Society, called attention by the following series of *dont's* to the importance of the little things in antiseptic surgery:

Don't fail, when possible, to have a general bath before doing a major operation.

Don't do any operation with suspicious hands; hot water, soap, nail brush, and penknife should be carefully used by the principal and assistants before any operation. It is best to cut the nails very short, so there will be no place for germs to lodge.

Don't, just before or during an operation, put your fingers about your nose, eyes, or ears, or use your handkerchief, or shake hands with anyone. It is better to offend a visitor than to run the risk of infection.

Don't pick up, or allow your assistants to touch, any instrument, sponge or suture that has fallen upon the floor during the operation.

Don't bite off the end of a suture that it may the more readily be threaded.

Don't put your knife, or other instrument, in your mouth, or behind your ear, preparatory to its use.

Don't fail to detail some one to wipe your face during a long and laborious operation.

Don't cough or sneeze over the operative field; consequently the use of tabacco or the presence of a cuspidor should be forbidden in the operating room.

Don't fail, when possible, to have the patient bathed, and clothing changed, before an operation. When this is not possible, thoroughly cleanse the field, and never make or dress a wound where the surrounding parts have not been shaved thoroughly.

Don't allow any visitor to handle the field of operation, after the patient is prepared unless he is aseptic.

Don't allow visitors who are doubtful, *i. e.*, who are attending patients with gangrene, erysipelas, or puerperal fever etc., unless they have taken all precautions.

Don't fail to have the field surrounded by warm sublimated towels.—*Times and Register.*

THE NORTHERN LANCET.

An onslaught on the whole Medical Profession in this Province, as unprecedented as the grounds for it are foundationless, has just been made by a Mr. Graham, a respectable farmer, representing a country constituency in the Local Legislature; who, without consulting any medical authority as constituted in Manitoba, takes upon himself to fulminate charges of professional extortion in every corner of the Province, and brings in a bill to regulate the fees which medical men will in future be allowed to charge. The clause reads: "The following fees and no other or additional fees may be charged and recovered by Medical Practitioners" The words "*may be charged*" require special consideration, as by it this local legislator assumes a right of despotic power which not even the Czar of all the Russians lays claim to, namely, to place the brains and services of professional men at the beck and call of any one for such remuneration as this agricultural despot may deem right, and, such a scale as he in his generous philanthropy to his species—save and except the doctors—proposes, must strike the professional mind as so utterly absurd as to warrant the query, "Does the man know what he is talking about?" The correct answer to which is, that his knowledge of the rotation of crops may be profound; and his sensitive touches subtle to detect the adipose condition of one of his beeves; but, that he has mistaken his vocation in posing as a medical legislator. The liberal tariff Mr. Graham proposes for medical services is as follows: Consultation, $5; attendance, involving travel beyond a distance of two miles one way, 60 cents a mile; vaccine inoculation, $1; attendance in midwifery, $10 to $20; ordinary surgical operations, $3 to $10. The absurdity of these charges are too manifest to waste space in discussing them. The endless disputes that would arise from them is apparent. What is an ordinary surgical operation? What is a consultation? When charge $10 in a midwifery case, and when charge $20? A livery will charge $3 for horse and trap for a three mile drive; the mileage allowed by this generous reformer amounts to $1.80, so the medical man would have to pay $1.20 out of his own pocket for the pleasure of attending. But does Mr. Graham imagine for one moment if he succeeded in passing such an iniquitous law through the Local Legislature, that it would have the effect he aims at? for if so, his credulity must be indeed vast. The immediate result would be a professional gathering and the adoption of such stringent professional regulations as would unquestionably in many instances tell hardly on the general public. It is to be presumed that Mr. Graham does not propose, in the exalted position he adorns, to legislate so as to compel medical men to attend sick calls *nolens volens* and for a certain remuneration, we credit him with too much sense for that. Custom regulates the respective doctors' fees throughout the world. There are Doctors and Doctors. The sufficient remuneration for one man would not be a tithe of what is the other's due, though similar services were performed by both. There is not a Judge that sits on the bench that would not recognize this, and if called upon give judgment accordingly; and by this unwritten law of custom the profession is governed in its own ranks and in its dealings with the public. Many millions of the human race are entirely content with this condition of things. When cases come into court in Europe, though the judge has no tariff of charges to govern him, he hears what it is custom-

ary for the plaintiff to charge, he takes into consideration the time and trouble given in the case, and rarely, if ever, is the medical man dissatisfied with the decision. A medical man who respects the profession of which he is a member, and respects himself, will never make an unjust demand for his services. True, what he knows to be their value is sometimes different from his patient's estimate of it: but the gratitude of the sick and the gratitude of the convalescent is a theme not pleasant to dwell on. It recalls to mind the story of a celebrated Paris physician, who was attending a patient in a very high position, and who addressed him at his morning visit as Monsieur de Boissy on his entering the room, when he immediately began to retire; he was asked why he was leaving so suddenly, and gave the following answer: "My lord, when very ill you addressed me as your kindest and best friend de Boissy; when getting better, I was your good friend de Boissy; now that I am Monsieur de Boissy, it is evident to me that you are recovered." However, there are many and bright reminisences in a medical man's career where the just appreciation of services has been amply acknowledged; green spots in his professional life, which cheer him on in hours of anxiety and depression. A deputation composed of Drs. Corbet, Jones, Good, Gillies, Ferguson, Howden, Carscaden, McDiarmid and Pennefather waited on the committee on law amendments at the legislative buildings and pointed out the difficulty attending legislation on this subject, and the certainty, in the event of this bill being carried, of compelling the profession to take steps for their own protection which would be unpleasant for the general public. To prevent medical men being placed at the mercy of those with the same range of intellect and ideas as the promoter of this bill, the rule would have to be made that no medical man would answer to a call unless he first received the fee demanded for his services. There was no desire on the part of the deputation to retain the tariff of fees adopted by the profession some years since, of which not even one copy could be produced, and which has practically been a dead letter, and it is not improbable that the power granted to the College of Physicians and Surgeons of Manitoba to make such tariff as a basis for legal decisions will be rescinded. This is of no consequence to the profession, but the proceeding betokens a desire on the part of some to meddle unduly with us as a body, and it places prominently before us the necessity of cohesion, unanimity, and concerted action. We are masters of our situation so long as we are of one mind. Our numbers and importance in the Province are fast increasing. It is several years since any general action was taken by the Profession in this Province, and for the discussion of many matters it is most desirable that a medical convention should be held in Winnipeg at as early a date as would be convenient for country practitioners. Whatever regulations may be made should be made with the assent and consent of all. Æsop's fable strongly applies to us as a body in this young land. "United like the bundle of sticks we can resist all force, but can be broken readily in detail."

A CASE IN POINT.

TUKE VERSUS YOUNG.

Judgement was given last week in an action raised by Dr. Batty Tuke, Edinburgh, against Mrs. Young, concluding for £270 17s. 1d. in payment of pursuer's

rightful fees for bringing defender's son from America. The evidence of the defense went to show that the pursuer had indicated his willingness to bring Captain Young, the patient in question, to England for a small fee, and in accordance with this, the defender had tendered a fee of fifty guineas. On the other side, it was suggested that the reference to a small fee was made under the belief that the patient was to be placed under the care of the pursuer on his return to England, and that in contravention of this, the pursuer was informed, on reaching home, that other arrangements had been made. The pursuer, therefore, claimed that he was entitled to a fee more consistent with the extent of his services. In giving judgment, the Lord Ordinary expressed the opinion that the defender was under no obligation to send her son to Dr. Tuke's asylum, and that it was foolish to insist that it was an implied term of the contract. The question at issue was, what sort of sum the parties understood by the pursuer's reference to a small fee. The fee was to be small, and therefore, could not be fixed according to the pursuer's position in the profession, but must be the kind of a fee generally charged for the peculiar service rendered, irrespective of the pursuer's position. Under the conditions, Lord Kennear thought that the sum tendered by the defender (fifty guineas) was sufficient remuneration, while, of course, it certainly was not an adequate fee for a person of Dr. Tuke's position professionally as return for giving up twenty-five days of his time entirely to the service of the defender. It was, however, sufficient in the sense of a small fee, in consideration of which the pursuer said he should, as he was going on a holiday, undertake to bring the defender's son from America. As the sum of fifty guineas had been tendered, his lordship concluded that the pursuer must bear the expenses of the action.

In the report of the President's address at the late meeting of the Pharmaceutical Society of Manitoba we were surprised to read that a scheme is in contemplation for the amalgamation of this Society with the Medical College, and as the President expressed it, "thus becoming part of the University of Manitoba." It is difficult to say what may not be accomplished in this Province by bold and pushing workers. But, if such a scheme was perfected it would prove very injurious to the status of the Profession in the Province, and would certainly not redound to the honor of the University. When every college of standing in the world is drawing more strictly the line which distinguishes the profession from the trade, it would be suicidal for a young institution struggling into existence to enter into a compact which would have the effect of lowering the status of its qualification to a very serious extent. We quite agree with the President in his remarks as to the desirability of raising the standard of pharmaceutical education, which is quite in the power of their council to do by instituting a more stringent and extended examination of candidates for their qualification. But the attempt to obtain it under the ægis of a University and Medical College by process of affiliation, by which they have all to gain and nothing to give, with endless objections against such a conjunction, is a chimerical idea which it would be unwise to encourage. The difficulty of deciding who is a Doctor is already sufficiently puzzling without importing such an apple of discord as this affiliation scheme would too surely prove to be. Chemists, Dentists, Veterinary Surgeons, are all Doctors in this western hemisphere, but when the chemist affili-

ates with a Medical College and University, entitling him to tack on half the alphabet after his name, the physician would be nowhere among the unthinking public—by far the majority of the human species. Already many men feel aggrieved at the professional assumption of some chemists; but this would be intensified a thousand-fold by the fruition of any such scheme as that shadowed by the President of the Manitoba Pharmaceutical Society. The day is not far distant when the profession of medicine will open its portals to those alone who have graduated in arts; each year the qualifications required from the candidates for admission to our ranks are becoming higher, and to this is entirely attributable the increasingly improved social position which members of the medical profession now occupy. A few short years since the Doctor received scant social acknowledgement. No matter the position of his parents his profession placed him by the unwritten laws of society on a very low rung of the social ladder; and though personal attributes in many cases placed the family physician in the position of the trusted and honored family friend, the social bann was never relaxed. This is now a thing of the past, due altogether to the educational standard now necessary for entrance to the Profession. The proposed affiliation is one which ought not, nor cannot be accomplished, and if seriously contemplated should meet with relentless opposition from all the members of Manitoba Medical College. The chemist's calling is a most honorable one, and the duties he is called upon to perform require great intelligence and education, but certainly not of the same standard as the physician's, nor of the same character. His duties are well defined, and his position with regard to the profession long acknowledged, and we feel sure that very few chemists have any ambition to wear borrowed honors by affiliation with other bodies. The higher they raise the educational qualification for their license, the higher will they attain to in public estimation.

At the evening sitting of the Legislature, March 10th, Mr. Graham's Medical Act as amended by the law amendments committee, abolishing a schedule of fees for Doctors, was passed through committee, and no doubt will become law. No time should be unnecessarily lost in calling a meeting of the Medical Profession in the Province to discuss the position which we now occupy. The question has arisen, What is fair remuneration for a medical man's services? and it is very evident if Judges were to take the same view that the member for South Brandon takes, it would be almost impossible for a medical man to live by the practice of his profession in this Province. There is not, nor ever has been, any disposition on the part of the profession to exact exorbitant fees, but it would appear by the action of the member for South Brandon that there is wide difference of opinion as to what is a reasonable fee and what is an extortionate one. There should be no misunderstanding in professional ranks on this point, and for the disposal of this question with other matters of interest now pressing into notice a conference should be held at which all the medical men in the Province should use every effort to be present. It is of vital importance that in all we do on professional lines the profession should be a unit in its action. Accompanying this issue of the journal is a slip which, when filled up and returned, will be a guide to the opinion of Practitioners in the Province as to the de-

sirability of holding such a meeting, and the most convenient time and place for assembling.

Dr. J. G. Calder, late House Surgeon to the Winnipeg General Hospital has formed a partnership at Medicine Hat, and is now settled there. The Winnipeg Hospital has suffered a great loss in Dr. Calder's resignation. He was unquestionably the most brilliant student Manitoba Medical College can boast of, and his official work while holding the responsible position of house surgeon merited and received the warmest approval of all his seniors. A career begun with such bright promise will be watched with interest.

PROFESSIONAL ETHICS.

We regret to have to place before our readers two flagrant cases of the above. One is a hand-bill, got up in a most objectionable form, and reading as follows:

"Dr. Birrell, M.A., Physician and Surgeon, begs to intimate to the inhabitants of Poplar Point and district that he has commenced practice there, and come to reside for the present at the Post Office, where he has engaged private rooms. Dr. Birrell studied at the Universities of St. Andrew's and Glasgow, and St. Thomas Hospital, London. He has been assistant to Sir Geo. B. McLeod, Kt., Regis Professor of Surgery, University Glasgow, and pupil of Dr. MacCall Anderson, Professor of Clinical Medicine and Skin Diseases. He also acted as Assistant Out-door Physician to the Glasgow Lying-in Hospital, where he attended—together with private cases—nearly 2,000 cases of midwifery. As Dr. Birrell's experience is wide—embracing all branches of medicine and surgery—he hopes to gain the confidence of the inhabitants of this district."

The next appears as a letter advertisement in the columns of the morning *Free Press*, and is headed "Consumption can be cured." The gist of the letter is the ending, so we omit the previous twaddle.

"Hearing of Dr. Henderson, of Winning, who made a specialty of lung disease, and hearing of cases of consumption cured by him, I took the boy to him, 'after several other doctors had given him up.' In a few weeks he improved so much he was a surprise to every one. After being under the doctor's care for another two weeks he returned home, was able to go to work, and is to-day strong and hearty."

Now comes the grand climax, which the above was intended to promote:—

"Hoping that by seeing this in your paper other sufferers may be similarly benefitted."

In other words, come to the "Consumption Cure-all."

If the above compositions were not so nauseously repugnant to professional men, their perusal could but elicit a hearty burst of derisive laughter. There can be little doubt that a large section of the public read these vapourings with contempt; but, there are others who, with the Indian spirit somewhat pervading them, regard the medicine man as something of a cross between a demon and a lunatic, and are apt to swallow whole the wonderful attributes which this strange production arrogates to himself. It is these irresponsible mortals whom it is our duty to guard by every means in our power against the hallucinations of their weak minds; and to tell in the plainest language that the modern doctor is of flesh and blood, as themselves; that by his scientific education alone he is able frequently to direct and thwart the many diseases that flesh is heir to; but that there does not exist on the earth's surface a qualified and reputable medical man who will undertake to cure consumption. Quacks there are in thousands who undertake to cure anything and everything for a consideration, but by the appellation of quacks are they known. It is somewhat strange that in Dr. Birrell's hand-bill, though he brings forward very prominently the names of well known institutions and men, he does not inform the public from whence his M.A. or his qualifications to practice comes. It would have been also interesting if he stated the time in which he acted as assistant out-door physician to the Glasgow Lying-in Hospital to enable him to attend 2,000 cases of midwifery, as by the statistics of

that city—unless spread over a considerable time—the birth rate will not bear out this assertion.

RASCALITY IN MEDICINE.

The man who offers to sell his wares cheaper than his neighbors, using the large type to call attention to his liberality and business tact, and then fails to satisfy his customers, either giving short weight or inferior goods, soon comes to be called dishonest and loses the confidence of the trade. The politician who makes promises to his patrons of retrenchment and reform in the administration of affairs of which he may have the management, and then proves false to these promises, soon loses his prestige and standing. Why not carry this principle into the every-day business of the doctor, one who stands as high, or should, as the representatives of any other business, and demand the same honesty and integrity in our dealings with life and health, as in commercial and political matters. The doctor who auscultates and percusses a slightly inflamed lung, or irritable heart from indigestion, gives a nasty mixture, with a very unfavorable prognosis, alarms the friends, and then convinces them in a few weeks that he has performed a wonderful cure, nine times out of ten is an impostor. This same man is always finding and removing cancers, tumors, malignant growths, and magnifying simple surgical operations which are performed silently and skillfully by nearly every physician in the country, into wonderful examples of skill and knowledge, and all the old women in the neighborhood are constantly sounding his praises, while the really honest and conscientious practitioner is obliged to keep silence in the matter, on penalty of being called jealous and envious of this wonderful man's reputation. Such men are a disgrace to the profession of medicine, and should be exposed by all of us in a way to cause their downfall. We all know men of this character. Pulverize them.—G. C. Irwin, M. D., *Kansas Medical Journal.*

EDITOR'S TABLE.

P. Blakiston, Son & Co., Philadelphia, will publish about March 15th, a new Medical Dictionary, by George M. Gould, A.B., M.D. It will be a compact one volume book, containing several thousand new words and definitions, collected from recent medical literature, while the total number of words is beyond that in any similar book. It includes also elaborate and useful tables of the Bacilli, Leucomaines, Ptomaines, Micrococci, etc.; of the Arteries, Nerves, etc., and of the Mineral Springs of the U.S., together with other collateral information.

MISCELLANEOUS.

Ethyl Bromide has lately been so successfully used in dental operations that preference is given to it over chloroform, nitrogen monoxide and cocaine salts; its success is ascribed to the purity of the chemical as at present made from alcohol, potassium bromide and sulphuric acid. It resembles chloroform in that the pure substance is easily decomposable, and the addition of one per cent. of alcohol or ether retards or prevents the decomposition. The specific gravity of pure ethyl bromide at 15°C. is 1·4735, while that containing one per cent. alcohol is 1·457 at 15°C. Tests of purity are: 1. The absence of color when shaken with an equal volume of concentrated sulphuric acid, and 2. water agitated with ethyl bromide, after separation, should not react acid, nor give a turbidity with silver nitrate solution.—Dr. H. Thoms, *Pharm. Ztg.* 1889, 705.

Non-retention of Urine in Young Girls and Women.—Dr. Harry Marion Sims found that in cases of simple enuresis in girls, as well as in instances of irritable bladder after cystitis in age, the bladder was small and contracted through hypertrophy of the muscular coat, so that its holding power was much reduced. He has successfully treated such cases (*Amer. Journ. Obstet.*, September, 1889), by gradual dilitation of the bladder. A silver catheter was introduced into the bladder and warm water injected by

means of a Higginson's syringe. The treatment was continued daily, the amount of fluid which was injected being steadily increased, and in one case, a bladder which could hold less than two ounces at first, could retain eighteen at the end of three months. When the bladder was thus distended to a certain extent, involuntary micturiction ceased.

GASTRO-INTESTINAL ULCERATION. — In sixteen cases where hæmorrhages, hæmorrhagic erosions and ulcerations of varying degree were met with in the mucous membrane of the gastro-intestinal tract. Openchowski found hyaline degeneration of the walls of the blood vessels. His researches were conducted in the laboratory of Professor von Recklinghausen, who had also chanced to come across the same degeneration of the blood vessels in an early round ulcer of the stomach. So far as concerns the hæmorrhages and hæmorrhagic erosions, two forms of hyaline degeneration are met with: (1) hyaline thrombosis of the vessels within the lumen, the thrombus lying separate from the vessel wall, and often surrounded by red blood cells, and (2) hyaline degeneration and swelling of the vessel walls themselves, affecting chiefly the middle coat. A favorite site was the point of division of the vessel where a knob-like swelling usually presented. The arterial branches were more frequently affected than the venous. As regards the ulcers, the more fully developed they were, and the deeper the necrotic process, the less frequently blood vessels so affected were met with, but here, in the base of the ulcer, it seemed as if the perivascular connective tissue had undergone hyaline metamorphosis. In older ulcers the degenerative process was most pronounced at the periphery, possibly the hyaline necrotic tissue in the central part had been removed, or in cases of gastric ulcer had undergone artificial digestion. It is evident that grave disturbances of the circulation must follow upon the hyaline degeneration of the blood vessels, such as hæmorrhagic infiltration and erosion, which prepare the ground for the subsequent development of ulceration. But what are the conditions favoring the occurrence of hyaline degeneration? In anæmic cachectic, or otherwise enfeebled subjects—especially if they are exposed to toxic influences—it is easy to suppose spasm and contraction of the vessels take place, whether of peripheral or of central origin. Such abnormal contraction may lead on the one hand to changes of a degenerative nature in the vessel wall, and on the other hand to temporary arrest of the circulation and stasis of the white blood corpuscles, which themselves may undergo the hyaline degeneration, and so form hyaline thrombi within the vessels. Embolism, whether produced experimentally or otherwise, produces the same effects. Thus it would seem that Virchow's theory as to the causation of gastric ulcer is correct, the only point remaining to be explained being those general pathological conditions that tend to produce the disease of the walls of the blood vessels.

DIPHTHERIA.—During the whole of the year diphtheria has been very prevalent in London, and the mortality from this disease in the metropolitan returns continues to exhibit a steady rise, although isolation of cases can now be secured by their removal to the hospitals of the Metropolitan Asylums Board. Diphtheria has been reported as very prevalent in Uxbridge and in parts of East Kent. A number of reports have been issued by the Local Government Board of investigations by their inspectors of outbreaks of diphtheria. In most of these cases it was found that cases of "croup" had also been occurring, which were without much doubt cases of the more malignant disease. Especially was this the case in a prevalence of diphtheria in the Camelford Rural District. Dr. Ballard, who made the inquiry, was at once told by one local medical practitioner that he made no distinction between "croup" and "diphtheria," and that he regarded these terms as synonymous. Other medical men made the same admission. Similarly, when Mr. Spear investigated a prevalence of "croup" and other throat affections at Harwich, and in other cases, it was found that no clear distinction had in all instances been drawn between diphtheria

and some other affections of the throat. During the year, a very interesting and thoughtful paper by Dr. G. B. Longstaff on the geographical distribution of diphtheria was issued by the Local Government Board. From that paper, it would seem as if the disease had a preference for certain special districts, the great majority of which are rural. The relation of diphtheria to affections of the lower animals, cats, etc., was suggested. This relationship has been observed with greater certainty in other quarters, and is still being closely investigated by Dr. Klein. The medical officer of health for part of East Kent gives instances of the disease running concurrently in isolated farm houses with disease amongst the stock (cows and horses). The evidence is gradually accumulating to establish the view that diphtheria is a disease which is transmissable both from man to some of the lower animals, and from these in turn to man.

CHLORIDE OF ZINC AS A CAUSTIC IN CANCER OF FEMALE GENERATIVE ORGANS.—Dr. Braithwaite, in *Br. Med. Jour.*, read a communication on cases illustrating the advantages derivable from the use of chloride of zinc as a caustic in cancer of the female generative organs. 1. When the knife could be used it was usually preferable to employ it, and only resort to the zinc upon the first appearance of a return. 2. In some cases the zinc should be the first, and indeed only, weapon used, as in commencing cancer of the cervical canal of the uterus, when, from any cause, the organ could not be pulled down into view, as when the uterus was fixed by old inflammatory adhesions. In commencing cancer of the vulva or vagina, if the disease were superficial and not of great extent, this treatment alone was necessary, but it might or might not be preceded by erasion a few days before. 3. It should be applied by means of a very thin layer of cotton-wool wetted with the zinc solution and lightly pressed between two pieces of blotting-paper. It then did not run. 4. A saturated solution should be used. The fluid resulting from the deliquescense of the solid was the most convenient form. 5. The caustic required time. Usually, in twenty-four hours it had acted sufficiently; but, if a deeper action were required, it might be left longer. 6. Its use was followed by great contraction of the parts—a safeguard to some extent against return of the disease. In this, as in other respects, it was superior to Paquelin's cautery, acid nitrate of mercury, and potassa fusa. One case was related in which a slough was made of the whole interior of the uterus, not too deep to be dangerous, but sufficient to remove the surface and some of the adjacent tissue. The patient was being weakened by hæmorrhage and poisoned by absorption of the sanious discharge.

Mr. C. J. Wright asked Dr. Braithwaite whether he had used the chloride of zinc in conjunction with a previous application of a strong solution of the protosulphate of iron—a method which he himself had largely used in cases of carcinoma uteri, especially where the cervix was mainly or solely affected. He removed the disease with scissors and curette, and then applied a tampon with the iron solution, leaving it *in situ* for two days. He next applied the zinc chloride in the same way, and left it for the same length of time. Upon removal a large slough came away, which was really a considerable portion of the uterus. With this method the eschar was deeper and the pain less. He also asked what precautions were taken to prevent the spread of the caustic beyond its proper object and limits, and advocated the use of a pomade or solution of bicarbonate of soda.

Dr. White related a case of continuous metrorrhagia possibly from sub-involution, in which, after other methods had failed, a plug of zinc chloride made up with a paste of flour brought away a complete cast of the uterus, and entirely arrested the hæmorrhage, which had not recurred.

Mr. Croft thought that Dr. Braithwaite had somewhat overstated his case as regards the question of pain. At any rate, in those cases in which he was associated, where the disease affected the vagina, the pain was severe, morphine being required for two or three days afterwards.

Dr. Braithwaite, in reply, said that in many cases, at any rate, the pain was

slight. He thought that bicarbonate of soda neutralized the effect of the zinc chloride. He regulated the action of the caustic by using a small quantity, which answered just as well. He freely admitted that in every case where the knife could be used it should be used. In uterine surgery the knife could not be used so freely or repeatedly as in other regions. He referred to a case of breast cancer which recurred after incision, and was perfectly sound when seen five years after treatment by caustics. His method was not dangerous in deep parts, the slough being only about one-sixth of an inch in thickness. It was said that the relief was temporary. Was that not the case in all cases of cancer? At any rate the relief was marked. As regards the reproach that it was unscientific he was of the opinion that patients would prefer to be cured by methods that were unscientific rather than be left to die, because the only available means of cure rested under that terrible stigma.

ANTIPYRIN IN LABOR.—Strong testimony to the value of antipyrin in mitigating the pains of labor is borne by Professor Paolo Negra, director of the Obstetrical Clinque at Venice. He says that his experience, based on a very large number of cases, enables him to affirm positively—1, that antipyrin used during parturition has never in his hands produced any ill effect whatever; 2, that in the majority of cases it was of great use, so much so that in his clinic antipyrin has now for several months past replaced every other drug ordinarily employed to relieve the pain of uterine contraction during labor.—*London Med. Recorder.*

QUININE.—The wholesale price of quinine is now one shilling and fourpence per ounce, and the increasing exports of Java bark, which contains twice as much quinine as the Ceylon bark, makes it improbable that it will again reach anything like the price of a short time back.

THE *Popular Science News* says: The warning has often been given in these columns to avoid all doctors who advertise their practise or their cures in the newspapers, no matter how plausible they may appear, or what inducements they hold forth, and a similar caution may be given in regard to those equally dangerous men who hide their evil designs under the name of a "College" or "Institute."

DR. GAIRDNER, Edinburgh, in his introductory says: When I hear a man talking at large and dogmatically about "biliousnes" (a term of Abernethy's, which neither Abernethy nor anyone else has been able to explain further than that it requires blue pill), or about "congestion of the brain," or anæmia of the same, which he cannot have seen, and does not know at all as really existing, or about "irritation of the mucuous membrane" (so beautifully vague that it may mean almost anything), or about "hyperæsthesia" or "hyperæmia," or, to use a more modern phrase, "neurasthenia"—I know that he is in the stage of mental progress represented by those old theoretical views of the fevers to which I alluded a moment ago. He is using words, not to set forth knowledge, but to conceal and gloss over essential ignorance; his diagnosis, and prognosis, and treatment will probably all follow the same lines, and be based upon some intangible theory or current hypothesis of his own or someone else's invention, and not upon the plain facts and carefully studied details of the case before him. Therefore it is that I urge upon you young men to get into the habit of steering clear, if possible, of all such mere vague and misleading phrases. Try to think of diseased phenomena as men do who have and who use (up to a certain point) the means of *knowing them as facts*, and not merely *speculating about them*; men armed with the stethoscope and ophthalmoscope, and laryngoscope, &c., and with chemical and microscopical tests at hand, and the thermometer, sphygmograph, &c., to give the exact indications of fact, which should place you out of the bearing altogether of these survivals of ancient, sometimes even of mediæval theory, which may for a time usurp the place of medical science, but are no more closely related to real knowledge—that is to say the true *science*—of disease than the atoms of Democritus and Lucretius,

or the Vortices of Descartes, are entitled to rank as physical science in the modern acceptation of the words.

THE CURABILITY OF CIRRHOSIS OF THE LIVER.—In a lecture delivered some time ago at the University of Naples, Professor Semmola called attention again to his method of treatment of cirrhosis of the liver, which he had first proposed in 1879 at the Amsterdam Congress, although he had suggested the possibility of curing the disease ten years before that time. The method is a very simple one, and consists in the enforcement of a pure milk diet, no solid food whatever being allowed. By this diet, he claims, nutrition is sustained, while the least possible work is put upon the digestive organs, and it is upon this physiological rest that he relies for a cure of the beginning cirrhosis. It is, of course, only in the earlier stages of the disease that a cure can be expected, that this, during the stage of interstitial hepatitis, before atrophy of the organ has advanced.

In this connection, the lecturer took occasion to inveigh against too great a devotion to pathology, which tended, he thought, to promote pessimism in therapeutics. At the post-mortem table interstitial hepatitis is generally founded in its atrophic stage, when the newly-formed tissue has become fibrous and contracted, and when no hope of cure can be entertained. One who has such a picture always before his mind, as the interpretation of the early symptoms of the disease, is not encouraged to treat the affection to the end of effecting a cure. Professor Semmola reported several cases in which the symptoms pointed to an early stage of hepatic cirrhosis, and in which a cure was obtained by means of a rigid adherence to a milk diet without solid food or drugs.—*Medical Record.*

DUODENAL ULCER AFTER A BURN.—From the records of a great many cases of this lesion, it appears that: 1. It may occur three or four days after a burn or scald, or may be delayed for many weeks. 2. In two cases it followed not a burn but a frost-bite. 3. In only one case (P. Hewett) it is recorded that the raw surface of the burn took on an unhealthy action at the time when symtoms of duodenal ulceration were first observed. 4. Not one case showed true pyæmic abscesses elsewhere: nor, in most of the cases, is there any record of marked signs during life of pyæmia or septicæmia: nor are there other lesions found *post mortem:* the duodenum suffers alone.

Many theroies have been suggested as to the causes of this lesion: that it is due to an "acute oligocythæmia"; to dissolution of the red blood corpuscles; to the administration of ardent spirits immediately after the burn to septic infection, aided perhaps by self-digestion; to embolism. But the experiments of Brown-Sequard, who found that section of the lumbar cord, or of the sciatic and anterior crural nerves, prevented congestion and ecchymoses of the viscera, in dogs whose lower extremities had been burned, show that the nervous system is concerned in the production of this lesion. The frequent occurrence of invagination in burnt children, and the case of sudden acute tympanites after a burn, recorded by Dr. Gibb, point in the same direction.

Perhaps this congestion or ulceration of the duodenum after a burn is in some cases akin to the congestion and suppuration of the parotid in injury or disease of the pelvic or abdominal viscera; a lesion which may be associated with septic infection, but is associated also with reflex nerve influences, and is a solitary focus of inflammation in nine cases out of ten. The duodenum lies closer than any other part of the intestines to the great sympathetic plexuses: it is not fanciful to suppose that the first step toward ulceration is made by some alteration or suppression of its secretions, brought about by the influence of the nervous system.—STEPHEN PAGET.

CONTAGIOUS PNEUMONIA.

Dr. F. Mosler, in a paper read before the Greifswald Medical Society, gives details of a series of cases of acute pneumonia in a family where there seemed every reason for believing that contagion was the cause of the spread of the disease. The patients were all attacked dur-

ing the last fortnight of January, 1889, the first to fall ill being the father, who died on the 22nd, the fifth day of his illness. On this day his wife was attacked, and she too succumbed on the fifth day of the disease. Whilst she was ill, her son, who constantly visited his parents during their illness, himself was attacked on the 26th. He was thirty years of age, strong and temperate, but succumbed on the twelfth day of the attack. Further, his sister, who had come from Arendsee, near Stralsund, to be with her sick parents, and who stayed in their house from the 22nd to the 26th, was attacked at Arendsee on the 29th, and was admitted into the Griefswald Hospital. She alone recovered. Dr. Mosler points out that the parent's house was dry, the two rooms they inhabited were well ventilated and clean, and that there had been no illnesses in the house within the past five years. He thinks the father must have acquired his pneumonia outside, and that the disease was communicated in turn to the members of his family by contagion through the sputa. In the case of the son a post-mortem examination showed that the form of pneumonia was not the typical one: it was more lobular, was accompanied by a hæmorrhagic pleurisy, and by swelling of the spleen. Moreover, an examination by Professor Grawitz of some of the fluid withdrawn from the lung of the daughter during the height of the disease resulted in the discovery of bacilli resembling those of rabbit septicæmia, but neither the pneumono-bacillus of Friedlander nor the pneumonococcus of Fraenkel was found. In the case of the son the blood from the heart yielded a similar micro-organism. Dr. Mosler thinks that such facts, as well as the peculiarities of the morbid anatomy of the latter case, suggest the occurrence of a special form of pulmonary inflammation, owning a cause different from that of the ordinary form. He sees in such cases a reason for believing that many varieties of poison may give rise to pneumonia. But the main lesson from the cases is that of contagiousness, and the need for the careful disposal and disinfection of the sputa, which he believes to have been the infective medium in these cases. He refers to recent contributions of Finkler and Cantani on infectivity of pneumonia, the latter recording some striking instances where the disease was more of the lobular than the lobar type.

TREATMENT OF TAPE-WORM.

An editorial on the "Treatment of Tape-Worm," in the *Age* of May 25, recalls a parient who had at different times submitted himself to treatment, but failed to secure the removal of the head. I prepared a remedy which I had some years prior copied from the columns of the Druggist's Circular, and administered it as directed, and in two hours and fifteen minutes had about sixty feet of worm, including the head. Since that time I have administered it to more than twenty patients, the last patient myself, and in each case have been successful in removing the head. The remedy produced neither pain or nausea.

I herewith give the formula, hoping it may prove as efficient in other hands as it has in my own:

℞.	Bark of pomegranate root,	℥ ss.
	Pumpkin seeds,	℥ j.
	Ethereal ext. male fern,	℥ j.
	Powdered ergot,	℈ ss.
	Powdered gum Arabic,	℥ ij.
	Croton oil, gtts.	ij.

The promegranate root and pumpkin seeds to be thoroughly bruised, and with the ergot boiled in eight ounces of water fifteen minutes and strained through a coarse cloth. The croton oil to be well rubbed with the acacia and extract male fern, and then formed into an emulsion with the decoction. Sig. A large dose of Rochelle salts to be taken the preceding night, with no breakfast the following morning. At 10 o'clock a.m. give the emulsion at one dose.—*Medical Age.*

LARVÆ OF FLIES IN THE NASAL FOSSÆ.

An interesting example of this accident, which is not uncommon in tropical coun-

tries, has recently been reported by Dr. Joaquin L. Jacobsen, of Havana. A laborer, aged 27, was admitted to the Civic Hospital of that city, suffering from very offensive discharge from the nose, with intense itching and burning in the part, which had lasted for two months. He had several times noticed on blowing his nose that the mucus contained living maggots, and on one occasion a small blue fly had come out of his nose. His voice was thick and nasal, so as to make his speech scarcely intelligible. The mucous membrane lining the nasal fossæ was bathed in pus, uniformly congested and ulcerated here and there. There was an irregular perforation, one centimetre and a half in diameter, in the arch of the palate, making a wide communication between the nasal passages and the mouth. The edges were sharp cut and covered with pus. The treatment consisted at first of irrigation three times a day with carbolised water (1 per cent.); after the second day irrigations of benzine were used twice a day, but from the fifth day onwards, when all the larvæ had been got off, only the carbolised water was employed. Some of the larvæ were expelled on the third, and the remainder, amounting to about twenty, on the following day. The larvæ were those of the *lucilia hominivora* (Coquerel) which is the most common species of fly in Cuba. The teeming fly seeking for some suitable place to deposit its ova makes choice for that purpose the nostrils of someone lying asleep in the open air. It is said that the presence of ozæna or of a foul smell of any kind is a powerful attraction to the fly. Dr. Jacobsen states that his colleague, Dr. Raimundo Menocal, had sixteen cases of the kind between 1879 and 1883, all in convicts working and taking their noonday *siesta* in the fields. Other cases have come under the notice of Drs. Quesada, Mendez, and Castaneda. The symptoms were excessive irritation within the nasal fossæ, epistaxis, œdema, perforation of the dorsum of the nose and occasionally perforation of the palate. In one of Dr. Menocal's cases, death occurred after four days from acute encephalitis. At the necropsy the interior of the nose ulcerated, the septum was destroyed at its upper part, the cribriform plate of the ethmoid was perforated, there was meningitis of the base, and a large abscess in the brain, occupying almost the whole of the anterior lobes. In another case observed by Dr. Quesada, the patient died with well marked cerebral symptoms. In the West Indies, where larvæ in the nose and in the ear are tolerably frequent, the insufflation of calomel is regarded as a specific, and in Mexico, where possibly more cases occur than anywhere else, the injection of pure chloroform is the remedy most relied on.

In the *London Lancet*, Professor McGill reports this case: A man, twenty years of age, had fractured both bones so that the ends of the radius protruded through the wound on the radial side of the forearm. The ulna healed quickly and well, but the radius remained ununited, although the ends had been refreshed and wired three months after the accident. Some eight months afterward he came to the hospital. He had a scar over the wound, and the ends of the radius were quite movable, the usefulness of forearm and hand being much impaired. An Esmarch's bandage was applied, and an incision was made in the line of the old scar. The ends of the bones showed no signs of union, but were rounded and covered by a thick membrane-like periosteum. When this had been filed away, an interval of three-quarters of an inch was left between the fragments. This interval was filled with thirteen pieces of bone, each about one-sixth of an inch in length, chiselled from the femur of a freshly killed rabbit. The bones were not wired. The skin wound was tightly stitched, without drainage, with catgut. Firm pressure was applied by means of salicylated wool and bandages, and the forearm was placed on an interior splint. There was no suppuration and very little discharge. The patient left the hospital in six weeks, with the bone firmly united. Three months later, the injured arm was as useful as the other.