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—EDITED BY—

ROBERT D. JEWETT, M. D.

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Original Communications.

THE USE OF THE SHARP CURETTE IN SEPTIC INFECTION AFTER LABOR AND ABORTION.*

By J. NOER, M.D., Stoughton, Wis.

THE judicious use of the sharp curette in sepsis following labor and abortion is a simple and safe surgical operation too often neglected and unreasonably opposed by the general practitioner.

Curetage of the uterus will be dangerous and disastrous, or safe and efficient in exact accord with the skill, good judgment and clinical insight of the operator.

At the outset let us note what are the local and general conditions likely to be presented in a case of puerperal sepsis. We can divide septic infective processes that occur after labor into two classes, namely, cases where the toxæmia is dependent upon an invasion of the blood itself and manifesting no marked local lesions, and cases where the infection is primarily local and is propagated from the local focus to distant parts by continuity of surface or through the lymphatics. All our cases can be conveniently considered in this way. Auto-infection is so doubtful and rare as to be practically out of consideration. Ninety-nine per cent. of all cases of puerperal sepsis originate at some point in the genital tract. It is therefore important to

*Read before the State Medical Society of Wisconsin, May 1897.

trace, if possible, the starting point of the sepsis by a most thorough physical examination.

Having located the source of the sepsis the treatment to be applied will not materially differ from that which is applied in sepsis in other parts of the body.

Why intelligent practitioners are so often satisfied to let a case of puerperal sepsis, which might, by the application of the most simple surgical procedure, establish speedy convalescence, go on under the delusive treatment of quinine, opium and the vaginal douche is a mystery. It is possible that we are too often afraid of interfering with nature's process of destruction, or that we are in doubt about diagnosis or that we have not kept abreast of the times.

We are called to see the case, we will say, on the third to the fifth day after labor. We are ignorant of the conditions and the technique practised during confinement, that is, whether it was aseptic or not, and we cannot tell whether everything that ought to come away has been removed. There is elevation of temperature and pulse, the lochia are more or less offensive, there are pain and tenderness over the uterus. What are we to do under these circumstances? We cleanse the external genitals, administer an antiseptic vaginal douche, empty the bowels, and put the patient on quinine, and possibly opium. We return in from twelve to twenty-four hours and find our patient improved or convalescent. Under these conditions we are satisfied to let well enough alone.

But suppose that, on the other hand, instead of improvement there is an aggravation of all the symptoms, indicating that there is an extension of the infection or that we have not reached the seat of the trouble. Should the above treatment be continued? I think not. A thorough physical exploration will be necessary. We administer an antiseptic douche, place the patient in Sim's position, introduce the speculum and proceed to ascertain the exact local conditions. We find in this case upon inspection that the lochia has been changed to a muco-purulent discharge indicating infection of the uterine cavity. The microscope will demonstrate whether it is a simple infection by pus microbes or whether it is due to specific germs as diphtheria, gonorrhœa, etc. If the infection is specific, there can be no doubt about the utility of a thorough curettage of the entire

uterine endometrium, followed by hot antiseptic irrigation, and the application of tincture of iodine, or a solution of chloride of zinc (20%) and packing with iodoform gauze.

If, however, the infection is nonspecific, which will be the case in most instances, the choice of action will lie between antiseptic uterine irrigation alone, or irrigation with curettage. If we have reason to believe that parts of the placenta or secundines have been retained, we ought to curette, irrigate with 1 per cent. lysol or creoline, and drain with iodoform gauze. If there is no retention of membranes or placenta; intrauterine irrigation with 1 per cent. lysol or creolin solution may be sufficient, provided however, that the infective germs have not penetrated too deeply into the uterine tissues. In the latter event curettage would appear to be rational treatment.

To state that all placental remains and dead tissue should be removed in all cases after labor and abortion is a mere truism. The difficulty is to ascertain when these things have been retained. We are dealing with a dark cavity that is, under the circumstances, difficult to explore and very easy to infect, provided we are not scrupulously careful as regards the practise of antiseptic technique. In the puerperium there will be comparatively few cases that require curettage while the reverse will be true in cases of abortion.

The indications for the use of the curette are given by a recent authority as follows: (1) In cases of incomplete abortion when portions of the ovum or placenta are retained, that cannot be removed by means of the finger or ovum forceps; and (2) in the puerperium when septic symptoms have appeared, which are probably attributable to decomposition of pieces of placenta or membranes in the uterine cavity.*

There can be no doubt about the clearness and the correctness of these indications and there ought not to be, in the majority of cases, much difficulty in their recognition. In cases of abortion we ought never to await the onset of septic symptoms but curette at once if there are evidences of retained placenta or membranes. The use of the finger is, however, under the circumstances a procedure that is likely to be futile in most cases. It is impossible to explore the uterine cavity with the finger without pressing down the fundus of the uterus and in-

*J. C. Cameron American text-book on Obstetrics, page 872.

troducing the hand into the vagina, a procedure that is likely under existing conditions, not to be tolerated by the patient, certainly not more than once, without an anæsthetic.

The placenta forceps, highly commended by many obstetricians, *has in my hands been unsatisfactory except for the purpose of breaking up and removing loose placental masses from within the uterus. In adherent placenta it is very difficult to tell whether the forceps grasps placental remains or the softened uterine walls. In any event the forceps removes only patches here and there, leaving interspaces of infectious material which must be removed by the curette or remain to propagate the sepsis.

The sharp curette should be used only with the greatest care and under the most rigid antiseptic regimen. If curettage is done only bunglingly and with little attention to the details of surgical cleanliness during and after the operation, it would be better for the surgeon and certainly safer for the patient to leave the case to nature. An incomplete removal of dead septic material from the uterus with the sharp curette can do little good and much harm. Such an operation can only open new avenues for infection and make nature's work more difficult. On the other hand if the rules of antisepsis be neglected we are not likely to improve the condition by curettage. This holds true not only during the operation but also at the subsequent change of dressings, when it is very easy to reinfect the patient through the denuded uterine surface.

As a general practitioner I have encountered a number of difficulties in carrying out the technique and applying curettage in practice. Where a patient is at a distance from the physician and without the aid of a trained or intelligent nurse it is often impossible to undertake the operation even when indications are imperative.

Among the difficulties encountered after the operation are (1) pain and discomfort from the tampon, (2) difficulty in getting the bladder emptied by reason of an incompetent nurse, (3) difficulty in getting people to understand the importance of cleanliness and asepsis. Keeping in mind the indications for the operation and the results to be obtained it is possible to obviate to some extent these difficulties. If we are called early and

*Longyear, International Clinics, 4th Series Vol. 11, page 283.

can recognize the case that requires curettage we need apply the sharp instrument only to the portion of the endometrium where there is placental or other dead tissue. The sensation conveyed to the hand and the sound produced by the curette will give us an idea where to apply and how long to continue scraping.

The rest of the endometrium may then be scraped with a dulled racamier, thorough antiseptic irrigation practiced, followed by the introduction of an iodoform suppository and an iodoform gauze rope for drainage. The upper vagina should be packed with iodoform gauze, the outer portion with absorbent cotton and a T bandage applied.

If our tampon is rather loose there will be no pain and the urine can be voided by turning the patient prone and pressing tampon with fingers upwards and backwards. I have had no difficulty after the adoption of this procedure in a number of recent cases. We must, however, look very sharply for symptoms of iodoform poisoning.

PUERPERAL INFECTION.

BY ST. JOSEPH B. GRAHAM, M.D., Savannah, Ga.

IF this paper were exhaustively written it would consume more time than can just at present be given in writing it, and more than you can perhaps afford in listening to it when read. Therefore, an attempt only is made to touch upon what we consider the most important under the scope of the paper.

The causes of puerperal infection are various and can be classified as follows: Infection from streptococcus pyogenes, usual cause; staphylococcus pyogenes aureus and albus; Klebs-Löeffler bacillus of diphtheria; bacillus coli communis; Gonococcus of Niesser of gonorrhœa, and perhaps the bacillus of malignant œdema (vibrion septique Pasteur).

The manner or way of introduction of the micro-organisms is two-fold: either from the patients themselves or their dressings, or, the most usual, from the hands instruments or dressings of the physician or nurse.

It seems quite out of place to discuss at length all of these wellknown sources.

The heading infection from patients themselves might be further elaborated by mention of the role played by the birth of dead and macerated fœti, retained placenta, in part or whole accessory growths of the placenta, and spurious placenta, all of which favors infection by furnishing a favorable soil for the growth and multiplication of micro-organisms.

It is plain that in order to have puerperal infection certain of these lower organisms must be present, and they gain admission either through a solution of continuity, small or large, or through the puerperal endometrium. The virulence of these organisms varies much, due to differences in temperature, source and growth, and the infection varies with this condition, as well as with the number of microbes present, and the individual susceptibility of the patient.

The pathology of puerperal infection depends upon the species of organism producing the infection. In ordinary cases the infection is due to the streptococcus pyogenes, and the most easily noted change is that of the blood even before and especially after death. It is thick and black, is acid in reaction, and decomposes quickly. Streptococci are found in it at times in large numbers, as well as in other organs and tissues of the body. The leucocytes and red corpuscles are disintegrated, partly by the organisms themselves, as well as by the toxine elaborated by them. In consequence of this change in the blood and in the blood vessels, numerous hemorrhagic foci take place in the internal organs. In the intestines we may find enteritis or ileo-colitis, in the heart pericarditis, endo-carditis, in the kidneys an acute inflammatory catarrhal condition, in the uterus metritis, in the veins plebitis. Changes in the internal organs are not, however, constant. When the infection is a mixed one, we have a pyemic condition combined with it where metastatic abscesses are present through the different tissues and organs of the body.

Through microscope No. 1, you will see a section made from the broad ligament after death containing numerrus staphylococci. In No. 2, you will see section of the heart muscle containing streptococci.

Both of these were prepared by the author.

TREATMENT.

Of first and greatest importance is the preventative treatment—its causes usually being under our control. We must begin prophylaxis when we can see any indication for the same at any time before the period of labor. Any condition or disease, local or constitutional, that lowers the vitality of the patient or furnishes a nidus for bacteria certainly predisposes to infection, and we may include auto-intoxication in the list. These should be met by proper therapeutic, surgical and hygienic measures and if possible relieved or cured.

Any abnormal secretion from the vagina calls for proper treatment as soon as recognized.

We often find a leucorrhœa due solely to systemic disturbance, which resists of course local treatment, but is readily cured when the real cause is recognized. In chronic malarial toxæmia the author has often seen this condition, which readily yields to proper doses of iron, quinine and arsenic.

Of course if gonorrhœa (recognized by gonococci) is present treatment will at once be resorted to. In health the vagina secretes a mucous and cultivates saphrophytic bacilli, which render it immune to the invasion and harmful influences of pathogenic bacteria; therefore, in health preliminary antiseptic douches are not only uncalled for but are harmful, in that they upset or destroy the provisions of nature.

As an antiseptic for the hands the writer prefers a 2 or 3 per cent. solution of formalin (a 40 per cent. solution of formaldehyde) gained by the incomplete oxidation of methylalcohol dissolved in water. The nails are first well cleaned (to prevent what a witty friend a few days ago remarked, making cultures from the finger nails before visiting the case to decide what kind of serum to use). No matter how clean they may appear, a new or sterilized nail brush and sand soap is used for the fingers, hands and arms, afterwards washed in alcohol and thoroughly washed and soaked in the formalin solution. It is needless to say that nothing unsterilized should be touched after the cleansing. A sterilized gown should be worn by physician and nurse. Everything should be gotten in readiness beforehand and the writer begs to show you here a little sterilizer for instruments when needed, of his own evolution, which

is compact, cheap, easy to transport and fulfills the purpose for which it is intended. With the small alcohol stoves the water will be boiling in five minutes; a 2 per cent. soda solution may be used and formalin may be added if desired. Make as few vaginal examinations as possible and wash the hands in formalin solution after each examination, and when a lubricant is needed use sterilized cotton seed oil or vaseline.

The writer had the good fortune to serve a few years in the frontier service as physician, being at a post among the Sioux Indians, and there noted the extreme rarity of puerperal infection among them, despite the filth and unhygienic condition of the surroundings of puerperal women. They never permit the introduction of the finger for examination or the hand for aid, except in the most extreme cases, and these cases were of such a nature that death frequently came before delivery. In the few cases of infection the wauseca pejutawicasa (the white medicine man) had been in attendance.

The patient's external genitals should be thoroughly scrubbed. Most of our patients do not neglect their body bath. Where they do it is well to remind them of its usefulness, aside from common cleanliness. The woman in and after labor should be treated with the same regard for asepticism and surgical cleanliness as we would use in the most extensive operation wound of our own making, where the surface was previously free from infection.

Unless the hands have been in the uterus, which is to be avoided if possible, by Crède's method of expression, or there is some indication for its use, the writer would not resort to intra-uterine douches. When labor and the soft parts are normal and the rules of asepticism have been rigidly adhered to, vaginal douches can do no good.

The treatment of infection should be local and constitutional, surgical and medical, influenced of course by the variety of micro-organisms producing the condition. The parts should be examined as far as possible by the eye to determine the focus and in a measure the classification of infection, and upon the information gained the treatment will depend. For local disinfection the writer prefers a 1 to 4 per cent. solution of formalin to any other antiseptic known. Where the point of infection is in the uterus it must be decided whether it is sapræmic or sep-

ticemic. Clearing and cleaning out is indicated; the surgically clean finger, dull curette or sharp curette may be used (each has its advocates and disadvantages,) followed by prolonged douching with or without active germicidal agents. Here again the writer prefers formalin solution. It is non-toxic, but very slightly irritating in proper strength, and as far as germicidal properties are concerned heads the list.

If remains of necrosed tissue are not present curetting will accomplish nothing.

If the case is seen early, before septic absorption and migration of bacteria has taken place to any very great extent, the writer prefers to use a blunt dilator and irrigator combined, which I here beg to present to you. This, after sterilization, is introduced and opened, the irrigating portion having been filled with liquid to prevent the introduction of air. It is attached to an irrigating bottle or funnel and a solution of formalin allowed to flow in, while the dilator is moved in every possible direction. This may be maintained as long as desired, being careful not to have the solution too strong and the hydrostatic pressure too great by too high an elevation of the container. The temperature afterwards should be the guide as to the length of time and value of the washing out. Formaldehyde or iodoform gauze may be used to induce drainage and act as germicidal agents, or as iodoform does to prevent the formation of toxins. An original plan has presented itself to the writer, but which an opportunity has not offered for use. It is the conveying of formaldehyde gas combined with vapor of alcohol into the uterine cavity through a suitable tube uterine applicator. Theoretically, it should prove of great value; practically, we do not know what it will do. At any rate it is non-toxic to the patient. Steam at 100 to 115°C. has been used in this manner with reported good results.

The constitutional treatment is modified in a measure by the kind of infection present.

If diphtheritic, due to Klebs-Löffler bacilli, anti-diphtheria serum should be used. If, as more often happens, the pseudomembranous angina and the poisoning is due to streptococcus pyogenes, antistreptococcus serum is indicated, that of Marmorek probably being the most noted, but many serums made in our own country are as good.

Ten cases are reported of streptococcus phlegmon where the swelling of lymphangitis and lymphadenitis quickly disappeared after the use of serum.* The serum treatment, however, seems not to have yet reached that high grade of healing power to which it is thought and hoped it will later rise.

The indications are to sustain by proper remedial agents and stimulants, judiciously employed, the patient's vitality until the vis medicatrix naturæ sufficiently asserts itself. The writer believes in pushing alcoholic stimulants.

With the report of one case I beg to close my too brief remarks. Patient, age 39, delivered at full time of twins, dead three or four weeks in utero, and attached to one placenta, which came away entire; no laceration of uterus or soft parts. Next day lochia apparently normal. On fourth day, at 6 a.m., severe chill, followed by temperature of 105, pulse 148, stupor. Used dilator as above described and irrigated with formalin solution for one hour. A few small shreds came away, but nothing else. Temperature sank to 103 in the afternoon, when irrigation was again resorted to. Temperature at 9 p.m. 102. Irrigation again next day; temperature 102, in afternoon 101; irrigation. Temperature at 9 p.m., 100. Morning, irrigation; temperature 100 $\frac{1}{4}$; afternoon temperature 100 $\frac{1}{2}$, irrigation; night temperature normal. Irrigation next morning. Patient bright, appetite returning and went on to recovery.

Blood examination showed no plasmodia but excess of leucocytes. Calomel in small doses and quinine were given internally.

Society Reports.

RALEIGH ACADEMY OF MEDICINE.

STATED MEETING AUGUST 4th, 1897.

K. P. BATTLE, JR., M.D., President, in the Chair.

DISCUSSION of subject:

"CAN TYPHOID FEVER BE ABORTED?"

Dr. A. W. Knox, in opening the discussion, regretted that from lack of time he had not tabulated his cases

treated by the Woodbridge method. Since May 1896, he had employed his treatment in 16 cases with 3 deaths. In all of these the temperature had reached normal in $7\frac{1}{2}$ days as an average, the fatal cases being due to complications and other circumstances which will be referred to. From this he is forced to conclude that typhoid fever can be aborted and that in the Woodbridge method we have a means of aborting it. In response to a question, "How long did the temperature stay down after coming to the normal?" Dr. Knox stated that in all but three or four of the cases the fever returned but never reached its former height and the patients were always comfortable. In the first case which he treated according to this plan, the cause of a slight rise of temperature was found to be non-absorption of the tablets and capsules; under calomel and salines these were found in the dejections and the fever came down. The speaker thought it behooved us all to examine into, to study and to use the Woodbridge method. The bath, according to Brand, had been the best treatment before Dr. Woodbridge introduced his plan. By the Brand method the mortality had been reduced from about 21 per cent. to 7 per cent. Woodbridge has just reported over 8,000 cases with a death-rate of less than 2 per cent! Dr. Knox's own conviction was that typhoid fever could be aborted.

Dr. W. I. Royster.—The Brand method of treating typhoid fever was the greatest advance made in the management of that disease, greater even than many of the achievements of modern surgery. It reduced the mortality, rendered the patient comfortable, did away with many of classical symptoms—but did not apparently shorten its course. The treatment by elimination and antiseptics (as advocated by Thistle and others) has, in his opinion, succeeded just as well and is more conveniently carried out. There is more in typhoid fever than the fever, and the typhoid toxins in Peyer's patches, liver, spleen and mesenteric glands, are not the only causes of the high temperature with its concurrent symptoms. The absorption of poisons from the intestinal canal is one of the factors in causing the fever, and by the eliminative and antiseptic treatment this is reduced to a minimum. The Woodbridge method he had absolutely repudiated, chiefly on the ground that no combination of drugs in fixed doses can be suitably administered over a continuous

period to every patient suffering from typhoid fever. He had treated two cases according to Woodbridge—both children, in whom typhoid often runs a mild course, sometimes of less than two weeks' duration. In one of the cases there was produced hypercatharsis and the treatment had to be discontinued; in the other, it seemed to act no better than the eliminative and antiseptic plan. He had seen two of Dr. Knox's cases with him. The principle of the Woodbridge method is good—free movement of the bowels, opening up the glandular secretions and getting the patient's skin in good condition. For the last three years he has used the eliminative and antiseptic method, consisting for the most part of giving (a) calomel in one-quarter grain doses every hour, followed by salines, to secure from four to six, or even more, free evacuations in twenty-four hours, regardless of the number of doses, and (b) the internal administration of some intestinal antiseptic (generally carbonate of guaiacol). He did not remember the number of cases, but had five during one week last summer, all recovering nicely. There is no doubt that securing free movements of the bowels is the keynote in treating typhoid. He feels more comfortable in attacking a case of typhoid fever now than formerly. The following he considered the best treatment: Proper feeding, free elimination, intestinal antiseptics and cool sponging. Food is very important. He gives less than he used to and finds that patients can get along on very little. Milk he regarded as the worst possible form of food in most cases. It is not easily digested; it ferments in the bowels, producing foul discharges; and it is not always retained by the stomach. Various substitutes—peptonoids, panopepton, chicken broth, etc.,—are frequently needed. The drinking of large quantities of water (preferably boiled) is one of the elements of success. Some physicians have even gone so far as to give no food at all, but to make their patients drink a gallon or more of water in the day.

Dr. James McKee considered typhoid fever an acute self-limited disease, tending to recovery, the limit running from two weeks to two or three months, according to the type. He had seen some of Dr. Knox's cases last summer and was impressed with their treatment, but he must adhere to his grounded principles—self-limitation and not cured by medicine. All the re-

ports of Dr. Woodbridge, up to this year, were from the West. Dr. McKee's method: Cold water internally and plenty of it; externally, likes a cold pack in the form of a cloth extending from shoulders to pubes in front and changed frequently; never stops a diarrhœa, because he believes in elimination. There are many varieties and types of typhoid fever. He believes it cannot be aborted, any more than measles or scarlet fever can be cut short.

Dr. P. E. Hines said that, if he understood it correctly, the word "abort" means to cut short. Granting that, he did not believe that typhoid fever could be aborted. Ever since he began treating typhoid he had been satisfied with his results. He had not lost a single case, save those who died from hemorrhage, those (some 5 or 6) who had entered the hospitals moribund, and one who got up against orders, walked across the room and fell dead. He has not treated and does not now treat any cases exactly alike. He keeps the patient clean, gives him milk diluted, keeps the bowels moderately open, and uses a mild antipyretic or the sponge or tub bath, according to circumstances. He had always sponged his cases, before the Brand method was thought of. He had seen many whose cases were mild or shortened, but none which were "aborted." It is a self-limited disease. The type here is less severe than that seen formerly in the Northern hospitals.

Dr. Knox, in reply, said that he was not wedded to Woodbridge's formula, but to the principle. He simply wished to give it a fair trial and test. He believed in, and expected to use, also the eliminative and antiseptic method. But not even this has accomplished what Woodbridge has done, viz., caused the temperature to touch normal within seven days. He had had three deaths in his series of cases—two in which the treatment was begun on the 26th and 29th days respectively, both having pneumonia; and the third, in which treatment was begun on the 2nd day, but both pneumonia and a severe jaundice were complications. Referring to the cases of Dr. Hines which died of hemorrhage, he would say that the Woodbridge method lessens the stage of engorgement in Peyer's patches, prevents the stage of ulceration and the patients, therefore, are not so likely to have hemorrhages. He holds on to the Woodbridge

plan and will try it in a sufficient number of cases to satisfy himself further as to its efficiency.

HUBERT A. ROYSTER, M.D., Secretary.

CLINICAL SOCIETY OF ST. JAMES DISPENSARY.*

STATED MEETING HELD DECEMBER 4, 1897.

DR. VAN MARTER presented for examination a patient who had recently had mediastinal abscess, which ruptured into a large bronchus, discharged by coughing, and apparently cured. The case will not now be described, as a paper is being prepared which will describe it in full, with illustrations.

Dr. St. J. B. Graham read a paper on puerperal infection, its cause, pathology and treatment (see page 5).

PUERPERAL INFECTIONS, ITS CAUSE PATHOLOGY AND TREATMENT.

DISCUSSION.

Dr. Carson.—As the subject under discussion is the treatment of puerperal infection, I shall have nothing to say of prophylaxis. Precautions here are universally recognized, and I would simply state that I of course favor them; I cannot, however, accept such vigorous treatment as the use of a stiff brush in the vagina.

I wish that the essayist of the evening had seen fit to bring out in sharper lines the two very distinct types of puerperal infection, namely, the sapræmia and the septicæmia, one a much less dangerous condition and amenable to local treatment, the other a very serious condition, and one, unfortunately, very much less amenable to treatment, local or general. In one the curette and the douche will change for the better all the symptoms; in the other the curette and the douche may do harm, especially the latter, rather than good, for the system is in a condition of great depression and any additional shock may make matters worse. In one the pulse is good, though the

*Savannah Ga.

fever may be high; in the other pulse is bad and the fever not so high usually. I speak of the ill effects of the douche in the former, as I had a fatal case of puerperal septicæmia which I think would have recovered had I not used the douche, and the douche used with every precaution. In septicæmia, the blunt curette and the douche, with a good drain, will cure probably 99 per cent. of the cases if used early; in septicæmia proper, with the bad pulse from the beginning, with few or no symptoms of local trouble, with anxious countenance and sweet breath, and sweats, the large majority will die in spite of all treatment, for we have the blood surcharged with an animal poison, which requires in all probability an antitoxine to antidote it. The anti-streptococcic serum now under trial still requires very careful investigation to prove its utility. I have had no experience with it.

Fortunately for us the majority of the cases of puerperal infection which come to us are sapræmia, and are usually easily controlled. My own experience leads me to view with favor very foul lochia. The sapræmia seems to antagonize the more virulent toxine. I have yet to have a death where it existed, whilst all my fatal cases have shown little or no fetor or evidences of local trouble.

As antiseptics I shall still cling to HgCl_2 , carbolic acid and creoline. Any torn vaginal or perineal surface I should unite at once. Never the cervix, however, as it would tend to narrow or close this natural outlet for the lochia. I am absolutely opposed to touching torn vagina or cervix with iodine or strong carbolic acid as discouraging speedy union, believing that the usual antiseptic douche will clean all abraided surfaces. If we have chancroids or phagadenic sores to treat it is time enough course, nothing less than HNO_3 .

I am opposed to the coal tar group except in small doses for analgesic effects. When used as antipyretics they injure the patient and deceive the physician. I have seen physicians prescribe veratum veride in fulminating septicæmia, and rubbing their hands with glee because the pulse had been brought down to 70 from 140, and the patient was dying.

I believe in free catharsis in the beginning, and keep up in

certain cases. In ordinary septicæmia I give quinine with nitric acid. In marked septicæmia I drop all drugs but alcohol in large quantities and morphia for sleep.

I have had in two very severe cases wonderful results from ice *over the entire abdomen*, and kept there for days, with the skin of the abdomen as red as a boiled lobster. I find it generally recommended by the authorities.

I encourage the taking of large quantities of fluids; peptonized milk, and whiskey and water, and barley water in the place of plain water. Subcutaneous injections of normal salt solution, or intravenous injections of the same.

While it may be easy enough to know *how* to interfere it is not so easy to know *when*. Many cases have the slight septic fever on the third day, known as the "milk fever," lasting from 24 to 48 hours, which disappears spontaneously and amounts to nothing. Here interference would be officious. But if this fever starting on the third day, rises above 101, say, with a certain amount of uterine tenderness and a uterus larger than it should be at this stage of the puerperium, with scanty or suppressed lochia, or lochia with more or less fetor, a furred tongue and general malaise, we have before us a clinical picture, not very uncommon, and which yields to a proper curettage and douche, with a mercurial purge and a saline. I am sure we have all done ourselves credit in these cases. To do these cases properly an anæsthetic may or may not be necessary; it depends upon the patient. I have curetted many without anything. Others would not permit the introduction of a speculum without an anæsthetic.

But if we have before us a case where the pulse is rapid and weak, where the patient has a dejected and anxious look, and where usually the fever is out of all proportion to the gravity of the other symptoms, and where the local symptoms are insignificant apparently, we have before us a clinical picture which is totally different from the first and which shows strong Rembrandt shadows with very little light. If we interfere locally it must be under an anæsthetic, for the system is already under a profound shock add any further shock must aggravate. We shall find usually that there is no great amount of uterine debris to be brought away. The fact of the matter is the poison has long before leaped the uterine barrier and is far away from

curette or douche. In the large majority of the cases it is even beyond hysterectomy. This latter step is not to be considered, however, unless the operator knows his business well. I am far from being satisfied with the cases so far reported.

Dr. Fitch.—Dr. Graham has so thoroughly covered this subject that there is not much to bring out in the discussion, since my treatment so completely coincides with his. However, we will endeavor to illustrate the differential diagnosis of two forms of septic infection most commonly met with—sapræmia and septicemia.

Sapræmia is a disease due to an introduction into the system of the products of putrefaction; these products are produced by many different schizomycetes, the so-called saprophytes—minute organisms which are allied to algæ and are found all over the world in streams, plants and animals. By their growth and multiplication these organisms produce certain chemical substances, the so-called toxins, a kind of ptomains which give rise to fevers. Ptomains are alkaloids produced in dead animal tissues during putrefaction.

Septicemia is a disease due to a few well known microbes that actively enter the tissues and blood with or without the local seat of infection; these microbes are almost exclusively streptococci pyogenes and staphilococci and the bacilli of Kloebs and Loeffler.

The treatment of sapræmia easily falls under four heads; the only discussion is, as to the best methods to obtain the objects sought for, which are,

1st. To cleanse the parturient canal. 2d. To secure tonic uterine contractions. 3d. To control temperature. 4th. To support your patient.

The only point worth of mention overlooked by Dr. Graham in his treatment was transfusion. In cases of septicemia, where the patient is dying from toxine poisoning, if you bleed on the right side and use an intra-venous injection of blood from a healthy subject, or the normal saline solution injected into the left side, or vice versa, you will rid your patient of a part of the poison that is destroying her chances of recovery. I have known lives saved by this means of treatment.

Dr. Lanier.—In reviewing Dr. Graham's paper I would mention that in giving the cause of puerperal infection he failed to

mention the fact, which has been established beyond doubt, that there is a form of infection during the puerperium where the source of infection or entrance is not through the genital organ of the patient, but the micro-organism does pass from the large intestine into the uterus and its appendages, and causes uterine symptoms identical with those observed after direct infection by the streptococcus. This condition is usually found only in women who are constipated, with a dilated colon, usually occurring several days after confinement. Keeping the patient's bowels freely open will usually prevent this condition. Likewise, we often cure such a condition by free catharsis. I mention this point, not because I would name the condition along with puerperal septicæmia, but because it is highly important for us to know every phase of puerperal fever in order that we might meet the enemy—sepsis or toxæmia—with our tactics arranged for war and destruction to the micro-organisms and toxins. We all agree with Dr. Graham as to common sources of infection in the lying-in woman, but I would like to ask the question, why is it that although all the country negroes and poor whites are waited on by ignorant midwives, who not only use lard and greases of various kinds to lubricate their fingers to examine the condition of the os and presentation of the child, without having even washed their hands, and with a total lack of cleanliness from beginning to end—why is it, I say, that only a very few of these women ever have any trouble to follow labor? Is it possible that micro-organisms which develop puerperal sepsis are not always present with the accoucher and around the patient?

In the hands of modern obstetricians we rarely hear of any sepsis following child-birth, but there are a sufficient number of cases occurring to remind us of the necessity for being careful in the management of our patients. It is my opinion that if we take every precaution that is known to the laparotomist, our patient cannot develop sepsis any oftener than we should look for septic peritonitis in a patient upon whom a clean laparotomy had been performed where there was no pus encountered.

I would map out the following course for the prevention of infection in the puerperal patient, viz: When labor has begun and the doctor has arrived it would be his duty to order, first,

a general warm bath and good scrubbing of the woman, a free cathartic dose of a saline, free saline vaginal douche; second, dress patient in clean clothes, have perfectly sterilized sheets, napkins and towels for her; third, with tr. green soap and water and razor shave thoroughly the pubic and vulvar region, and with clean hands and sterilized warm water clean the vagina, and of course wash the vulvar region thoroughly and apply sterilized gauze or napkins, to remain except when removed by the accoucher for examination; fourth, the physician must always have his hands surgically clean when he examines the vagina or the os uteri; fifth, last of all keep scrupulously clean everything that touches the genitalia of the patient from the beginning of labor until the patient is dismissed.

I am heartily in favor of using the finger in the vagina to find out the progress of labor, instead of depending upon the method of external palpation and auscultation, and if the patient and the doctor are both clean there will be no danger of infection from examination.

It does not come to my mind that it is possible for the physician to satisfactorily determine the position of the child, nor the progress of the labor, except by using the finger in the vagina. I believe the obstetrician should feel as free or freer to make frequent vaginal examinations during labor as the surgeon does in having his hands in an open wound. Furthermore, it would prove very unsatisfactory to the general practitioner to be compelled to make out the progress of labor by the outside method, for oftentimes it is important to make other visits or attend operations, therefore the only certain way to ascertain the stage of the descent and condition of the birth canal is to put the finger in the vagina. While I advocate perfect asepsis in the lying-in room, I am aware that the difficulties to be frequently met are almost insurmountable; especially does this apply to the general practitioner who cannot exactly choose his patients or their nurses; and right here gentlemen, let me state that I believe we are as a rule too lax in allowing our confinement cases to be nursed by anybody whom the family happens to engage. Since it is upon us that the responsibilities lie, and the abuses fall, it should be our part to insist upon having an experienced nurse, who is either known to us or who comes well recommended by other physicians.

For a number of years I have made it a rule to curette the uterus and irrigate it with a bi-chloride solution, afterwards washing this out with plain water, and lastly applying tr. iodine to the endo-metrium, and leaving in the uterus one 30-grain iodoform suppository. This has been my course in nearly every case of fever during the puerperium where I could not throw out simple fever of a non-septic character. When this method is carefully followed one daily treatment is usually sufficient to combat any sepsis arising from the genital tract. Indeed, I have several times seen cases, which I knew positively to be of a severe type, promptly yield to one or two such treatments. In fact, it has been my good luck for the past eight years not to lose a case from puerperal fever, whereas, previously it was my ill luck to lose three women from puerperal septicæmia within a period of about two years.

I assure you gentlemen who are not familiar with puerperal fevers, that there is no picture to come before the eyes of a medical man which so completely paralyzes his means to cope with disease than does the one where a woman is thoroughly saturated with puerperal sepsis, who is dying before your eyes with blood poisoning, and you are forced to see her die, knowing that you are powerless to save.

It is to be hoped that serum-therapy will yet give to us a remedy which will enable us to save the lives of all women who develop puerperal septicæmia.

Dr. Lattimore.—In Dr. Graham's paper in the discussion which is now on, the ground of puerperal infection has been pretty well covered, and as the hour is late I will limit what I have to say to a question or so and a few remarks. I would like to ask Dr. Graham whether he is an advocate of a hot bichloride vaginal douche, 1-5000, immediately after the completion of third stage of labor; if not, why not? I favor such a douche, as it removes clots from the vagina and thoroughly cleanses it, and in addition, reflexly, brings out a good, vigorous contraction of the uterus.

I should also like to ask Dr. Carson whether he favors curettement in cases where he is sure that the placenta and membranes have come away intact; if so, why?

Dr. Graham has fully outlined the preventive treatment of septicæmia, and on all of which I thoroughly agree with him.

Now, as to the treatment of the actual condition of septicæmia, with special reference to the advisability of the uterine douche in cases where the uterus is known to be free from placenta, membranes and clots. As to the wisdom of the douche, my mind is not quite made up. It seems to me that sometimes the thrombi closing the mouths of the uterine sinuses are washed away by the douche, rapid absorption takes place, and very soon is followed by a chill and collapse.

Now we come to the second form of puerperal infection, viz: sapræmia. To my mind the best plan to avoid this form of infection is as follows:

1. Be sure of asepsis.
2. Be careful to observe whether placenta and membranes have come away complete. If membranes not complete, then either go into the uterus just after the third stage, or 24 hours later, with Tucker's membrane forceps, anæsthetic unnecessary. Then we at least feel sure that the uterus is free from debris.

3. In a third class of cases we found that a set degree of sapræmia was due to the following cause, viz: Poor drainage, the uterus was deflected to either side or had become markedly antiflexed or retroverted, forming an acute angle of the cervix, thus damming back the lochia, resulting in a fœtid odor and some fever. This cause was always thought of in cases where we were sure of our asepsis and that everything had come away complete. I say sure of asepsis, as some cases were brought in on the ambulance, in labor, when we had no time for preparatory cleansing. In the above cases by correcting position of uterus and giving hot douches, the fever, which ran from 100-102.5, quickly subsided.

Mr. Chairman and gentlemen, the result of my experience and observation has been, that not very uncommonly during puerperal convalescence the fever is due to other trouble than in the parturient canal, and we should think of the following causes of fever and at least exclude them from the etiology:

- (a) Common causes of fever, malaria, tuberculosis, tonsillitis, etc.

- (b) Breasts—abscess forming.

- (c) Bowels—constipation will easily cause temperature of 100-102°, which goes down when bowels are moved.

(d) Be sure to have vulva good, clean and sterile, and if hot douches are ordered, look after douche bag, points, etc., so that there is no chance of infection from that source.

I agree with Dr. Lanier, that frequent examination during labor is wise, as the progress of labor can thus be accurately ascertained. Of course it is understood that fingers are clean before introduction into vagina.

SMALL-POX IN GEORGIA.

It is reported that small-pox prevails in thirty counties in Georgia. The epidemic in Atlanta will cost the commercial interests of the city over \$1,000,000 during the holiday season alone. Compulsory vaccination here has had the effect of frightening the country people away from Atlanta. In Atlanta there has been 120 cases of small-pox, but no deaths. According to a report in the daily papers, Col. E. E. Cavaleri, a veteran of the Union army, seventy-four years of age, has sued the city of Atlanta for damages. When the city physicians were recently making their vaccination rounds, Colonel Cavaleri's *fiancée*, objected to vaccination, saying she was about to be married. The doctor told her it was better to be vaccinated than married, and persuaded her to be vaccinated. When Cavaleri came next to see her, she told him she had decided to follow the doctor's advice, and refused to marry him; hence the suit for damages.—*Boston Med. and Surg. Jour.*

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ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

THE NEW YEAR.

To all our friends, subscribers, advertisers and exchanges, we extend greeting, with our best wishes for a happy and prosperous New Year.

At each annual mile-post in one's life journey it is well to stop and consider—to look back over the path just trodden and note the hindrances to our easy progress, whether we have met and overcome them as we should; to glance ahead as far as possible upon the untrodden way, resolved to profit by our past experiences. To no class of men does this apply more aptly than to those of the medical profession. None others have to face so many difficulties and disappointments; none others are called upon to grapple with so many sudden conditions requiring judgment, coolness and courage. Let us look back at those cases which have not done well and ask ourselves if we have done our whole duty. Let us go forward into the new year determined to perform to the best of our ability the mission that is ours—to give ourselves to our work in a whole-hearted

way—not to be discouraged by unfortunate results, or by lack of appreciation on the part of those for whom we have toiled.

With this issue the JOURNAL enters upon its twenty-first year, and in keeping with the spirit of progress that has characterized it, there will be instituted new improvements that will commend themselves to our readers and greatly increase the usefulness and popularity of the JOURNAL. In the first place, we will have a department devoted to translations from foreign journals under the able charge of Dr. Richard H. Whitehead, of Chapel Hill. Important papers appearing in French, German and Italian journals will be translated in full, or full abstracts made. In this way our readers will get early and from first hands the results of the labors of those earnest workers in the fields of medicine. The department of abstracts will be divided into sections covering the various branches of medicine, which sections will be under the charge of prominent North Carolina physicians. These gentlemen will make abstracts of original papers pertaining to their respective sections which appear in journals published in English, and will follow the abstracts with comments over their own initials, when they consider comment called for. This portion of the JOURNAL will be printed hereafter in smaller type, thus improving its appearance and affording an increased amount of reading matter.

We believe our readers will appreciate this move as an evidence of our desire to give them the best and most useful journal in the South. But we beg to announce another move still in the interest of those who really desire to aid us in making the JOURNAL of the State Society what it should be. While the subscription price of the JOURNAL will remain the same, a discount of 50 per cent. will be made to those who remit strictly in advance. This proposition is made to induce advance payment and to place the JOURNAL within easy reach of any physician who wishes an ethical, practical and up-to-date journal.

A few copies of this issue will be sent to members of the profession who are not subscribers. To these we would say, it is our wish to have the JOURNAL read by every physician in this section, and as it is impossible to form a true estimate of its value from a single copy, we will be pleased to send the JOURNAL on trial for six months on receipt of 50 cents in stamps.

Therapeutic Hints.

FOR ACUTE ALCOHOLISM.—The following combinations are recommended:

℞—Spt. ammon. aromat ʒ ii.
Tinct. camphoræ ʒ iss.
Tinct. hyoscyami ʒ iiss.
Spts. lavandulæ co. q. s. ad ʒ ii.

M. Sig. One teaspoonful every hour.

When acute symptoms have been relieved the following may be substituted:

℞—Pulv. capsici gr. xxiv.
Quininæ sulph. gr. xxxvi.

M. Ft. cap. No. xii. Sig. One capsule before each meal and continue for several days.

Should insomnia be an element, administer the following:

℞—Sodii bromidi ʒ ss.
Chloral. hydrat. ʒ iiss.
Syr. aurantii cort. ʒ ss.
Aquæ. ad. ʒ iv.

M. Sig. A teaspoonful at bedtime and repeated during the night if necessary.—*Med. News.*—*M. & S. Jour.*

TO AVOID OTITIS IN SCARLATINA.—According to Comby, the pharyngeal cavity should be painted several times a day with a 10 per cent. solution of rosorcin, by means of a cotton swab (this may occasionally cause oliguria with green or dark urine). Naphthol-camphor is also recommended for this purpose, as follows:

℞—B. naphthol. 10.0.
Camphor. 20.0.
Glycerin 30.0.

M. Sig.—For external application!—*Pediatrics.*

DELIVERY BY FORCEPS.—Dr. Davis, in a recent lecture on *delivery by forceps*, stated that the instrument which, at the present time, is giving the most general satisfaction, not only in his hands and the obstetric clinics in this country, but also abroad,

is that known as the Simpson forceps. It is necessary that the instrument should be well made and long enough for high application. The efficiency of the forceps is greatly increased by the use of axis traction tapes. These may be passed through the fenestra, or, what is better, the blades may be perforated by two holes, through which the tapes should be passed. An axis traction bar, while convenient is not essential.—*Phil. Polyclinic.*

Miscellaneous Items.

“MISTER,” said the small boy to the chemist, “give me another bottle o’ them pills you sold father day before yesterday.”

“Are they doing him good?” asked the chemist, looking pleased.

“I d’no whether they’re doing father any good or not, but they’re doin’ me good. They just fit my new air-gun.”—*Ex.*

AN Irish brakeman in the railroad yards was hurt by the train and his friends offered to send for a physician. They asked: “Do you want an allopath or homeopath?” He replied: “It don’t matter—all paths lead to the grave.”—*Ex.*

THE GEORGIA FOOTBALL BILL.—Governor Atkinson, of Georgia, has vetoed the anti-football bill which was passed almost unanimously by both branches of the legislature. His objections to the bill are that “legislation which seeks to usurp the responsibility and functions of trustee, faculty, and parent, and take charge of young men and children in their sports, is fundamentally wrong, it is governmental paternalism of the most vicious and pronounced type” The governor says, however, “that some legislation may be necessary to modify the fierceness of football games,” seemingly overlooking the fact that there is just as much paternalism in deciding upon the exact amount of violence permissible in a game as there is in prohibiting it. The bill forbade the “sport” only when money was charged for admission to the grounds where the game was played, so that it would have been still permissible to encourage “aggressive

manliness," which the governor defined as "a quality amalgamated of courage, endurance, restraint, and the power to act surely and unflinchingly in an emergency—a quality which football tends to foster and to keep alive." But apparently an essential to the encouragement of aggressive manliness is a good pot of gate money.—*Med. Record.*

Dr. J. O. Matthews has removed to Ora, N. C.

Dr. E. F. Strickland has returned to his home in Bethania, N. C.

Our department of "Abstracts" has been crowded out of this issue. With our next issue, however, there will appear much interesting matter in this department.

The address of Dr. M. P. Perry, Treasurer of the State Society, is Macon and not Morganton, as it appears in the list of officers in the Transactions of the Society, lately published.

Mr. Campbell, caterer for one of the "Messes" at the University of Virginia has recently been robbed of \$200, and a medical student of New Jersey has been arrested as being the thief.

A NEW ADULTERATION.—The Department of Agriculture has discovered that many creameries are using an emulsion of cottonseed oil, which, added to the cream, increases the butter product per gallon of milk, with small chance of detection and a large increase from profit.—*Medical Record.*

PROGRESS AT CRAIG COLONY DURING THE PAST YEAR.—The Craig Colony for epileptics at Sonyea, Livingston County, N. Y., closed its fourth fiscal year September 30, 1897. There were at that time 214 patients in the colony, the majority of whom had been transferred from the various county houses throughout the State. New buildings are in course of construction which, when completed, will enable the colony to accommodate 140 additional patients, making the total number about 350. It is estimated by State charity officials that this number repre-

sents about one-third of the total number of epileptics now a public charge throughout the State. The medical superintendent, Dr. William P. Spratling, reports a great increase in the value of agricultural and industrial products of the colony over last year, so that the ratio of earnings of the patients to the cost of their maintenance is even larger than that of the last year, which was a little over 50 per cent. A laboratory for the use of a pathologist and pathologic chemist is being constructed. Dr. Christian A. Herter of New York has been appointed pathologic chemist, and Dr. Ira Van Giesen of New York, consulting pathologist to the colony. Dr. Frederick Peterson of New York was re-elected president of the board of managers. The managers, at their annual meeting, decided to ask the coming legislature for \$200,000 for dormitory buildings in order that they may increase the residence capacity of the colony for patients.—*Medical News*.

Reading Notices.

F. E. HARRISON, M. D., Abbeville, S. C., says: I have used CELERINA in appropriate cases, and can heartily recommend it to all who wish an elegant preparation, combined with undiminished therapeutic activity. It is peculiarly fitted to such cases as delirium tremens, headache from debauch or excessive mental or physical exertion.

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Its Curative Power is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; hence the preparation is of great value in the treatment of mental and nervous affections. From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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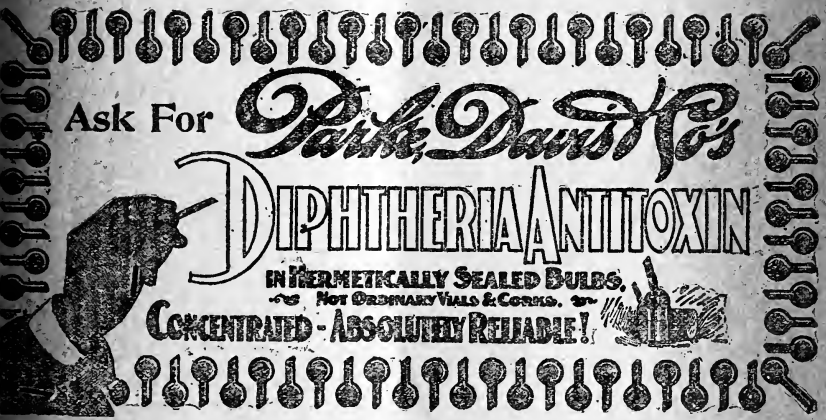
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Original Communications.

PUERPERAL ECLAMPSIA AND ITS TREATMENT.

BY D. A. STANTON, M.D., High Point, N. C.

CONSIDERING puerperal eclampsia to be the most dangerous complication of pregnancy that the physician is called upon to treat and that there is no disease, concerning the pathology of which so little is positively known and in which better results are obtained by proper treatment, is my excuse for submitting this paper. While it is stated that this complication of pregnancy occurs only once in about 300 cases of confinement, that is sufficiently often to keep the obstetrician on the look-out for it, and always prepared to meet it when it does occur. The comparatively rare occurrence may be explained by the fact that the convulsive seizures are not dependent upon a single cause, but that in all probability a combination of causes is required for their production. Many theories have been advanced to explain the nature of eclampsia, but none have proved satisfactory and the etiology of this grave complication of labor is still an undecided question. The theory which has had, possibly, the most advocates and which still stands preeminent in the discussion on the etiology of eclampsia is based upon the investigations of Lever, who first called attention to the relation between albuminuria and puerperal convulsions. This theory however for a time lapsed and

others took its place; but recently it has received renewed attention, and at the present is being considered equal to if not of more importance than some of more recent origin.

That Bright's disease was always present in true eclampsia could not be sustained, many cases occurring where no albuminuria or kidney lesion could be found. Urinary strain due to pressure of the gravid uterus upon the ureters causing renal lesions and subsequently convulsions, was a theory proven untenable by post-mortem examinations. Pressure upon the ureters by the fetal head, pressure upon the blood vessels caused by premature descent of the fetal head in the pelvis, are two theories which failed to accomplish accepted explanation.

The hypothesis that the convulsions are the result of an acute cerebral anæmia was advocated and found to be inadequate of itself. Increased arterial pressure resulting from hypertrophy of the left ventricle of the heart caused in hydremic patients œdema of the brain, which by compression of the cerebral vessels resulted in acute anæmia with its consequent convulsions and coma.

The influence exerted by gestation upon the nervous system the increased nervous excitability, often so marked in primiparous women, led the old obstetricians to regard eclampsia as a reflex neurosis.

Sudden emotion, anxiety and fright were looked upon as the cause which provoked the paroxysms. The notion that puerperal eclampsia is dependent upon a toxemia has recently had many advocates and is worthy of consideration, along with the other causes, since it is conceded that the paroxysms are not dependent upon any one cause.

The above are only a few of the many causes credited with producing eclampsia in the pregnant woman. While no one is tenable *per se*, all have a place of more or less importance in working out the pathology of the trouble. It is plain to see that with all the credited causes enumerated, and many more that could be, that the pregnant woman is in a favorable condition for her blood to become surcharged with not only urea, but other effete materials productive of retrograde metamorphosis of the maternal tissues and constructive and retrograde tissue fetal changes.

With all these morbid materials in the individual, whose

nervous system is susceptible, "for not every woman who would show some indication of lack of proper excretion would develop eclampsia," we may have puerperal eclampsia as a result.

Without going further into the etiology of puerperal convulsions we will come to the treatment, as there could hardly be a mistake in the diagnosis of this trouble. The treatment is prophylactic and curative; but, as we see only a small proportion of the cases we attend prior to the beginning of labor, we have an opportunity to do but little in the way of preventive treatment. The responsibility of managing a case of puerperal convulsions, as a rule, breaks suddenly upon us, hence the necessity of having even defined rules of practice laid down and thoroughly established in our minds.

It matters little what the cause or causes are which precipitate the attack, so far as treatment is concerned. We know a convulsions when we see it, and also know that unless we do something to stop them the lives of two beings are in jeopardy, and that each succeeding convulsion greatly increases the danger to mother and child.

Like the causes of puerperal eclampsia, the remedies are many; but unlike a positive factor in the production of the eclamptive seizure, we have one agent, at least, that can be relied upon to control a very large majority of the cases. This agent is *tr. veratrum viride*. Those who have used the remedy I am sure will agree with me when I say that it occupies entirely too obscure a position in our professional advancements.

Why this sovereign remedy has not attained a wider reputation is, I think, due to feared depression following its use, a fear entirely unfounded.

This statement is borne out by the absence of a single recorded case of death, so far as I have been able to find, attributable to its use in eclampsia.

In ten cases which I have seen in my own practice and in consultation, all yielded promptly to the influence of *tr. veratrum viride*, except one. This was in the case of a physician's wife and on account of his fear of the drug. I was not allowed to give a full dose. Only five drops were given and even this small amount reduced the pulse from 120 to 70 and held the convulsions in abeyance for three hours.

The promptness with which the convulsions are arrested, just as soon as the action of the *veratrum viride* on the heart is evident, is marked.

The drug acts directly on the cardiac muscle and also produces vasomotor paresis. The immediate arrest of the convulsions is important for there is peril in the convulsions themselves. The remedy mentioned will not only arrest the attack most satisfactorily, but will also stimulate the activity of the kidneys and skin.

Blood-letting, the time honored remedy, within the range of safety will not produce these results so well, and the patient is none the worse after the administration of the *veratrum viride*, which cannot be said of blood-letting.

The treatment is not at all dangerous. An adult, if kept in the recumbent position, may take 20 to 30 drops hypodermatically without danger. If it should cause depression alcoholic stimulants, strychnine, or digitalis will produce prompt reaction. It is also fortunate that morphine, which is very useful in counteracting any depression produced by the drug, is itself a potent agent in controlling the convulsions.

HEMORRHAGIC FEVER.—A REPORT OF TWO CASES.

By J. W. P. SMITHWICK, M.D., Aurora, N. C.

DURING the summer just past, I have attended two cases of hemorrhagic fever (malarial hæmoglobinuria), which I have studied as best I could by the aid of the microscope and other appliances I had at hand; at the same time, observing the effects of the different remedies administered.

Case I.—A girl 12 years of age. When I was called I elicited the following history, to wit: She had been having chills every other day for a week and a half or two weeks, for which quinine had been irregularly administered, but the chills would return in a day or two after its effects passed off. She had had a chill early that morning, and about two hours later had a copious hemorrhage from the bladder which was the direct cause of my being called. I found her sitting up, temperature 102°F., pulse much accelerated and quite feeble, skin and conjunctivæ

thick and yellow in appearance, bowels inactive, tongue coated with a thick and yellowish-brown coating, on the central and back portions, white on the edges, some tenderness in the splenic and hepatic regions, spleen perceptibly enlarged, and stomach somewhat nauseated. I examined the discharge of urine and found that it was the peculiar wine color so characteristic of the disease.

I directed the patient to be put to bed, and kept in a recumbent position. I then ordered the following medicines: Saturated solution of sodium hyposulphite in doses of a half teaspoonful every two hours for the first twelve hours, and thereafter at intervals of four hours; and hydrag. chlor. mit. grs. ij. and sod. bicarb. grs. viij, to be made into nine powders, and one given every hour, also directed mustard plasters to be applied over regions of the liver and spleen. She got along very well that day, but the next day late in the afternoon she had another paroxysm with slight hemorrhages. I then ordered, in addition to the above treatment, four drops of spirits of turpentine every six hours. She did well, all bad symptoms disappearing and urine clearing up till the fourth day, when I thought it best to begin the administration of quinine, and accordingly gave her three grains every four hours all that day. That night I received a message that she was having hemorrhages in larger amounts than any time previous. I went and found her very feeble and much agitated. I directed the quinine to be discontinued, and stimulants in the form of whiskey to be administered every half hour. The hemorrhages began to get smaller in amount and less frequent, and the next day she was doing fairly well again. Four days after this she had gained strength sufficiently, I thought, to again stand the effects of quinine, and began the administration with the same effects as detailed above. She, this time, recovered after the quinine was stopped. I then ordered liq. potass. arsenit. in doses of one drop to be increased one drop every second day till three drops were taken, and then decreased and increased again in the same manner, if no bad symptoms presented themselves. After a few days, I ordered a ferruginous tonic, and she made an uninterrupted recovery.

Case II.—An adult male with about the same history and symptoms. I treated as Case No. I, only leaving off the quinine

entirely, in consequence of which, in my mind, the hemorrhages never recurred when stopped, and the patient went on to rapid recovery.

In both these cases I made as thorough and minute examinations of the blood and urine as I possibly could.

Systematic microscopical examinations were made of the blood every day, and I found the æstivo-autumnal form of the malarial parasite present at all times, in greater or less numbers. When the attacks were at their height the blood fairly swarmed with the parasites, but their numbers diminished as the patients improved, though they did not entirely disappear till convalescence was nigh at end. The presence of any other form of the parasite I could not at any time make out. When the hemorrhage recurred in Case I, the parasites were not perceptibly increased in numbers either in the blood or urine, and I can not think that the hemorrhages were increased by a reinfection or a reinforcement of the parasites; but I do think they were caused by some action of the quinine administered. How near I am right I do not know, but this is my conclusion after watching that case and a number of other in which quinine had been administered.

The examination of the urine showed disintegrated red blood cells, and on one or two occasions intact red blood cells were observed, though they were few in number. Casts were present to some extent at all times till improvement was well along, when they entirely disappeared. A few parasites of the æstivo-autumnal form were observed from time to time, but at no time were they abundant. A few were observed in the intact corpuscles that were noticed in the urine. Slight traces of albumin were found throughout the whole course of the disease, which was slow to disappear.

The diet of both patients was milk, principally, either butter or skimmed being used. They drank lemonade and boiled water.

I give these remarks and observations for what they are worth, and will be glad at any time, to assist a worthy brother in the profession, if I can.

Society Reports.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

REGULAR meeting held December 21, 1897. Dr. J. N. Upshur (President), in the chair. Dr. Mark W. Peyser, Secretary and Reporter.

Election of officers for the year 1898, resulted as follows: Dr. M. D. Hoge, Jr., President; Dr. E. C. Levy, First Vice-President; Dr. A. L. Wellford, Second Vice-President; Dr. A. C. Palmer, Third Vice-President; Dr. Mark W. Peyser, Secretary and Reporter; Dr. W. H. Parker, Assistant Secretary; Dr. R. B. Teusler, Treasurer; Dr. R. W. Nichols, Librarian.

REPORTS OF CASES.

VOMITING OF BLOOD BY ONE-DAY-OLD INFANT.

The President reported a case the like of which, he said, he had never seen before. On Sunday afternoon, 19th, he delivered a primipara, after an easy labor, of a girl baby weighing six pounds. It nursed heartily and there was no indication of trouble for twenty-four hours, when it threw up blood and colostrum. The history of the parents unexceptional. Within a few hours of vomiting, there were frequent operations containing large amounts of meconium and blood. The skin and mucous membrane were pallid, the fontanelles depressed, and sutures prominent. He was at a loss to account for the hæmorrhage; but his idea was that there existed engorgement of the liver with congestion of the portal system and hyperæmia of the stomach and bowels. Thus he prescribed calomel, two grains, and chalk, one grain, divided into ten powders, one powder given every hour. This afternoon (21st), the child was getting under the influence of the calomel, and as a result, there was less blood in the last three operations, and the child was progressing very satisfactorily. After mentioning the case to several medical friends who had never seen or heard of such a case, he consulted the *American Text Book on Children*, and found reports of several cases with suggestion of just such treatment as he had given.

FULMINANT APPENDICITIS

Dr. George Ross said that in the past week, he had had the only case of *fulminating appendicitis*, he had ever seen. The patient was a man, age 21, of feeble physique, night operator of the long-distance telephone. He had had bronchitis and recovered. On the night before his death, he seemed perfectly well. When seen at 3 P. M., there was a temperature of 102.5° ; pulse, 130; and marked tenderness. At night, temperature was 101.5° , pain diminished, but general condition unfavorable. A consultation was held, with the result that the patient was taken to Virginia Hospital, but died before he could be placed on the table.

Dr. Ed. McGuire said he had seen a large number of cases of appendicitis, and had reached the conclusion that no single symptom could be relied upon to determine an operation. In the case of Dr. Neblett, there was suppurative peritonitis with a necrotic appendix. He had been improving, and on the evening of his death, was thought to be out of danger; but he was seized with convulsions, and in three hours was dead. The urine was loaded with albumen.

Last Monday morning, he saw a young man who had had a cramp the night before while on the train. There was a regular pulse and no fever. On the right side was a little tenderness. The bowels were free, but he had vomited. Thinking it was cholera morbus, calomel was prescribed. In the afternoon, upon making a second visit, was found increased tenderness, with a temperature of $100\frac{1}{2}^{\circ}$. Appendicitis was diagnosed, and the patient taken to Virginia Hospital and operated upon the next day at 1 o'clock. A necrotic appendix was found. Recovery ensued.

Dr. McGuire said, in conclusion, that he had again and again seen cases where the symptoms were slight, but the course of the disease bad. He thought if all cases could be operated upon within twelve hours, mortality would be reduced to 1 per cent.

OCCLUSION OF OPENING INTO CÆCUM POSSIBLE CAUSE OF APPENDICULAR ABSCESS OF FULMINANT APPENDICITIS.

D. W. T. Qppenhimer observed that *in the fulminating form the appendix was always occluded next to the cæcum*, distention resulting from accumulation of gas or pus. In a number of cases,

the appendix could be cut off and no opening seen; therefore, he believed that in these the organ could be taken away close to the cæcum, no escape of pus resulting because of the agglutination. It was possible that a ligature was not necessary in these instances, and not applying one would prevent secondary hæmorrhage. He had observed cases without fecal fistula, in which the appendix had sloughed off and was floating in pus. Never having seen the point mentioned in any literature, he was of the opinion that it and the question of ligature should be investigated.

Dr. Hugh M. Taylor, thought appendicitis capable of furnishing a greater number of surgical surprises than any disease with which he was familiar; and while it had claimed the lion's share of professional thought for the past ten years, we were only upon the threshold of knowledge as regards many of its most important phases. Its etiology was an open question: a terminal circulatory supply; a short mesentery; a structure of feeble resistance; an estuary in the fecal current often blocked; and an ever-present micro organism were credited as etiological factors; but we must ascertain more of its causation before we could hope to do anything in the way of preventing it. Ideal surgery was, of course, preventive surgery, and it was to be hoped that future evolution of the subject might attain such an end. Individual and collective professional opinion as to appendicitis—its etiology, symptoms and treatment—presents a succession of acrobatic changes. He thought he was correct in claiming that many more conservatives were becoming radical in their views as to the importance of early operative interference, and thorough work whenever the condition of the patient warranted. His experience fully sustained the conclusion that an early resort to operation found the patient sufficiently strong to endure complete work—*i. e.*, strong enough to bear the prolonged anæsthesia, removal of the appendix and pus cavity, unmatting of the bowels, resection of infected omentum, etc. He would impress the idea that an early operation was conservative in that it sought to prevent pus collections and adhesions of the appendix, bowels and omentum, and the serious complication of septic, purulent or fibrino-plastic peritonitis. He contended that at some time in the history of every case of appen-

dicitis, it was entirely a local phlegmon, and this was the elective period for operative interference.

Some of his friends, medical John Jaspers, rarely saw cases of appendicitis, and never met with cases calling for operations. When a practitioner of experience told him he never had torn perinei, he felt like telling him "Your eye-sight is defective," or "You do not lift up the sheet to look." So when a man told him he never met with cases of appendicitis, he was tempted to urge him to study its symptoms, and was almost willing to promise him acquaintance with a surprising number of cases.

Typical appendicitis should be as easy to diagnose as typical pneumonia, typical typhoid fever, etc.; but unfortunately, we met with a good many cases which were atypical, and in this class, the differential diagnosis was not always easy. Three conditions in the right half of the abdomen and pelvis notably, presented symptoms simulating some one of the clinical types of appendicitis. He alluded to gall-tract and tubo-ovarian inflammations and displaced right kidney with renal or Dietle's crisis. The diagnosis was, of course, easier in men, inasmuch as cholelithiasis and its consequences—cholangitis, cholecystitis, empyema of the gall-bladder and gall-tract colic were so much more frequent in women. Displaced kidney and its effects were likewise more common in women, and usually occurred on the right side. Inflammation and suppuration from tubo-ovarian disease, and that incident to appendicitis, might present symptoms in common, but, usually, the differentiation could be made. The intimate lymphatic and vascular connection between the right broad ligament and the meso-appendix should be borne in mind, as it explained the frequent co-existence of appendicitis and right tubal inflammation. Conditions less frequently and less positively, obscuring diagnosis of appendicitis were typhoid fever, ileus, intestinal indigestion, tubal gestation, gastric ulcer, hysteria, etc. He had at the present time, two cases of phantom appendicitis. In both, he was satisfied that the morbid condition existed only in the nervous system. Both patients were able to simulate many of the symptoms of appendicitis, as localized pain, muscular rigidity, etc. He was obliged to anæsthetize one in order to satisfy himself as to diagnosis, while the other spent sleepless nights and anxious days, and upon one

occasion implored him to operate, so that he need not endure another such night of agony.

Dr. Ed. McGuire said if *Dr. Oppenheimer's* suggestions were followed, there would be liability to secondary infection. He had seen fecal matter in more than one instance in such cases.

NEW YORK ACADEMY OF MEDICINE.

SECTION IN ORTHOPÆDIC SURGERY MEETING OF NOVEMBER 19, 1897.

DISEASES AND DEFORMITY OF THE TIBIA.

DR. S. KETCH presented a patient with an unusual deformity of 5 years duration. The patient was a girl 12 years old. He had seen her for the first time one week ago. There was anterior bowing of the right tibia and some eversion of the foot. The bone was 3 inches longer than that of the well leg and greatly thickened. The circumference of the leg was 1-½ inches larger than on the well side. The child's general condition was poor, the result probably of pain, which had been a feature of the history. The skiagraph showed a thickened tibia with some irregularities in the enlargement and an almost complete disappearance of the epiphyseal line due to pressure. He had traced cases resembling this in many features to syphilis, but here there were no signs of infection and no history of transmission.

Dr. W. R. Townsend said that he had seen a somewhat similar case in which the extra heat of the limb had led to a diagnosis of osteitis. The diagnosis was wrong however as, at the end of 5 years, the bone was found to be sarcomatous and amputation was done. He thought that the question of sarcoma should not be overlooked in considering the treatment of the present case. The remarkable deformity of the bone had some resemblance to the bowing of a syphilitic tibia, but it was not the "lame de sabre" described by Fournier.

Dr. H. L. Taylor said that the strong anterior curvature of the tibia, the enlargement throughout the shaft, the slight nodes on the surface and the elongation of the bone pointed to syphilitic osteitis.

Dr J. Teschner had noticed that the swelling and tenderness

were more marked on the anterior aspect of the bone where there was probably pus. These signs and the localized heat indicates an inflammatory action and led him to believe that there was necrosis and that a sequestrum had produced the thickening and enlargement.

Dr. R. Whitman said that the skiagram showed that the entire bone was involved. He did not think it was sarcoma, but rather a case of diffuse osteitis which might have been of syphilitic origin. There might also have been a fragment of necrosed bone within the shaft which kept up the chronic inflammation with continuous enlargement of the bone.

Dr. V. P. Gibney said that he would treat the case as one of abscess of the tibia. Opening the medullary canal would probably reveal several abscesses. In any case it would not do any harm to operate in this way even if the case were one of sarcoma. He had operated for multiple abscess of the tibia in a young woman and had planted decalcified ox bone in the trough-like cavity. Some of it remained and some did not, and other operations had to be done. Since the last she had been perfectly well and was living out at service.

Dr. Ketch said he was disinclined to think that his patient had sarcoma. This, as well as multiple abscess, would have caused more local and general disturbance. He believed that a sequestrum was present. Anti-syphilitic medication would be thoroughly tried and after that it was probable that the bone would be operated on.

A CASE OF GENO-VALGUM.

Dr. R. H. Sayre presented a patient, a boy 16 years old, who, while carrying heavy loads in a bakery, 6 months ago, began to have double genu-valgum, the result of adolescent rickets, and a failure of the bone of the leg to sustain the weight. Three months ago the limbs were put in plaster of Paris and the boy was kept in bed for two months. To correct the deformity a circular cut was made in the plaster of Paris around the knee and a wedge of wood was inserted on the outer side. In a week or so the knee was straightened still further and a larger wedge was inserted. At the end of two months when the splint was removed and the boy began to walk again, there was a slight transient synovitis. To improve his general con-

dition strichnia had been given and the elixir phorphori of the national formulary. The result of the treatment was that the limbs were very nearly straight. As there remains some relaxation of the joints, he should have braces to prevent lateral motion during convalescence.

AN OPERATION FOR SLIPPING PATELLA.

Dr. Whitman presented a boy 13 years old on whom he had operated 16 months ago for slipping of the right patella. The capsule had been divided on the outer side and considerable difficulty had been found in reducing the dislocation on account of the contraction of the tissues. A tuck was taken in the capsule on the inner side. The patella was now over the external condyle. When he left the hospital it had been in the median line. For a time he had worn a knee-cap as directed, which he had long ago discarded. This case was not presented as a fair test of the operation, as the dislocation was but part of the disability and deformity attending hemiplegic contraction of the right side of the body. It had, however, relieved pain and discomfort.

Dr. Gibney said that it was still a question what is the best treatment for slipping patella. He had transplanted a fragment of the tibia with the insertion of the ligamentum patellæ in a girl 14 years old. Union in the new position was secured and the limb was put up in plaster of Paris. In spite of a little suppuration, the recovery was good. The ultimate result, however, was in doubt, as the patient was lost sight of.

In another young woman the slipping had occurred repeatedly, followed sometimes by acute inflammation. A splint had been applied and she was wearing it still to keep the patella in place. In a boy of 4 years the slipping patella had been easily reduced and it is probable that massage and the growth and development of the muscular fibres will be sufficient to remove the trouble.

KYPHOSIS OF UNCERTAIN ORIGIN.

Dr. Townsend presented a patient with marked kyphosis in the dorsal region and slight lateral curvature. The patient was a man 24 years old, a clerk by occupation. He had had slight pains in the back for 8 years, but within the past year the pain had increased and was accompanied by shortness of breath.

The diagnosis had not been fully made. It was possibly a case in which lateral curvature was the chief cause of the deformity and symptoms, or it might be an instance of exaggerated round shoulders, or vertebral caries might have been the origin of the trouble.

Dr. Gibney said he saw no indication of osteitis or tubercular disease of the spine. There was a little lateral curvature and an exaggerated anterior curve.

Dr. Ketch said that the case was one which had not followed the ordinary course of lateral curvature. The general kyphosis reminded him of senile curvature which, however, rarely occurred at the age of the patient. The man had said that the pain had been so severe as to require the use of mustard plasters. It had radiated around from the back to the front under the nipples. He had never met a case of lateral curvature in which there was pain at the terminal end of the nerve. He thought this was the pain of an inflammatory lesion and that the trouble was antero-posterior rather than lateral and was getting worse. He would treat the patient for an inflammatory affection and would advise a certain amount of rest for the spine.

Dr. Teschner thought that the curvature was antero-posterior and that the condition was neither tubercular, rheumatic nor osteitic and that the pain was not necessarily due to nerve pressure, but rather to the immobility of the spine, or it might be due to indigestion. He would increase the mobility by two or three weeks of gymnastics. He thought that the patient should not be put on any kind of retentive apparatus which would hold the spine immovable. Considerable pain was present in some cases, even when the curvature was not marked. This pain was generally due to a relaxed condition and not to nerve pressure. It was a muscular pain like that caused by stretching a muscle, analogous to that of muscular rheumatism. This could be relieved by exercising the muscle vigorously, producing a little more pain, and repeating the same thing the next day; the pain will then disappear. These cases could be cured in from 48 to 74 hours if relief from pain was considered a cure. Some lateral curvature patients complain of pain only on executing certain movements, as for instance, writing or violin playing, etc. A patient had formerly been able to play the

violin from 2 to 3 hours without inconvenience. When lateral curvature appeared, she could not play for 15 minutes without pain, but after a short treatment she could play as formerly.

Dr. A. B. Judson thought that the case was one of lateral curvature in which the curve in the line of the spinous processes was slight, while the curve in the bodies of the vertebræ was probably exaggerated. This would have the same effect on the trunk as if it were compressed vertically. The trunk was shortened and the result was bulging of the crest walls and kyphosis with a sharp anterior curvature in the lumbar spine. In a question of diagnosis, he thought that pain and other subjective symptoms were less important than the objective signs. He would treat the patient for lateral curvature by appropriate exercises and attitudes for expanding the contents of the chest and the avoidance of fatigue.

Dr. Taylor thought that the case was one of lateral curvature with more than the usual pain and with the exaggerated roundness of the shoulders sometimes found in people whose weakness induced postural deformity.

Dr. T. H. Manley said that the history of the case pointed to some special constitutional condition which had caused the deflection of the spine. He thought that the question of syphilis should be considered. There were no evidences of a tubercular condition, but he thought that there was a rachitic element in the case. He would combine local, mechanical support with constitutional treatment by the administration of acids or iron.

UNUSUAL DISLOCATION OF THE TIBIA.

Dr. Taylor presented a patient with unusual deformity and disability of the right knee. The patient was a woman, 23 years old. The trouble had begun when she was 9 months old with redness and swelling, and the knee became flexed and its motions limited. When she was 10 years old she was injured by a fall and has been deformed as at present ever since. There has been no abscess and no cutting operation has been performed. There is complete dislocation of the head of the tibia backward and abnormal lateral mobility. The bones of the knee are small and there is about $1\frac{1}{2}$ in. of shortening of the limb. There is considerable voluntary motion and she can walk for a few minutes without her brace.

Dr. Townsend had seen a similar case, but less marked, in which the deformity was due to an inflammatory lesion without any destruction of the bone.

Dr. Gibney recalled cases of supposed congenital dislocation of the hip in which operation had revealed the results of an inflammatory process so extensive that the head of the bone was well nigh gone. He thought the present case might have had a similar origin.

Dr. Manley thought that the condition of the patient's knee was due to some pathological process and not to traumatism. He said that the case was a proper one for resection of the fibula and tibia. He was perfectly aware that the acuteness of the operative furor had swept over and that we are getting back to more salutary conservatism, but this seemed to be an ideal case for operation.

Dr. Taylor said that the patient had declined operative treatment and he intended to continue giving to the limb mechanical support by means of a Thomas (caliper) splint attached to the shoe, instead of extending below it. He thought that the small size of the bone was due to lack of development rather than to destruction of the bone and that it was very improbable that this condition was produced by a fall in a healthy limb. There had been some pathological process from infancy which probably left subluxation and flexoin, as usually happens in chronic inflammation of the knee, and the fall at 10 years of age might have greatly increased the trouble. He had seen a patient in whom a similar condition had been caused by traction applied in the treatment of hip-joint disease. The hip was cured but the knee was weakened so that the tibia just hung on the posterior edge of the condyles.

Translations and Foreign Reviews.

IN CHARGE OF

RICHARD H. WHITEHEAD, M.D., CHAPEL HILL, N. C.

A NEW TREATMENT OF POTT'S DISEASE.

THE treatment of spinal caries has always been, at best, very unsatisfactory. In cases at all extensive the most the surgeon expected was recovery with ankylosis, the patients being hunchbacks for the remainder of their lives. About a year ago a young surgeon to a childrens' hospital at Bercksurmer, Calot, (*Archives Provinciales de Chirurgie*, 1897 No. 2.) aroused great interest by proposing to treat this disease by the methods used to overcome deformity in spinal dislocations—i.e., by rapid and forcible reduction under extension and counter-extension and subsequent application of a plaster jacket. The extension is effected by assistants who pull upon the head and extremities of the patient, while the operator passes with his hand upon the curvature until the deformity disappears, when a plaster jacket is applied from head to hips. The whole operation is done under complete anæsthesia. It is said that in most cases reduction is effected with surprising ease. The subsequent treatment is that usual in these cases with especial attention to hygienic measures. Calot claims that by this operation the patients recover without deformity, the cavity necessarily formed between the bodies of the vertebræ where the curvature is reduced being filled up by firm new bone. That this actually occurs he determines by the X-ray, and the patients are not allowed to dispense with the plaster corset until this new bone formation is so confirmed. He reported a small number of cases in support of his views. This startling proposition was naturally received with distrust, for it has been handed down from generation to generation of surgeons that Pott's disease is a thing to be treated with the utmost respect, and many were inclined to regard Calot as one of the "fools" who "rush in where angels fear to tread." And with good reasons; for a number of objections immediately suggest themselves. These have been especially emphasized by Lorenz

(*Deutscher Med. Wochenschrift*, 1897, No. 35), and by Menard (*La Semaine Medicale*, 1897, No. 23), likewise of Bercksurmer. Thereotically it would seem that rupture of the membranes, injury to the cord, rupture of abscesses with extension of the disease to surrounding parts, or general dissemination of tubercle, are by no means imaginary dangers, and cases have been reported where one or more of these accidents undoubtedly occurred. However, at the last International Congress Calot reported upon 204 cases, only two of which died as the result of the operation. Other surgeons reported smaller series without any accidents. So that surgeons of such reputation as Péan and Broca express the opinion that the operation can be done easily and without danger in properly selected cases. They would exclude all cases of long standing and those complicated by abscess or tuberculosis of other organs. But if we grant that the operation is without danger in suitable cases the question of the permanency of results comes up, and upon the answer to this question the fate of the procedure depends. As stated before, Calot claimed that the cavity between the diseased vertebral bodies, which is necessarily formed when the deformity is corrected, is filled by a new growth of bone firmly ankylosing the adjacent bones. This is entirely contrary to what we would be led to expect from our knowledge of the tubercular process in all other points, where the tendency to generation of new bone is slight even after entire cessation of the disease. Autopsies upon children dead of Pott's disease have shown that the adjacent vertebræ are often separated from two to four inches where the deformity is reduced. It cannot yet be regarded as proven that such large cavities as these will be firmly filled by new bone, and if partially filled the deformity must recur. Calot reports that twenty of his cases are now walking erect. It is a question for time to settle, and another year or two will show whether or not a great advance has been made in the treatment of tuberculosis of the vertebral column.

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Editorial.

OUR CORPS OF COLLABORATORS.

In our last issue we announced that we had secured the assistance of some of the most prominent members of the profession in our determination to make the JOURNAL better than it ever has been before. We give at the head of this page a list of those gentlemen who, during the coming year, will review the medical literature of this country and Great Britain, with

the section to which each will devote his attention. A glance at these names will assure our readers that the work has been entrusted to careful and capable hands, and they may be sure that when they read the JOURNAL they are getting the latest and the best of everything.

STATISTICS OF ABDOMINAL SECTION IN AMERICA.

A letter upon this subject in the *Medical Record* of January 8th, from Dr. Lawson Tait, makes very interesting reading. Dr. Tait's letter is provoked by reading an address of Dr. T. Gaillard Thomas, in the annual report of the Hospital for Women in New York. In this address Dr. Thomas puts forward a group of figures showing that in seven large selected hospitals in America the results in abdominal section run from 25 per cent. in Boston City Hospital down to 15.03 per cent. in his own institution. Of this collection of statistics Dr. Tate says "that the whole thing is deplorable and must be remedied; and that the mortality in the New York Woman's Hospital is 'murderous' as Matthews Duncan used to put it." He refers to the report of the Birmingham Hospital for Women, and selects the year 1893 for comparison with the New York statistics, because this was the first year in which no work was done by himself, but the bulk of it was done by two of his former assistants, and also because it was an unusually bad year. During that year there were done 176 abdominal sections with a mortality of 6.2 per cent. A series of 1,350 cases, from 1884 to 1893, performed almost entirely by Dr. Savage and himself, gave a mortality of 5.5 per cent.

"During these years," says Dr. Tate, "I did all my work on plain soap and water, having abandoned every trace of the varying absurdities of Listerism two years before." In explanation of the cause of his success he says emphatically, "the absolute segregation of our patients and close attention to every detail constitute the whole of the mystery."

It is evident that something is wrong in the big hospitals on this side the ocean, and this wrong should be discovered and

corrected. Dr. Tate never loses an opportunity to cast a slur at "Listerism," but we venture the opinion that if he utterly ignored the true principle of "Listerism," which is the removal of germ life from everything that comes in contact with the wound, he would not be able to present statistics showing a mortality of 5.5 per cent.

Lord Lister demonstrated to the world the importance of "surgical cleanliness," and whether the means used be chemic, thermic or mechanic his teaching revolutionized the art of surgery, and his glory will never fail. If Mr. Tait would follow more closely the antiseptic and aseptic technique (the offspring of "Listerism") he might, with his other admirable methods, reduce his death-rate to that "inevitable mortality" which he considers exists.

Review of Current Literature.

PATHOLOGY.

IN CHARGE OF

ALBERT ANDERSON, M. D., WILSON, N. C.

TREATMENT OF DISEASES.—I speak from experience and observation in saying that pathology has been too much neglected by the general practitioner and therefore our knowledge of this important branch of medicine is too limited to have a working, intelligent basis. Without some knowledge of pathology and bacteriology we have a difficult task in comprehending the best written articles in our medical journals.

Physiology bears the same relation to health as pathology to disease. Suppose the average doctor knew as little about physiology at the time of his examination for license as he did of pathology and bacteriology, do you think he would have passed? Not at all. But the demands for this knowledge is growing and hence we see all medical colleges putting their students to work on a graduated course in histology, pathology and bacteriology and our Examining Board in the future will see to it

that all applicants for license must have a passing acquaintance with these coordinate branches that have been made subordinate so long. Through histology we see that the cell is the unit of life. As long as this unit is intact, well nourished and protected, health is sure to continue. But let this cellular life be disturbed and then we doctors need to know *at once* the manner or means of disturbance, and to know correctly, or scientifically, pathology and its allied branches are the only sources of knowledge that will point the way "toward the goal of a rational and effective therapy." Of course there are many facts beyond our ken yet and they to us are mysteries; but the earnest leaders to, or seekers after *truth*, are blazing the way by their researches and classifying the mysteries and exposing the facts. "Vital phenomena" have covered too many knowable facts in science. Let us uncover these as far as the *power* in us lies by careful study of practical questions during this year—such as these:

The relation of the cells of the body to the parasites," the differentiation of cells, alterations in serum, chemiotoxis, the development of the protective agencies and of antibacterie substances, antitoxins, immunity etc. After understanding what has already been found out about these questions, we will then try to keep up with the procession.

Every physician is interested in therapeutics, and there are mutual relations of pathology and therapeutics that should be more generally known. Dr. Robert, at the International Congress in Moscow last August, gave some striking relations in his paper on this line, as follows: "The treatment of disease must have for its object a rearrangement and a rectification of the disturbed relations between the cells and between the different parts of each cell.

Man, however, is more than a mere cellular congeries; he is a being endowed with certain powers of resistance against influences which threaten his well-being or very existence. Disease is not dependent so directly upon the action of any specific micro-organism as it is upon an increased organic susceptibility. The mystery of disease is still a mystery, and it has not been solved as yet by any of the facts of bacteriology or pathology. One man is affected by disease, another exposed to the same influences escapes unscathed. A neoplasm which is to-day benign in its appearances may to-morrow assume an entirely different

aspect and take on all the characters of malignancy. Why is this? We cannot yet answer. The human organism reacts as a whole to the assaults of disease, and not by the isolated action of any individual cell or group of cells. A specific infectious disease is warded off or overcome, not by phagocytosis alone and not by the special chemical properties of the blood serum alone, but it is conquered by the organism considered as an entity.

Our therapeutic efforts must be directed in a way to furnish aid to the entire organism in its struggle against disease, to strengthen its innate powers of resistance, and not merely to fortify one of the approaches, leaving the others unguarded. The indications of a rational treatment of disease are to combat the influences which have weakened the body and so have predisposed it to yield to the assaults of morbid agents; to support and increase the cellular energies; to strengthen and stimulate the function of those organs whose office it is to preside over metabolism and furnish a suitable pabulum to the rest of the body; and to protect the sensitive nervous system, upon whose integrity so much depends, against injury.

The so-called causal treatment of disease is not always effective and its advantages are often illusory. In our well-meant efforts to repress and expel the causes of disease, we may easily go too far and injure the already weakened organism in its resistant powers. It will be of little avail to annihilate the greater part of the attacking force if we thereby so weaken the defence that it is unable to resist the small remnant of the enemy which has escaped the action of our destructive agents.

We must rather imitate nature in her therapeutic efforts, which, after all, are so often effective. The modern treatment of diphtheria by means of injections of a specially prepared antitoxic serum is an imitation of nature and is a brilliant exemplification, the orator maintained, of the wisdom of this course. The triumphs of orthotherapy in the management of diphtheria have been great and indisputable.

In health as in disease all the organs work together, and it is in a disregard of this great truth that the chief danger of specialism exists. The specialist is too wont to consider the needs of one system or of one organ in a system, separating it from the body as a whole. This danger is an imminent one at t

present day, and it is one against which the true scientific physician must never be weary of protesting. The therapist must be a man of broad views, and, however small and apparently circumscribed is the lesion he is called upon to treat, he must keep ever before him the sufferings of the entire organism, and must recognize and act upon the unquestionable fact that man is a unit and that we cannot hope to treat with success a part while ignoring the whole.

Finally, the speaker said, the nervous system must be strengthened and enabled to act its part in the struggle against disease. This most vital part of the human organism is not influenced by medication alone, but there is here room for that imponderable therapeutic agent which is personal to each physician and which finds expression in his moral influence over the patient. To fulfill in the highest degree his divine mission the true therapist must be a physician of the mind as well as of the body, he must be able to inspire in his patient that confidence in himself and that hope in the efficacy of his remedies without which his best directed efforts will scarcely avail.

GYNECOLOGY.

IN CHARGE OF

H. S. LOTT, M. D.,

J. W. LONG, M. D.,

HUBERT A. ROYSTER, M. D.,

POST-OPERATIVE ILEUS.—Edward McGuire (Bi-monthly Bulletin) in a series of seventy-five abdominal sections, done for various pathological conditions, reports three very interesting cases of adynamic ileus with one death from this cause, and goes on to say: "Ileus is classified etiologically into adynamic, dynamic and mechanic. Adynamic, as its name implies, is that type of ileus in which we have an arrest of intestinal peristalsis. It is further divided etiologically into ileus caused by operations on the mesentery, by prolonged strangulation, by spinal injuries, by strangulation of the omentum, by hepatic and renal colic, by compression of an ovary, by local and general peritonitis, by embolism and thrombo-phlebitis and last, but by no means least in importance and frequency, by afferent nerve trauma.

Post-operative intestinal obstruction from mechanical and septic causes has been frequently and fully brought before the profession. While the importance of post-operative ileus from nerve injury has not received the attention that it should, one reason is that it is generally confounded with some other variety, especially the septic form, which is often added to the former in a few hours if not relieved. The nervous distribution of the intestinal canal is derived from the solar plexus. The impressibility and sensitiveness of this part of the nervous system is not excelled in any part of the body, and it is little to be wondered that over-stimulation from injury is followed by a paresis of the muscular coat of the intestine to which the afferent or motor nerve is distributed."

"A bowel that has been exposed to the air for a long time until it has become blanched and dry, one that has been subjected to rough manipulation, or has had its mesentery or coats torn or lacerated in separating adhesions, has sustained sufficient injury to lose, by reflex paresis, its functionary powers, both of absorption and peristalsis. The intestinal canal is nature's sewer and great drainage tube of the peritoneal cavity after abdominal section. Arrest its functions, and see what occurs. Pathogenic bacteria in the canal multiply rapidly, digestion is interfered with, gases form quickly, the coats of the intestine are distended and thinned, so that micro-organisms find easy access through the thin walls into the peritoneal cavity, and paresis from septic peritonitis is often quickly added, and is rapidly fatal. That these cases, in all instances, are septic from the beginning, if done under aseptic conditions, I do not believe. How many of us have seen cases of intestinal obstruction when we have been on the eve of reopening the abdomen, and in a half hour after purgation have our patients convalescing and recover without any other bad symptom. These are cases of reflex paresis from nerve injury, and are not primarily septic as usually thought, though, if not relieved, may become so. Distension of the intestines from reflex paresis may come rapidly or slowly. I believe to a great extent it depends upon the preparatory treatment of the intestinal canal prior to the operation. An intestinal canal that has been thoroughly emptied by purgation, and has only been allowed animal broths for thirty-six hours prior to the operation, and has been subjected to the action of intestinal antiseptics, is not so liable or so early followed by distension and increasing obstruction. By this careful preparation I am confident that time is given the nerve and nerve centres to regain their proper function before distension from gases has occurred and the increased inhibitory action incident to the gaseous distension." "In every instance the problem to solve is, whether we have to contend with a case of traumatic, septic, or mechanical ileus."

"Rapid operations, the avoidance of exposure and rough handling of the intestines, the repairing of all peritoneal injuries as far as pos-

sible, the prevention of traction on the intestinal walls, are all important in lessening the danger of a paretic bowel due to nerve injury."

"My routine practice is to begin on the second day after operation, or so soon as any untoward symptoms appear, the broken doses of calomel, followed by high enemata of salts, glycerin, turpentine or peppermint. If this fails, magnesia sulphate by mouth is administered and this is augmented by the continued administration of high enemata. In simple cases large enemata of peppermint water will not infrequently secure the discharge of a great quantity of gas, with intense relief to the patient, which usually culminates in refreshing sleep. There is no single effect of a drug in the whole surgical practice more strikingly beneficent than a purgative in paretic ileus."

"Should all efforts fail, and septic paresis or peritonitis be added, as a last resort we have to consider the propriety of reopening the abdomen, and washing out or sponging out the abdominal cavity."

"Much has been written on the treatment of peritonitis by purgatives. It is not so much the peritonitis as the paretic ileus which is cured by purgatives. Cure the paretic ileus, and you will prevent the septic peritonitis. I do not believe a case of septic peritonitis was ever cured by purgatives alone, and I believe that a paretic ileus from nerve injury alone may be sufficient to produce death by systemic intoxication from the absorption of the decomposed intestinal contents and the distension incident to the paresis."

H. S. L.

POST-OPERATIVE LESIONS AND SEQUELÆ.—(Amer. Jour. of Obstetrics, October 1897. Read before Amer. Asso. of Obstetricians and Gynecologists, Niagara Falls, August 17 to 20, 1897). □ Joseph Price says: "It must have come to the notice of many of you that there are numbers of useless, often harmful, operations. It seems a common affair for surgeons, or those passing as such to worksome little end at the expense of all the risk of a regular operation. They have only in view some temporary or peculiar benefit, without sufficient consideration of the subsequent work necessary to complete cure. Our great aid lies in the recuperative abilities of the patient, and what can one expect when her vital powers are taxed for recovery from numerous ill judged operations? It is surely a matter for considerable caution. The excuses are few for repeated operations. We will view repeated operations from two standpoints; one is where pathological conditions and the broken-down condition of the patient are such as to render a complete operation of extreme peril to the patient. To determine this question, the extent to which procedure is safe, is one of the most serious that appeal to surgical judgment. It is only such conditions that justify leaving anything for a second operation. The other and more frequent reason for re-operation, the one least to be justified, the one

a reproach upon our surgery, is the attempted work of ignorance or that which cowardice leaves uncompleted."

"Statistics have become too much a matter of mere advertising concern and are therefore of little value. All of us are concerned in our mortality, all want their patients to recover but mere recovery from an operation does not in very many instances mean a cure; the terms are not synonymous. Indeed, the condition of the patient, after so-called recovery from certain operations, is worse, the suffering greater, life in greater peril than before. Mere experiment is responsible for very many repeated operations. This experimenting is not limited to the young, those fresh from our college benches. Experience convinces me that many of our young men are more conscientious than some of their seniors. They push their special work until they have a fitness for it. This they can afford to do, for when they begin they will know how and therein lies the secret we are all seeking." "In every case there should be a reasonable certainty as to existing trouble, otherwise it is impossible to determine upon the method of treatment. But the error is not always of diagnosis; the operator may be moved by the craze to operate. The subjects of these unjustifiable operations—operations for slight or undefined troubles—receiving no relief, will permit a real trouble to grow until conditions become such that relief by the most skillful surgery is difficult and of uncertain result. In many of the cases of repeated operations, the primary operation was unjustifiable; there was error of diagnosis; doubt and speculation in the mind of the operator as to existing trouble. The primary operation may create conditions, set up adhesions, which make the second operation difficult and dangerous. All forms of exploratory operations imply ignorance and doubt, and are responsible for much of the work which has to be repeated. It is true that there are cases where an exploratory procedure serves a good purpose, and, when done under proper surgical method and with absolute cleanliness, involves no great risk to the patient. It should be kept in mind that all surgical procedures involve more or less risk.

The tolerance of the peritoneum has tempted to a great deal of surgical nonsense, often to a carelessness or rashness which sets up pathological conditions requiring radical surgery for their correction. We will name a few of the procedures which give us a large percentage of second operations: 1. Dilatation and curettment. 2. Vaginal puncture. 3. Vaginal hysterectomy. Then comes the operation that cures—abdominal section, the freeing of omentum and bowel, both large and small, the removal of pathological condition, irrigation and drainage."

"In appendicitis a second operation occurs to relieve obstruction or break up adhesions which were the result of the incomplete primary operation. In many of these cases, as in others the complications are so great and extensive that the operator, not having the knowledge

and skill, or lacking courage, abandons the procedure with the entirely too common apology 'inoperative,' 'hopeless.' The freeing of visceral adhesions in primary operations is rare and for this reason very much work is to be gone over again with all the difficulties aggravated tenfold. Too many operators are content with the simple removal of a growth, with correcting the fixation or pathological conditions about it. A partially adherent bladder, if not freed, will remain a perpetual source of annoyance. Bands of adhesion about the ileum, if not freed, form the post-operative obstruction we see so commonly reported. The removal of remaining and irritated material, careful trimming of all ragged, fringy adhesions, clearing away of all debris and clot, and well placed drainage at the seat of ozing, will favor a perfect cure. It is sometimes necessary to retie old pedicles when portions of original cyst or tumor remain in the pedicle, and cut or scrape with a sharp knife the dirty seat of dead ligatures and stitch healthy peritoneum over those parts."

"Unfortunately too many poor women continue to suffer from post-operative lesions; they are told to have patience, that the symptoms will vanish. Very frequently there is opposition on the part of the physician to reopening and correcting the mischief; some look upon visceral adhesions as necessarily fatal. A few do not consider an operation complete until all visceral adhesions have been carefully freed and repaired and left in as normal a condition as possible; after the repair of viscera for the removal of growths placing all viscera in pathological relation. A number of operators remove tumors without examining surrounding parts. When we hear of a case operated upon two or three times by the same operator we have no difficulty in forming an estimate of his surgical ability. We know that in his primary operation, in his second and probably third venture, he left something behind he should have removed; all through he was doing incomplete work. We fully realize that too much surgery in extremely debilitated patients will kill just as surely as none at all. Methods of procedure have much to do with the necessity for repeating operation."

"Our courage should be strong; we want great masters in our science to grow up among us. Frequently some one of our medical or surgical brothers comes running out of the bushes, crying, "I have found something." It is usually a bug and antitoxin or a new method. There are few more potent factors in the mid-direction of our surgical efforts than the importunities of our subjects for immediate bodily relief or comfort. This idea has, I am sure, more influence with the younger practitioners anxious to please and show their resources. This brings up the important fact that a clear judgment as to methods for the eventual welfare of the patient must be uninfluenced by any consideration of present desire. Of course we would not bar any harmless comfort, since we aim always at a favorable condition of mind; but there can be no doubt that even a quick sympathy will urge the

physician to hesitancy or a rash performance. He must be far above any effects of the patient's talk."

"As we age, as our experiences crowd upon us our science, with all its mysteries, becomes a clearer science; and the more weighty grow our responsibilities, the more enlarged our conceptions of duty, we feel the more keenly the issues we carry in our hands—there is sensitiveness to all breathing about us."

H. S. L.

Correspondence.

AN APPEAL

TO EVERY REGISTERED PHYSICIAN AND LICENSED MIDWIFE IN THE UNITED STATES, FOR INFORMATION CONCERNING CRIMINAL ABORTION.

DEAR DOCTOR:—I most earnestly appeal professionally to each of you, regardless of your school of practice, your prominence in the medical profession, or your location, to answer the questions given below. In replying please designate each question by its number. Answers can be made in numerals, and if you do not elect to respond by letter a postal card will do as well. The face of such a card will present only an aggregation of meaningless figures to all who handle it except ourselves.

However, I will highly appreciate whatever you may impart in relation to criminal abortion otherwise than may be contained in your answers to my questions. I trust your visiting list, your cash and account books, and other data in your possession, will enable you to give *definite* or *approximate* answers without consuming too much of your time. If the 115,000 to 120,000 physicians in the United States will kindly give the information I ask, I will return to them through the medical press, some time during 1898, a summary of the results of my investigation.

I desire to assure you that every line given me on the subject of my inquiries will be held strictly private, if you request it, and should you not request its privacy, I will give it good treatment. If for any reason you wish to withhold your full name your initials will suffice. Remember my inquiries cover the

year 1897, and where you cannot give a *definite* answer an *approximate* answer is desirable:

QUESTIONS.

1. Give total number of abortions from all causes that occurred in your practice during 1897?*
2. In how many of these abortions were the elements of criminality, to your mind, apparent?
3. In how many of these abortions, except those classed in question 2, were the elements of criminality, to your mind, probable?
4. How many of the abortions named in questions 2 and 3 were followed by puerperal septicæmia or other diseases?
5. How many deaths resulted from the abortions named in questions 2 and 3?
6. How many still-born in your practice.
7. How many infanticides?
8. How many viable children born in your practice?
9. How many cases of puerperal mania resulted from the abortions classed in questions 2 and 3?

All midwives who are licensed are solicited and urged to answer the above questions so far as their knowledge enables them. Doctor, permit me again to beg that you answer my inquiries either *definitely* or *approximately*, and if for any reason you cannot fully answer all do your best on questions two, three, five and nine. Medical journals throughout the United States are requested to favor the undersigned with an insertion of these questions in their January or February, 1898, issues.

C. D. ARNOLD, M.D., El Reno, Okla.

*NOTE—Question 1 should include abortion which you know occurred among your lady patrons without the attention of a reputable physician. Any abortion that resulted from an obstinate disregard on the part of the woman, of a physician's advice, or from the wilful commission of any act which her observation, experience and other knowledge gave her reason to believe might induce immediately or even remotely the expulsion of the uterine contents, was criminal. (Any act, however simple, occurring in the daily avocation of a pregnant woman, if impelled by an intent, or even a desire or wish to get rid of her pregnancy, is criminal whether she aborts or not.) I use the word "abortion" here to mean the expulsion of the products of conception at any time during gestation to the end of the seventh month, if the abortion was unavoidable, and to full term, if criminal.

Therapeutic Hints.

BENZOATE OF SODA IN THE TREATMENT OF GRIPPE.—According to the *News* no drug has given more favorable results in the treatment of *grippe* than benzoate of soda. It may be given in capsule or powder form, the usual dose being 10 grn., three or four times a day. When muscular symptoms are pronounced, the following combination acts admirably:

Sodii benzoas	2 dr.
Salol	1 dr.
Phenacetin	36 gr.

M., and ft. chart No. xii. Sig.—One powder every four hours.—*Gaillards Med. Jour.*

PROF. NEUMANN'S CAUTIONS.—In an article upon "Excessive Treatment in Disorders of Infants," the specialist in pediatrics, Neumann, of Berlin, gives the following warnings:

1. Do not bathe the infant and thus remove the vernix caseosa, which is, itself, aseptic. The first bath should be given *after the navel wound has healed*.

2. Avoid too much cleansing of the mouth of the infant by rubbing and scrubbing it out.

3. Refrain from scarifying the gums with the idea that dentition is a pathologic process.—*Med. Council.*

Miscellaneous Items.

The Committee of Arrangements have decided upon May 3d, 4th and 5th as the date for the meeting of the State Medical Society in Charlotte.

"Cuba is the natural breeding ground for yellow fever, and will continue to be as long as it remains under Spanish rule; the Spanish authorities are criminally indifferent and negligent to the spread of fever; and the island in its present condition is a dangerous menace to the public health of the United States."—*Dr. John Guiteras.*

We would consider it a special favor, doctor, if when writing to any of our advertisers you would always mention the N. C. Med. Jour.

We are pleased to note that Dr. J. D. Roberts, who removed to Florida a few years since, has recently located in Kernersville, N. C. We heartily welcome the doctor back to the Old North State.

The friends of Dr. A. R. Wilson, Greensboro, N. C., will regret to learn of his sad bereavement in the death of his little son, aged 7 years. The little fellow died from the effects of burns received by the ignition of his clothing while he was standing before an open fire, preparatory to retiring.

THE UNIVERSITY OF CALIFORNIA AND HAHNEMANN COLLEGE.—At the last meeting of the Regents of the University of California, the petition of the Hahnemann Hospital College requesting admission to the University was rejected. Fourteen members voted against and four in favor of the affiliation.—*Ex.*

RESPONSIBILITY OF WATER COMPANIES.—A jury at Steven's Point, Wis., recently returned a verdict in favor of the plaintiff in the sum of \$5,000 damages against the Ashland Water Company. The cause of action was the alleged negligence of the water company in furnishing impure and unwholesome water, containing typhoid germs, to the plaintiff's husband, thereby causing his death.—*Medical News.*

We return our thanks to the Antikamnia Chemical Co., of St. Louis, for extra copies of their unique calendar for 1898. They announce that they have sent a copy to every English speaking physician in the world, whose address they have from a reliable source. They inform us that any of our readers who have been overlooked will receive a copy if they will make application to the company and will enclose their printed professional card or prescription blank.

General Brailmont, basing his estimate upon the law of Malthus that when the population is not arrested by any obstacle

it doubles every twenty-five years, calculates that the population of the world in the year 2282 will be 30,000,000,000 and he estimates that at that future date only about 4,900,000,000 acres of land will be available for raising food, and that this acreage will be sufficient to nourish only 6,000,000,000 persons the year around, and since under his calculations the population of the world will surely stand at that figure in about 176 years he further concludes that in about 400 years from now the population of the world will be so vast that the inhabitants cannot possibly be fed and many must of necessity die annually of starvation.—*Jour. Med. and Science.*

Rush Medical College has been successful in its effort to become affiliated with the University of Chicago. The date decided upon for the consummation of the relationship is June 1, 1898.

A PROGRESSIVE POTENTATE.—The young Emperor of China, with a lost faith in the traditional remedies of his people, has dispatched to the medical centres of Europe a large number of students. London, Paris, Berlin and Vienna have already received a respectable instalment.—*Maritime Med. News.*

The Lefoten Islands and Their Principal Products is an interesting little brochure published by Parke, Davis & Co. It gives an illustrated description of the cod fisheries of that section, and the preparation of the fish and the oil for market. The very appropriate frontispiece is a full-sized reproduction of a bottle of their Egg Emulsion of Cod Liver Oil.

The Physicians in the counties of Virginia and North Carolina neighboring to Norfolk, Va., are to organize a "Tidewater Medical Association" the meeting for organization being called for January 20th, in Norfolk. The announcement is signed by thirty-three physicians. It is stated that "it is not intended that this Association shall in any way conflict with the State Medical Association of either Virginia or North Carolina, but the purpose in calling this meeting is to bring together the physicians of our section, so that we may become better acquainted and for the benefits to be derived from the discussion of papers,

reports of cases, clinics, etc." The meeting will be held in the rooms of the Young Men's Christian Association, and an address of welcome will be made by the Mayor of Norfolk. We acknowledge the courtesy of an invitation to attend the meeting, and extend to the new Association our congratulations and best wishes.

KOCH'S RINDERPEST REMEDY.—The Government of the Cape of Good Hope is now regretting the money spent in securing Kock to elaborate a protective serum for use against the rinderpest. The undertaking has ended in absolute failure, for the inoculation has had no effect in preventing the cattle from dying of the disease. It is said that Koch is about to return to South Africa to renew his experiments and try once more to make an effective serum. The *Medical Press and Circular* says that the Cape Government "has not found that its introduction of a German professor into the colony has had any other effect than that of costing it a large sum of money. Perhaps upon the next occasion that some official bacteriological investigations are required it will bear in mind that science made in Germany is no better than science made elsewhere;"—and our contemporary might have added, it has of late acquired a decidedly commercial character.—*Med. Age.*

A CASE OF SMALL-POX IN WILMINGTON, N. C.—On the 12th of January a well-defined case of small-pox was reported in one of the negro districts of this city and immediately taken charge of by the city health authorities. The house and all the inmates were placed under strict quarantine and preparations made for the removal of the patient to an old building on the outskirts of the city, which was to have been converted into a pest house. This was a very unwise move on the part of the health authorities and it immediately met with the resistance of an organized and armed mob. The authorities then turned to the other extremity of the city where they were met by an even more determined mob, which went so far as to destroy by fire the buildings which had been selected. The consequence is that the patient remains in the house in which he was discovered, which we consider the best place for him, unless he were

removed out of the city. At the time we write one other suspicious case is under observation. The present conditions show how unwise it is to wait for the appearance of small-pox in a community before vaccination is practiced. It is impossible to secure at once vaccine points in sufficient quantity to meet the sudden demand. While we believe that the outbreak will amount to little more than a scare, we trust that the scare will continue until every unprotected person in the city has been vaccinated.

NECROLOGY.

Dr. Cornelius N. Dorsat, aged 44 years, December 11th, at Montgomery, Alabama.

Dr. A. W. Peurifoy, aged 69 years, December 10th, at Hanksville, Georgia.

Col. James Cooper McKee, a retired army surgeon, aged 67 years, dropped dead December 11th, at Butler, Pa.

Reading Notices.

“Robinson's Lime Juice and Pepsin” is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page 2, this issue). See remarks on their Arom. Fluid Pepsin also.

PTHISIS; WINTER COUGH.—The treatment of Pthisis, or Pulmonary Tuberculosis, is ever of interest to the practitioner of medicine; at this time of the year, especially so. Like the poor, “it is always with us.” So many specifics for this affection have from time to time been heralded to both the profession and the public, that it is doubtless true that thousands of human lives have been sacrificed while demonstrating worthlessness (their). It has time and again been proved that the best results in this disease can be attained by the use of what I may term “standard” remedies, and not in the waste of time

in experimenting with seums, and other impositions on the medical fraternity.

Prominent among the standard remedies referred to, stands one that may with be called "Nature's Own Remedy," in as much as it is obtained from the very bowels of Mother Earth—Petroleum.

The Angier Chemical Co., of Boston have placed this remedy in our path in palatable form, combining with it the well known Hypophosphites. This Emulsion supersedes cod-liver oil in more ways than one, not the least of which is that it is palatable; consequently, does not disorder digestion or produce nausea. This in many cases is of the greatest importance. In regard to its therapeutics it may be said that it is antiseptic, antispasmodic, stimulant, nutrient and expectorant. By its use the cough is at once ameliorated, the perspiration is diminished, the patient is strengthened, thereby enabling him to expectorate the loosened mucus with greater ease; fetid odors are made less so, and frequently the consumptive steadily improves and regains health. In the first stages of this disease it is certainly curative, as can be verified by any practitioner giving it a faithful trial.

In the commoner coughs, often spoken of as winter coughs, even when not of tubercular origin—and also in Bronchitis, Angier's Petroleum Emulsion is invaluable. Here it exerts the same action on the cough, expectoration and mal-nutrition, as in the former conditions and other medication is rarely required. In the vague and ill defined chest pains of those recovering from an attack of pneumonia, pleurisy or grippe, this preparation is specially indicated. The improvement in digestion which always follows its use is one of its prominent features, and it is therefore also adapted to all forms of mal-nutrition in old or young.

It is not my purpose in this paper to quote particular cases treated, but simply to direct attention to Angier's Petroleum Emulsion of those who may not have learned of it and especially to those physicians who are prescribing Cod-Liver Oil, but who desire something more efficacious and more acceptable to the patient's palate and stomach. J. D. ALBRIGHT, M.D.
Pottsville, Pa.

DOCTOR:—Your library is not complete without the HYPNOTIC MAGAZINE. Cost of this handsome monthly, including premium book on SUGGESTIVE THERAPEUTICS is only one dollar (\$1.00) a year.

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on a Postal card to Murray Drug Co., Gen'l Ag'ts, Columbia, S. C., they will
readily send samples. See their Ad' in this Journal.

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The annual circular for 1898-9, giving full details of the curriculum for the four years, the Regents' requirements for matriculation, requirements for graduation and other information, will be published in June, 1898. Address AUSTIN FLINT, Secretary, Bellevue Hospital Medical College, 26th Street, and First Avenue, New York City.

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Original Communications.

QUININE IN MALARIA, EXCLUDING THE SIMPLE INTERMITTENTS.*

"Wo viel Licht ist, ist stärker Schatten." Goethe.—(Where there
is most light, the shadow is strongest.)

By J. G. VAN MARTER, JR., M.D., Savannah, Ga.

THERE is a vast difference between the action of Quinine in the intermittent malarial fevers and its action in the continued malarial fevers, "the *Malaria subcontinua typhoidea*" of the Roman school, the malarial cachexia and the debatable "terra incognita" of Malarial toxæmias seen in hot paludial countries.

This paper should properly have been preceded by papers and discussions on the etiology, pathology and clinical varieties of the malarial toxæmias as seen by us in this climate. This would have enabled me to classify the action of quinine according to the pathology and clinical picture of each case. Such a discussion as this is an eminently fitting and proper one in our locality, and it is high time that a protest be issued against the general acceptance of the views of Osler, Thayer and other Northern clinicians on the specificity of quinine.

Before entering into an argument upon the specific action of quinine, I wish to state while Thayer in his recent work on

*Read before the Clinical Society of St. James Dispensary.

malaria distinguishes three types of the malarial parasites, the tertian, the quartan and the parasite of æstivo autumnal fever, I believe that it is safe to assert that there is more than one variety of parasite in æstivo autumnal malaria, and that these parasites have an entirely different action as regards the manufacture of toxines.

Under quinine the forms of the ordinary cycle of development disappear rapidly from the peripheral circulation, but the crescentic and ovoid bodies remain a much longer time, sometimes even for months.

In this paper I shall abstain entirely from a discussion of the treatment of malaria, either preventive or curative, but shall confine myself as closely as possible to the action of quinine, and we shall see whether quinine is a true specific or preventive of the various forms of malaria with which I have been acquainted, both here and in Rome (Italy).

Osler, Thayer, Councilman and others in the North, speak truthfully when they say that quinine is a true specific against the malarial parasite and the malarias which have come under their observation, but as these gentlemen have not studied malaria in its true home, in a climate fitted for the development of the most virulent parasites, with infections occurring the year around, they are not fitted, by either experience or observation, to settle the question as regards the action of quinine in the malaria that we see here. This applies to the entire region South of Charleston, and the Gulf Coast.

In the first place let us see whether quinine is the best preventive of infection. It is so stated by Northern writers, English, French and German authorities, but is this the case with those who live in the regions infested by the severer varieties of malaria? No, they find by experience that quinine *cannot be taken indefinitely the year around* in doses sufficient to kill the parasite as fast as it develops, and various peoples have adopted different measures to prevent infection, which prove *better for long continued use*.

In some parts of Italy they find that a strong decoction of fresh lemons will prevent infection, while in other regions of Italy the continual use of small doses of arsenious acid acts well, while in India, Assam and Cochin-China, the natives

working in the rice fields and subject constantly to severe infection, find that opium will prevent malaria where quinine fails. This to me is very suggestive, being far better evidence upon which to base conclusions than the mere hypotheses of Northern observers, or the passing observations of travelers, who, of course, can take quinine for a few weeks or months.

Now, coming to the treatment of malaria (and, of course, am always speaking of the severe infections and leaving out of the question the intermittent fevers), is quinine a true specific? No, there are cases innumerable in which the patient would die did we not add other potent drugs to our quinine, or for a time at least attach more reliance to other drugs than quinine, and we are inevitably lead to the conclusion that although a true specific against the plasmodium of tertian and quartan fever, it is not a specific or antidote to the parasite of the more severe continued malarias and the toxins generated by them. With patients in whom the microscope has shown the disease to be malaria in any of its forms, quinine is a specific in all those with intermissions or with marked remissions; not so, however, where the fever is continued, or in those malarias with but little temperature.

In the continued fevers toward the last stages, marked remissions are apt to occur (in the milder cases), here again quinine becomes a specific. There are, however, exceptions even to this rule, for it is no uncommon thing to see a patient with intermittent fever to whom quinine has been properly administered, have a distinct malarial paroxysm with the ears ringing from quinine.

Dr. Plehn, a German physician practising in the Cameroons on the west coast of Africa, and in what is probably the most malarious region on this earth, has observed that quinine is a good preventive, and the best for treatment in newcomers and those not long resident in that region, but in spite of 5 grains per diem, practically *all* foreigners get the fever, and the large majority die of it sooner or later. In all these cases, with the exception which I shall hereafter note (the hæmaturias) quinine is given in enormous doses, with calomel (which, by the way, is never omitted) and stimulants, but while the actual paroxysm is overcome by the quinine (if the case be seen in time, or not

too malignant), the spleen remains large, *the crescents remain in the blood*, and malarial anæmia sets in.

What does this interesting observation show?

1st. That quinine is a specific against the protozoön of tertian or quartan malaria.

2d. That it inhibits, for a time, the development of the protozoön of pernicious malaria, but does not kill it; nor in time, even with quinine constantly taken, prevent its development, *every time the patient catches cold*, or is exposed to a particularly severe contagion.

3d. That quinine alone has no action on the toxine produced by grave malarias over which calomel has twice the potency (at least in full physiological doses).

4th. That quinine even as a prophylactic cannot be indefinitely taken.

5th. That quinine has no effect whatsoever on malarial anæmia (really a chronic toxæmia).

Another very interesting form of protozoal "malaria," beri-beri, is not cured by quinine, although slightly benefited for a time, *if the febrile manifestations are sharp*. In this malignant form of disease, the pigment bodies seen in our own malarias are deposited in the brain and other nerve tissues, and these pigmented bodies either before or after degeneration produce a toxine absolutely unaffected by quinine. In the recent epidemic at the Insane Hospital, Tuscaloosa, Ala., reported by Dr. Bondurant in the New York Medical Journal, it is stated that quinine failed in every case to do any good. It is to be regretted that special work on the etiology was not done, and establish the fact of direct relationship of the sporoöns supposed to cause beri-beri.

Still another variety (more correctly complication) of malaria, hæmoglobinuria, is made worse by quinine. I believe that the great majority of those practicing in countries where severe malarias exist will confirm the observation that quinine makes it worse. Thayer admits that quinine never shortens an attack of hæmoglobinuria, but says it prevents a recurrence—this latter being an assertion without any warrant of experience, and I know it to be wrong. Quinine is a *frequent* cause of hæm-

oglobinuria, and after one attack, if quinine be taken, *is very apt to cause the condition which Thayer says it will prevent.*

In my experience the cases of malaria (as proven by the microscope), in which quinine failed to cure—hence did not act as a specific—have been confined to two types. 1st, and most common, severe malaria subcontinua typhoidea (an æstivo-autumnal form) where the fever ran along for days with very slight remissions; and 2d, those irregular forms, sometimes seen, where, with undoubted malaria, the fever of a continued type is low, seldom above 102, the symptoms presented are those of a profound toxæmia resembling uræmia, suppression of urine, jaundice, delirium, subsultus, without chills or paroxisms of any kind.

I will observe here that there are cases of both types, above mentioned, that would surely die, did we not add other drugs to our quinine, and that a large proportion of cases for a time at least are better off without it. We must recognize that in these types we have a toxæmia which I claim is unaffected by quinine.

In treating these very severe malarial toxæmias as we see them in the country or plantations just out of town, or if nearer, only in the suburbs, or in river sailors, we are placed at a great disadvantage as regards doing the best possible for our patients. Perhaps in these very cases if our patients could be moved away from an atmosphere whence constant reinfection is taking place, and taken to a grand hospital like the Johns Hopkins in Baltimore, where the poor, even, can obtain luxuries, and under skilled trained nursing, perhaps in *such* cases quinine might help our patient *if* proper eliminative treatment were added (for it would not without it); but how is it with us, the patient in a miserable hut, or poor farm house, not a bath tub in miles, no clean bed linen, no decent drinking water, no chance of proper food or good nursing, and an unalterable opposition to hospitals in general. It is in these cases, gentlemen, that we have to practice, for it is only amongst such that we see most of our severe malarials, and if quinine were a specific they would all be cured before we ever see them. They all take plenty of quinine dissolved in water, and with it calomel.

I have tried, in the severer cases, quinine intra-venously, and must say that it does act well, that it is the only way to give it

in the severest forms, but it does not shorten the course of the fever; it seldom breaks it up, as it should, if it were a specific.

Were it not beyond the scope of this paper I should have enjoyed relating my experiences this summer and fall in the treatment of some severe cases; in fact, I am preparing a paper on the results obtained by using the formula used by Woodbridge and others in the treatment of typhoid fever. I was very much struck by the uniformly happy results obtained, and in many instances never used quinine from beginning to end of the fever; commencing it in convalescence on two grain doses three times a day. I should like to see the subject of treatment taken up by this Clinical Society, as I should the prevention of malaria. If practitioners of experience around here are not competent to speak on the treatment of malaria, who could be?

I am one of those who believe that quinine is seldom properly administered. It is not the amount, but the way you give it that counts. Give it with an acid if the stomach will stand it, or else, if you still desire to give it by the mouth, give it in the effervescing form recommended by Burney Yeo. I quote from him as follows: "We may state in this connection, that we have found the efficacy of quinine in febrile states very much influenced by its mode of administration. If we prescribe quinine dissolved in citric acid, and given in effervescence by adding it to an alkaline mixture, doses of two to three grains exert a powerful antipyretic influence far greater than that obtained by the same quantity of quinine given in dry state. We have seen abundant reason to believe that in infective fevers, if quinine be given in saline solutions, it is the most active and reliable anti-toxine we at present possess."*

The use of strong decoctions of lemon in the early morning is a very useful remedy, but I cannot branch out to speak of its action, because that would be exceeding the limits of my subject.

There is one way of giving quinine by the mouth of particular efficacy in many of the severe varieties, and that is Warburg's Tincture, and, to my mind, it is a most excellent medicine.

One very strange observation that I have made is worth relating. I had a patient with occasional severe attacks of malaria, who, for some reason or other, never seemed to get the physio-

*Burney Yeo, *Clinical Therapeutics*, Vol. 11, page 637.

logical effects of quinine, in other words, he never had ringing in the ears. Thinking that the quinine was not being absorbed properly, although I had given it in various ways, I gave him several hypodermics, by the method I shall further on describe, and failing in this, I put him on big doses of the Warburg's Tincture, and strange to say, *one ounce of Warburg's Tincture made his ears ring*. This extraordinary phenomenon has often been a source of perplexity to me, and in reasoning about it, I have come to the conclusion that something in this compound may act in a slight measure as an antitoxine, or in some way so modify the chemistry of the blood, as well as the activity of the glandular and eliminative system, *as to give quinine a chance*. Is it not true perhaps, that quinine meets with resistance in the blood which is in some way modified by that complicated mixture—Warburg's Tincture? Gentlemen, this is a very interesting subject upon which much remains to be known.

Warburg's Tincture should always be given, as recommended by the experienced practitioners in India, after a brisk purge, undiluted, in doses of half ounce, all drinks withheld, repeated in three hours, and the patient carefully rolled up in blankets to encourage the profuse aromatic perspiration which follows. It is one of the most powerful diaphoretics known; it is also a diuretic, a stimulant and a purgative. I always follow its use by opium, and small doses of whiskey, at least never omit the opium, which I believe acts most happily. Recently, I have used the powdered Warburg's Tincture put up in elastic capsules, by Messrs Parke, Davis & Co., an elegant preparation, far more agreeable to the patient than the liquid, but I am far from convinced that it compares to the liquid preparations obtainable in England, for our American preparations of the liquid do not act as well as the English.

Quinine, by the rectum, I do not favor, and shall not speak of to-night, nor shall I say anything about inunctions, for that is a very uncertain way of giving it, but of the hypodermic method I am a great advocate. In giving quinine subcutaneously, let me urge you to use it in free solution, and not stick to your small hypodermic syringes. I am now using what is usually called an "antitoxin" syringe with a 16 c. c. capacity. By making a very dilute solution more quinine is promptly absorbed,

and there is absolutely no danger of abscess or painful inflammations. You should not use an acid to dissolve the quinine, as is advised by most writers, for it is not necessary, and is very painful. The dihydrochlorate and hydrobromate of quinine are the two salts best adapted for such use, and also for intravenous injection. The water should be hot, about 100°F., and the needle sharp. Whenever in any case of malaria the gastric symptoms are marked, and this is frequent, use the hypodermic method in the commencement. You are then *sure* that the patient is getting all the quinine you want him to have promptly, and without additional burdens on the stomach. I have never seen but two abscesses (and they were not in my practice) from hypodermic injections of quinine; one due to an excess of acid, the other to a filthy syringe. Don't inject in the arms. The belly wall is a very handy place to inject your solutions, and never bothers the patient, like it does in the thighs or back. Use from 8 to 10 grains at each injection, and if the quinine does not work promptly don't pin too much faith to it, nor that absurdity called the therapeutic test—a relic of barbarity.

Intra-venous injections of quinine you are all more or less familiar with, at least as regards technique, which is simple, but I find a good deal of hesitation amongst a great many physicians as to its use. Fear of its difficulty, of slipping up in asepsis or admitting air into the veins; all points easily avoided and overcome. Having been brought up, you might say, on this method of using quinine, and having seen its development in the Santo Spirito Hospital, Rome, in the service of the Baccelli, I have had very good opportunities of seeing it practised. Here, as elsewhere in this paper, I shall have to remind you that as this is not a paper on the treatment of malaria, I must refrain from describing the method, its indications, advantages, but simply its action.

We get by an ordinary injection what for the blood is a very large amount (15 grains), and I honestly believe that if we could see our cases early enough, all cases of pernicious malaria of a fulminating type could be saved; but alas! we seldom see them early, for such cases come in town from the country "in extremis"—that at least is the common experience in Rome. Once the plasmodium have had time to fully manufacture their toxine,

it is too late to rely on quinine. As, however, I have seen several cases recover after intra-venous injections in the last stages, you may well ask how it is that they did not die too. Gentlemen, I attribute a good share of *some* (not all) the recoveries to the happy effects of quinine, but some are due to the salt solution injected at the same time. It has never yet been done by control experiments, but I have no doubt that if you gave some of these cases a large intra-venous injection of normal salt solution, say 20 ounces, and *no* quinine, you would get *as good results as you could by quinine*. I know, from experience, that this will start secretion in the kidneys, the only channel by which the poison escapes in this condition. Any observing man whose misfortune it has been to have a number of severe pernicious malaria cases in his practice, will agree with me when I state that *if you can* set up diuresis, sweating and purging, while vigorously stimulating the patient, he is apt to live, quinine or no quinine; and on the other hand, without this, but all the quinine you please, the patient will die. It is the common experience we have with every poison from malaria to rattlesnake bite.

Let us not say a thing is so because the books written by great teachers say it is so. Let us observe, reason and then if we are not satisfied of the accuracy of a statement let us say so. The last words have not yet been spoken on the specific action of quinine in malaria (in our climate), and in the same breath I will say *the* book on malaria has not yet been written. I know quite well that there will be wailing and gnashing of teeth over the presumptuousness which could question the specificity of quinine, but the truth will out, and I feel confident that many will agree with my views on this subject.

To summarize briefly my conclusions are:

1. As a preventive quinine will not do for those who are compelled to live indefinitely in a severe malarial climate, in time, acting as a vaso-motor poison.

2. Quinine acts nearly as a specific in all malarial fevers characterized by intermissions or well marked remissions, but fails in continued fevers, those with typhoid-like symptoms, those malarias without temperature, and the cachexias and anemias due to malaria.

3. Proving thus that quinine is a poison to the plasmodium itself, but useless against the toxine manufactured by it.

4. That Warburg's Tincture in the last condition has an action not yet understood, on the toxine (or eliminative system) by which the system is put in condition to benefit by quinine.

5. That quinine should never be used in hæmoglobinuria, or given subsequently, to one who has suffered from it, being liable to bring about a recurrence of the condition.

6. Only those living in regions of severe malarias can become competent to settle these questions pro or con.

IN THE MATTER OF DOCTORS AND PANTS.

BY THOS. M. RIDDICK, M.D., Woodville, N. C.

“Lives of doctors all remind us,
 Honest work don't stand no chance;
 The more we work there grow behind us,
 Bigger patches on our pants;
 On our pants once new and glossy,
 Now of stripes of varied hue,
 All because the patients linger,
 And wont pay up what is due.
 Then let us all be up and doing,
 Bring your cash, however small,
 Or when snows of winter strike us,
 We shall have no pants at all.”

—*Paraphrased from McBeechy.*

* * * * *
WHAT a sad lugubrious suggestion is contained in those touching pathetic lines. The very thought of it appalls us. It causes chills of nervous origin to make competitive foot races up and down our spinal ridge. It suggests to us the primitive costume of a gentlemen who is about to go in swimming, while dark and angry looking clouds are dropping their fleecy whiteness down.

How any christian soul, living in the light of latter-day civilization, can with equanimity contemplate a patient, self-sacrificing doctor without pants, must be alike revolting and incomprehensible to every humanitarian heart.

Quis est homo qui non fleret,
 Bonum doctorem si videret,
 In tauto supplicio.

Yet, looking the cold hard facts straight in the face, and discarding every trace of maudlin sentiment, such a catastrophe seems a naked, chilling possibility, in these Bill McKinley times.

Of all the earnest workers in life's rugged battle there is no man who toils more faithfully for the relief, the betterment, and material advancement of his kind, than the conscientious hard-working doctors. He visits alike, with cheerful, willing step, the palace of the magnate and the hovel of the pauper. He goes as an angel of mercy, bearing strength and healing in his wings, into these squalid haunts where degredation and suffering are the heritage of the illstarred inmates, and where dire want is the cruel regent that sways a tyrant's sceptre over the unhappy wretches that crowd his dirty dominion. Yet to the humanitarian doctor, the man who aspires to the role of the true physician, of which the loved and lamented J. Lewis Smith is a noble and immortal example, it is ever a labor of love to mitigate the miseries of the unfortunates about him, and to let in the sunlight of health and hope where disease and despair had cast their baneful, depressing shadows.

When one realizes what "a shield and buckler and very present help in time of trouble" the good doctor is to a suffering patient, how he alone has that *scientia* or professional gift by which pain may be relieved in the hour of agony, fears allayed, and a new lease given to life by the therapeutic removal of morbid causes that are actively at work dealing out wretchedness, and threatening death to those who have fallen as victims to their insidious approaches, it is a matter of surprise, as well as regret, that the rank and file of humanity are not more thoroughly aroused to an appreciative sense of the physician's usefulness and worth, as a helpful member of the body politic. Yet the perversity of human nature is such, and the dominating force of ingratitude is so great in many human hearts, that the once helpless beneficiaries of the physician's healing art are often among the first to not only refuse him a reasonable compensation for valuable services rendered, but will willingly join in an assault upon his professional character, and speak the words of destruction and slander, where only terms of heartfelt appreciation and lasting gratitude should be heard. Those worthies are not unlike the fat and greasy porker, who never looks up to the

stately and beneficent oak that kindly sheds the strengthening acorns down, for his maintenance and support.

These, and a few other random kindred thoughts, occurred to me, a few days since, while out making a collecting tour among my patrons. A patient of mine, who for the sake of euphony, we will call Mr. Jones, was feeling the first return of that strength and vigor which are incident to restored health. He had passed through a trying and severe ordeal of typhoid fever of several weeks duration. During his long continued sickness, fearing that I might possibly be somewhat remiss in my professional attentions, because of the length of his attack, and the trouble and cost incident to making many visits, he often endeavored to encourage me with the promise of several bushels of wheat, which he would sell me, telling me that in the purchase of it I should have the preference over all other prospective buyers. I listened to his siren song with child-like good faith. When I called upon him some time afterwards to execute his oft repeated promise, and make actual delivery of the wheat, he asphyxiated me by telling me that he had decided to deliver the wheat to a neighboring buyer, but that *I should have the preference!*

This is perhaps a comic yet a typical picture of many experiences which doctors often encounter. Of course it is not intimated for a moment that all patients settle on that shadowy, non-substantial basis, for there are many true and loyal men who delight to render timely and needed aid to the family doctor, and they do so, not only as a business obligation and duty, but as a practical evidence of personal regard and sincere appreciation of the physician's kindly and helpful ministrations to them and theirs, when suffering was great and danger nigh. For those worthy good fellows every doctor holds a sentiment of respect and regard second only to that which Damon showed for Pythias.

The most distressing feature about this unfortunate and unhappy status of affairs is, that under present existing conditions, there appears but little remedy or relief available. In many localities doctors are like farmers, in that they do not work together for their reciprocal good. While they might by unity of action, and judicious self-protective measures, accomplish much

for the betterment of their finances, they unfortunately permit a spirit of rivalry, competition and self seeking to abort and annul the mutual benefits which would result from concert of action. Oft times a younger brother of the craft will willingly serve professional and veteran leg pullers, that are found on most every doctor's black list, and they encourage that class of frauds in their nefarious designs, for that genus will never settle with an old medical creditor if a young and unsuspecting practitioner is at hand, whom they can fall and utilize. The matter of age and experience, in professional work, cuts no figure with them, for a vender of rostrums, or a huckster of "worm oil," if dubbed "Doctor," would serve them as well as Dr. Horatio C. Wood, or Prof. Hobart Amory Hare.

There are few classes of business men and workers who do not have well perfected organization, by which they are protected from the encroachments and unfair designs of those with whom they have business relations, and I take it that it is not beneath the dignity and rank of our own noble profession, to take such co-operative and protective measures as will give them immunity from the hurtful machinations of those who, while they are able to pay, will not do so, because of total dishonesty and lack of principle.

No doctor of character and proper feeling ever refuses either medicine or service to the really indigent and needy, but there is not an element of charity in serving and encouraging a class of dishonest vampires who ultimately despise those whom they have leeches.

If some gentleman of experience and influence in our State Medical Society could be induced to take the initiatory steps in a movement for the prosecution of such a measure, even through legislative aid and interference, it might result in great good to many worthy and deserving practitioners.

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ROBERT D. JEWETT, M.D., EDITOR.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and any remittances by P. O. Order, Draft or Registered Letter, made payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

CAN MAKE IT A BOY.

The daily papers have stirred up the general public very greatly by publishing the claim of one Dr. Schenk, that he is able to control the sex of offspring. Dr. Schenk is said to be a teacher of embryology in the Royal and Imperial University of Vienna and for thirty years has studied that department of

science which relates to rudimentary creatures in their prenatal existence. He claims (a) that the sex of the child when it is born is influenced solely and entirely by the mother; (b) that during several stages of its development the child unborn is neither male nor female, but sexless; (c) that a man's blood contains one-fifth more corpuscles than a woman's; (d) the difference in the number of 'corpuscles in the blood of a man and of a woman is the basis not only of the difference of sex, but of the normal and physical working powers of man and woman; (e) that if the larger number of corpuscles can be produced in the child before birth it will be male; (f) that this proper number can be produced by giving proper food to the mother. He asserts that in the case of single births he can assure the birth of a male, and in case of multiple births that the majority will be males. Dr. Schenk does not disclose the nature of the food which will accomplish this long-desired end. We suppose the next thing we hear of in this connection will be the advertising circulars from some enterprising concern announcing that Dr. Schenk has entrusted to it the preparation of "Schenk's food" which will ensure the birth of a boy. At any rate a hitherto inconspicuous man has attained an evanescent notoriety and the papers have given the dear people something to talk about (or a d (ay).

We have learned, since writing the above, that Dr. Schenk has succeeded in disposing of the German right for \$10,000, and will not disclose his secret until he has sold the American and English rights. This discloses the milk in the cocoanut.

SMALL-POX.

In the last issue of the JOURNAL we noted the occurrence of one well-developed case of small-pox in this city, and a second case which was considered suspicious. Further observation confirmed the diagnosis of small-pox in the latter, and the patient, a negro man, was sent to a house without the city limits, and placed in the care of an immune nurse. The first case, after the

refusal of the mob to allow our staunch city authorities to place him in either of the places they had selected for him, has remained where he was first discovered. He will be discharged in a few days. The second case is also convalescing.

At a meeting of the city Board of Aldermen held on the 24th of January, about *two weeks after the first case was reported*, an ordinance was passed requiring compulsory vaccination of all unprotected persons. Five physicians were appointed, at a salary of \$25.00 a week, to perform this work. Immediately the fighting spirit of the mob was again aroused, and mass meetings have been held each night since the enactment of the ordinance, at which inflammatory speeches are made and "give me liberty, or give me death" resolutions are adopted and presented to the Mayor, who, by the way, is a physician. What the result will be we do not, of course, know, but rather suspect that it will be a victory for the "patriots." At any rate the public vaccinators are hardly earning their salt.

The trouble about the whole matter is, that the Board of Health does not possess any mandatory power; it can only advise, and leave the rest to a weak-legged set of politicians. Some of the Board of Aldermen, in their antagonism to the compulsory vaccination ordinance, even went so far as to doubt the diagnosis in both cases reported, and to use as an argument the jocular remark of some wag that "the whole scare was a scheme on the part of the physicians to increase their receipts." If the ordinance for compulsory vaccination had been passed immediately upon the occurrence of the first case, there would have been but few persons to object to it; but the small-pox scare has now been converted into a vaccination scare, because the unvaccinated have witnessed the slight inconvenience suffered by those who have submitted to the operation. But even if the ordinance had been adopted at once it would have been impossible to obtain a sufficient quantity of vaccine to promptly vaccinate all persons in the city; and herein is the error of waiting for the actual visitation of the disease before resorting to this simple measure which, experience has demonstrated time and again, reduces the mortality from this truly horrible pestilence to a minimum.

It would be a good work for the State Board of Health to undertake the task of educating the people up to the importance

of vaccination, and of revaccination on the appearance of small-pox in their neighborhood, and the Board should be aided as much as possible by the general profession in their daily work.

Society Reports.

SEABOARD MEDICAL ASSOCIATION. OF EASTERN VIRGINIA AND NORTH CAROLINA.

Meeting of Organization held in Norfolk, Virginia, January 20 and 21, 1898.

AS announced in the last issue of the JOURNAL the physicians of eastern Virginia and North Carolina met in the city of Norfolk on the 20th of January for the purpose of forming a new medical association.

The meeting was held in the rooms of the Young Men's Christian Association and was called to order by Dr. H. M. Nash, of Norfolk. An appropriate prayer was offered by Rev. A. S. Lloyd, rector of St. Luke's church.

Hon. W. R. Mayo, Mayor of Norfolk, welcomed the visiting physicians in behalf of the city, and Dr. Nash on the part of the local profession.

Temporary organization was effected by the election of Dr. Nash as temporary chairman and Dr. J. E. Phillips, of Suffolk, as temporary Secretary.

A committee on permanent organization was next appointed by the chair, constituted as follows: Dr. Ruffin, Norfolk; Dr. White, North Carolina; Drs. Vanderslice, Wood, and Culpepper, Virginia; Dr. Riddick, North Carolina; and Dr. Kellam, North Carolina.

A committee on Membership was thus appointed: Dr. Gwathmey, Norfolk; Dr. Corbell, Sunbury, N. C.; Dr. Causey, Suffolk, and Dr. Wright, of Churchland.

Dr. Ruffin, of Norfolk, chairman of the committee on Organization, reported a constitution and set of by-laws for the Association, and these are the principal provisions:

The name of the body shall be the Seaboard Medical Association, and the meetings shall be two in number of two days each every year. One meeting is to be on the second Thursday in January in Norfolk city, or within thirty miles of it; and the second one is to be on the second Thursday in July in North Carolina, at a place to be hereafter chosen.

The officers of the association are to be a president, two vice-presidents, secretary and treasurer. One of the vice-presidents is to be chosen from Virginia and one from North Carolina, and it is recommended that the code of ethics of the American Medical Association be adopted by this association.

No papers which have been published are to be read by members of the association before it at any of its meetings.

On motion of Dr. Lynch the report was adopted, and the association adjourned until 3:30 p. m.

It was 4 o'clock when the association met to begin its afternoon session, when the temporary organization of the morning was continued.

The committee on membership reported that the physicians ninety-five in number, who registered, are duly eligible for membership in the association, and this report was adopted.

An election for permanent officers resulted as follows:

President, Dr. J. F. Lynch, of Norfolk.

First Vice-President, Dr. Thomas F. Riddick, of Woodville, N. C.

Second Vice-President, Dr. J. H. Peck, of Hampton, Va.

Secretary, Dr. J. E. Phillips, of Suffolk, Va.

Treasurer, Dr. L. Gwathmey, of Norfolk, Va.

The following papers were read and brought out interesting discussion:

"Report of a Cæsarean Section," by Dr. J. T. Nicholson, Bath, N. C.

"Alkalinuria" by Dr. G. K. Vanderslice, Phœbus, Va.

"Typhoid Fever and Its Treatment" by Dr. Thomas M. Riddick, Woodville, N. C.

"Our Recent Work with the X Ray" by Dr. Southgate Leigh, Norfolk, Va.

"Gonorrhœal Ophthalmia" by Dr. A. E. Wilson, Norfolk, Va.

"Wet Dressing in Minor Surgery," by Dr. Lucien Lofton, Emporia, Va.

"Report on Modern Surgery of the Rectum," by Dr. Southgate Leigh, Norfolk, Va.

"Appendicitis, Its Treatment and Results" by Dr. Kirkland Ruffin, Norfolk, Va.

"Chronic Laryngitis, Its Causes and Results" by J. F. Woodward, Norfolk, Va.

"Uterine Drainage," Dr. L. Lankford, Norfolk, Va.

"Abnormal Growth in the Post-nasal Region" by Dr. H. L. Myers, Norfolk, Va.

The President appointed as the Executive Committee Dr. White, of North Carolina, Dr. Parrish and Dr. Lofton, of Virginia.

The following committees were also appointed:

Credentials—Drs. Ruffin, White and Kellum.

Auditing Committee—Drs. Gary, Grice and Sutton.

Among the social features which added greatly to the pleasure of the meeting were a luncheon served at the Business Men's Association by the Lynnhaven Oyster Growers and a banquet at the Atlantic Hotel, tendered the Association by the Physicians of Norfolk.

At the banquet it was "punch" and the following were the toasts proposed by Dr. Lynch, toastmaster of the occasion:

The Medical Profession, Dr. R. H. Parker, of Portsmouth.

The Country Doctor, Dr. Thomas M. Riddick, of North Carolina.

The Old North State, Dr. Payne, of North Carolina.

The Old Dominion, Dr. Nash and Dr. Chiles, of Norfolk.

The Old Doctor and the New, Dr. J. F. Bryant, of Franklin, Va.

The Southern Physician, Dr. Wright, of North Carolina.

The Doctor's Best Friend, Woman, Dr. L. B. Anderson, of Norfolk.

The Trained Nurse, Dr. Causey, of Suffolk.

The number of physicians present at the meeting exceeded one hundred, and all returned to their homes much pleased with the success of the meeting and with the hospitality of the profession of Norfolk.

The next meeting will be held on the second Thursday in July, at some place in North Carolina to be named later by the Executive Committee.

SURGERY.

IN CHARGE OF

H. T. BAHNSON, M.D.,

R. L. GIBBON, M.D.,

J. HOWELL WAY, M.D.

FOREIGN BODIES IN THE AIR PASSAGES—THE ROENTGEN RAY IN N. C.—From the Charlotte Observer we condense the following: A little girl near Concord, N. C., was supposed to have swallowed a small open-ended thimble. She had great difficulty in swallowing and became greatly exhausted from suffering and inanition. After eight weeks Dr. Henry Louis Smith, Professor of Physics in Davidson College, by means of the X-Ray, located the foreign body, not in the alimentary canal as was supposed, but in the trachea, $2\frac{1}{2}$ inches below the larynx. This was accurately determined by passing a flexible steel instrument, probably a spiral catheter, through the œsophagus, while the observer, with the fluoroscope, noted the fact that the instrument passed well behind the thimble. Under anæsthesia, a tracheotomy enabled the operator, Dr. Misenheimer, of Charlotte, to grasp and remove the thimble through the opening in the trachea. The writer can appreciate the fulsome flattery bestowed upon the lucky operator by the reporter of the newspaper, when he remembers that his first operation—the removal of a cockle-bur from the windpipe of a child—gained him more praise from the laity than a long series of difficult operations.

The capacity of a small child, for hiding in unsuspected recesses of its economy, even large foreign bodies is well exemplified by a recent experience of the writer. An eleven months baby while crawling upon the floor, picked up and put into its mouth the upper ferule of a large umbrella. The ribs of the umbrella had been detached but the wire with projecting twisted ends, was still in place, making a rough object, more than an inch in diameter and half an inch long. The mother endeavored to get it out of the child's mouth with the finger, but naturally only pushed it into the throat. After terrific strangling and gasping, the child apparently swallowed the ferule. Four weeks later, it was found in the posterior nares, but it could not be removed by the way it went in. The space was so small that whenever the body was pushed towards the fauces, the glottis was occluded, and the child was unable to breathe. The soft palate was therefore divided in the centre, from before backwards until the object could be grasped with forceps. There was no serious hemorrhage, and the opening in the palate needed no stitches to draw it together.

H. T. B.

X-RAY IN ITS MEDICO-LEGAL ASPECTS.—That the legal as well as the medical profession know how to utilize to advantage the

Roentgen Rays is perhaps not surprising, but none the less interesting. The Medical Record (Jan. 8th, 1898, p. 58) states: "A jury in Elmira last week acquitted of murder a man who was on trial for this crime. The man whom the accused shot was said to be improving a month after the shooting, when the X-Rays were used to locate the bullet which was in the brain. Death followed, and the defence alleged that the death was the result of the action of the Roentgen Rays, and that the wounded man would certainly have lived, had no attempt been made to locate the bullet." H. T. B.

THE SURGERY OF TYPHOID FEVER.—With regret that we cannot transcribe the whole article, we quote from Dr. Hugh M. Taylor, Professor of Surgery, Univ. Col. of Med., Richmond, Va., on "The Surgery of Typhoid Fever:"

1st. A Convenient Infusion Apparatus. "Into the open vein the sharp point of a glass pipette of an eye dropper was fastened by a ligature, and the other end of the pipette was fastened in the end of a long tube attached to a fountain syringe. This quickly improvised transfusion (infusion?) apparatus acted nicely. By the time as much as a pint of fluid, warm, sterilized, normal salt solution, had been introduced into the vein, the pulse was full and strong, and the introduction of a quart in all, increased the volume and arterial tension until the moribund patient's pulse was as strong as that of any of the attendants."

2nd. Summary of the Article. "My experience, limited it is true, while intensely impressing the idea that delay is fatal, is emphatically in accord with those who hold:

1. That perforating typhoid ulcer can be and should be diagnosed prior to the development of local or diffuse septic or fibrino-purulent peritonitis.

2. That a perforation of a typhoid ulcer into the peritoneal cavity means the discharge of virulent septic contents in quantities far too large to justify the hope of its being circumscribed by plastic peritonitis.

3. Diffuse septic or fibrino-purulent peritonitis with inevitable death, if left to the resources of nature, is the unvarying result of this complication of typhoid fever.

4. That the treatment of complete typhoid perforation is essentially surgical, and the surgical treatment is logically conservative. That the treatment of uncontrollable (typhoid) hemorrhage with the view of preventing immediate danger and subsequent increased anaemia, is probably within the provision of rational surgery. Rectal, cellular and direct transfusion, (infusion,) is a resource of great value in the treatment (a) of shock, (b) of hemorrhage, (c) probably of ptomain poison.

5. That the death rate is large in spite of, and not because of opera-

tive interference, and in complete typhoid ulceration is increased by each hour of delay in resorting to operation.

6. That the mission of operative interference is to prevent septic and fibrino-purulent peritonitis.

7. The idea should be impressed that the time often conceded by the physician as warranting operation, i. e., the developed condition of diffused peritonitis, is the time practically conceded by the surgeon to be too late, the case having then passed, with few exceptions, beyond the province of rational surgery.

8. Not even a moribund condition should excuse as for abandoning patients with typhoid perforation since suppurative peritonitis from just as desperate sources has been brought within the scope of successful surgery by an improved technique.

9. The statistics, though too few to be conclusive, support the opinion that timely surgical interference is conservative rather than radical. Of fifty-two cases recorded, seventeen recovered, 32.68 per cent.; or, excluding some doubtful cases, of forty-five operations, eleven recovered, a percentage of 24.44. While these statistics will be changed for the worse by the cases it has been my misfortune to see, (as shown in the body of the article, manifestly too late for hopeful operative interference.—H. T. B.), there are doubtless successful cases, reports of which I have not seen, to offset them, and with a due appreciation of the possibilities of early recourse to operation, I anticipate markedly improved statistics in the near future. The technique of the operation does not differ from that in vogue in the treatment of intestinal perforation and its consequences from other causes. A knowledge of the fact that the perforation is in a majority of instances single, and occurs in the ileum within eighteen inches of the ileo-coecal valve, enables the surgeon to find the lesion without much trouble.

It is claimed that there is hardly a well authenticated case of gunshot wound of the bowel with recovery. I am sceptical as to the correctness of the diagnosis of complete typhoid perforation with recovery, certainly in the absence of a post mortem. Those who have seen the fluid fecal matter pouring out of the perforation will appreciate how small must be the chance of preventing infection in any other way than by an operation, and this will, I think, be a sufficient appeal to us to do the best we can, by operating upon even the most desperate cases.”

H. T. B.

TREATMENT OF EMPYEMA.—Dr. McKinnon (Brit. Med. Journal), reporting four cases of empyema from pneumonia thus details his plan of treatment:

The treatment of empyema, of whatever origin, is purely surgical. I have mentioned that many cases have been reported as cured by aspiration, and, though I have never relied upon aspiration when the fluid in the pleural cavity is purulent, I can well believe that aspiration re-

sorted to early in the case may wholly cure. I have found this method most successful in simple effusion, and would resort to it in any suitable case of empyema. However, in my own experience, I have always made a simple incision between two ribs and introduced a fair-sized rubber-tube. I prefer not to irrigate the cavity, even though the fluid be offensive. The tube should be short and fixed securely in position. The nature of the case must determine the point at which the tube is to be inserted and what length of time it is to remain.

The empyema may be limited and the pus cavity not large. The proper point for the incision is where the needle has demonstrated that pus is present, whether that point be high or low, at the back, side, or front of the chest. It is an abscess cavity, and should get the most direct drainage possible.

[That aspiration early resorted to will produce a cure in a considerable proportion of cases of purulent pleurisy has been the experience of the writer after twelve years general practice on the mountain plateau of Western N. C. One of the most typical illustrations occurred in the case of D. B. A., aged 20, a tall slender mountain youth, seen in consultation with Dr. Wilson, of Sonoma, Jan. 4th, 1890. Had had lobar pneumonia four weeks previously, did fairly well until third week, when right pleural cavity filled up. Cathartics and diuretics seemed to avail little. Four and a half pints of thick, creamy pus was removed with an ordinary trocar (it being the only instrument at hand and the patient six miles in the country.) Two days later three pints more were removed. Without further treatment applied to the pleural cavity the case made an excellent recovery without any re-accumulation of pleural secretion. Four years later the individual had developed into a strong, active man.

J. H. W.

SHOT-GRAIN WOUNDS OF THE EYE.—Dr. Taylor, (Jour. Am. Med. Assn.) after a more or less critical review of the literature of the subject and reporting illustrative cases concludes:

1st. That shot-grain wounds of the eye are less dangerous than wounds of similar severity from many other causes.

2nd. That in general an eye wounded by shot-grains, unless the wound be one of unusual severity should not be immediately enucleated, but should be treated conservatively under careful observation.

3rd. A patient with a wound of this character should rest in bed for a period of two weeks or more, and the wound be treated under most rigid antiseptic precautions.

J. H. W.

CARCINOMA OF THE BREAST.—Dr. W. F. Westmoreland delivered the President's Address upon the above subject at the recent annual session of the Tri-State Med. Society of Georgia, Alabama and Tennessee. In the address he deplored the fact that cases are referred to the surgeon too late for operation. He called especial attention to the importance of early diagnosis. Every tumor the breast is suspicious.

All writers agree that inflammation of the breast predisposes to cancer. Traumatism plays an important part in causation. In his experience, when there is a bad family history, the tumor will return. The greatest infiltration is in the skin next the subpectoral and axillary glands. Cells may be widely scattered early. Everything that looks suspicious in the axilla should be removed. Operation should be complete even to excision of axillary veins. If half can be saved it will be as good as can be expected. No living man can lose only six per cent. if the three years' rule is observed. Figures are fallacious. All cancer patients have a lack of red blood corpuscles, the hæmaglobin reduced to 90 per cent.; when the hæmaglobin reduced 15 per cent. patient will die. This accounts for many lost after operation with no apparent cause.—

J. H. W.

SPECIAL CARE OF SPHINCTER ANI IN OPERATION FOR FISTULA.—

Dr. N. H. Henderson (Matthew's Quarterly) says the methods of operation taught by the text-books include complete division of the sphincter at one or more points, and the surgeon who has been called upon to repair such a sphincter will testify to the hopelessness of the situation. In order to avoid such a result he resorts to the following technique: The sphincter is first thoroughly dilated and a probe introduced into the sinus to locate its course and internal opening. An incision about one inch long and half an inch deep is then made upon each side, but not into the sinus, these incisions remaining parallel with the fibres of the sphincter and care being taken not to wound that muscle at any point. This done, the end of the sinus is grasped with forceps and dissected out intact. The internal opening is then dragged down and carefully closed with fine catgut.

The external wound is now thoroughly irrigated and rendered aseptic, then closed with deep sutures of silkworm gut, a bit of gauze being placed between two sutures for drainage. In the event of more than one sinus the procedure is more difficult. But if we will remember the origin and insertion of the external sphincter, we can, if necessary, completely loosen it from coccyx to perineum and dissect out the underlying fistulous tracts. If section of the muscle should be demanded it should be made in the median line posteriorly and after the sinus is dissected out, the muscle at once repaired by suturing.

Dr. Henderson has used this method during the past two years and the results obtained warrant him in recommending it to the profession.—

J. H. W.

THE MANAGEMENT OF PATIENTS BEFORE AND AFTER LAPAROTOMY.—Dr. Wiggin (Med. Record), after an exhaustive review of the subject deduces the following conclusions:

1. The importance, whenever practicable, of prolonged preparatory treatment of patients about to undergo an abdominal operation.
2. The importance of the administration of cathartics in the early part of

this period, followed by large enemata for the purpose of cleansing the intestinal tract.

3. The importance of keeping a record of the body temperature, respiration and pulse-rate, for several days in advance of the operation, and of making a final examination of the urine.

4. The necessity in the female of arranging to have the operation performed a few days after the menstrual period, and the cleansing of the vagina, even when it is intended that the operation shall be by the abdominal route only.

5. The administration of a small quantity of peptonized food, one ounce, containing stimulants, two hours before giving the anæsthetic, for the purpose of lessening the tendency to nausea and vomiting after the recovery of consciousness.

6. The necessity of the anæsthetic being given by an experienced physician, and in the smallest possible quantity.

7. The necessity of protecting the patient's body properly with clothing and blankets during the operation.

8. The advantage of stimulating the pulse before the heart has become much exhausted, and of using intravenous saline injections before the radial pulse has become extinct.

9. The leaving in the abdominal cavity after free irrigation of a quantity of hot saline solution, for the purpose of stimulating the patient, preventing (?) the formation of intestinal adhesion and lessening the danger of septic infection of the peritoneum.

10. The necessity of making the patient comfortable by change of position during the first two days of convalescence, and by the use of the rectal tube.

11. The necessity for the early administration of food in reasonable quantities and at proper intervals.

12. The necessity of withholding stimulating enemata after operations in which extensive and firm pelvic adhesions have been broken up.

13. The necessity for deliberation as to the wisdom of re-opening the peritoneal cavity in a given case of supposed concealed hemorrhage.

14. The importance of washing out the stomach as soon as the diagnosis of intestinal paresis is made, and of the persistent use of saline cathartics till the bowels move,

15. The importance of not administering cathartics to those convalescing from abdominal operations, and who are pursuing a normal course, too early or in large doses.

J. H. W.

Correspondence.

"GASTRIC FEVER."—A REPLY TO DR. HUNT.

Editor N. C. Medical Journal:

During the latter part of last summer, I received the following note.

Brevard N. C., Aug. 20th, 1897.

DEAR DOCTOR:—I have read your article in the *N. C. Medical Journal* for August 1897 on "Our Continued Fevers are either Typhoid or Malarial." We have a fever here and I know there is no malaria. Please read in Merck's *Bulletin*, April 1893, p. 273, "Differential Diagnosis between Typhoid and Gastric Fever" The article is signed "Transylvania," the name of my county. Give me the benefit of your opinion in *N. C. Medical Journal* after reading it.

Yours truly,

C. W. HUNT, M. D.

I wrote to Dr. Hunt for a copy of the Bulletin referred to and, along with it, came this letter from him.

BREVARD, N. C., Aug. 30, 1897.

DEAR DR. ROYSTER:—In this mail I send Merck's *Bulletin*, containing article, Gastric vs Typhoid Fever. I wrote the article after years of observation at the bedside of symptoms and course, etc., of the fever mentioned. There is nothing in a good many names. Typhoid you know was only called by that name for convenience. The term "gastric fever" used for the symptoms and the disease mentioned could possibly be called by a better name. My object in calling attention to the matter is to get your xxx pen at work in either proving or disproving my views, for the benefit of the profession. In recording the group of symptoms as I have done I was not biased in anyway; would have as soon called it typhoid as the other xxx, though I did not think that, if one grouping of symptoms was called typhoid, it would be scientific and correct to call the other by the same name.

Sincerely yours,

C. W. HUNT.

My delay in replying to these very courteous communications of Dr. Hunt has been owing to various causes,—rush of work, absence from home part of the time and a natural tendency to procrastinate. At this late hour, I wish simply to give my opinion for whatever “benefit” it may be, at the same time disclaiming any attempt at “either proving or disproving” the views of Dr. Hunt or of any one else. A few remarks on the article and a brief statement of my own belief in the matter will be all that is necessary.

First, Dr. Hunt cannot know that some of his cases were not malaria, unless he subjected them to a blood-examination. It is possible, but not probable, that malarial fever exists in Transylvania county. Altitude, salubrious climate and a rocky soil are not necessarily incompatible with malaria. The exclusion of this disease from the cases of fever which he describes is an essential point that he has omitted and it can only be done by a microscopic examination of the blood. This question may be regarded as absolutely settled. Until Dr. Hunt puts another series of cases to this scientific test, I shall not be, nor do I see how he can be, satisfied that he has not treated some cases of malarial fever.

On page 274 of his paper, Dr. Hunt enumerates what he regards as “some of the essential characteristics of typhoid fever,” in order to draw a sharp distinction between that and “gastric fever.” These essentials, he says, are the slow approach, “debility, want of appetite, bronchial cough, bleeding at the nose” (these being, he says, almost *pathognomonic* symptoms), then tympanites, diarrhoea, rose-spots, tenderness in right iliac region, with a febrile duration of three to six weeks. He thinks that “typhoid fever *cannot be arrested*, aborted or broken up in its course.” The temperature is considered by him to be worthy of “special study.” “The thermometer, if properly read, will say: ‘Typhoid fever’ or ‘no typhoid fever.’” Further, he says: “This is such a *certain* guide, that if the best renowned physician should pronounce a case ‘typhoid’ and if the thermometer did not show the characteristic readings—he would be compelled to abandon his preconceived opinion and acknowledge to himself that he was wrong.”

Now, I am willing to admit that the above symptoms are

characteristic of a genuine case of typhoid fever. If a patient presented such symptoms, he would most assuredly have a well marked case of the disease. But I must insist just as forcibly that he could have typhoid fever and not show all those characteristics—or, indeed, only a very few of them. It must always be borne in mind that the type of the disease varies and there is some reason for believing that it changes with different periods or cycles. In the last few years it is certainly not, in this section, the classical malady which the text-books describe, nor does it compare here with the type which I saw in the Northern hospitals three years ago. I shall not try to discuss at this time the cause of this modification. Whether due to a total change of type or to different modes of management, I am not prepared to say. At any rate, we do meet with a typical typhoid. Only recently I noticed in a discussion before the Practitioners' Society of New York city the statement* that "there are typhoid infections in which the intestines escape."

I have seen malarial fever begin with the signs which Dr. Hunt mentions as almost pathognomonic of typhoid—even to the epistaxis, a symptom that I have cause to disregard in most cases. Many persons go through a whole course of typhoid fever without tympanites, diarrhœa, eruption or iliac tenderness. Then, there are many physicians who believe that typhoid fever can be aborted. As to the duration, we cannot always be sure from the history on what day of the fever the patient comes under our care. If he is seen the first time with a temperature of 103° or 104° , the attack is unquestionably over a day old; perhaps, the patient has had fever a week or more. Instead of being always regular and typical, the temperature in typhoid, according to my experience and that of some others, is sometimes distinctly fluctuating and irregular. In several cases, which I have seen lately, the highest fever for many successive days was recorded at 2 a.m., with wide ranges, occasionally touching normal, during the day. That these were true typhoid fever was proved by their subsequent course, supplemented by the diazo reaction. In short the only essential feature of typhoid fever is the presence of the bacillus in the human body and the resulting symptoms will necessarily vary according to the condi-

*H. M. Biggs, Medical Record, Dec. 18, 1897, p. 894.

tions under which the germ develops. The interpretation of these symptoms by individual observers constitutes our means of clinical diagnosis and involves the personal equation.

The second half of Dr. Hunt's paper is devoted to a description of the disease termed by him "gastric fever." This, he considers, a distinct, specific disease, forming a third class of continued fevers, differing clinically from malaria and typhoid. Herein lies the bone of contention—the unsettled point about which the Doctor desires my opinion. On a former occasion,* after considerable labor and thought, I emphasized my belief in the following statements: "1. Our continued fevers are either typhoid or malarial. 2. The first step in their diagnosis is the finding or excluding of the malarial parasite. 3. This can be done readily and satisfactorily in the manner indicated." I still adhere to these as true to the best of my knowledge, though I am ready to be convinced to the contrary at any time by proof as strong to my mind as that which led me up to the above convictions. This, Dr. Hunt has not produced, to my own satisfaction at least, in his clinical picture of "gastric fever,"—graphic and interesting as it is. He describes this disease as a "non-contagious form" of continued fever, "endemic in character, marked (in the majority of those affected) by very abrupt invasion, chilliness, rigors, headache of greater or less intensity, frequently great nausea and in some cases vomiting." The associated symptoms are jaundice (as a rule), epigastric tenderness, a peculiarly coated tongue, a very irritable stomach, a general soreness over the abdomen, constipation (rarely diarrhœ), dry, hot skin, a characteristic "fever odor" and a considerable thirst. The pulse is usually slow in proportion to the fever, sometimes beating 86 to 100 per minute "while the temperature was 104°, 105° or 106°." [A very constant feature in typhoid.] Dr. Hunt regards the temperature as the leading symptom; "and as far as the patient's feelings go, it constitutes the disease itself," which usually lasts, on an average, nine days. This general summary will serve to indicate in a just manner what Dr. Hunt calls "gastric fever." It is far from my intention to doubt the Doctor's diagnostic ability or to question the accuracy of his observations, but it seems to me, he has not in-

*N. C. Med. Society, June 1897.

roduced conclusive evidence to show that his cases were not either typhoid or malaria. I have seen cases of typhoid fever which corresponded exactly with his description of this so-called "gastric fever." The initial symptoms given are often observed in true typhoid; the general sensation of soreness in the abdomen, without the presence of rose-spots, the constipation, the "fever odor," the thirst, the slowness of the pulse compared to the temperature—all these are common in typhoid. Again, the disease, as he pictures it, certainly presents a similarity to cases of malaria I have met—cases about which I would still have been in doubt, but for the proof afforded by the microscope. Those who wish to study more freely the affection described by Dr. Hunt I would refer to his valuable paper, mentioned in the beginning of this communication. I have endeavored for the present purposes to give the gist of it.

From the testimony, I do not believe there is any specific "gastric fever" nor do I think Dr. Hunt can maintain that it constitutes a distinct continued fever. There is some authority to sustain me in this. Osler, in his "Practice of Medicine," 1st edition, p. 348, says: "Many practitioners still adhere to the belief that there is a form of *gastric fever*, but the evidence of its existence is, by no means, satisfactory and certainly a great majority of all cases in this country are examples of mild typhoid."

Finally, I wish to assure Dr. Hunt of my very great appreciation of his kindness in bringing the matter to my attention. I take pleasure in complying with his request for my views through the pages of this JOURNAL. It is only an opinion I have expressed here, for what little it may be worth. Dr. Hunt's recorded observations are all but perfect in detail and his attitude toward the subject is, indeed, worthy of commendation.

Very truly yours,

Raleigh, N. C., Jan. 1898.

HUBERT A. ROYSTER, M.D.

Reviews and Book Notices.

Health of Body and Mind—Some Practical Suggestions of how to Improve Both by Physical and Mental Culture. An extended series of movements and passive movements of the muscles. How the Thought Force can

be directed to the part, function, or muscle to be developed. *Good Health and Long Life.* By T. W. Topham, M. D. Brooklyn Borough, New York City.

The author starts out with the theory that physical culture is the one thing needed to make the human race healthy and wise; but while the muscles form a very important part of the physical man, the controlling force, which comes from the source of all life, can also be cultivated for our benefit. The author goes on to show that disease is the infringement of some law of nature, that for each violation there is some punishment, and that the penalty fits the crime. For each chapter he has prepared a moral which is printed at the bottom of each page, thus, under the chapter on how to get well, he has selected from Lord Palmerston the passage "Clean your streets, and call upon God for help" under "Muscle", we find "Strength Brings Courage", under "Development of the Muscle", "Symmetry is Beauty", etc. The various movements recommended are fully described and illustrated by photographs. The author desires to impress upon the reader the idea that thought is a substance, a something that has an influence of itself; that a thought can be felt if sent by a strong will; that the thought can make ourselves or others happy or unhappy of itself, without outward expression. He claims that thought can be controlled by a constant and enduring effort of the will, and that then shall the affairs of earth take on a more sublimely beautiful aspect, and the individual be made happy in the knowledge that the best of earth's treasures are his—namely, a contented mind.

Spinal Caries.—(Spondylitis or Pott's Disease of the spinal Column). By Noble Smith, F. R. C. S., Ed., F. R. C. P. Lond., Surgeon to the City Orthopædic Hospital; Surgeon to All Saints Children's Hospital; Orthopædic Surgeon to the British Home for Incurables. Second Edition. Octavo, Cloth 153 pages. Price Five shillings. Smith, Elder & Co., London. 1897.

We have here a very practical and interesting study of spinal caries. After a general description of the disease, the author takes up the symptoms and diagnosis. These chapters are very carefully written, and very useful in view of the author's experience. Especial attention is given to the consideration of other diseases of the spinal column which may simulate caries, and to obscure cases. The chief part of the volume, however, is devoted to a discussion of the treatment. The chief items of

as pointed out by Dr. Smith are: (1) Mechanical fixation of the spinal column; (2) Adjustment of mechanical apparatus, in accordance with the progress toward resolution; (3) General rest of the patient; (4) Modifications of the bodily movements in accordance with the severity of the case; (5) Nursing; (6) Clothing; (7) Food and medicine; (8) Treatment of complications. In the application of fixation the author emphasises the importance of controlling the spine as far as possible below and above the seat of inflammation. When the disease exists below the third or fourth dorsal vertebra, the spine may be supported sufficiently by an apparatus which extends from the extremity of the sacrum below, to the level of the shoulders above; but if the disease is above this part, it is generally and almost always necessary to continue the apparatus to the head. For the fixation of the head, the author describes a head band which is attached to the spinal brace, and while it fixes the head allows slight changes to be made by the surgeon without disturbance of the diseased part. Numerous cases are cited and illustrated by drawings taken from life and museum specimens to show the results of treatment by the author's apparatus. A short reference is made to Calot's treatment by forced extension under anæsthesia. He thinks that there must be considerable doubt about the reformation of bone in sufficient quantity to fill the space left by reduction in six months as claimed by Calot. That the bone does reform, however, he proves by one of the cases cited in his own series. The specimen and history of this case show the following facts:

1. That a very large gap may occur from dissolution of several vertebræ without their usual spontaneous coalescence, the spinal cord being left exposed in the thorax and abdomen, unprotected by a bony covering.

2. That repair may take place while the undestroyed vertebræ remain separate from one another.

3. That repair of this kind can progress in spite of the most adverse circumstances in respect to the general health of the patient.

4. That in such a severe case the new bony growth requires a much longer time to become thoroughly solid than in ordinary cases.

LITERARY NOTES.—*Klemper's Clinical Diagnosis*, by Dr. G. Klemperer, Professor at the University of Berlin; first American from the seventh and last German edition; authorized translation by Nathan E. Brill, A. M., M. D., Adjunct Attending Physician, Mt. Sinai Hospital, and Samuel M. Brickner, A. M., M. D., Assistant Gynæcologist, Mt. Sinai Hospital Dispensary, is announced for early publication by the Macmillan Company.

Messrs. E. B. Treat & Co., announces as nearly ready the sixteenth edition of the *International Medical Annual*.

Besides the usual summaries of the year's work, this edition will contain several special articles of great merit, among them "The Chief Pathogenic Bacteria in the Human Subject." "The Obliteration of the deformity in Pott's Disease"; and Congenital Dislocation of the Hip." It will be freely illustrated and the price will be \$3 00

Therapeutic Hints.

URTICARIA:

Dr. Bernard Wolff, (*Jour. Am. Med. Asso.*) reports excellent results from the use of sodium phosphate in this trouble. Dram doses of the saturated solution every three hours, in acute cases, and the same dose after meals in chronic cases, gives prompt relief to the symptoms. In chronic cases it needs to be long continued to effect a permanent cure.

ALCOHOL INSTEAD OF WHISKEY:

Davis, (*Jour. Am. Med. Asso.*) proposes the substitution of alcohol properly diluted instead of the fermented and distilled liquors, where such a stimulant is indicated. In this way the physician can know the exact amount of alcohol the patient receives, and escape the various harmful substances contained in brandy, whiskey, wine, beer, etc. He recommends diluted alcohol to be administered with sugar in milk or meat-broth. Besides being more accurate it would be more economic for the patient.

Dr. Rumbold, Sr., says that the functions of the middle ear muscles are to select and amplify such sounds as the listener desires to hear most distinctly; making it appear that the ears have muscles of accommodation quite analogous to those of the eyes.

CURETTAGE:

In his instructions on the subject of *retained placenta and beginning puerperal sepsis*, Dr. Wells points out the danger of using a sharp curette for the removal of pieces of placental tissue. A septic uterus is always soft, and its perforation by a curette an easy matter. Unless the operator has had experience in the use of the curette, it is better to use the carefully sterilized finger to remove any fragments which may adhere to the uterine wall, and follow this by copious inter-uterine injections of creolin. When the os is not sufficiently dilated to admit the finger, it should be enlarged by graduated dilators on the Barnes bag.—*Med. Counsel.*

FOLLICULAR TONSILLITIS:

Follicular tonsillitis is an acute infectious disease and should be treated as such. Whilst systemic treatment is of paramount importance, local treatment should not be neglected. According to Dr. Gibb each crypt should be carefully cleansed with a strong solution of hydrogen dioxide, after which applications are to be made to each with a solution of silver nitrate, 40 or 90 grains to the fluidounce. Involvement of the pharyngeal or the lingual tonsil should receive similar treatment.—*Med. Council.*

Notes and Items.

Dr. Morris Wiener, of Baltimore, who has recently celebrated his eighty-eight birth-day, is still in active practice.

It is stated that the manufacture of Koch's new tuberculin has been abandoned.

The following certificate was furnished in a damage claim for accident rendered to the London Guarantee and Accident Insurance Company.

"This is to certify that Thorn Bloomington, an ore trammeler, while in the employ of the Clifton Car Company has been under my care for the following injuries: Slipped on rail of ore track, sustained a compound fracture of his right leg (wooden), and was laid up for repairs, and has been totally disabled from his usual employment for one day."

(Signed) LAWSON HOGUE, M. D.

Damage claimed 60 cents, which was allowed.—*Med. Examiner.*

TOOK HIS OWN PHYSIC.—A case has recently been decided in the Kansas City Federal Court sustaining the action of an insurance company which refused to pay the amount for which a physician's life had been insured because he died by taking medicine that he himself had compounded. He prepared, as he thought a mixture of magnesium citrate, and on the patient refusing to take it, took it himself and soon died. He had inadvertently used potassium cyanide.

The *International Journal of Surgery* has commenced the publication of a series of interesting articles on gynecological subjects, by Dr. Augustin H. Goelet, of New York.

We are pleased to announce, that with this issue we begin the publication of a series of instructive papers on "Malaria," by Dr. J. G. Van Marter, Jr. of Savannah, Ga. Dr. Van Marter being located in what might be called the home of malaria in this country, and having had experience in Italy, is well prepared to write on the subject. The articles will appear from time to time during the year.

"NIT"—According to a correspondent of the *Boston Medical and Surgical Journal* the examination of the heads of 756 children in one of the Boston Grammar schools revealed the following condition:

200 (26 per cent.) had no nits.

234 (31 per cent.) had a few nits.

269 (35.5 per cent.) had a considerable number of nits.

53 (7 per cent.) had a very large number of nits.

These children received cards informing their parents of the condition of the children's heads. Two weeks latter an exami-

nation of 609 of them showed only 23 free from nits. The writer says that the great majority of these children came from respectable families. The very remarkable fact appeared that the best record for freedom from pediculosis was held by the colored children, and the writer attributed this fact to the oils or pomades applied to the hair by this class to make it lay smooth.

Dr. Robert Duval Jones, of Newbern, was married December 29th to Miss Kate Walker, of Wilmington.

ARTIFICIAL OYSTERS.—There is no further excuse for the india-rubber oyster being used in the soup at church festivals. Artificial oysters on the half-shell are the latest innovation in Paris. It has not been determined what are the constituents of these delicacies, but they are said to be harmful. The shells only are genuine the oyster being fastened in by means of a tasteless paste. They are sold at twenty cents a dozen, and when eaten with vinegar cannot be distinguished from the real oyster.

NECROLOGY.

Dr. J. S. Murphy, at Burlington, N. C. December, 20, 1897.

Dr. Joseph O'Dwyer, aged 56 years, at New York, January 7, 1898. Dr. O'Dwyer was the inventor of intubation and he could have no greater monument.

Dr. Lewis Crusius, aged 40 years, at St. Louis, January 2, 1868. Dr. Crusius is well known to every physician in the country as the author of the artistic drawings on the *Atikammia* Calendars. He was connected with the *Medical Fortnightly* and for several years held the chair of histology in the Marion Sims College of Medicine.

Mr. Ernest Hart, editor of the *British Medical Journal*, in London, January 7, 1898. A note was made in the *JOURNAL* several weeks since that Mr. Hart was a victim of diabetes, and that necrosis of the bones of his foot necessitated amputation. His health has steadily failed since that time.

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As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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FEBRUARY 20, 1898.

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Robert D. Jewett, M.D., Editor.

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Original Communications.

DRAINAGE AFTER NORMAL LABOR.*

BY LIVIUS LANKFORD, M.D., Norfolk, Va.

I HAVE always respected and to a large extent been governed by the teachings of my superiors. Time honored customs both in religion and medicine have ever found the writer a faithful follower. After two years attendance on the lectures of Professors Budd and Lusk, in which they urged the importance of confining the parturient woman from ten to fourteen days in bed after delivery, I began to practice medicine in Southampton county, Va. My second case of obstetrics was a woman, (white) whom I delivered of her 9th child. Of course I did not think it necessary the hour I left her to give instructions that she must not think of dressing and remaining up under ten days. When I visited her on the third day I found her up, dressed, lap full of children's clothes which she was repairing, and her foot on the end of a wooden rocker of a little plank cradle which she would kick whenever the baby fretted. When I expressed my surprise at seeing her up, and insisted upon her taking the bed at once, she only laughed and remarked, this was her 9th and she had always gotten up on the third day and gone to work, that she never could "endure" the bed when she was not sick. She informed me that she *would not* go back to bed unless she felt sick, and she did not. How-

*Read before the Tide Water Medical Association, January 20, 1898.

ever, I visited her daily for a week, at the expiration of which time I asked to examine the uterus. I recall distinctly how small and well contracted it was.

Eighteen years ago a large per cent. of the women, in the rural districts of eastern Virginia at least, were attended by midwives in normal labors. From my first case I began to administer chloroform during the second stage of labor. I soon learned that I was the only physician in all that section who gave chloroform in every case of labor. This gave me quite a reputation among primiparas, as well as those multiparas who had suffered intensely in previous labors, (and I remember how severely censured I was by the old M.D.'s for giving chloroform in every case). So it was not many years before I had attended a great number of multiparas and I learned from them that a majority left the bed on the third day. I naturally become much interested in these third day women and when I would sometimes be called to their homes a month or two subsequent to their deliveries to visit other members of the family I asked permission to examine the uterus. Some objected, but others consented, and not once do I recall finding a subinvolted or much prolapsed uterus. Nearly all of them were hard working truckers' and farmers' wives. These facts were directly in opposition to my college and text book teachings, and opened up a new line of thought for me. Of course from boyhood I had read how the Indian squaws and other savage women would be delivered, and in few hours up and going, how the negro women of the South would plough and hoe all day, be confined that night, next day up and at the spinning wheel. For ten years I saw how easily those country women got up from their parturitions. During my stay there I attended alone and in consultation with other doctors about 700 women in confinement with only one death, puerperal eclampsia. I saw her in consultation just before death. My invariable practice these ten years as it has been since, was to keep the woman in bed until the 10th day if I could, and give her 30 M. ergot three times per day during that time. When I moved to Norfolk I soon found that my lying-in women were not doing so well as those in the country. I experienced no difficulty in keeping them in bed 10 days, they often not feeling like getting up on the 10th day. At the expiration of the first and second

month these who did poorly would give all the symptoms of subinvolution. It did not take long to prove from a digital examination and the sound that about one-twelfth of my parturient women were left with a subinvolted uterus, which I had to treat at once. I would call attention to the important fact that a very large per cent. of my obstetrical practice then was among the poorer classes of the city, where it was impossible to have trained nursing, or even any nurse at all except what an older child could render. I beg pardon for being so long in arriving at the gist of this paper. Whatever will hasten the return of the uterus to its *normal weight and condition* after gestation is what we most need in obstetrical practice. My experience during eighteen years and the experiment with the 25 cases which I will report in this paper leads me to believe that *thorough drainage* for the two weeks following gestation will do this. For a moment let us glance at the processes by means of which the uterus returns to its non-puerperal condition, or "*involution*" as it is called.

M. Sanger in *Annals of Gynecology* of Boston, July 1888, proved the first factor in involution, was uterine contraction just after delivery, at which time constant compression of the nutrient vessels diminished the supply of reparative material to that extent that fatty degeneration of the protoplasm of the giant muscular cells was produced.

The next important factor is the exudation through the uterine sinuses and other smaller vessels from the body of uterus by way of the wounded, or placental surface, out into uterine cavity and vagina, which is the "lochia." Now comes the key to my little paper if there be one. That which will forestall the evils incident to lochial stagnation in uterus and vagina is most imperative. The first evil I believe to be septic absorption, and second leaving the gravid uterus subinvolted. As stated before I believe *thorough drainage* to a large extent will prevent these evils. Now what is the safest, and most practical way to secure this drainage, thereby ridding the vagina of a variety of micro-organism, such the as the diplo and streptococci, rod bacteria and occasionally gonococci. Of course they vary in quantity, but many of the best writers claim that they increase in abundance with the advance of the first week. We will look at the cases experimented on for an answer.

During the first part of 1865 I was greatly annoyed by having under treatment several obstinate cases of subinvolution. From what I had experienced in my earlier years of practice in observing those women who would leave their bed on third day and how free they were from puerperal troubles, I determined to conduct a group of cases at their confinements in the following way, being careful to select only strong, healthy women for the experiment: My first case was Mrs. M. age 19 years, primipara. She was confined May 20, '95. Was about ten hours in labor, which was normal in every way. Just forty-eight hours after delivery in my presence I had her taken up and comfortably seated in a rocking chair. Her first remark was I feel quite a flow. I examined same at once and found it only a pale red lochia. She remained in chair just one-half hour when she was put to bed saying she felt all right. I gave instructions to let her remain in bed two hours then take her up for half hour and so on until bed time. The next morning I called, found condition splendid, ordered her to sit up one hour in every three, of course the other two in bed. This was kept up until the fifth day when I allowed her to sit up two hours and recline two. On the 10th day I examined the uterus carefully. Involution was advancing rapidly, am sure uterus could not have weighed more than a pound. The cervix was well contracted, so much so, that with difficulty the finger could be forced up to the os internum where the ring was firm and resisting. This woman will assure any one that her health was perfect after this, and is now. She gave birth to her second child last April, I was not as systematic in her getting up this time as at first, for I had before this completed my 25th case conducted in this way, but she observed the first rules quite closely. The second case was Mrs. C. living 4 miles in country, who was delivered May 28th of her 11th full term child. The labor was normal, in forty-eight hours she was permitted to sit up one hour instead of half hour as in first case then put to bed for two hours and so on until fifth day, when she sat up half of the time until the 10th. I examined her, and while I could not expect to find her uterus as small as the primipara, yet it was well contracted and her general condition perfect. She is a very hard worker with large family. March 1, '97,

I attended her when she gave birth to her 12th living child. Her health is excellent now. It would consume too much of your time and not be profitable to report all of the twenty-five cases. I have a careful record of every case, and without an exception they recovered and are in good health to-day as far as I know. Nine of them have given birth the second time and one on December 23rd, the third birth—an Italian woman.

Next which is an important question. What are the dangers, if any, to the woman who sits up one-third of the day forty-eight hours after the labor? From all the literature which I had on post-partum hæmorrhage I satisfied myself that the danger from this cause forty-eight hours after delivery was *nil*. As to puerperal hæmorrhage so called, I suppose there is more danger. This form of hæmorrhage, which may be expected any time from the third to seventh day is not considered dangerous, being caused from the separation of the thrombi at the placental site. Should it appear during the hour which the patient is sitting up, she would at once go to bed, the doctor be summoned and the usual methods be resorted to for controlling it. I have seen only three cases and they were readily checked without return. The next danger might be displacements. Dr. Thornton, in a paper read before the British Gynæcological Society of London, in 1889, on Uterine Displacements, claimed that by far the largest number of displacements were either retroversions or retroflexions and that he believed subinvolution was principally the cause of these displacements, and I have attempted to prove that if we give the uterus thorough drainage subinvolution will be exceedingly rare. I have found it simply impossible to enforce thorough cleanliness of the bed clothing of the poorer classes in my practice. They have not sufficient clothing for themselves or their beds. Therefore when they are confined constantly to the bed the conditions become peculiarly favorable to the development of the mentioned micro-organisms some of which are often present in the vagina previous to confinement, and others can obtain entrance through the vulva. With such patients it would be exceedingly risky to advise them to use the douche. So there is no way in my judgment, better to secure drainage of the vagina than to get them up as early as the third day for at least one-third of the time. I have the great

army of the savage tribes and the Southern negress to sustain me in proving this to be not so great an evil as confinement in a filthy bed, or even a clean bed if you please, yet with the vagina constantly filled with a septic lochia.

HYPERTROPHY OF THE PHARYNGEAL TONSIL OR ADENOIDS OF THE NASO-PHARYNX.*

BY HARRY L. MYERS, M. D., Norfolk, Va.

IT is not without hesitation that I re-introduce to you the subject of adenoids or hypertrophy of the pharyngeal tonsil. I am well aware that more has been written about this subject than any other perhaps on the list of medical specialties, and that it has been thoroughly considered from every standpoint, nevertheless, the trouble is so wide-spread, the danger of neglected cases so great and the treatment, if taken in time and properly conducted, productive of so much good that I am encouraged to give expression to a few thoughts on the subject.

The pharyngeal tonsil, in its normal state, is a small bunch of lymphoid tissue lying in the upper back part of the pharyngeal vault, about on a level and extending between the orifices of the eustachian tubes. Its structure is identical with that of the faucial tonsils, being composed chiefly of lymph tissue. The hypertrophy of this tissue is a disease of childhood, arising usually during infancy and extending generally to puberty, when, like other glandular enlargements, they are prone to disappear. This rule, however, has numerous exceptions, and the disease is often encountered in persons long past the age of puberty. In my own experience it has seemed to give more trouble between the ages of five and twelve than in earlier or later years, though I have removed the growths from patients long past the age of thirty years.

Leaving out the microscopical appearances, we will spend the remainder of the time allotted to this paper discussing the more

*Read before the Tide Water Medical Association, January 20, 1898.

practical points of etiology, symptoms, appearances, results of neglected treatment, with a short mention of diagnosis and treatment.

Undoubtly the strongest factor in the etiology of this trouble is that peculiar diathesis which we find in so many children, known as lymphatism—a condition almost synonymous with scrofula, or, to be conservative, we may say that it is the condition but one step removed from this diathesis. Accompanying the hyperplasia of this tissue will be found in most cases enlargement of the faucial tonsils and the glands along the sides and back of the pharynx, together with a hypertrophic condition of the tissues covering the turbinated bodies of the nose. Indeed, there will be found an over-activity in all the glandular structures constituting the condition before mentioned, lymphatism.

According to Bosworth, eruptive fevers and heredity may also be mentioned as etiological factors.

In subjects of lymphatic temperament, the pharyngeal tonsil, situated, as it is, midway between the most sensitive tissues of the upper air tract, is affected by every pathological condition occurring in these parts: every cold lights afresh the inflammatory conditions and results in additional hypertrophy of the lymphoid structure, until, in the worst cases, almost the entire space of the vault from the *alæ* of the vomer down to the oro-pharynx, and from the orifice of one Eustachian tube to the other will be filled with the growths. In many cases the growths, after the manner of hypertrophied glandular tissue, hangs down in bunches, covering the orifice of the Eustachian tubes and often almost filling the posterior nares. There is still another form in which the connective tissue elements are more marked which case the growth is more sessile and more closely resembles the hypertrophied faucial tonsil. This form, while giving rise to much trouble, does not result in as much damage as the pendulous and more obstructive form. These inflamed secreting vegetations lying in the centre of the already limited space of the upper air tract of the child, partially or almost entirely filling the posterior nares and the naso-pharynx with their turgid forms, covered with a thick, viscid and tenacious secretion, present to us the first and most characteristic symptom of the trouble, mouth breathing. This symptom is ever present in

bad cases, and while in mild cases it may not be so noticeable in the day-time, when the upright position of the child lessens the turgescence of the growth and allows him to partially breathe through the nose, it will almost invariably be present when the child is asleep. During this period another important symptom frequently arises, nightmare, the child jumping up and crying out in the sleep, due to improper æration of the blood as a result of the obstructed respiration. The stertorous, noisy breathing of children during sleep is also due to this cause, from the relaxation of the palate. When there is much stertor, the faucial tonsils will also be found enlarged in most cases. Another symptom much complained of is the excessive discharge of secretion of a muco-purulent variety, and while the bulk of this usually flows down the throat, a part forces itself through the nostrils, and often, on account of its acrid character, causes excoriation of the anterior nares and upper lip. Indeed, when I see an excoriated nose and lip in a child, I feel sure that it is the subject of adenoids, which is accompanied by an acute or chronic rhinitis.

The interference with proper phonation is a characteristic symptom. The patient talks as if the nostrils and mouth were filled, it is the voice of a cold in the head: "m" and "n" become "eb" and "ed", as well described by Bosworth due to the interruption of the sound waves in the upper air passages which constitute the sounding board of the voice.

Hearing is affected in varying degrees, from slight dulness to distressing deafness, as a result of either mechanical obstruction rarefaction of the air in the aural cavities by interference with respiration, direct extension of inflammation along the tubes or direct interference by pressure to the return current of blood from the ears, causing congestion. I repeat, any one, or a combination of any or all of these factors, would readily explain the symptoms of the varying degrees of deafness.

The scope of this paper does not permit my going into the whole symptomatology of this affection, but I have mentioned the most prominent symptoms, and so characteristic are they that, taken in connection with the general expression of the face, the diagnosis should be simple almost before an examination is made. It should be noted, however, that in the milder cases but one or more of these symptoms may be prominent, while other symptoms may be present in but slight degree or not at

all, hence no diagnosis would be complete without a careful examination of the passages, of which I shall speak later on. Under differential diagnosis I think I hardly need mention but one disease, that of retro-pharyngeal abscess. I knew of one case in which the child having adenoids was successfully operated on for this trouble without relief of the trouble to respiration. He was taken to another physician, who discovered the abscess and incised it, with entire relief of symptoms. As this complication might easily escape the eye of even an expert, it seems to be worthy of mention in this category. To attempt to deal minutely with the results of neglected treatment of adenoid vegetations would be impossible in a paper of this nature, hence I shall deal very briefly with this division.

The most serious results of adenoids are to be found in the ear. Meyer, in his paper on "Adenoid Growths in the Nasopharyngeal Space," reports that out of a series of 175 cases of adenoids, 130 suffered with ear trouble. Killion, another authority, estimates that 74% of ear troubles in childhood are the result of adenoids. These figures seem large, but any aurist will be able to confirm them. Let me advise you, who are not already familiar with the subject, that every time you find a child suffering with an earache you make an examination for adenoids and you may be the means of saving that child from deafness or even death in later years.

The next most important disease resulting partially or entirely from adenoids is naso-pharyngeal catarrh. Bosworth believes that at least 60% of all such cases result from those vegetations, and many authorities would give a greater percentage. Another result of neglect to treat this trouble will be seen in the dulness of intellect and general disturbances of nutrition and development of the child. Many a child has labored under the disgraceful appellation of the "school dunce" when the brightest intellect lay concealed beneath the grasp of this affection.

Just here it seems to me to be well to mention a few of the reflex effects of adenoids. Chief among these I place spasmodic laryngitis of childhood. While I admit that this disease is not always dependent upon adenoids, I firmly believe that this habit and the asthmatic troubles of childhood can be in a great measure, if not entirely, cured by their removal of the growths when they exist. Their removal seems also to exert a curative influence on

the acute subglottic laryngitis or false croup of childhood though by direct effect rather than removing a reflex cause. Nocturnal enuresis, headache, irritating cough and the habit of winking the eyes, much resembling facial chorea, are also reflexes, frequently dependent upon the growth, though the headache and the irritation are more often due to a refractive error of the eyes.

I will conclude my paper with a short description of examination and treatment. When a child is brought to me showing any of the symptoms above described, I first examine the fauces by means of a head mirror, with reflected light, using my finger as a tongue depressor as a child is often frightened by an instrument. This examination alone will sometimes reveal portions of the growth which extend below the arch of the throat, as the child gags. If the child is tractable, and many even as young as five years are, I combine with the head mirror a small $\frac{1}{2}$ inch rhinoscopic mirror to examine the post nasal space, which immediately shows the extent and position of the vegetations. My next step is to introduce a few drops of a 2% solution of cocaine by means of an atomizer up each nostril. I then wait five minutes to allow the drug to shrink down the vascular tissue of the turbinate bodies so that I can examine the nares for obstructions of any kind. In many cases this step will reveal the dependent vegetations in the post nasal space, vibrating back and forth with the respiratory movements. If the child is too young or too much frightened to permit either of these methods being carried out, I insert a mouth gag between the teeth and, either by force or partial anesthesia, I insert the fore-finger back of the palate into the post nasal space and locate the growths by touch. This, however, is, I must admit, easier said than done, as it requires a good deal of experience to perform the feat in a struggling child and an equally experienced touch to appreciate the condition when felt, especially if the adenoids are not very great in extent.

Having been satisfied as to the presence of the growths, the method of removal is selected according to the age of the child and the form of the growth.

In children old enough to be reasoned into voluntary submission to the operation I am in the habit of making several applications of a 10 per cent. solution of cocaine on a post nasal applicator to the growths. White's palate retractor is then placed

in position and the growths removed according to their character, by means of forceps designed for the purpose or a post nasal cold wire snare introduced through the mouth, guided by the rhinoscopic mirror and reflected light, the patient holding down the tongue, by means of a long handled depressor. This method is seldom applicable in young children. In operating upon young children I believe an anæsthetic (and I prefer chloroform administered just to the point of insensibility) is always necessary. The child may be placed upon a table, the head projecting over the end so as to keep the blood from the throat, and the growths removed either piecemeal by forceps or in a more wholesome manner by means of a specially constructed curette, a Gottstein probably being the best. It is not always possible to accomplish the removal of all the growths at one sitting, and it is well to inform the patient of this before operating. It is always advisable to allow several days to intervene between operations. In older children and adults the fibrous connective tissue of the adenoids is more developed and in my experience it is well to remove this form by means of the cold snare, as the forceps are apt to do damage to the surrounding tissues by attempting to tear away pieces of the fibrous tissue. The after treatment consists of a few days quiet indoors. The hemorrhage is generally of little consequence.

My subject would not be finished without saying a few words about those cases which do not require operative measures, but, on account of the excessive secretion and consequent discomfort produced, render mild treatment necessary. These cases do well under the application three times weekly of an astringent such as tr. iodine 1 part; glycerine 3 parts, swabbed over the growth by means of a post nasal applicator, the nasal cavities in the meantime being cleansed night and morning with an atomizer, or better, by means of a small glass arrangement known as the Birmingham douche. In children the administration of syrup of the iodide of iron has a happy effect in these cases in controlling the diathesis and improving the nutrition.

Now is a good time to subscribe to the JOURNAL.

Clinical Lectures.

DEMONSTRATIONS IN OPERATIVE GYNECOLOGY AT THE MANHATTAN SANATORIUM.

BY AUGUSTIN H. GOELET, M. D., NEW YORK.

ABDOMINAL HYSTERECTOMY FOR LARGE SUBMUCOUS FIBROID OF UTERUS.

THE first operation to-day is an abdominal section for a tumor of the uterus which has attained the size of a seven months pregnancy. The patient who is single and 29 years old first noticed a slight enlargement in the lower part of the abdomen a year ago. Since that time it has increased rather rapidly, unusually so for a tumor of this character which is undoubtedly fibroid. This leads me to suspect that it is a submucous growth projecting into the uterine cavity as these tumors grow more rapidly than the interstitial variety. That it is not a subperitoneal growth I am certain.

The patient has not menstruated for over a year but for the past six months has had a profuse and persistent hydrorrhœa and her general health has deteriorated very considerably. The operation should have been done fully six months ago but she could not be brought to consent, and only consents now because she sees it is inevitable and believes it is a last resort. The differential diagnosis of these cases from pregnancy involves a nice distinction and it has occurred to good surgeons to mistake the pregnant for a fibroid uterus, and not discover the mistake until the abdomen has been opened.

Now that the patient has been placed upon the table and the abdomen exposed you can see that the symmetrical enlargement resembles pregnancy very closely. In addition to this the soft yielding character of the tumor would almost confirm the suspicion. But we must bear in mind that a fœtus in utero at this stage would give us unmistakable evidence of its presence by its movements or the pulsation of the heart if it were alive or the placental souffle which could still be heard if it were dead, all of which are absent in this case.

We will first cleanse the vagina and curette and cleanse the uterine cavity as far up as can be reached that the risk of sepsis

may be lessened when they are opened into from above. This done we proceed to open the abdomen. This tumor, as you see it exposed in the incision, resembles very closely the pregnant uterus in appearance and to the touch as well. There are few adhesions and they are easily separated, my hand sweeping around the mass in every direction, and I now deliver it through the abdominal incision. I notice that the wall is soft and in a state of beginning degeneration in places, and for this reason it would not be safe to remove the tumor which is within the uterine cavity, and save the uterus. I have split the anterior uterine wall near the fundus and you see the mass within, which is distending the uterus, is in a broken down degenerated condition and it would be most unwise to attempt to remove it without the uterus. I shall therefore do a hysterectomy. I shall, if possible, preserve one of the ovaries so as to avoid the nervous symptoms which would otherwise be inevitable in a woman of this age.

You see the left ovary is already so much diseased that it must be removed, but the right ovary is in good condition and may be preserved. We tie first the left ovarian artery to the outer side of the ovary, apply a clamp between the ligature and ovary and divide the intervening tissue. I prefer silk for ligating the vessels because it is more reliable than cat-gut, and as proof of this assertion I have never had a case of secondary hæmorrhage. When the silk is left in the peritoneal cavity it becomes encysted and never gives trouble, provided it is aseptic. But when pus is encountered silk is a very unsafe material for ligature as it becomes infected and almost invariably gives trouble. In those cases I always use cat-gut.

The broad ligament is now divided down to the round ligament which with its accompanying artery is ligated, a clamp applied between the ligature and the uterus and it is divided. We now make a peritoneal flap anteriorly and posteriorly with the scapel by an incision across the anterior and posterior face of the uterus from the left broad ligament over to the right, and with a gauze pad held in the hand or in the grasp of a pair of sponge forceps these peritoneal flaps are stripped down to the pouche of douglas behind and to the cervico-vaginal junction in front, freeing the uterus from the bladder. This exposes the

base of the left broad ligament and the uterine artery. A ligature is carried around the vessel by means of an aneurism needle near the side of the uterus for we must be careful to avoid including the ureter which at this point is not more than half an inch from the uterus. I shall leave the cervix in this case because it is in a healthy condition. I prefer to do this when possible because it affords support to the bladder, obviates hernia, and the normal contour of the vagina is preserved.

The blood supply on this side being controlled we may now divide the cervix at the level of the internal os by a wedge shaped incision anteriorly and posteriorly, and as the right uterine artery is exposed it is clamped and divided close to the side of the uterus. The right broad ligament is next divided close to the side of the uterus up to the round ligament which is clamped then divided and next the right ovarian artery is clamped and divided and the whole mass is free. By employing this technique (Howard Kelly's method) much time is saved. Only three ligatures have been applied to the vessels on the left and those on the right have been clamped until the tumor has been gotten out of the way when they may be tied more conveniently.

We will now proceed to tie these vessels which have been clamped and close the pelvic roof. The cervical canal is dilated, and the ends of the ligatures on the uterine arteries which have been left long are carried through it to the vagina, and a strip of iodoform gauze is carried through also, its upper end being folded across the cervical stump on either side, as far as the stumps of the uterine arteries for drainage. The flaps of cervical tissue are now united by two or three interrupted sutures of chromicized cat-gut. The peritoneal flaps and broad ligaments are next brought together with a continuous suture of plain cat-gut beginning on the left and terminating on the right. I prefer to close the pelvic roof in this manner in all cases where there is no necessity for draining the peritoneal cavity.

The patient is lowered from the Trendelenburg position and the cavity is flushed with hot normal solution, which is not sponged out.

My method of closing the abdominal wound differs in one important particular from that ordinarily employed, in that I include the muscle in the continuous suture which unites the peritoneal margins and the fascia is united separately by another

row of continuous suture covering the other row over. Chromicized cat-gut is used for this purpose and one strand serves for both layers and but one knot is made, that at the upper angle where the suture is started. Deep sutures of silk-worm gut including the whole thickness of the abdominal wall are inserted first and tied afterwards.

I prefer this method because it unites more surely the different important layers of the abdominal wall, insures firm union, a strong cicatrix, and I have never had a hernia after any of my abdominal operations.

VENTRAL SUSPENSION OF UTERUS FOR FIXED RETROFLEXION.

The second operation today is for a retroflexed uterus which is bound down by adhesions, and it is possible that I will be compelled to remove the right ovary which is diseased, has resisted all treatment and continues to be enlarged, painful and sensitive.

The patient, who is 26 years old, has been a constant sufferer for many and years, nothing has given her more than temporary relief. She has had very careful preparation for the operation since she has been under my observation, with a view to removing all exudation and infiltration surrounding the uterus and relieving as much as possible all inflammatory action; hence she is in a very much better condition than she was before, and her suffering has been correspondingly much lessened. She is, therefore, in a very favorable condition for operation. We will begin by curetting the uterus, though this has been done before, because there is some endometritis remaining. This endometritis has been persistent because the displacement and the fixation interferes with the return circulation and a constant hyperæmia is maintained.

The operation which is to be preferred in these cases is ventral suspension. The abdomen is opened by an incision which need not be more than two and a half inches long, the uterus is freed and the fundus is brought up to the lower angle of the incision and attached by two sutures to the abdominal peritoneum. When done by a properly perfected technique the surface of attachment is not broad, but it is firm. Hence, though the uterus is close to the abdominal wall, the narrow attachment per-

NOTE—Eight months have elapsed since this operation, the patient has made an excellent recovery, has regained her healthfully, and there has been no nervous symptoms.

mits it to sag down, and settle into a nearly normal position as the peritoneal folds on both the uterine surface and the abdominal wall stretch out, and it remains suspended fairly movable, (not fixed) by a strong band, and subsequent pregnancy will not be interfered with.

The abdominal cavity being now opened the index and middle fingers of the left hand are inserted into the pelvis behind the uterus, the adhesions are broken up and the fundus is brought up into the wound and held there by grasping it with a pair of angular tenaculum forceps. The right ovary is now brought up and we find it in a state of septic degeneration, therefore it must be removed. The other ovary is fortunately in good condition.

The peritoneum on each side at the tower angle of the wound is now seized with artery clamps and drawn out, then with a small curved needle carrying medium sized silk, a suture is inserted through the peritoneum and subperitoneal fascia at the lower angle of the wound on the left, then on the posterior face of the fundus and again through the peritoneum and subperitoneal fascia on the right at a point opposite the point of insertion on the left. Both ends of this suture are now grasped with a pair of pressure forceps, and a second suture is inserted in the same manner a quarter of an inch above the first on the peritoneal surface and a quarter of an inch behind the other on the uterine fundus. We are now ready to tie these sutures and close the abdominal wound. Deep sutures of silkworm-gut including the whole thickness of the abdominal wall and peritoneum are first inserted. These prevent dragging away of the peritoneum from the abdominal wall before complete union of the wound has taken place. The silk sustaining sutures are now tied, bringing the uterus close up to the abdominal wall, but observe that the uterus is attached by its posterior face instead of by its anterior face as in the usual ventrofixation. Hence it is tilted forward, and when the patient resumes the erect position the intra-abdominal pressure comes against its posterior face. The peritoneum is next united by a continuous suture of chromicized cat-gut closing over the sustaining sutures and burying them in the peritoneal cavity. Next the fascia is united with the same continuous suture as in the first case operated upon today and finally the interrupted silkworm sutures are tied.

The uterus remains close to the abdominal wall until union

of the abdominal wound has taken place and the deep silkworm-gu sutures have been removed. Union has then taken place at the point of attachment of the uterus between the peritoneum on the posterior face of the fundus and the abdominal peritoneum. Later when the weight of the uterus is exerted against this attachment the abdominal peritoneum and that upon the uterus, as well pulls out and stretches forming a fold or band of about an inch in length. This band becomes sufficiently firm to support the weight of the uterus, which remains suspended in a nearly normal position fairly movable.

The advantage then of this suspension over the ordinary ventrofixation is that the uterus is subsequently movable and is tilted forward normally, instead of being fixed by its anterior face against the abdominal wall.

The mortality of this operation independent of the disease of the appendages which may cause fixation of the uterus is practically nil. I have never lost one of these cases, and the operations have been invariably successful.

108 West 73rd St.

HOMING PIGEONS IN MEDICAL PRACTICE.—Dr. Charles L. Lang of Meridian, N. Y., gives to the *Philadelphia Medical Journal* his experience with homing pigeons as messengers to convey to him information as to the condition of patients at a distance from his home. Two or three of the birds are left at the house of the patient and some member of the family or the nurse is instructed to write the hour pulse, temperature, respirations and other information upon a slip, fold it, and slip it under the band which the bird wears around its leg. The bird in pushing its way into its house rings an electric bell, thus announcing its arrival. He can be certain that in this way a message will reach him at the rate of a mile every one or two minutes. He says there is no mystery or difficulty about it, the main point being to procure the best of stock and not to train the young birds until they are at least four months old, thus giving them time to become used to their surroundings and to develop their brains sufficiently to stand the strain of training. He offers to the information he can to any who desire further light upon the subject.

NORTH CAROLINA MEDICAL JOURNAL.

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Editorial.

THE SERUM DIAGNOSIS OF YELLOW FEVER.

The great progress made by the epidemic of yellow fever in the South in 1897 before the nature of the disease was discovered (it is now said by the committee of investigation that the disease began in April, being brought from Guatemala by a family

who came to Ocean Springs,) and the doubts in regards to the diagnosis, even by experts, of suspicious cases, and the fact that cases of dengue were called yellow fever and cases of yellow fever called dengue by men of considerable experience in the treatment of both diseases, are well remembered. These facts show the importance of some certain and early method of diagnosis of this disease. The appearance of the epidemic so soon after the announcement by Sanarelli of the discovery of the specific pathogenic agent of yellow fever, and the peculiar agglutinative reaction of the blood of an infectious disease with its specific micro-organism, as demonstrated by Widal in the case of typhoid fever, presented an opportunity for the practical test of this method of diagnosis in yellow fever. A series of experiments along this line was made by Drs. P. E. Archinard and John J. Archinard, Bacteriologist and Assistant Bacteriologist, respectively, to the Louisiana State Board of Health, and Capt. R. S. Woodson, M. D., U. S. A., who published in the February issue of the *New Orleans Medical and Surgical Journal* a detailed report of their investigations. The report shows very careful work and embraces a series of one hundred cases. The first fifty specimens of blood were taken from typical yellow fever cases at the isolation hospital and from private practice; the second fifty were cases of typhoid fever, malaria, and yellow fever. The Johnston dried blood method on glass slides was followed, and in some cases the slides were kept two months before the application of the test. The physical agencies—heat, cold, evaporation, contact with foreign bodies, etc.—were eliminated. The cultures used were eighteen hours old and very active. Cessation of motion as well as agglutination were made the criteria of the reaction, and the application was made both to cultures of the bacillus icteroides and bacillus typhosus.

In twenty cases the proportion used was one of diluted blood to five of bouillon culture (1-5). The proportion used in the next ten was the same, but followed by 1-40 as a control. In the next twenty cases 1-10 was used with bacillus icteroides, followed by 1-40 with both bacilli.

In the first series there was the following result: *icteroides*—agglutination 17; partial agglutination 2; negative 1. *Typhosus* agglutination 18; negative 2.

In the second series the result with 1-5 was as follows: *icteroides*—agglutination 6; negative 4. *Typhosus*—agglutination 4; negative 6. With 1-40 there was agglutination in five cases with *icteroides* and none with *typhosus*.

In the third series of twenty cases tested with 1-10 there was agglutination in 18 cases with *icteroides*; with 1-40 there was agglutination of *icteroides* in 16, slight agglutination in 1, and negative in 3; with 1-40 there was agglutination of *typhosus* in 6, cases slight agglutination in 1, and negative in 13. Of the six cases of *typhosus* giving agglutination there was present, or a history of typhoid fever in four, and in the remaining two cases there was no agglutination of *icteroides*.

Of the fifty miscellaneous cases there were

Typhoid suspects 35, with agglutination of *typhosus* in 26, of *icteroides* in 2, and of both in 9.

Yellow Fever suspects 3, with agglutination of *icteroides* in all, and of *typhosus* in none.

Malarial suspects 12, with plasmodia present in 4 cases, and agglutination of *icteroides* in 5. No agglutination of *typhosus*. There was no agglutination in cases where plasmodia were found and no plasmodia where there was agglutination.

Of this series there were four cases in which there was neither agglutination of either bacillus nor plasmodia present.

From their observations the authors reach the following conclusions; (1) Our work demonstrates the practical value of serum diagnosis in yellow fever. (2) It may be utilized as early as the second day, and be exceptionally present as late as nineteen years after the disease. (3) That a dilution of 1-40 with a time limit of one hour is to be preferred for accuracy of diagnosis. (4) That the dried blood of Wyatt Johnston is perfectly satisfactory. (5) That the serum diagnosis of yellow fever should be instituted in all countries wherein the disease may exist endemically, or which may be visited occasionally by epidemics. (6) That it is especially valuable at the beginning of an epidemic in the diagnosis of early and doubtful cases.

These gentlemen deserve much praise for the thoroughness with which they have carried out their investigations, and have apparently established a reasonably sure method of diagnosis of yellow fever. However, as is suggested by the editor of the *New Orleans Medical and Surgical Journal*, "the necessity will remain

for the study, as soon as the opportunity presents, of the action of blood from undoubted cases of dengue upon the bacillus icteroides, inasmuch as there is a bare possibility of some connection between the two diseases. Should dengue blood give negative results as typhoid and malarial blood are proven to do, then the test can be adopted as confidently as the Widal test for typhoid fever."

Reviews and Book Notices.

Index Catalogue of the Library of the Surgeon General's office, United States Army. Authors and subjects. Second series. Vol. II. B-Bywater. Government Printing office, Washington. 1897.

The work of indexing this great library goes on apace, and the fact that the present volume embraces nearly a thousand pages and covers only the letter "B" evidences the tremendous growth of the library. The value of such a library, properly catalogued, to the medical profession of the country cannot be estimated. This volume includes 15,732 author titles, representing 6,383 volumes and 14,802 pamphlets. It also contains 5,774 subject titles of separate books and pamphlets, and 21,725 titles of articles in periodicals. One feature worthy of notice is the very small proportion of matter furnished by English speaking authors. Thus opening the volume at random we find under the subject of Tumors of Bone 55 separate books and pamphlets catalogued and not one by an English speaking author; of 83 articles in journals on the same subject, only 22 are in English.

A System of Medicine by many Writers. Edited by Thomas Clifford Allbutt, M. A., M. D., LL. D., F. R. S., F. L. S., F. S. A.; Regius professor of Physic in the University of Cambridge, Fellow of Gonville and Caius College. Vol. IV. Royal octavo, 992 pages. Cloth \$5.00. The McMillan Company, New York. 1897.

The present volume of this most excellent System of Medicine is divided into two main parts: I. General diseases of Obscure Causation; II. Diseases of Alimentation and Excretion. The list of contributors embraces many of the most eminent physi-

cians and surgeons of England. In the first part are considered rheumatism in its various forms, including gonorrhœal rheumatism; rickets; osteomalacia; gout; diabetes mellitus and insipidus; lardaceous disease.

The second part is subdivided into sections on (1) Diseases of the Stomach; (2) Diseases of the Peritoneum; (3) Diseases of the Bowels. There are also special chapters which discuss Subphrenic Abscess; Diaphragmatic Hernia; Abdominal Diagnosis from a Gynæcological Standpoint; and Enteroptosis. An exhaustive and interesting paper on Perityphlitis, which name the author prefers to the "uncouth" term "appendicitis," is presented from the pen of Mr. Frederick Treves. In writing of the treatment Mr. Treves says, "The use of the exploring needle—which has been much advocated by American surgeons—is to be very strongly condemned. This needle is thrust into the iliac region of the abdomen, often to the depth of three or four inches, is passed in different directions, and is sometimes introduced three or four times at one sitting. The object is to discover pus. In the first place it may be pointed out that deep-seated pus, in sufficient quantity to demand surgical interference, may be diagnosed by other means; and that if an exploration must be made it would be safer to trust to a cautious incision than to a series of plunges made in the dark." The author in thus stating that this procedure is "so much advocated by American surgeons" does, we think, an injustice to the surgeons of America, who easily stand abreast of any in the march of surgical science. We do not believe there could be found one surgeon of any prominence in this country who would countenance such a procedure as is described by Mr. Treves.

We can commend this volume as standing well in line with the preceding volume which we had the pleasure of noticing in the issue of December 5th. We look forward with pleasure to the receipt of the remainder of the work, which the author announces as in an advanced state and will be published with as little delay as possible.

ANNOUNCEMENT OF NEW BOOKS.—The following books are in press and will soon be issued by the publishers, J. B. Flint & Co., 104 Fulton Street, New York.

FLINT'S ENCYCLOPEDIA OF MEDICINE AND SURGERY.—Second (1898) edition, 1555 pages, revised with the assistance of fifty-six contributors and thoroughly in line with recent advances in medical science. Cloth \$5, leather or half morrocco \$6.

HARTLEY-AUVARD SYSTEM OF OBSTETRICS.—Third (1898) edition, 436 pages, 543 illustrations. Revised by Dr. John D. Hartley. This work is essentially Auvard, and embodies the author's personal experience, the text is clearly pictured by hundreds of original drawings to be found in no other book. Cloth \$4, leather or half morrocco \$5.

POZZI SYSTEM OF GYNAECOLOGY.—Third edition. Revised by Dr. John D. Hartley.

Therapeutic Hints.

MEASLES.—To develop the eruption and allay incessant laryngeal cough:

℞—Syrup of hydriodic acid,
 Dover's syrup,
 Syrup of tolu aa \bar{z} i.

The Dover's syrup is to be lessened for infants. During the eruptive stage and throughout a broncho-pneumonia:

℞—Pot. acet 3 ij.
 Spiritus mindereri,
 Aquæ camphor aa \bar{z} iij.

Give a teaspoonful every hour to a child, and a tablespoonful to an adult, with plenty of water. In case of sepsis, diphtheria, or debility, add one drachm of the tincture of chloride of iron.—JOHN A. LARRABER, *Pediatrics*.—*Med. Record*.

BALSAM OF PERU IN ITCH.—At the recent annual meeting of the Société Française de Dermatologie et de Syphiligraph (*Sem. Méd.*), Julian stated that he used balsam of Peru, according to the method followed by Peters and Tanturri, in about 300 cases of itch. Balsam of Peru contains an essential oil, the vapor of which is extremely toxic to the acarus. The patient is rubbed in the evening for 15 or 20 minutes with the balsam; it is not necessary to rub hard as the vapor is sufficient to kill the parasite. The patient sleeps afterwards in a nightshirt impregnated

with balsam of Peru, and the next morning he is soaped all over and has a bath. This treatment is particularly useful in patients affected in secondary eczematoid and dermatic lesions and in weakly persons, in the subjects of heart disease, in pregnant women, and in nurslings.—*Ex.*

LARYNGISM VS STRIDULUS:

℞—Potassium Citrate	80 grn. (5.2 gme.)
Powdered Ipecac	3 dr. (11.5 gme.)
Tincture Opium	16 min. (1 c. c.)
Syrup	3 fl. dr. (11.5 c.c.)
Distilled Water	4 fl. oz. (120 c. c.)
Teaspoonful every hour.— <i>Am. Med. and Surg. Bull.</i>	

Review of Current Literature.

GYNECOLOGY AND ABDOMINAL SURGERY.

IN CHARGE OF

H. S. LOTT, M. D.,

J. W. LONG, M. D.,

HUBERT A. ROYSTER, M. D.

A NEW METHOD OF INTESTINAL ANASTOMOSIS.—(Horseley, New York Polyclinic, Dec.'97). The essential points after resecting the bowel and mesentery, are: The ends of the bowel are placed side by side, the ends opening in the same direction, and being in contact along their free surfaces opposite the mesentery. A pair of forceps inserted into the ends holds them in this position. The thumb and finger of the left hand is now inserted along side the forceps and over the fingers as a bobbin a continuous suture of fine silk is placed beginning near the mesenteric attachment and passing around on the peritoneal surfaces to the opposite point on the other side. The U-shaped septum embraced by this suture, being the partheld by the forceps and fingers, is now cut away and the edges sutured with an overhand silk suture. This suture is continued entirely around the resected ends of the bowel followed by continuing the Cushing suture to its starting point.

The author claims for the operation that it is a suture method, it can be done in twenty minutes, the bowel being cut and sutured in the peculiar way described above, the diameter of the sutured parts is greater than the normal and so obviates stricture, applying the sutures over the fingers increases the safety of the suturing, and the internal row prevents hemorrhage. The illustrations accompanying this article make the text very plain. (It is to be noticed that this operation is but a modification of the old suture method. Whether or not it will stand the crucial test of application in a large number of cases in the hands of other men remains to be seen. Theoretically there are some objections to the method of Dr. Horseley, but one should not condemn a procedure that holds out the advantages claimed by the author of this operation too hurriedly. To judge intelligently one should do the operation experimentally on the lower animals as did Dr. Horseley. There is no more trying operation to the abdominal surgeon than an intestinal resection, and unquestionably the best method yet devised is the suture method. The writer has had some experience in this class of work and unhesitatingly gives precedence to the interrupted suture over any and every form of mechanical device with which he is familiar. One should never do an abdominal section without being supplied with several dozen intestinal needles already threaded. Thus prepared, an intestinal resection may be done quickly, securely, and satisfactorily.)

J. W. L.

A NEW APPARATUS in ENTERORRHAPHY.—Wackerhagen (N. Y. Med. Jour.) describes a new support for the sutured ends of the intestine in doing anastomosis. It consists of a small rubber bag to which is attached centrally a tube. On inflating the bag by means of a rubber bulb, it is distended, more at the extremities than at the middle, thus assuming somewhat a dumb-bell shape. The bag is introduced collapsed into the ends of the intestine to be united, and then inflated. The inflating tube is tied close to the bag and cut short. After the intestine has been properly sutured a hypodermic needle is introduced through the intestinal wall into either end of the bag and the air allowed to escape. The bag can then easily pass from the intestine. Or the inflating tube can be held with forceps and when the suturing has been nearly completed, the forceps removed and the air allowed to escape, the small opening being closed with the intestine in a collapsed state. The bags are made by Tiemann, of New York. They are of different shapes for end to end, end to side, and side to side anastomosis.

GUN-SHOT WOUND OF BRAIN WITH RECOVERY.—Dr. W. H. Mayfield of St. Louis (Amer. Jour. Surg. and Gynecol.) lately performed a most remarkable operation at his sanitarium. The patient, a boy aged 7 years, was shot with a Winchester rifle, the ball striking the

forehead just above the left eye and passing through the brain. He was brought to the hospital aphasic, hemiplegic and only partially conscious, though several days had elapsed since the accident. Dr. Mayfield opened up the wound of entrance to allow the discharge of some pus and broken-down brain tissue, determined the course of the ball by probing and decided to open the skull posteriorly—in the occipital region of the opposite side, the bullet having apparently passed through the falx. He trephined and found the ball without difficulty. At the present time, three weeks after operation, the boy is in excellent condition; speech has returned, paralysis of the leg has entirely disappeared and the arm is rapidly regaining its usefulness.

PRACTICE OF MEDICINE.

IN CHARGE OF

S. WESTRY BATTLE, M.D., U. S. N., ASHEVILLE, N. C.

THE TREATMENT OF ASTHMA BY ANTI-DIPHTHERITIC SERUM.—Dr. Revilliod (*Revue Medicale de la Suisse Romande* of Dec. 20, 1897) proposes to treat asthma by the injection of anti-diphtheritic serum. He bases his treatment on the fact that after injections of serum an increased secretion from all mucous membranes is noticed and that the channels through which drugs are eliminated are those where their therapeutic action is exerted, hence the beneficial action of the iodides in many asthmatic cases is due to their helping the patient to eliminate the particular noxious substances through the respiratory tract. He ascribes the good effect arising from the use of the serum to a similar physiological action and not to any supposed antitoxic property. He reports the treatment of several cases of varied duration in which the patients were benefited soon after the first injection and all presented a marked improvement, if not a complete cure at the end of from 3 to 10 injections. He ends up by saying that although no definite conclusion can be drawn from such a limited number of cases still he believes the treatment worthy of the consideration of the profession.

TREATMENT OF TABES DORSALIS.—Dr. Daniel P. Brower, in the *Journal of the American Medical Association* of Jan. 22, 1898, writes an interesting article on the treatment of tabes dorsalis. He first considers the question of climate and recommends, whenever practicable, permanent residence in a warm, dry, equable climate of low level or moderate altitude. In cases where it is impossible for the patient to take up a permanent residence in such a climate he recommends an ocean voyage or the sojourn during the spring months in the Ozark Mountains of Missouri, in the mountains of North Carolina, or in a similar moderate altitude; at Atlanta, Ga., Los Angeles, Cal., or in similar low level

climates. Rest is essential, when the disease is progressing rapidly, absolute rest in bed with daily massage and faradic exercise of the muscles for a period of from 6 to 8 weeks, then if the case is one of slow progression, the partial resumption of ordinary avocations. But in every case a part of each day should be spent in the recumbent position. Excessive mental and physical work to be avoided, sexual excess especially harmful, seeming to contribute to optic nerve atrophy. Traumas, especially concussion of the spine, to be avoided. The training of the muscles after the system proposed by Frænkel is endorsed by him. Special attention should be paid to the action of the gastro-intestinal tract and the food-stuffs should be regulated accordingly. Excesses in alcohols or smoking to be avoided. Electricity, static from machine of high potential, by insulation and by heavy sparks from spine and lower extremities; faradization, of skin by wire brush electrode. Suspension, after Motschutkowskis system of service when disease is advancing after a more or less lengthened stationary period, as is the stretching of the sciatic nerve by manipulations in like cases. Vigorous anti-syphilitic treatment beneficial where infection is recent and symptoms have developed rapidly, but are contra-indicated where development has been slow or where a long interval has elapsed since primary symptoms. It should consist of iodide of potassium in as large doses as possible, together with the hypodermic use of mercury. As an alterative he places the greatest reliance in the chloride of gold and sodium, believing that this drug has the power to arrest the progress of connective tissue hypertrophy in the cord as well as in the liver and kidneys; the best dose is a tenth of a grain three times a day either alone or combined with resin of guaiac, three grains. In urgent cases he advocates the use of a freshly prepared hypodermic solution in order to avoid to a greater extent the destruction of the drug in the stomach. In cases which cannot take the above he uses one of the preparations of phosphorus, preferably the phosphid of zinc in eighth or tenth grain doses, three times a day before meals, alternating it with a salt of arsenic, such as the arseniate of sodium in twelfth of grain doses. In rapidly developing cases he has found full doses of ergot with complete rest will sometimes check the progress. To relieve the pains he has met with the greatest success from the use of the extract of cannabis indica, injections of cocaine and acetanilid alone or in combination. Nitrate of silver, aluminum chloride or mercury seem to him to have never given any beneficial results in ordinary cases while he has seen marked injury done in more than one case by the use of strychnine.

Regarding Fraenkl's treatment Professor F. Raymond, of Paris, in a clinique delivered at the Salpetriere on January 17, 1896, sums up its value as follows, comparing it with suspension:

Its only pretention is to ameliorate one of the numerous symptoms if tabes dorsalis, the incoordination, hence it is inferior to suspension. It is also inferior to it from the fact that the time required to obtain a

like result from it is very lengthy (5 to 6 months) and requires a great deal of perseverance on the part of both the patient and the doctor. On the other hand it is gentler and the idea less terrible to the patient than suspension and does not present the same dangers. As far as therapeutic results go their value seem to be about identical.

S. W. B.

PEDIATRICS.

IN CHARGE OF

J. W. P. SMITHWICK, M. D., LaGrange, N. C.

INFANTILE SCURVY.—Dr. Arthur M. Jacobus (Medical News, January 15, 1898) reports an interesting case of scurvy in an infant fourteen months old, which was successfully treated in the following manner: The baby had been fed almost entirely on proprietary food since its weaning at the age of five months. This was entirely discontinued and the following ordered: "Robinson's prepared barley, well cooked with water, and as thick as rich milk, and the best cow's milk that she could obtain in the city, unsterilized or raw, in equal parts, with two teaspoonfuls of pure cream, two teaspoonfuls of lime water, and one-half to one teaspoonful of the best granulated sugar at each feeding. It was directed that the child be fed about once in two to three hours, depending upon the quantity she could take and retain at each feeding. At first she could only take about three ounces at a feeding, but by the end of the second week she took as much as five or six ounces, and later, eight to ten ounces. After the second week the proportion of milk was increased to two-thirds, and barley or oatmeal water and the rest of the mixture together making one-third. From the first she was also given the juice of two medium-sized choice sweet oranges each day in teaspoonful doses, with sugar, and as much water then and between feedings as she desired. The mother was told that she could give the baby the diluted sweetened juice of one lemon each day if at any time unable to obtain good oranges. The child was also given beef juice prepared as follows: I had heard from some teacher that beef juice should never be allowed to become cold from the preparation to the feeding, otherwise there would be a chemie change injurious to the juice, so that the mother was told to take a small piece of "top sirloin," sear it quickly, first on one and then on the other side, and then to broil it over a bed of live coals until the juice began to run when she was to score it with a hot knife, squeeze it with a hot lemon squeezer into a hot saucer, and add a pinch of salt and serve with a hot spoon as it cooled down sufficiently to be fed to the baby without

burning its mouth. The baby was fed from two to four teaspoonfuls of beef juice freshly prepared in this manner twice each day. This was the entire treatment."

Dr. Jacobus opposes the use of sterilized milk except as a temporary food in cases of acute intestinal disorders, and believes that when relied upon as the main diet it will prove detrimental to the health of the infant, and particularly that it is a causative factor in scurvy. He thinks the solution of the difficulty lies in filtered milk: obtain the purest rich cow's milk, carefully filter it, as directed by Seibert. dilute it freely and modify it, as described by Jacobi, Rotch, and others, by the addition of water, cane sugar, and barley rice, or oat-meal, and lime-water according to the necessities of each particular case, and a food is obtained that will be perfectly satisfactory. His success in feeding cow's milk to children has correspondingly increased as he has followed the advice of Jacobi in the high or extreme dilution of the milk: also that cane-sugar instead of milk-sugar be added to the milk. Of this Jacobi gives twenty grams daily, and more during constipation.

OBSTETRICS.

IN CHARGE OF

GEO. GILLETT THOMAS, M. D.,

R. L. PAYNE, M. D.,

INTERESTING OBSTETRICAL CASES.—Dr. R. C. Bankston reported to the Jefferson County Medical Society (Ala. Med. & Surg. Age) three interesting cases in obstetrical practice. The first one was a case of spontaneous version.

He was called to a woman in labor and after due preparation made an examination and found that the labor was nearing completion. A still born child was delivered without incident. After using measures for resuscitation without effect, he tied the cord and proceeded to express the placenta. Grasping the uterus over the fundus, he realized that there was another baby. The placenta came promptly, and with it a mass protruded through the vulva, which proved to be a transparent bag of fluid, and within it the hand, arm and shoulder of the second child. He ruptured the membrane and allowed the escape of a quantity of fluid. The next uterine contraction forced a portion of the child into view. After ineffectual efforts to turn the child he anæsthetized the patient and sent for Dr. Barclay in consultation. While awaiting the coming of the doctor he tried changing the woman's position. As the child lay with its head to the left side of the mother, its back to hers, he directed her to turn on her right side so that the head could gravitate from its position. While waiting and watching for developments she soon had a very severe pain, and as the pain ceased he found that he

could push up the protruding parts and proceeded to do so. He carried the side and shoulder up and grasped the forearm to push it gently. Turning to explain the condition to Dr. Barclay, who had just entered the room, but retaining his grasp upon the arm of the child, the woman cried out with another pain, and suddenly the hand of the child was drawn upward out of his grasp and the breast presented, delivery taking place promptly without further incident, giving him an opportunity of experiencing his first case of spontaneous version.

Dr. Bankston reported another case of interest in a young white girl, age 14, whom he was called to attend. She was having pains when he entered the room and upon examination he found a firm mass presenting through the cervix, which he thought was one of the buttocks. Labor progressed slowly. As the night wore away, becoming impatient and tired, he gave her chloroform during the early hours of morning and attempted to grasp a foot to bring it down. To his astonishment he could not find one. Having thoroughly anæsthetized his patient, he pushed up the presenting part and searched and found the feet, which he brought down and delivered the patient of a small, premature child of about eight months fœtation. Upon inspection he found that the presenting part which he thought was a buttock was the left breast. The head and buttocks were bent backward and the chest presented. His conclusion derived from the case was where the position cannot be positively determined, do not temporize long, but anæsthetize the patient and deliver promptly.

He reported another case in which he was called in consultation. The attending physician informed him that he had a severe case of uterine hemorrhage in a woman aged about 45, whom he had operated on some time since for cancer of the cervix; that portion having been removed. The doctor said the hemorrhage was due to a recurrence of the old trouble. Dr. Bankston said from the history he concurred in the attending physician's view of the case, and thought with him that curettage and hot douches would benefit her. Having completed preparation, the patient was anæsthetized and the attending physician prepared to curette. As he divulsed the cervix a bag of fluid protruded and this filled the vagina. Dr. Bankston remarked to him that it looked decidedly amniotic. He ruptured the bag and following the discharge of the fluid came a three months' fœtus. The efforts of the woman to bring on her flow had caused the hemorrhage. Several weeks had elapsed since curettage was done for removal of the placenta. The patient had remained in apparent good health, with no symptoms of disease. Dr. Bankston had never seen any statistics on conception after amputation, and this was the only case he had ever heard of. He thought it was very rare and unusual.

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MISCELLANEOUS.

INTERNATIONAL LEPROSY CONFERENCE.—The secretaries of the Conference in presenting the general conclusions arrived at say: As might be expected, a considerable portion of the discussion has related to the bacillus *Leprae*, which the Conference accepts as the Virus of Leprosy, and which for upwards of 25 years has been known to the scientific world through the important discovery of Hansen and the able investigations of Neisser.

The conditions under which the bacillus grows and develops are still unknown, as well as the way of its invasion into the human system; but from the discussions of the Conference, it seems probable that an unanimity of opinion will soon prevail in reference to its modes of subsequent dissemination within the human body.

Very interesting observations have been brought forward in connection with the elimination of the bacilli in large quantities by means of the skin and the nasal and buccal mucous membranes of lepers; it is desired that such observations be confirmed where opportunities occur.

The question is of very great importance to those who are entrusted with the care of the public health, as leprosy is now acknowledged to be a contagious disease.

Every leper is a danger to his surrounding, the danger varying with the nature and extent of his relations therewith, and also with the sanitary conditions under which he lives.

Although among the lower classes, every leper is especially dangerous to his family and fellow workers, cases of leprosy frequently appear in the higher social circles.

The theory of heredity of leprosy is now further shown to have lost ground, in comparison with the at present generally accepted theory of its contagiousness.

The treatment of leprosy has only had palliative results up to the present time.

Serum therapy has so far been unsuccessful.

In view of the virtual incurability of leprosy and the serious and detrimental effects which its existence in a community causes, and considering the good results which have followed the adoption of legal measures of isolation in Norway, the Leprosy Conference, as a logical issue of the theory that the disease is contagious, has adopted the following resolution proposed by Dr. Hansen and amended by Dr. Besnier.

1. In such countries, where leprosy forms foci or has a great extension, we have in isolation the best means of preventing the spread of the disease.

2. The system of obligatory notification, of observation and isolation as carried out in Norway, is recommended to all nations with local self-government and a sufficient number of physicians. [Health officers.]

3. It should be left to the legal authorities after consultation with the medical authorities to take such measures as are applicable to the special social conditions of the districts.

PRACTICAL HINTS IN THE EXAMINATION OF THE BLOOD.—Dr. Henry Heiman read a paper with this title before the Medical Society of the County of New York (Med. Record). Speaking of the examination of the blood for the malarial plasmodium, he said that the microscopist must carefully distinguish between nucleated cells, degenerated corpuscles, and fungi developing in the methylene blue. The special distinguishing feature was the presence of the characteristic brown pigment. The best stain for parasites in the blood such as the malarial plasmodium was the double methylene blue and eosin. Incidentally he mentioned that the malaria observed in New York City and its immediate vicinity was nearly always of the tertian type. Blood smears might be fixed at once by formalin, or the fixing process might be postponed for some time. As a rule, the plasmodia were found in the red cells, stained a light bluish color, and had a form varying with the stage of the disease. In chronic malarial poisoning the plasmodium was rarely found.

Notes and Items.

Dr. S. N. Harrell has removed to Tarboro, N. C.

“Doc”—The editor of the *No. Amer. Jour. of Diagnosis and Practice* was accosted with the question “Are you an allopath, Doc?” He let it be distinctly understood that he belongs to the “old school,” known as “regular.” In regard to “Doc” he says “Better call me a thief, a fraud or a race-horse tout, than the vile name of “Doc.”

North American Journal of Diagnosis and Practice.—A new journal published in St. Louis has adopted the above title. The initial number is dated January 1898 and the editors are C. H. Powell, M.D., J. G. Ehrhardt, M.D., and A. R. Kilffer, M. D.

PRACTICE OF MEDICINE DEFINED.—Judge Thompson of Kentucky, in sentencing an osteopath thus defined the practice of medicine. “Any person who, for compensation, professes to apply any science which relates to the prevention, cure or alleviation of the diseases of the human body, is practicing medicine within the meaning of the *statue.*”

EXCISION OF THE STOMACH.—Two very ambitious American surgeons living respectively in St. Louis and Chicago, prompted

by the favorable results obtained by a Swiss surgeon, Dr. Schlatter, who successfully removed the stomach and united the duodenum and œsophagus in a case of malignant disease, have ventured upon this rash procedure with the result that the patient in each case died promptly. Did these surgeons before undertaking those operations, ask themselves if they would allow the operation to be performed upon one who was very dear to them, though suffering with the same disease as were their patients? If not they were guilty of grossly improper conduct and do not deserve to be classed among the reputable members of their profession.

The Universal Medical Journal, has come out new and attractive dress, with double column pages, and a change of title to *The Monthly Cyclopædia of Practical Medicine and Universal Medical Journal*. It is ably edited by Dr. Chas. E. Sajous, and published by the F. A. Davis Co., Philadelphia.

Editor of the *British Medical Journal*. Dr. Dawson Williams has been unanimously elected to fill the position made vacant by the recent death of Mr. Ernest Hart. Dr. Williams has been the assistant editor for the past 17 years.

We take pleasure in announcing that we have been able to add to our list of Department Editors, Dr. J. W. P. Smithwick, who will take charge of the Department of Pediatrics. Dr. Smithwick is the compiler of the latest Ornithology of North Carolina, which has been published by the Agricultural Department of the State. He has recently removed to La Grange, N. C.

A PRACTICAL PATIENT.—A physician calling one day on one of his patients who was afflicted with the gout, found, to his surprise, the disease had gone, and the patient rejoicing in his recovery over a bottle of wine. "Come along, doctor," exclaimed the valetudinarian, "you are just in time to taste this bottle of Madeira; it is the first of a pipe that has just been broached. "Ah!" replied the doctor, "these pipes of Madeira will never do; they are the cause of all your suffering." Well, then, re-

joined the gay incurable, "fill up your glass, for now that we have found out the cause, the sooner we get rid of it the better." —*The Sanitarian*.

BESIEGING A DISPENSARY.—Some mischievous liar recently set afloat a story that two negro children had been kidnapped by the physicians of the St. James Dispensary in Savannah, and carried into the building and killed. The story soon spread among the colored population and was confirmed apparently by some school children, who said they had climbed into a tree which grows near one of the dispensary windows, and had seen the bodies of the two children on a table, and that white men were standing around them cutting them up. A mob of negroes soon gathered in front of the dispensary building, and were dispersed by the police only after several of the ringleaders had been arrested. The excitement continued for several days, and crowds of excited colored men and women assembled repeatedly in front of the building. The colored teachers in the schools and the pastors of the colored churches have been asked to use their influence to disabuse the minds of the negroes of their belief in the vivisection practices of the dispensary doctors. It will probably be a long time before a pickaninny ventures to pass the door of St. James Dispensary after nightfall.—*Medical Record*.

FOOT-BALL.—*The Insurance Press* gives the following statistics of casualties in the leading schools and colleges within the United States covering the last of the season for 1896, and the first of the season just closed, namely: number of dead, 9; permanently injured, 16; seriously injured, 120; minor casualties, 130. This table, it will be noted, refers to this country only, and covers only a portion of two seasons. For this time the total casualties of all descriptions amount to 275. What would be the sum for the full season in all countries?

As a means of advertising a university the games may be of great value, but they serve no purpose in developing the bodies of the great bulk of students attending our colleges, since it is only the already developed men who are sought after to engage in this sport.

The hard working student whose brain has probably developed somewhat at the expense of his body, the one who requires physical exercise, must be an onlooker at the wild plunging of his brother student, who is brought to the university (foot-ball team) oftentimes because of his over-developed legs and brawny arms rather than his brilliant intellect.—*Med. and Surg. Bull.*

NECROLOGY.

Dr. S. A. Rogers, at Memphis, Tennessee, January 7, 1898. Dr. Rogers was professor of anatomy in the Memphis Medical College. He was shot in the back by a woman who immediately sent a bullet into her own heart.

Dr. Theophilus Parvin, aged 60 years, at Philadelphia, January 29, 1898. He was elected in 1883 professor of obstetrics in the Jefferson Medical College, of Philadelphia.

Dr. Jules Emile Pean, in Paris January 30, 1898.

Reading Notices.

AN INTERESTING CASE OF ANAEMIA.—Miss G. H.—, Avondale, O.; age 24; American; anæmia. First seen November 6, 1897. This case had been under treatment by various physicians, for two years, but the patient got no permanent relief. Casually observing the patient, any one might justly have exclaimed, What a perfectly healthy specimen you are! The only symptoms apparent were that at times she became exhausted after some trifling exercise, and at other times lapsed into a faint without apparent cause; nor were these attacks accompanied with hysteria: she merely complained of being weak and tired. The attacks of fainting were periodical, with at times complete unconsciousness; at other times were such as might be called *le petit mal*. The patient said, however, she had noticed that her hair seemed to have grown a bit lighter within the last three or four months.

The blood was about normal in color to the eye; microscopically however, the picture was decidedly abnormal. One cubic centimeter of blood showed but 1, 500,000 red corpuscles, with a decided overplus of white cells. The red cells were in the various stages of disintegration and paralysis. The hæmaglobin was not more than twenty per cent. of the normal quantity. In the specimen of blood from the hand of the patient, the red corpuscles were absolutely devoid of color; this being an unusual picture, and indicating in my mind, the initial cause, if not a beginning, of fatty degeneration: a subject too extensive to be discussed within present limits.

It was accordingly determined to put patient on the following simple course treatment. Night and morning she was massaged with alcohol, and instructed to take plenty of outdoor exercise; at the same time observing great care in dressing to avoid catching cold. From the first, the patient thoroughly enjoyed the taking of bovine, and consequently a large quantity was immediately prescribed: a wineglassful every three hours, during the day, in milk. Within the first forty-eight hours, the patient felt very much improved; remarking, "Why, doctor, do you know, I feel stronger and brighter already! I know this treatment is doing me much good." The treatment was continued up to the 22d of November; when a microscopic examination of the blood showed that the quantity of hæmaglobin was increased to fully half the normal. The number of red corpuscles had also increased considerably. Since November the 14th there had been no fainting spells. In fact, the patient said she hadn't "an ache or pain." The quantity of bovine was now increased to a wineglassful five times a day. November 30th, microscopic examination of the blood showed the red corpuscles to be already quite normal in quantity. The hæmaglobin lacked but about one-eighth of the normal standard. From the 14th to this date, the patient had continued free from attacks of any kind. She will continue under observation for fully five weeks longer, and reports of the case may be made from time to time; certainly, in case of less favorable appearances.—*Records Sound View Hospital, Stanford, Conn.*

DOCTOR:—Ynour lidsary is not complet without the HYPNOTIC MAGAZINE. Cost of this handsome monthly, including premium book on SUGGESTIVE THERAPEUTICS is only one dollar (\$1.00) a year.

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Original Communications.

CHRONIC LARYNGITIS—SOME OF ITS CHIEF CAUSES AND RESULTS.*

JOHN F. WOODWARD, M. D., Norfolk, Va.

THE subject of this paper, second to none in importance, wherein the air passages are under discussion, has not been discussed of late with that interest and thoroughness, which characterizes usually the investigations of the throat and nose specialist. While brochure and caption specializing the influence of nasal and pharyngeal stenosis or obstruction, have appeared, yet their ultimate design seems to be to impress us with the remote possibilities, rather than open our eyes to the omnipresent every day facts. I again insist that we need more bedside and office symptoms than we do meaningless theories and distorted hypotheses.

With the microscope, well equipped laboratories and the X-ray, medical research and investigation are the legitimate property of every scientific mind. Why not, therefore, feel it our special privilege to add something every year to a cause that is as broad and generous as time, and as lasting as the world itself. Every medical topic, though written upon and rehashed by men of known and unknown talents, contains at some time features new and interesting to all of us, did we but make them a part of our library.

*Read before the Seaboard Medical Association, January 21, 1898.

Thus, I present to you to-day no new theme, no new type of disease, but a few causes and results which follow each other so closely that their conspicuous absence, or mere mention in text books makes them of no uncertain interest.

You are no doubt familiar with the important discussions of to-day—"How to keep the side-walks clean" "Can we all ride bicycles", subjects that disturb not the minds of our early fathers in medicine, yet, to-day are of vital importance as things good or evil, to hamper or encourage an ever changing people in the pursuit of health or happiness.

You have noticed, in public halls, public conveyances, stores and many other places, cuspidors here and there. They are not simply for tobacco chewers. We are a race of spitters and "hawkers." Did you ever stop and think why it is that two thirds of our people have to currette their throats every ten or fifteen minutes and then lubricate the congested surface with saliva? Are not our social chats constantly being interrupted by "hawks" and "hemms" and the clergy and public speakers generally resorting to cough lozengers and lubricants? Are not many of our best vocalists forcing there voices at the expense of chest and vocal cords? There is a cause for this common human distemper outside of the habit feature. It is *chronic laryngitis* the subject of this paper.

Chronic laryngitis is a chronic inflammation of the mucous membrane of the larynx, very common, and most frequently seen in adults; generally secondary to some acute inflammation, the remote expression of some primary laryngeal irritation whose persistence is but the first fruit of an endless chain of conditions the logical result of an abnormal state of the upper air passages. As the wind blows from land or water, so is the climate of that locality. Laryngitis is insidious in its onset and indefinite in its limitations; characterized by hoarseness, tendency to clear the throat, and constant tickling as if some foreign body were in the way, unexpected expulsion of tough balls of mucus, sluggish movement of the vocal cords, with occasionally unilateral paresis, fatigue of the throat during and after talking or singing, voice worse in the morning but better after using it, more or less redness of membranes with mild or decided swelling of parts, seldom ulcers, pain or fever, and in many cases an irritant cough.

I shall limit myself to the causes and results, as the pathology symptoms are thoroughly discussed by the different authors on this subject. Having questioned my patients very closely in the last few years, as to when they first began to notice that their throats were becoming affected, none of them could give a definite date, but referred to a period when they had head colds and stuffy sensations in their heads, and later on a consciousness of throat trouble, a sense of fullness and tickling with a desire to swallow or clear away something, or get rid of a dripping from the vault of the pharynx. Many of them followed this sequence—nose trouble, fullness in the ear or ears, and then irritation of the larynx. In some cases there was a sense of dryness instead of hyper-secretions. They could all recall a time when they had had colds and nose trouble. There are many inherited tendencies and physical conditions that render acute laryngitis liable to take on a chronic state, yet, the recuperative power of the larynx is very active unless aggravated by morbid environments.

Lately, I have had some very interesting cases that have so impressed me, that I feel as if a healthy upper air-passage would generally mean a healthy larynx.

Etiology as commonly noted in text-books consists of phthisis, syphilis, cancer, lupus, polypoid growths, alcohol, tobacco, the exanthemata, inhalations of irritant particles of dust, metal, drugs, over use of the voice, and *nasal disorders*. The latter merely referred to without saying much to qualify their prominence as factors in producing or abetting a chronic state of the larynx. On the contrary, I look upon disorders of the nose and the naso-pharynx, as the chief and primal causes, and when they do not originate they stimulate this condition of the larynx. Tobacco smoking, except cigarette inhaling, which I most heartily condemn, and alcohol play no special part in these cases outside of the fact that an excess may irritate and aggravate a throat that is already diseased, and lessen to some extent the chances of a complete cure. Irritant drugs and metals will irritate the nose and naso-pharynx as well. The other causes referred to seldom appear as a cause of a true chronic laryngitis in my practice.

The following cases will illustrate:

CASE 1.—Mr. W. A., aet. 30, consulted me in the early part of 1897, complaining of constant worry about his throat. Tendency to hawk and clear the throat, and at times when coughing small tough particles would fly from his mouth in the most unexpected manner. He referred to a fulness in the ears when his throat was bad, and sitting in a draft would change the tone of his voice in five minutes; talking and singing make his larynx feel tired and full, voice soft at times and then very harsh, any irritant causes him discomfort, and changes in temperature produce a profound impression upon his voice, while his pharynx and naso-pharynx felt stuffy and full of mucus. He has hypertrophy of both inferior turbinates and septal spur on the left. His larynx was red and slightly tumefied, with sluggish condition of all of the membranes. Treatment has almost entirely relieved him.

CASE 2.—Mr. A., came to see me in the summer of 1897 to have a grain of corn removed from his throat. He gave such a clear history of having swallowed the corn and then the sudden onset of the dyspnoea that I felt pretty sure I had a case of foreign body in the larynx. Examination showed on the contrary, that he had a chronic laryngitis with enlargement of the membranes. The swelling was so great that only the anterior portion of the left vocal cord could be seen, covered with a whitish mucus. He was soon able to use his voice and the grain of corn was never found. This case had every symptom of a foreign body in the larynx.

CASE 3.—C. W., aet. 6., was brought to me last August with the report that he had swallowed a water-melon seed. The spasmodic dyspnoea and aphonia with other symptoms indicated just what his doctor had diagnosed, a seed lodged in the trachea. On examination I found no seed but a very red and congested larynx. As he was so comfortable at times I let him alone with some simple treatment. About the third day I was hurriedly called but found him sleeping. I took his temperature, 103 F., and then put him on some fever treatment. In a few days he was all right, except his throat was irritable for some time after.

CASE 4.—A. G., came to me a few days ago to have a pin removed from her throat, said she had a pin in her mouth when she fell asleep, and when she awoke she felt the pain. I found no pin but tonsillitis and chronic laryngitis. The larynx was congested and the patient hoarse. Whitish threads of mucus hung from the vault of the pharynx.

CASE 5.—C. M., aet. 35, consulted me about nine months ago about loss of voice and asthma. Septum bent towards the left with adhesions, naso-pharyngitis with follicular pharyngitis, chronic laryngitis with enlargements on the right side that looked like malignant tumors. Right vocal cord almost motionless, approximation impossible, cords swollen and covered with mucus. He cannot make high or low notes. His asthma has left him but the treatment so far has not entirely restored his voice.

CASE 6.—Mr. S., aet. 30, has had voice fatigue and hoarseness for

some time. He is a public speaker, has follicular pharyngitis and nose trouble, slight nasal catarrh. I found chronic congestion and enlargement about the laryngeal membranes. Voice entirely gone, could only whisper, left vocal cord sluggish and the arytenoids did not approximate on attempt at phonation. Treatment of nose and throat relieved him in six weeks.

CASE 7.—Mr. H., aet. 25, clerk, had almost complete stenosis of left nostril with follicular pharyngitis and constant dripping in the throat. Chronic laryngitis was the result, and in three months he had lost his voice. His larynx was slightly congested and rough looking, with a tenacious mucus hanging to the cords. The nose was operated upon and the air space made almost perfect and his pharynx and larynx treated and in five weeks he could talk as well as ever.

CASE 8.—Mr. M., aet. 29, N. Y., consulted me in November 1897, about his tonsils. I found him with chronic tonsillitis and unable to talk above a whisper. He said he had had throat and nose trouble for several years, but had been without his voice for only six months and had been told by good specialists that he would not recover it again soon. After treating his nose and tonsils I put him on treatment for his voice. I did not see him again but one month later received a letter from him saying he was perfectly well and could talk as well as ever. There was no paralysis in his case, but the same sluggish condition described above.

These cases are interesting to us in many ways, especially since they point out a condition of the vocal cords that is mechanical to a great extent and amenable to treatment, rather than a true paralysis. It also gives us an insight into many of the ills that present themselves in voice culture, as well as a solution of the question in many cases of suspected foreign bodies in the larynx and in the trachea.

It is my aim in further discussing this subject to add another voice to the already large list of believers that nasal and nasopharyngeal disorders by direct, as well as by reflex and mechanical interference, abet and foster a chronic state of the larynx. There is a combination of effects direct and reflex exhibited in disorders of the ear, nose and throat, depending upon a peculiar sympathy, wherein what seems to be a single result is the totality of a concerted action of the three factors. Kurt, recognizing this sympathy, put sedatives on the conjunctiva to control whooping cough, and on the mucous membrane of the nose to stop laryngeal spasm. Is it strange that the larynx, delicate and easily inflamed, placed as it is at the apex of the air funnel

should feel, and respond to the irregularities of the upper air passages?

Given, then, a larynx with its delicate mucous membrane, and its full supply of squamous epithelium over the arytenoid and vocal bands, closely allied to cutaneous substance (Virchow) with a few glands, (in the arytenoid and vocal bands) and full supply of blood vessels, a ready tendency of this epithelium to take on epithelial changes, and the connective tissue ready to hypertrophy, with an acute inflammation or irritation from any of the causes mentioned above, is it not most natural for this state to be converted into a chronic condition from the effects of half heated air, proximity of a congested pharynx, a constant dripping of disorganized mucus from the vault of the pharynx and the hyperæmia consequent upon the constant effort to clean the larynx?

Yet, I cannot fully agree that the most of these cases where enlargements occur are the pachydermia of Virchow or the quasi-tumors of Tissiers. It is indeed an enlargement, and hypertrophy will occur elsewhere if the mucous membrane is irritated and hyperæmic. That hypertrophic and hyperlastic conditions are conducive to the more prompt establishment of benign and malignant tumors. I agree, in as much as the larynx is prone to take on such changes.

Armstrong, writing in the *New York Medical Journal*, January 1898, on the ætiology of chronic broncho-nasal and gastro-intestinal catarrh, refers to the results of deflected septum, exostoses, enchondromata and true hypertrophy, and says this condition, "is almost the universal of hypertrophic pharyngitis and laryngitis," and also, "mouth breathing or what is practically the same, breathing solely through the inferior meatus, because of obstruction in the upper part of the nose is the exciting agent producing laryngitis, which eventually resolves itself into chronic hypertrophic laryngitis. By this obstruction the air is shut out of its proper physiological channels and is not properly warmed moistened and as a result the moisture of the lower pharynx and larynx is soon consumed and a dry burning irritation of the larynx is set up, described by patients as a choking sensation, a feeling as if a lump was in the throat and often erroneously diagnosed by physicians as globus hystericus. Chronic hypertrophic laryngitis sooner or later causes a chronic irritation fol-

lowed by a persistent hacking cough. The lungs subjected to this constant concussion soon take on a bronchial inflammation which furnishes a nidus for the tubercular bacillus."

From this you see it is well to keep constantly before us the three points laid down by Greville Macdonald:—

1. Air respired through the nostrils is brought nearly to the temperature of the blood.

2. Dry air becomes saturated with moisture.

3. Exchange of gases in the air and in the blood of the mucous membrane takes place.

The air current, as suggested by Kayser and Paulsen, hugs the septum and passes up over the inferior turbinate making a semi-circle before passing into the larynx. This is important to remember, but not essential. As all of the water in a river does not run in the channel, so with the air current. It is the total mucous surface that is presented by the nose and accessory cavities that supplies the proper amount of heat. The hypertrophies and obstructions that damage and render the air irritant to the mucous membrane of probably an already inflamed larynx. Therefore you can see how fast riding on the bicycle is detrimental to those suffering with any form of laryngitis. I have treated several cases of bicycle laryngitis lately. This should be remembered, especially by those who ride daily through crowded streets—keep the mouth shut and breathe through the nostrils as nature intended.

In considering the results of chronic laryngitis, outside of the risk to the lungs, there are many points of vital importance to our personal comforts as well as of special interest to the future welfare of the human race. The comforts of home life, the social problem, the drawing room and the concert, the theatre and the counting room, the pulpit and the bar will all have to decide this question some way. They will feel its influence, now and also according to the theory of heredity, and will naturally expect the advance of medicine to correct its evil tendencies. It will be a glorious day when cuspidors become relics and "hawking and hemming" are heard no more.

The eloquence of the pulpit and the bar, the passionate and living harmonies of our sweetest vocalists are at the mercy of the larynx. Nothing can lull to peaceful oblivion dull care more

promptly than a well turned voice. Yet daily cracked registers, false pitch and narrow compass are forced into baritones, contraltos and tenors with an inharmonious mixture of head and chest tones at the expense of the vocal cords. Hypertrophic enlargement and epithelial changes produce false relationship and imperfect co-ordination of the normal muscular action of the larynx, and a resultant hoarseness and fatigue of voice, and in many cases a paresis of one of the vocal cords, as seen in several of the cases above, or so much muscular lassitude that phonation becomes almost impossible.

In several of the cases reported there was unilateral paresis with false position of the affected cord upon attempt at phonation; in none of them, however, was there complete paralysis or the cadaveric position, but in all a loss of voice simply from the lack of power of approximation.—a lack of power in the arytenoid cartilages to sustain themselves in a fixed position so to give the crico-thyroids a chance to stretch the bands so that the register could be sounded.

The arytenoid, the crico-thyroids and the thyroarytenoids are the muscles that receive the brunt of the influence.

Sajous found hoarseness in professional singers when there was lack of lubrication of the cords. These cases were of course, found in the dry catarrh of the larynx. Botey cured a case of supposed laryngeal obstruction by treating the mucous membrane of the nose. Raulin of Marseilles, restored the voice of a singer by treating double hypertrophies of the posterior septum. There was a loss of tone in the upper register and he called it muscular fatigue. Uspensky also restored the voices of two singers by treating the hypertrophies of the middle turbinates. There was impaired resonance and false register.

Trifiletti lays stress upon morbid conditions of the nose and naso-pharynx as factors in causing aphonia. Steward, of London reported two cures of unilateral paresis, right side, both right middle turbinates enlarged pressing upon the septum.

Rault of Paris refers to eight cases of paretic aphonia cured by nasal treatment. Hunter Mackenzie speaks of tuberculous laryngitis and tumor formation as sequelæ of chronic laryngitis.

There have been many cases reported in the last half decade, and its evil influence recognized for many years, though few

papers discuss the damage done to the voice as it deserves and its significance in diagnosing foreign bodies in the larynx.

Voice production is not simply the result of a harmonious control of health and chest tones and the ability to force the cords into a tonal relation, but is the correctness of pitch and range of compass happily poised by perfect control of the higher and lower registers through a specially cultivated will power to fix the cords and use the auxiliary muscles. To accomplish this a free air supply is essential, not through the mouth, but through the naso-pharynx with unencumbered vocal cords, flexible and active, with free use of the auxiliary muscles and perfect pectoral breathing. These are hardly obtainable with a stenosed nasal cavity and chronically inflamed and enlarged larynx.

Healthful environments and corrected nasal troubles will do a great deal towards obviating these calamities. A healthy nose will seldom need blowing and a sound throat will not often need clearing.

Clinical Lectures.

NEURASTHENIA.

BY CURRAN POPE, M. D. Prof. of Diseases of the Mind and Nervous System, and Electro-therapeutics in the Louisville Medical College, consulting Neurologist to the Louisville Medical College Hospital, consulting Neurologist to the Louisville City Hospital, Prof. of Hygiene in the Kentucky Military Institute: Member of the American Medical, American Electro-Therapeutic, Central and North Eastern Kentucky Medical Associations; Fellow of the Louisville Academy of Medicine, and Superintendent of the Curran Pope Sanatorium.

W. K. Age 42, born in America, occupation farmer and married. Four healthy children. He began last spring with a swelling of the feet and lower limbs accompani-

nied by numbness and headache of a dull and heavy character with attacks of dizziness and shortness of breath.

His family history is as follows; his father died at the age of 72 of pneumonia, and his mother at 60 with measles. He has one whole brother and two half brothers that are healthy; four sisters, all healthy, none of them nervous. In none of his family is there consumption, cancer or mental trouble.

In his early life he had usual diseases of childhood. He has suffered from none of the more serious neuroses of childhood, never having had any epileptoid convulsions or chorea; but has been subject to night terrors and sleep walking, technically known as *favor nocturnus* and *somnambulism*.

Formerly he used liquor to excess, indulging pretty steadily with an occasional heavy spree. He has also used tobacco to excess, chewing, not smoking. He has never had any venereal diseases or contamination and states that he has had a good constitution.

He complains of discomfort and distention in the gastro-intestinal tract and that his limbs are uncomfortable, with an "achy feeling in the bones" as he calls it. He says he suffers from palpitation of the heart upon active movement and that at times he has attacks a good deal like fainting. He complains of a headache, neither increased by exertion nor lessened by rest, that is, constant, dull and heavy. He says he sleeps fairly well, that he dreams little, awakening in the morning feeling worse than when he went to bed and that he usually feels better along toward the latter part of the day.

As you see he is a rather thin man, he has very little adipose tissue, but he tells us that he has lost very little flesh and that this has been his general condition of build through the whole of his life. There is considerable irregularity in the cranium and you will notice that there is quite a difference in the level of the eye-brows. The general formation of the face is prognathic, and the nasal bones show considerable irregularity. The palate is high although it is hardly sufficiently high to mark it as degenerate.

He suffers from nervousness and mental depression nearly all the time and is very much worse in warmer than in cooler weather. He believes he has made some improvement in his mental condition since the weather has changed. As is very common in

these cases he is excessively irritable, but at the same time he feels stupid and heavy and tired and just wants to be let alone. He has no "Get up and get" as he expresses it.

His general strength he says especially in his arms, is very good; that he can go a little distance all right; then he begins to give out in his legs and in a short he is compelled to give up. He suffers from a fine vibratory tremor on the extension of the arm and fingers. On testing him we find that he exhibits no ataxia. The reflexes are active and very much so upon reinforcement.

His tongue is coated heavily and stained with tobacco. His bowels are constipated alternating with diarrhœa, which is probably the result of fermentation and intestinal indigestion. He says immediately after eating and more or less all the time he is distended and his abdomen feels heavy just like he had a weight in it. He often has a queer feeling in his abdomen and some pain. His eye sight is normal and his hearing good.

This case is evidently one of neurasthenia. In all probability in this case we have a considerable toxemia. Neurasthenia to a certain extent is an American disease, not so much American now as it was ten years ago: nevertheless the purest and most distinctive types of this disease are found in this country. It is possibly due partly to the varying factors that go to make up the Nation. The prominent features, however, are the peculiar political, religious, scientific and business activity of the country. Nowhere on the face of the earth are there such premiums offered for advancement as to him who acquires much in his particular line of work or particular line of money getting. As a result of this men, and women too for that matter, are apt to overtax the capacity of the nervous system for normal and proper work. Many persons are unquestionably handicapped from the start by a poor resistance, imperfect heredity and unstaple constitution, and apt to develop the varying phrases of neurasthenia upon the slightest strains. The tension and tone of the nervous system is much lowered.

As a rule in such cases as we have before us the prognosis is good. This man in all likelihood will recover from his trouble. The average duration of the treatment of a case of neurasthenia is not to be measured in days but in weeks and months.

In regard to the treatment of this case, I can do nothing more

to-day than to go over briefly the particular treatment that we would give this case from a clinical and private practice standpoint.

We will put this man on laxatives for a while. There is nothing more advantageous than combining with the laxative treatment antiseptis and super-alimentation especially in the intestinal tract. To accomplish this we can use the following prescription.

℞—Aloin	gr. 1-20
Phenacetin	gr. ss-j
Salol	gr. v.
Taka-diastrase	gr. ss-ij
Camph. Monobro	gr. v.

You can use either aloin or cascara sagrada. I prefer to use aloin in young people and cascara sagrada in older persons or persons who have had neurasthenia for a long time. If you find the aloin or cascara unpleasant we can add a little belladonna to the prescription but I rarely do so. I prefer to use phenacetin. It certainly lessens nerve irritation and depression and at the same time acts to a certain extent as an antiseptic. We will use in conjunction herewith the usual hydrotherapeutic and electrical treatment I have heretofore suggested.

Society Reports.

NEW YORK ACADEMY OF MEDICINE.

SECTION IN ORTHOPAEDIC SURGERY.

Meeting of December 17th, 1897.

Dr. A. M. Phelps read a paper entitled: "A Consideration of Some of the Pathological and Mechanical Problems of Hip Disease." He presented the view that Nature attempted to repair the lesion producing hip disease by inflammatory action which was a normal process of repair until the inoculation of germ life which marked the beginning of disease in the area of inflammation. The absence of inoculation gave rise to ephem-

eral cases of hip disease which rapidly recovered without deformity or disability, but inoculation gave rise to the ordinary type of the disease. If the phagocytes were weakened by the strumous condition of the patient, they failed to destroy the germs.

If, however, germ life was destroyed, repair went on and the parts were restored to their normal condition. Cavities and foci produced in the course of hip disease by the slow growth of the bacilli of tuberculosis might be inoculated by the rapidly growing pyogenic cocci when a hot and possibly painful abscess appeared and called for the knife and drainage. The adduction, flexion and inward rotation attending the third stage found a mechanical explanation in the fact that when the limb passed twenty-five degrees of flexion the adductors became internal rotators, the external rotators became adductors and the tensor vaginæ femoris became a powerful inward rotator. In the application of mechanical treatment it should be remembered that the powerful groups of muscles acting upon the thigh did not act on an axis with the shaft but nearly on a line parallel with the axis of the neck of the femur. Lateral traction, therefore, should be made in the line of the axis of the femoral neck and not of the shaft.

Dr. G. R. Elliott said that in hip disease we had a depraved process. The whole system was at a low ebb that tended to favor the development of the disease. He thought that this condition of inactivity required the use of some form of apparatus which did not, as all the instruments now in use did, subject every part of the child's body to great expense for the sake of the hip. The ideal splint of the future would not lock up so much of the body by apparatus but would fix only the diseased joint.

Dr. R. H. Sayre advocated the use of traction to fix the joint, give it physiological rest and relieve the pressure to which the diseased bone was subjected. He thought that it was difficult to apply lateral traction by a splint, but in bed lateral traction was easily applied and added to the patient's comfort. In children, however, in whom the neck was nearer in line with the shaft of the femur than in the adult, he believed that longitudinal traction was sufficient. He thought it well to apply massage to overcome the muscular atrophy of disease, but it took a great

deal of care to limit the application to the sound part and not interfere with the inflamed joint.

Dr. R. H. Hanley held that all pus accumulations about a joint should be evacuated early and thoroughly. He asked *Dr. Phelps*'s opinion of the intra-articular injections of solutions of iodoform.

Dr. Phelps said that filling a joint with an insoluble compound did more harm than good. If he found a joint in which there was fluid, he evacuated it.

Dr. A. B. Judson said that the destruction of the head and acetabulum was often cited as an evidence of the bad effects of muscular contraction and of the necessity of making traction. He thought that this destruction was rather an evidence of the bad effects of the pressure made by the weight of the body, as patients with hip disease, if unmolested, were in all except the most advanced stages on their feet as much as well children. He believed that traction was the best method of promoting fixation and in painful stages it was indispensable, but that removing the weight of the body from the joint was also an indispensable part of the treatment and useful through far longer periods than traction.

Dr. T. H. Myers had made a careful study of the ephemeral cases and believed that the lesion, of whatever nature it might be, was in the bone itself. He would make a distinction between these cases and rheumatic, gonorrhœal or other affections of the joint cavity and ligaments. He could not recall any acute case of hip disease which had not been relieved by longitudinal traction alone.

Dr. R. Whitman said that the breaking down of bone appeared to be the effect of a destructive process, aggravated by the friction of the diseased surfaces upon one another, by the weight and strain of use in the attitudes of deformity and by the muscular spasm which forced the diseased parts together. The intensity of the spasm was in inverse proportion to the fixation and rest that could be assured. When the patient was recumbent the most important means of fixing the joint was traction. The ambulatory brace should remove the weight of the body from the weakened part, but it was so ineffective in fixation that its use should be combined with splinting of the joint. He had always insisted that the hip should be slightly abducted.

Dr. Phelps said that abduction should be avoided. It was one of the difficult conditions to correct in the first and second stages.

Dr. Judson said that in recovery with ankylosis abduction was desirable. It gave a factitious length to a limb which was probably really shortened and saved the use of a high sole or reduced its height.

Dr. Sayre thought that the limb should be in as nearly normal a position as possible, neither abducted nor adducted.

Dr. H. L. Taylor thought that about five degrees of abduction would compensate for some of the shortening and make the limb more useful.

Dr. Phelps said that ankylosis was due to the severity of the inflammation, the character of the disease, the destruction of bone and contraction of cicatricial tissue about the joint. It was prevented by the use of an apparatus which seized the pelvis and fixed the joint from the commencement of the treatment until the patient was cured. The joint being thus held at perfect rest, Nature went on in her effort to cure, uninterrupted by the trauma of motion. The splint was not used to overcome deformity, but merely to hold the limb in a perfectly straight position after the deformity was corrected by bed treatment.

DEFORMITIES FOLLOWING TYPHOID FEVER.

Dr. W. R. Townsend presented a boy 19 years of age who had complained of spinal pain and stiffness since recovery from typhoid fever last February. The vertebral column was very rigid with a slight curve towards the right in the lower dorsal region and a posterior curve of the lower dorsal and the entire lumbar region. There were also a number of swellings distinctly connected with the bone in different parts of the body resembling the cold abscesses of tubercular subjects and syphilitic nodes. They were not very soft and there was no fluctuation. The general health had been poor since the fever. Parsons, of Johns Hopkins University, had described such swellings as appearing several months after typhoid fever. He had found in them the typhoid bacillus, the staphylococcus and the bacillus coli communis and had advocated total extirpation of these foci.

Dr. Sayre thought the boy might be suffering from hereditary

syphilis which had first made its appearance when his health was broken down by the attack of typhoid fever. If local treatment was necessary the foci might be incised and scraped and packed from the bottom. As the epiphysis is involved in several instances enucleation would endanger the usefulness of the joints. He called attention to the girdle-mark which is a pathognomonic sign of disease of the spine and advised treatment as of an ordinary case of tuberculous disease of the spine.

Dr. V. P. Gibney advised that a trial of anti-syphilitic treatment be followed by general constitutional treatment, the administration of cod-liver oil, etc. He could see no advantage likely to follow cutting out the foci. Spinal rigidity after typhoid fever was due to a mild periostitis about the points of exit of the nerves. He thought that forcible correction with anæsthesia would be excellent treatment in this case. He had seen a number of typhoid hips. One of them was under treatment by repeated forcible motion under anæsthesia followed by massage.

Dr. Whitman thought that the spinal deformity was the most important feature of the case and that it required immediate correction. He thought that the girdle-wrinkle was not caused by muscular spasm but was simply a fold in the abdominal wall answering to the projection backwards which had taken the place of the normal lumbar lordosis.

Dr. Sayre said that he had noticed the girdle-wrinkle in many cases. It would be higher or lower according to the location of the disease. It was due to muscular spasm which accompanied any muscle subject to irritation and joint inflammation. It was diagnostic of Potts' disease and was present even when there was no appreciable projection.

Dr. Townsend said he had not thought seriously of taking the foci out as to do so would, in nearly every instance in the patient in question, involve opening into a neighboring joint. He would put the boy upon anti-syphilitic treatment and later would probably consider the other suggestions made.

ABSCESSSES WITH PERFORATION OF THE BLADDER.

Dr. Myers related the case of a boy 10 years old who had left hip disease with many sinuses and waxy liver. A discharge of urine from a sinus in the inguinal region continued for two weeks

No pus was noticed in the urine. For a time there was pain in the lower part of the abdomen. The urine contained hyaline and granular casts, a few pus cells attached to casts, no sugar and a small amount of albumen. Specific gravity 1010. The child was kept lying on the opposite side. Dr. Myers also related the case of a girl 15 years old who had many abscesses from disease of the left hip. An abscess appeared above Poupert's ligament on the right side with abdominal pain. The muscles of the abdominal wall were rigid. Large quantities of pus were painfully passed with the urine. The abscess, after extending towards the left, ruptured and with the escape of a quart of purulent fluid the pus disappeared from the urine. Both of the patients recovered from the perforation. In the first patient the flow was from the bladder outward, in the second from the abscess into the bladder. He also recalled two cases in which there was intestinal perforation with discharge of intestinal contents through the sinus. Both patients speedily died.

Dr. Townsend recalled a case of psoas abscess in which pus passed for three years through a perforation in the rectum.

Dr. Sayre recalled a case of hip disease in an adult in which an abscess discharged through the bladder. The patient survived the complication ten years and is still alive. In another patient in whom both hips were diseased on one side there was perforation into the intestine with escape of gas from an external sinus. This hip recovered with motion while the other hip, in which there was no abscess, recovered with ankylosis.

RICHMOND ACADEMY OF MEDICINE.

THE PROGRESS OF SERUM THERAPY.

The first mention of the employment of the idea of serum-therapy is that in the recorded practice of inoculating patients as a prophylactic measure against smallpox, employed at the beginning of the eighteenth century in Turkey. Inoculation gave way before the more desirable method of vaccination. The

number of lives which Jenner's discovery has saved is well nigh incalculable. The first mention of the use of serum is to be found among the Germans, who employed the treatment under the name of *Isopathy*, about the middle of the century. To what extent it was used, and with what success it was credited by them, is not definitely stated, but it must have impressed them favorably, for a variety of isopathic preparations made their appearance under such names as "phthisia, hydrophobia, scarlatina," etc.

Diphtheria.—The history of the development of the antitoxin treatment of diphtheria is so well known, and its acceptance now so universal, that it would be useless, even if the limits of this report rendered it possible to go fully into details on these points. Even at the time that your committee was appointed it could be said that a sufficiently extensive trial of the antitoxin treatment of diphtheria had been made to remove the fears which many had entertained as to its action, and to place the remedy in an assured position as one of inestimable worth.

During the past year statistics from many and varied sources have appeared, all tending still further to increase the confidence of the profession in the remedy, and to demonstrate the saving of life which it has accomplished. Many who were sceptical have been convinced by the unanswerable argument of statistics whose authenticity could not be questioned, until to-day it may be said that but few physicians, indeed, who have given the subject careful consideration do not accord to the remedy even more value than was at first claimed for it by its staunchest advocates.

Only two sets of these statistics will be referred to, not because they are more favorable than others, but on account of the large number of cases recorded in them, and because they represent such diversity in the class of cases treated.

The report of the committee of the American Pediatric Society, presented at its last meeting, includes 1,704 cases of laryngeal diphtheria which occurred in the practice of 422 physicians in the United States and Canada. In this report the following points are among the most prominent: Before the use of antitoxin it was estimated that 90 per cent. of laryngeal diphtheria cases required operation, whereas now, with the use of antitoxin, only 39.21 per cent., require it. The mortality in

the whole series of 1,704 cases was 21.12 per cent. (360 deaths) In the non-operated cases the mortality was 17.18 per cent. (178 deaths. The mortality in the operated cases (27.24 per cent.—182 deaths) shows even more remarkable results. Before the use of antitoxin only 27 per cent. *recovered*; now only 27.24 per cent. *die*.

The other report to which reference will be made is the "Second Report of Medical Superintendents upon the Use of Antitoxic Serum in the Treatment of Diphtheria in the Hospitals of the Metropolitan Asylum's Board during the year 1896." (London). In these hospitals during 1896 antitoxin was used in 71.3 per cent. of all cases of diphtheria, the remedy not being employed in moribund, mild, a doubtful cases. The total death rate during 1896 (under antitoxin) was 20.8 per cent.; that of 1894 (without antitoxin), although then considered remarkably low, was 29.6 per cent. This represented a saving of 365 lives. It is well known, however, that only during the early days of the disease does antitoxin exert its full beneficial effect; and hence, while the above figures show a difference in the total death rate of only 8.8 per cent., the difference in cases treated on the first day was 17.8 per cent.; on the second day, 14.2 per cent.; on the third day, 11.7 per cent.; on the fourth day, 9.1 per cent.; and on the fifth day or later, 6.2 per cent. Laryngeal cases were attended with a mortality of 62 per cent. in 1894; 29.6 per cent. in 1896. Operated laryngeal cases had a death rate of 70.4 per cent. in 1894; 41 per cent. 1896. It is the opinion of the superintendents that there has been no reduction in the frequency of complications of the disease as a result of antitoxin treatment, except in the case of nephritis, which occurs less often. In fact, it would seem as if the other complications occur even more frequently than formerly. This, however, is only apparent, and is due to the closer observations which are now made, and, even more, to the fact that many severe cases, which would have died under other treatment, now recover, and these are naturally more prone to develop complications.

In this report the general results of antitoxin treatment are summed up as follows: 1. Diminution of faucial swelling; 2. Lessening of irritating and offensive discharge from the nose; 3. Limitation of extension of membrane; 4. Earlier separation of exudate; 5. Limitation and earlier separation of membrane

in laryngeal cases; 6. Improvement in general condition and aspect of patients; 7. Prolongation of life, in fatal cases, to an extent not obtained with former methods of treatment.

It has been claimed by those who refuse to recognize the value of diphtheria antitoxin, that the favorable results shown in the statistics of the past few years are due to other factors than the employment of antitoxin. By some it is held that the type of the disease has become milder; others that since the widespread application of bacteriologic diagnosis, cases are now called diphtheria which were formerly not so classified; or, again, that moribund cases and cases treated after the fifth day of the disease are excluded in many of the statistics. The first report to which reference has been made above, answers fully the first objection, since it deals with only laryngeal cases, and laryngeal diphtheria can never be considered mild. In the report of the Metropolitan Asylum's Board Hospitals mild as well as moribund cases were not injected. As regards the influence of bacteriologic diagnosis it is a fact which no one acquainted with will dispute that the number of cases which would formerly have been considered diphtheria, but which are now excluded from the statistics by bacteriologic investigation, far exceed those in which the reverse is true.

While the above are strong replies to the criticisms of the opponents of antitoxin, we are indebted to Park for a table of statistics against which none of the usual objections can be urged. This table, compiled from the official records of Berlin, Paris and New York, shows the absolute death rate per 100,000 inhabitants in these cities from diphtheria and croup from 1886 to 1897 inclusive. There is here no room for asserting that the statistics have been twisted to favor any plan of treatment, that any special class of cases has been excluded or included, and yet the reduction in mortality in all three of these cities since the introduction of antitoxin is remarkable and too uniform to be the result of mere coincidence. This table is of such interest that it is here appended:

ABSOLUTE DEATH RATE FROM DIPHTHERIA AND CROUP PER 100,000
POPULATION.

Year.	Berlin.	Paris.	New York.
1886.....	125.7	73.2	187.5
1887.....	100.7	76.9	205.6
1888.....	76.1	83.7	167.7
1889.....	85.6	79.9	146.2
1890.....	102.0	77.5	110.6
1891.....	67.5	63.0	118.7
1892.....	92.9	63.6	123.3
1893.....	100.8	51.4	145.5
1894.....	86.7	40.7	158.5
1895.....	†59.7	17.7	105.2
1896.....	30.9	17.6	91.3
*1897.....	26.4	17.2	86.4

*Last quarter of year estimated.

†General use of antitoxin commenced.

As regards actual advances in the antitoxin treatment of diphtheria, the chief of these seems to be the production of more potent and trustworthy serums and the attention to details in its manufacture, whereby, its efficacy has been increased and many of its objectionable features diminished. Rashes and joint symptoms following its use are now somewhat less frequent than formerly.

The preparation of dried serum has not yet been brought to a sufficient degree of perfection to supplant the ordinary product, while "we have no more hope than we had five years ago of separating antitoxin completely from the horse serum."

During the past few months the Health Department of New York city has been testing the comparative frequency of rashes after the use of filtered and unfiltered serums. Your committee is indebted to Dr. Wm. L. Somerset, Resident Physician Willard Parker Hospital, for the following statement, which is an approximate one, of the results obtained: Previous to the employment of filtered serum, rashes occurred at the Willard Parker Hospital in from 25 to 30 per cent. of all cases: since the use of filtered and unfiltered serum in parallel cases, the percentage of rashes where filtered serum was injected has been reduced to about 15 per cent., while it has risen to about 40 per cent. where the unfiltered product was employed. The higher percentage of rashes in the latter class of cases than formerly, is due to the

fact that the unfiltered serum used in these cases contained the residue from the filtered portion. It would thus appear that the production of rashes is caused largely by some constituent of the serum which is incapable of passing, or passes only in small amounts, through unglazed porcelain.

The use of antitoxin as a prophylactic measure has been steadily gaining ground, and with the production of a serum from which all objectionable features have been eliminated, its use in this direction will doubtless become even more popular; though, from the temporary nature of the immunity affected, it must remain a measure to be adopted only in the presence of epidemics or in cases where exposure has undoubtedly occurred.

YELLOW FEVER

In 1854 and 1855, inoculation, as a preventive measure, was made use of in Havana during an epidemic of yellow fever. In 1887, this idea was again introduced and followed up very thoroughly in Brazil. But in neither instance were the results satisfactory. In 1892, Domingo Freire introduced a diluted virus derived from the micrococcus xanthogenicus, which he held to be the etiological factor in the development of yellow fever. This diluted virus was advocated as a preventive inoculation by Dr. Belinger, of San Francisco, Dr. J. McFadden Gaston, of Atlanta, and others during 1893 and 1894; but the results have been disappointing. About the same time, in 1863, Dr. A. S. Ashmead recommended "Murray's immunizing method" as follows: Inoculate with the blood serum of a partially immune subject (negro), and inoculate a second time with perfectly immune blood serum of a white subject who has had yellow fever. Before inoculation, however, as frost always modifies the virus, let the infected serum be first exposed to frost. Follow at once with a second inoculation of immune blood serum." Disappointments likewise followed the use of this method.

In July, 1897, Prof. G. Sanarelli, of the University of Montevideo, isolated and cultivated a bacillus which he considers to be the specific organism of yellow fever. Probably it is the same bacillus as that formerly described by Surgeon General Sternberg. Possibly both may ultimately be proven to be secondary invaders. However, Sanarelli has been occupying himself since last summer in the securing of a protective or curative serum, about which most encouraging reports have been already

made. And yet scarcely is the hope born that at length we have a protective or curative agent with which to meet yellow fever before adverse reports are coming in to indicate that we must wait and see.

TUBERCULOSIS.

The medical world was startled in 1890 by the announcement that Koch had discovered a remedial agent for phthisis. This announcement was hailed with joy, and it was immediately put to the clinical test, but its virtues, so ably set forth by its discoverer, soon began to minimize, and finally it fell into disrepute as a curative remedy. Since the introduction of tuberculin several serums have been brought forward, and have been tried with varying success by many physicians.

Among the most popular of these preparations are the serum of Prof. E. Laragliano, of Genoa, obtained from the dog, the ass, and the sheep. When treatment was begun as late as the formation of cavities in the lungs, he claims a *cure* of 7.76 per cent. In non-febrile tuberculosis, his successes have amounted to nearly 100 per cent. of recoveries. He recommends that 1 c. m. of the serum should be the dose injected subcutaneously every second day. In febrile forms, the dose may be increased for several days—5 to 8 days—to 5 and even 10 c. m. Such are the contradictory reports as regards successful use of Maragliano's serum by different doctors that it is difficult to come to a fixed opinion on the subject.

What has been said in general of Maragliano serum applies in the main to the published results of the use of the antitubercle serum introduced in 1895 by Dr. Paul Paquin, of St. Louis. That it is useful when administered with other remedies is more than probable.

Early in 1869, Koch introduced what he called T. R. Tuberculin, and this was followed by encouraging reports of its use. But it was not long before the process of its manufacture was found to be faulty in that, notwithstanding the centrifugation, it was discovered that in a large number of the preparations on the market tubercle bacilli remained in the fluid. This being recognized as an error of manufacture, it has been withdrawn from market—certainly until the fault of its manufacture can be remedied.

Antiphthisin is a sozalbumin, introduced some years ago by

Klebs, which he regards as the germicidal part of tuberculin. Von Ruck "attests its absolute safety, and considers that it has curative properties."

But the early disappointments in practice of the serum treatment of tuberculosis have made the profession skeptical as to the remunerative value of any and all such methods of treatment; and yet it is evident to the non-skeptical who reviews the experience of unbiased practitioners that it is probable that whatever may be found curative of tuberculosis, one of the measures to be used will be perfection of some of the antitoxines so called. It is the opinion of many that the scientific worker is getting in the neighborhood of the real remedy, and is probably knocking at the door of the house in which the truth is to be found.

Translations and Foreign Reviews.

IN CHARGE OF

RICHARD H. WHITEHEAD, M.D., CHAPEL HILL, N. C.

KOCH'S NEW TUBERCULIN.—Undaunted by the lamentable failure of his tuberculin the famous bacteriologist, Robert Koch, has offered us a new preparation for the treatment of tuberculosis (*Deutsches Med. Wochenschrift*, No. 14, 1897). The reasoning which led up to this preparation and the method of its production are briefly as follows: Immunity from infectious diseases may be conferred in at least two ways. In one case the immunity is produced by injections in increasing doses of the specific toxin of the disease. The immunity thus conferred does not, however, necessarily interfere with the growth of the specific bacterium, but simply prevents symptoms due to its specific toxin. It may, therefore, be called toxin-immunity. Tetanus offers an illustration. In the second case the immunity is bactericidal in nature. For example animals may be rendered immune to cholera and typhoid fever by R. Pfeiffer's method of innoculating the living germs of those diseases. The germs introduced into the bodies of animals thus rendered immune, rapidly die and yet such animals are almost as susceptible

as ever to the toxins of these diseases. This we may call bacterial-immunity. The agents which produce this form of immunity are integral parts of the bodies of the bacteria and are set free when the latter die and disintegrate. Immunity to be complete, he says, must combine both of these forms: To obtain this he has been working for six years, and he believes with success at last. His attempts to confer immunity by innoculating the dead bodies of the bacilli were in vain. If injected subcutaneously they are not absorbed with sufficient rapidity and produce abscesses. If brought directly into the circulation they produce tubercles. Accordingly, he dried agar cultures of the bacilli, and pulverized these in a mortar. To this triturate he added distilled water and centrifugalized the mixture. This separates into a liquid above and a precipitate below. The latter contains the powdered bodies of the bacilli and, with a little working over, is the new tuberculin. With this he could always confer immunity to tuberculosis upon laboratory animals, and could always cure tuberculosis in such animals, provided the treatment was begun early. He also treated a number of human patients and of the result he says modestly: "I obtained marked improvement in every case. I use word 'improvement' intentionally, although, according to the usual conception, not a few of the cases would have been classed as cured. However, I consider it premature to speak of cures until sufficient time has passed without relapse." Since this communication the treatment has been tried in true scientific spirit by numerous competent observers, and with the absence of the sensationalism which attended the introduction of the old tuberculin. Of the reports which have been presented in subsequent numbers of the *Wochenschrift*, the following are fair examples:

Bussemius, of Berlin, treated fifteen cases. With the exception of two cases of lupus he could observe no material improvement. Professor Schultze, of Bonn, in nine cases could not attribute any effect to the tuberculin, favorable or otherwise. Doutrelepont, of Bonn, treated fifteen cases of lupus in five of which the ulcers cicatrized. He expresses the opinion that the new preparation is an improvement over the old one in the treatment of lupus. Leick, of Greifswald, could not observe any favorable effect upon fifteen cases of pulmonary tubercu-

losis. The results of Professor Rumpt, of Hamburg, in twelve cases were by no means brilliant. Herzfeld in seven cases of laryngeal tuberculosis saw only one improve. Baudach treated twelve cases in a sanatorium, and thought all improved more than they would on hygienic treatment alone. At present the journals seem inclined to let the subject drop and await further developments. Perhaps it is too soon yet to form positive opinions as to the merit of the new tuberculin but if we are to judge by the evidence so far presented it is no material improvement on its unfortunate predecessor.

PICRIC ACID IN THE TREATMENT OF BURNS.—In view of the fact that a great deal of praise has been bestowed upon picric acid as a local application for burns, it is well to note that the use of this drug may be attended by serious inconveniences. Latouche (*Semaine Medicale*, No. 5, 1898), reported to the Surgical Society of Paris two cases of poisoning by picric acid. Both patients were children treated for burns of the face and hands by local application of saturated aqueous solutions of the acid. The application caused great pain followed by repeated vomiting and diarrhœa. The skin and sclerotics were colored yellow and the urine contained large quantities of picric acid. One of the children was quite ill for a week, but both recovered.

In the discussion which followed numerous surgeons stated that they had had similar experiences.

DR. SCHLATTER'S REMOVAL OF THE STOMACH.—Recently the newspapers have been publishing reports, rather sensational in character, of this operation. It may be interesting to review the Swiss surgeons own account of it. The operation was undertaken to relieve symptoms of obstruction at the pylorus, but finding that the stomach was the seat of diffuse cancer extending from end to end, he determined to excise the entire organ. He accordingly ligated and divided the greater and lesser omentum, and then cut away the stomach from the duodenum and œsophagus. It was impossible to approximate the duodenum and œsophagus, so he closed the open end of the latter and bringing up a loop of jejunum over the transverse colon anastomosed it to the œsophagus. The patient, a woman aged 56, made a smooth recovery.

Under date of January 10th, Schlatter stated that his patient was still kept in the Zurich clinic for study, that she continued well, and has gained—four months after the operation—over 10 pounds.—*Semaine Medical* No. 4, 1898.

[The operation has recently been done twice by American surgeons, with promptly fatal results.]

THE MEDICAL TREATMENT OF GOITRE.—In view of the inefficiency of medical agents in the treatment of simple goitre, this affection came gradually to be recognized as a surgical disease. Yet while numerous cases have been cured or greatly improved by surgical measures, the various operations employed are attended with more or less risk of life even in the hands of expert operators and are sometimes followed by serious sequelæ as operative myxœdema. The demonstration of the fact that many of these cases can be ameliorated or even cured by thyroid feeding has again given an impetus to the medical treatment of goitre. As the thyroid preparations in use, however, vary greatly in their content of active ingredient, the results derived from their administration have lacked uniformity. Now, that the active principle of the thyroid gland has been isolated by Prof. Baumann, and presented to the profession in the form of a trituration with sugar of milk under the name of iodothyrene, it will be possible to obtain the full advantages of the thyroid treatment.

This statement is borne out by the favorable results already secured from the use of iodothyrene in cases of goitre, and this remedy appears to be a valuable addition to the medical resources of the physicians in the management of this disease, especially in its earlier stage.

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Editorial.

REMOVAL NOTICE.

After the mailing of this issue the office of publication of the NORTH CAROLINA MEDICAL JOURNAL will be transferred from Wilmington to Winston, N. C., to which address all communications should in future be directed. The "Twin

Cities" of North Carolina (Winston-Salem) are situated in the piedmont section of the State, and in the great tobacco growing region. They are surrounded by productive farms and industrious farmers, and under the influence of these and diversified manufacturing enterprises, which are constantly on the increase, these cities (virtually one) are pushing rapidly to the front.

While it must be with a feeling akin to sadness that the friends of the JOURNAL see it removed from the place of its birth, they will realize that it is an evidence of the spirit of progress, which has marked the course of the present management, that the JOURNAL having reached its majority must strike out on broader lines. There will be no change in the interests or management of the JOURNAL, but with the improvements inaugurated with the present year and to come, we hope to give to our readers a truly dignified, ethical and up-to-date journal, reflecting from its pages the best medical thought of this and foreign countries, and especially to make it a worthy medium through which the profession of North Carolina, and the South generally, may give to the world the benefits of their thought and experience.

Reviews and Book Notices.

Flint's Medical and Surgical Directory of the United States and Canada. Issued annually. 1897. Compiled by A. L. Chatterton. J. B. Flint & Co., New York, 1897.

After several months use of this directory we find it the most accurate of any list of physicians with which we have met. It gives the names of 1543 physicians in North Carolina and there appear very few errors.

Lectures on the Action of Medicines.—Being the Course of Lectures on Pharmacology and Therapeutics, delivered at St. Bartholomew's Hospital during the Summer Session of 1896. By T. Lauder Brunton, M. D., D. Sc. (Edin), LL. D., (Hon.) (Aberd.) F. R. S. Octavo, 674 pages, Cloth \$4.00. The Macmillan Company, New York, 1897.

This volume comprises thirty-five lectures which were delivered without manuscript and stenographically reported. It was the author's aim, so he says in a prefatory note, to give his stu-

dents only so much in these lectures as they could assimilate. Their use is not to supply the student with all the information he needs, "but to awaken his attention, to excite his interest, to impress upon him certain points which will form a nucleus for his knowledge, and around which he may afterwards group more information." Dr. Brunton is not a believer in the method of cramming, a method too often adopted by those preparing for examinations. The lectures are not arranged after any cut and dried system and each drug in the pharmacopea minutely studied as to its physiologic action, but are made interesting discourses in which the general action of groups of remedies are considered as they affect certain organs or conditions. Frequently the most important member of a certain group is studied more closely.

The volume is one that can be read by one with interest for hours at a time, and the subject matter is so interspersed with personal experience of the author that the important points are more firmly fixed in the reader's mind.

The paper, binding and typography are excellent.

Review of Current Literature.

OBSTETRICS.

IN CHARGE OF

GEO. GILLETT THOMAS, M. D.,

R. L. PAYNE, M. D.,

A CASE OF 'COMBINED INTRA AND EXTRA-UTERINE PREGNANCY AT TERM.—In a reprint from a recent number of the American Journal of Obstetrics Dr. Hubert A. Royster, of Raleigh, N. C., details the following remarkable case:

Juanita D. aet. 34 years multipara was attended in her seventh confinement June 27, '97, by a negro midwife. A living child was delivered and forty-eight hours later Dr. Powers was called in because the midwife "felt another child and it wouldn't come." The doctor diagnosed abdominal pregnancy at term and advised operation. This was refused. Later several competent physicians saw the patient and con-

firmed the diagnosis but operation was declined. On July 15th patient was seen by Dr. Royster in consultation with Drs. Powers and Harris. The doctor obtained the following history of her gestation: "She menstruated last in the early part of October 1896, (exact date not remembered) and seemed to be normally pregnant up to the 4th of December. On the evening of that day, just before retiring, she went out in the yard, squatted down on the ground to urinate and while in the act was seized with sudden sharp pain in the right side which caused her to call for help. She fell in a half fainting way, was carried into the house put to bed and in a few hours recovered. There was no external loss of blood. Her abdomen, however, became larger and she has "never felt right since, being in bed a part of the time up to a week before her confinement."

At the time of Dr. Royster's writing nothing definite could be made out. The abdomen was so "slightly distended that palpation and percussion revealed nothing save the presence of fluid extending almost up to the xiphoid cartilage and showing distinct uniform fluctuation. There was dullness anteriorly and resonance in the flanks. * * * Slight pressure produced acute pain. * * * The cervix was large, boggy and deeply lacerated; there was a rusty-colored odorless, sticky discharge from the uterus. Her temperature was $101\frac{1}{2}$ degrees and her pulse 120." She was brought into Rex Hospital July 17th with a temperature of 103 degrees and a pulse of 128, and preparation immediately begun for operation. Operation was done on the 18th by Dr. Royster, assisted by Drs. Goodwin, Knox, McGeachy, W. I. Royster, Harris and Powers. After anæsthetization patient was placed on the table in the Trendelenburg position and the abdomen opened by a four-inch median incision. The abdominal walls were thinned by overdistention and the knife at once came down on thickened peritoneal tissue. Cutting through this, a large quantity—probably a half gallon—of dirty, yellowish fluid of a peculiar odor began to gush out. When almost all of this had been allowed to escape the incision was prolonged with scissors and the left hand introduced. The lower extremity of a fetus was felt and a knee brought up into the wound, demonstrating the correctness of Dr. Power's diagnosis.

The incision was again prolonged, making it seven inches in length. Grasping the dead child by the head and shoulders, I delivered it through the incision, tied the cord and cut it close to the fetus. To save time only one ligature was used. Preparations were now made to deal with the placenta. It was found in the lower part of the cavity, mainly to the left of the middle line, though extending somewhat to the right. It was adherent to the anterior abdominal wall and to the left side of the pelvic brim. The umbilical cord, short and thick, was adherent to the anterior wall at two points to the right of the incision, but it was separated easily and traced up to its placental attachment. Before attempting to enucleate the placenta a careful examination was made, in order to determine if there had been a rupture of the uterus.

In doing this it was seen that the gestation sac was entirely extraperitoneal, and that the general cavity of the abdomen had not been opened except for two inches at the upper angle of the incision, where it had been prolonged to gain room for extracting the child. This opening had already been covered by gauze pads, and the position of the patient prevented protrusion of the bowel. The sac, being tightly fixed to the anterior abdominal wall, was in front of and below the intestines, while the uterus and its appendages were in their normal situation below and behind. In order to make sure of the condition of the uterus, one of my assistants introduced his left hand into the already disinfected vagina, and, manipulating with the other hand above, found this organ whole and in good position, the gestation sac growing fast to its left cornu. The placenta was now gently loosened by dry dissection, and its coverings stripped back by the fingers until the left wall of the pelvis was reached, where two silk ligatures were placed around the more vascular adhesions and the tissues cut on the placental side. There was very little bleeding. The sac was cleared of its debris of slimy, macerated material, washed out with hot salt solution, sponged dry, and the abdominal wound closed with through-and-through silkworm-gut sutures, after inserting strips of gauze and bringing their ends out through the lower angle of the incision for drainage. The abdomen was dressed with sterilized gauze and cotton retained by a flannel binder. The patient was put to bed and exhibited not a sign of shock. She had no vomiting or nausea and her pulse was 104.

The after history of the case was uneventful the patient going on steadily to convalescence. She rapidly regained flesh and strength and was discharged from hospital August 27th in perfect health. The extra-uterine fetus was a fully developed female weighing four and a quarter pounds. The placenta weighed two pounds.

[This case is not only of interest because of the skill with which it was treated by Dr. Royster but because of its rarity. Very few cases of ectopic gestation go on to term, death of the fetus usually occurring at an early date, because of the imperfect development of the maternal side of the placenta: and very much rarer are cases of extra and intra-uterine pregnancy reaching term. Another point of interest attaching to the case is that at the time of the escape of the fetus into the abdominal cavity (December 4th) there probably occurred a tubal abortion and the ovum was simply expelled from the fimbriated extremity of the tube without rupture of the sac. The reasons for thinking this are the time at which this accident occurred, prior to the usual period of closure of the fimbriated end of the tube and the slight evidence of shock and hemorrhage attending the accident. The patient "was seized with sudden sharp pain in the right side. * * * * * She fell in a half fainting way, was carried into the house, put to bed, and in a few hours recovered." A very different state of affairs from the intense shock and exsanguined appearance that usually attends the

rupture of an ectopic pregnancy and yet there is little doubt that these symptoms were caused by the escape of the product of conception into the abdominal cavity and the fact that the ovum was probably dropped from the mouth of the tube entire is no doubt a principal factor in its continued growth and in its ultimately reaching full term.] R. L. P.

PEDIATRICS.

IN CHARGE OF

J. W. P. SMITHWICK, M. D., LA GRANGE, N. C.

A NEW FACTOR IN THE AETIOLOGY OF THE DIGESTIVE DISEASES OF EARLY CHILDHOOD.—Sonnenberger claims that in the production of the diseases of digestion of early childhood, the factors are to be looked upon as forms of intoxications which arise at one time from bacterial toxines, at another from vegetable alkaloids and similar matters, which have contaminated the milk through the food of the animal from which it is obtained. The child's stomach is loaded with milk containing these toxins or alkaloids, which it is unable to render aseptic on account of the small quantity of hydrochloric acid present. These enter the intestinal canal, and through absorption, we obtain, according to the variety and intensity of the poisons, more or less symptoms of intoxication, (vomiting, diarrhæa, collapse, etc). He admits that the heat of the summer, and bad sanitary conditions are equally responsible for these diseases, but gives special emphasis to the causative relation of the vegetable alkaloids.

He gives the prophylaxis in a nutshell by saying, "Avoid the poisons, and the breeders of the poisons." Sterilization only destroys the living bacteria, but does not influence the toxines already formed, nor the vegetable poisons present in the milk; therefore, besides being careful as to its sterilization, we should direct our attention to the rational feeding of the animals, and exclude all food containing vegetable poisons.

GOATS' MILK IN THE TREATMENT OF ATHREPSIA.—Dr. W. Thornton Parker (Pediatrics, Vol. 5, No. 3), claims that goats' milk is the best food for infants when they have to be fed artificially. It is more readily digested and seems to be better adapted to the wants of the infants than that of a cow. Furthermore, the goat is a hardy, healthy animal, never subject to tuberculosis, and for this one great reason, should merit our careful consideration. We all know how difficult it often is for us to use cows' milk in the feeding of infants, and he claims

that there is no record in which any evil results could be attributed to the milk of the goat.

THE TREATMENT OF CRUSTO LACTEA.—Dr. W. P. Kisler (Medical Record, Vol. 53, No. 7), states that there are three chief indications to be fulfilled in attempting to cure this complaint, viz.: elimination, palliation of local distress, and correction of malassimilation and restoration of strength. For elimination calomel is recommended in purgative doses in the form of tablet triturates, the dose to be repeated as the conditions may indicate to obtain a perfect clearance of the stomach and bowels. To alleviate local distress, the benzoinated oxide-of-zinc ointment is a good application, as is the following prescription:

R—Salicylic acid.....	2 parts.
Bismuth subnitrate.....	40 “
Cornstarch.....	15 “
Ointment of rosewater.....	100 “

These ointments should be spread thickly on pieces of muslin and applied, and these applications repeated until a thick, white, and rather dry coating forms upon the surface of the skin, which greatly lessens the itching and redness, and allows a healthy epidermis to form. Soap and water are powerful agents to aggravate the existing inflammation, and frequent washing a child affected with eczema is to be strenuously interdicted. The best agents, in the third indication, are arsenic in the form of Fowler's solution in doses suitable to the age, and the ammoniated citrate of iron, which should always be combined in the treatment. The hygiene and diet must not be neglected.

Notes and Items.

Dr. Virginius Harrison's office, in this city, was the scene of a brutal assault upon the doctor's brother-in-law by a disguised tramp, who, with drawn pistol, demanded money. But for the coolness and determination of Mr. Gordon, the gentleman attacked and mistaken for the doctor, he might have been killed. The tramp was forcibly ejected from the door and thrown violently to the ground. Before an officer could be summoned he made his escape. This attack is somewhat similar to the one made by foot-pads upon Dr. Moyer, of Chicago, a few days ago. Tramps evidently believe physicians carry money.—*Richmond Jour. of Practice.*

“FILTER THE WATER.”—The *Philadelphia Medical Journal* makes the following plea for a better supply of drinking water:

“London has a death-rate a fraction of that which we suffer. Why? Because she has common-sense enough to filter the water, originally filthier than ours, which she uses. While our bosses and politicians are ‘feathering their own nests,’ annexing Hawaii, and kicking up a fuss with foreign countries, they have not time to attend to the health of the people whom they misrepresent—and the murdered people meekly die, and the friends of the dead continue to vote for the bosses and their henchmen.”

CHINESE EDITION OF GRAY'S ANATOMY.—Dr. H. T. Whitney, President of the Medical Missionary Association of China, is engaged in translating Gray's Anatomy into Chinese.

Dr. James M. Parrott, of Kinston, N. C. has recently left home for a European trip.

CHEAP INSTRUMENTS.—We call especial attention to the new advertisement of Messrs Bartlett, Garvens & Co., in this issue. They are offering instruments at greatly cut rates. In writing them don't forget to mention this JOURNAL, please.

A LEMON GROVE IN THE INTESTINE.—This is the startling heading of a communication to the *Med. Record* from Dr. Rufus D. Mason. The case was a boy, aged 6 years, who presented symptoms of appendicitis. However a few doses of calomel and epsom salts succeeded in bringing away numerous lemon seeds, some of which had sprouts *an eighth* of an inch long. They had been in the intestine fully two weeks. Not so very remarkable after all.

Elmer L. Gates of Washington is said to have devised a microscope that is destined to revolutionize microscopy. It is said that its magnifying power exceeds the present microscope as much as the latter exceeds the naked eye; that it has readily magnified 3,000,000 diameters, and by increasing the power of the objectives images will ultimately attain a magnification of 100,000,000 diameters.—*Mod. Med. Jour.*

MEDICAL PARTNERS JOINTLY RESPONSIBLE.—A case is mentioned in the *International Medical Magazine* in which a father and son were practising medicine as partners. The son was called to treat a fractured arm but from a combination of ignorance and

neglect there was a bad result. Suit was brought against the firm and the father held responsible as well as the son, though the former did not see the case until long after it happen d. This joint responsibility will be a matter for physicians to consider in forming partnerships.

THE BUZZARD IN MEDICINE.—Dr. Eugene Street suggests that as the buzzard seems to be immune to disease ptomaines and toxins, possibly a valuable antitoxic principle may be obtained from its blood. (*N. Y. Med. News.*) It seems to us that it would be necessary to determine first whether the digestive organs of the buzzard may not neutralize or render inert all poisonous substances, in which case it is possible that a new general germicide may be obtained. The buzzard should certainly be studied as to his therapeutic value.—*Pediatrics.*

Reading Notices.

Edw. L. H. Barry, Jr., M. D., Jerseyville, Ill., says: I have used Aletris Cordial with excellent results in the following: Miss R., 19 years of age, brunette, well-developed, but troubled with dysmenorrhea, called at my office, and after explaining her affliction said, "Doctor if there is any thing you can prescribe to relieve my suffering do so, for life is a burden to me now." I thought of the Aletris Cordial at once, and gave her a six-ounce bottle, directing her to take a teaspoonful three times a day, commencing four or five days before the regular period. Several weeks afterward she returned with the empty bottle remarking, "I've come back for more of that medicine, for it's the only thing I ever had to give me relief." I can cheerfully recommend Aletris Cordial to the profession.

The preparations of "Pepsin," made by Robinson-Pettet Co., are endorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house. (See page 3)

DOCTOR:—Your library is not complete without the HYPNOTIC MAGAZINE. Cost of this handsome monthly, including premium book on SUGGESTIVE THERAPEUTICS is only one dollar (\$1.00) a year.

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The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; hence the preparation is of great value in the treatment of mental and nervous affections. From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

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Original Communications.

ACUTE GONORRHEA—WITH ESPECIAL REFERENCE TO ITS TREATMENT.*

Stenographically reported and accepted, with remarks, for this
JOURNAL by C. C. Mapes, Louisville, Ky.

IT was thought when the gonococcus of Neisser was isolated and demonstrated (?) to be the principal etiological factor, or the actual causative agent, of gonorrhœa, that the treatment of this disease, which had hitherto been mainly empirical, would be promptly placed upon a strictly scientific basis; but years have come and gone, and while many new methods have been suggested as to management and treatment, the results seem not to have been materially influenced, either as to the duration or severity of the disease; nor have its sequelæ been markedly altered or diminished.

It is recognized if the nature of a disease is not accurately understood, the application of rational, scientific treatment is obviously impossible; moreover, scientific therapeutics can only displace empirical measures when fortified by a thorough knowledge of physiological, etiological and pathological certainties, as well as precision in diagnoses.

In the diagnosis of acute gonorrhœa in the male (and this paper deals only with the disease in the sterner sex) there should

*Including synopsis of a paper read before the Louisville Medico-Chirurgical Society by John L. Howard, M.D.

be little difficulty. The primary manifestation is essentially an inflammation of the mucous membrane of the urethra, marked by a mucopurulent discharge from the meatus urinarius, attended with pain, ardor urinæ, etc. The discharge is not, as the name gonorrhœa would imply, a flow of semen, but is of a characteristic mucopurulent nature.

Whether the specific (so-called) germ, the *merismopœdia gonorrhœæ*, the gonococcus of Neisser, plays an important role in the propagation of the disease, will not be discussed, as the principal object is to refer to the treatment of gonorrhœa in the acute stage. It may be well to state, however, that there is a marked diversity of opinion, among those upon whom we must rely as authority, in regard to the causative agent, and it is the judgment of the writer that the matter is still *sub judice*. Theoretically it seems to have been finally disposed of, but practically it remains unsettled. It is true gonococci are found in the discharge of gonorrhœa, but it is likewise certain that they have been discovered in the secretions of the healthy, normal urethra, so their presence or absence cannot be said to have any especial clinical significance.

In the treatment of the disease under consideration is also found a decided difference of opinion, and this applies to both general and local medication. As an instance, one writer states that the disease can best be eradicated by persistent retro-injections, while another claims that this method is contraindicated, and so on *ad libitum*.

Following is a resume of the cases covered by Dr. Howard's paper and the treatment followed. All the patients were treated at French Lick Springs, Indiana, and the water employed came from those springs.

* * * * *

CASE 1.—Male, aged 34 years, married, contracted first attack of gonorrhœa ten days previously. Local treatment employed during this time by a "specialist." Discharge abundant, *merismopœdia gonorrhœæ* present in considerable numbers; whole anterior urethra involved; considerable irritation at the cut-off muscle, owing to overzealous use of injections. Local treatment discontinued for three days, and the patient directed to drink four glasses of water (about three pints), before breakfast, from a spring having an aperient as well as diuretic action. The remainder of the day he drank from a spring having a diuretic action only—six glasses between breakfast and

dinner and supper, two at bedtime. For two or two-and-a-half hours after each meal no water was taken, to allow for stomach digestion. Diet—all acids, uncooked vegetables and fruits, pastries, tea and coffee, were prohibited.

At end of the third day average specific gravity of the urine was .1004 to .1006; quantity passed not obtainable because of frequent urinations. Reaction neutral or slightly alkaline. At this time the discharge had changed from a thick, creamy consistence to thin and watery in character, and diminished considerably in quantity. He would average three copious stools daily. Three times daily for five days, beginning the third day, the anterior urethra was flushed thoroughly from the meatus with hot permanganate of potassium solution, and the treatment stopped after two bladder washings, twenty-four hours apart, according to White's method.

Six days after the beginning of treatment all discharge had disappeared. He went home after two weeks stay at the springs, and has had no relapse.

CASE 2.—Male, aged 27 years, married, first noticed urethral discharge four days before presenting himself. Had not consulted a physician, but had used injection Brou immediately upon detecting the discharge. Had gonorrhoea three years previously. The same course followed in case 1, as to water and diet, prescribed. Hot permanganate of potassium flushing was commenced immediately. At the end of six days he was called home, and, though no discharge was visible after the fifth day, the following was prescribed:

R—Bismuth subgallate.....1 dram.
Zinci sulphatis.....18 grains.
Aquæ calcis.....6 ounces.

M. Sig. to be used as an injection thrice daily after urination. He returned to the springs four weeks later having had no recurrence of the disease.

CASE 3.—Drummer, 20 of age, married, presented a swollen organ; glands in both groins enlarged and tender; lips of meatus congested and almost denuded of epithelium; an abundant mucopurulent discharge streaked with blood; both deep and anterior urethra involved; prostate congested; cord and testicles tender. The discharge appeared three days before. He had procured some tablets containing about two grains each of sulphate of zinc, and making a solution of six to the ounce, had lost no time and neglected no occasion to inject it "deep and strong" with a long-tipped penis syringe. Knowing it to be useless no test was made for the specific germ. Because of acuteness of the attack, and slight urethral fever, he was kept in bed forty-eight hours, given a thorough saline catharsis, and allowed all the diuretic water he could drink.

The third day he took slight exercise, the testicles being supported by a suspensory bandage; by the fifth day the discharge had lost most

of its purulent character; no blood was noticed after the second day. He was then given daily a thorough washing, by White's method, for five successive days, and left for home on the twelfth day. There has been no return of the trouble.

Twenty or thirty cases of gonorrhœa were treated by this plan and uniformly good results were obtained. The average duration of the disease was less than three weeks, and no case was under actual observation over two weeks.

Under ordinary circumstances in treating gonorrhœa, the patient being allowed to attend to business and do his own injecting, the duration is from four to six weeks, and often to the annoyance of the physician and disgust of the patient chronic urethritis supervenes, with various complications, which may last for months.

That gonorrhœa is one of the most unsatisfactory diseases to treat is no fault of the physician. As a rule the patients are drinkers, and in cities it is sometimes impossible to control this feature. The cares of business and exciting diversions of city life are opposed to regular habits and proper medication. We cannot send patients to mineral springs, but we can insist upon regular habits, proper diet, etc., and facilitate treatment by daily visits of the patient to the physician's office.

In drawing deductions from the cases reported, we must consider that the majority of the patients were married men, especially desirous of speedy cure, whose habits and diet were easily regulated; that all alcoholic drinks were avoided; that they were not allowed to do their own injecting; that they had access to natural spring waters which produced the best possible diuretic and cathartic effects, increasing cell metabolism, especially of the glandular organs, and alkalizing the blood, thereby putting the patients in excellent physical condition.

The local treatment of gonorrhœa is but a secondary consideration, nevertheless it is of the utmost importance. Improper injections used by ignorant hands is the chief cause of prolonged and complicated cases. Two cases of gonorrhœa at French Lick Springs recovered without any local treatment, by simply observing rules as to diet, and habits, and drinking copiously from the "Bowles Spring," the water of which has a powerful diuretic action.

We are prone to become too mechanical in the local treatment

of gonorrhœa; we should never, in acute urethritis, insert an instrument with the view of giving a so-called retro-injection, or making local application. The too early passage of a sound will ignite the smouldering spark and renew trouble which would soon have disappeared without this irritation.

The remedial agents giving the best results are permanganate of potassium and sulphate of zinc. Permanganate of potassium, as an antiseptic, should be used only in a hot solution, the amount of heat being the highest degree which can be tolerated by the patient. The gonococcus is killed at 120° F., and its spores die at 140° F., A moist temperature of 108° to 110° F. renders the germs almost inactive, and if exposed repeatedly to this temperature they sicken and die. Therefore when it is possible to begin hot permanganate flushing early we will ultimately have fewer spores with which to deal, as the sporogenous germs cannot thrive if such injections are properly employed.

It is seldom necessary to use over fifteen grains of permanganate of potassium to the pint, and careful observation should guard against irritating with a too strong solution.

Sulphate of zinc undoubtedly stands at the head of astringents for urethral injections; six or eight grains to the ounce may be used in some cases without detriment, though two or three grains are usually sufficient.

As a final injection, when nothing but a slight muco-serous discharge, or "tear" is visible, the subgallate of bismuth combined with zinc sulphate proves satisfactory, according to the formula already mentioned.

The natural spring waters and inorganic salts should rank first as diuretics and blood alkalizers in the treatment of gonorrhœa. These waters are easily obtained and in addition to any special action, by their use the patient's general condition is improved. Balsams and proprietary vegetable compounds may temporarily sterilize the urine, but the digestive organs are taxed to such extent that the beneficial effects are counterbalanced.

* * * * *

The importance of patients suffering acute gonorrhœa ingesting large quantities of water, for its effect in flushing and cleansing the bladder and urethra, has long been recognized; indeed

we doubt not it was regarded as appropriate for relief of the "running issue of the flesh" mentioned in Scriptural literature.

The statement that gonorrhœa has been cured in a comparatively short space of time by the free ingestion of natural spring waters, no matter what their composition is, without other treatment or attention, either local or general, save a careful observation of certain rules and regulations as to diet and habits, comes to us in the nature of a surprise, since, according to the admission of some of the best authorities in the world, by the most careful and diligent local and general treatment it is unsafe for a physician to promise an absolute cure under ten to sixteen weeks, and even then that complications may occur which will lengthen the duration of the disease to many months.

Not long ago Van Buren declared that more people die of gonorrhœa than of syphilis, and Noeggerath followed with the statement that a man never recovers from a severe attack of gonorrhœa; that nine-tenths of the women who marry men who have had gonorrhœa become the subjects of painful and incurable inflammatory diseases of the uterus, tubes or ovaries, a declaration the truthfulness of which has been often confirmed and certainly too well understood to require further comment.

The researches of modern bacteriologists suggests that the sequelæ of gonorrhœa are numerous and alarmingly severe, that the disease cannot be pronounced cured upon cessation of the urethral discharge, that the *fons et origo* may lurk in the rugæ of the deep urethra for an indefinite period, and slight stimulation may excite renewed invasion.

The question, when can a man be pronounced cured of a virulent gonorrhœa, if treatment is instituted during the acute stage, is extremely pertinent, and one which merits recognition from everyone having at interest the welfare of human posterity.

When shall the gonorrhœic be allowed to marry, is also a matter of equal importance. That occasionally a man already married should contract gonorrhœa, or subject himself to infection, is a calamity, which, *in rerum natura*, it seems almost impossible to avert, and transmission of the loathsome disorder to his conjugal partner is almost certain to take place; regardless of the fact that he be enjoined, urged, commanded, by his physician to abstain from sexual indulgence for a certain period, as soon

as the discharge ceases from the *meatus urinarius*, sometimes even before, his sexual relations are resumed with the result of inflicting degradation and suffering upon his innocent wife and perhaps his unborn child, as evidence on the one hand by radical operations for gonorrhœal *physalpinx*, etc., and blindness from *ophthalmia neonatorum* on the other.

This is a gloomy picture to contemplate, but it is nevertheless true, and might better be faced and discussed intelligently and plainly by all concerned than be relegated to the background, when by the latter procedure innocent persons may be infected with a malady, insidious and dangerous in its significance, which might have been prevented.

Prevention of the spread of venereal disease is an important question—sanitary, hygienic, sociologic, legal, physical, mental moral, etc. etc.—and it may be stated that the only manner in which it can be accomplished is by avoiding contact with its infectious or contagious influences; and its limitation or control, when once disseminated, is a matter which concerns the moralist, the philanthropist, the wise statesman, and the eminent medical man.

Clinical Lectures.

DEMONSTRATIONS IN OPERATIVE GYNECOLOGY AT THE MANHATTAN SANATORIUM.

BY AUGUSTIN H. GOELET, M.D., Professor of Gynecology in
the New York School of Clinical Medicine, etc.

SHORTENING OF THE ROUND LIGAMENTS BY A NEW METHOD, FOR REDUCIBLE RETROFLEXION OF THE UTERUS.

THE operation which I will show you to-day is for retroflexion of the uterus. The organ is freely movable and readily replaced, but it will not retain its proper position without the support of a pessary, which is a source of discom-

fort. The displacement is of long standing, and there is a chronic metritis and endometritis which increases the weight and size of the organ. It is therefore difficult to adjust any form of artificial support in the vagina in these cases to maintain the uterus in position without producing more or less discomfort. You are well aware that the pessary never effects a cure in such cases, and that unless some form of operation is done the patient is doomed to wear it forever. The main uterine supports have lost completely their tone and sustaining power. It is very important however that preparatory for this operation which we are to do here, the displacement should be overcome and a pessary adjusted which will maintain the uterus in a correct position, since this additional support is needed for a short time afterwards, that too much strain may not at first be put upon the round ligaments. Besides the preparatory treatment it is also important to overcome the metritis and endometritis so that the organ may be reduced in size and weight.

We therefore curette the uterus first and pack it with iodoform gauze. This gauze is always removed at the end of forty-eight hours and usually it is not renewed: The pessary which was removed is now replaced.

The operation which I will do to sustain the uterus is shortening the round ligaments, but instead of adopting the usual technique and opening the inguinal canal at the external ring which, for many reasons, is objectionable I shall enter the canal through a very small incision over the internal ring as suggested by Kellog.

The advantages of this operation over the other method of shortening the round ligaments are, viz.

1. The ligaments are not cut or detached.
2. The inguinal canal is not laid open and it leaves no liability to hernia.
3. The ligament at this point (the internal ring) can always be found and is strong enough to bear shortening and sustain the uterus.
4. The operation can be more quickly executed, requiring not more than ten minutes for each side, from start to finish.
5. The ligament is buried in succulent muscle which provides ample nutrition.

6. The attachment is secure and does not give way.
7. Primary union always takes place.
8. It does not require more than an inch incision in the skin and not more than a quarter of an inch incision into the canal, and no disfiguring scar remains.

The pubis has been shaved and the surface of the abdomen has been rendered aseptic. Selecting now a point midway between the anterior superior spine of the ileum and the symphysis pubis we locate the internal ring. Here we make an incision an inch in length, parallel to Poupart's ligament, through the skin and underlying fascia down to and exposing the external oblique muscle. Two retractors are inserted and the lower edge of the incision is retracted downward until it exposes Poupart's ligament. With a very small, narrow bladed knife, an incision is made through the muscles just above the ligament, no longer than the breadth of the knife blade, extending down into the inguinal canal. By means of a blunt hook inserted through this incision into the canal the ligament is caught and drawn out. You see the ligament is quite thick at this point, and is readily drawn out. Stripping the ligament it will move more freely and we thus separate from it the accompanying nerve. We must be careful to avoid handling or bruising the ligament, as it often sloughs if roughly handled. We draw it out as much as possible so as to be sure that the fundus of the uterus is brought well forward.

Now as to the method of attaching the ligament and closing the wound. This is very simple and is accomplished with two deep sutures of silkworm gut which close the wound and secure the ligament at the same time. The first of these sutures is inserted near the upper angle of the incision through the skin, first above it and a quarter of an inch from the margin using a medium quarter curved needle. Then it is carried through the muscular margins of the incision opening into the canal penetrating the upper part of the loop of the round ligament as it comes through this incision. The suture then emerges through the skin on the lower side of the wound at a point opposite its insertion. The free ends of this suture are grasped with a pair of pressure forceps. The fibres of the external oblique muscle above the small incision opening into the canal an inch in

breadth is seized and penetrated with a threaded aneurism needle. The opening made by the needle being enlarged by a lateral motion, the loop of round ligament is caught in the ligature loop of the needle and drawn through under the fibres of the muscle as the aneurism needle is withdrawn. This loop of the round ligament is now folded down across Poupart's ligament. The second suture is now inserted near the lower angle of the incision in the skin, catches the free loop of the round ligament as it emerges from under the external oblique above, then catches the muscle at the lower border of the incision opening into the canal next the extremity of the loop of the round ligament and emerges on the skin surface below, at a point opposite its insertion. These sutures being tied, as you see, close the wound and secure the looped round ligament firmly buried in the belly of the external oblique muscle.

The same thing is now repeated on the other side.

The wounds are dressed in the same manner as the coeliotomy wound, being covered with dry markasol, and over this is placed a pad of plain gauze held in place by adhesive strips and a bandage.

The sutures will be left undisturbed for two weeks and the patient will be kept quiet in bed, when, if union is perfect, they are removed and after two days the patient is permitted to get up. The pessary is worn for a month after, when it may be removed.

Selected Papers.

SUBCUTANEOUS TENOTOMY AS AN AID IN THE REDUCTION OF FRACTURES.

BY JOHN B. ROBERTS, M.D., Philadelphia.

THE treatment of fractures has received much consideration in recent years and many suggestions of value have been mentioned. Some practitioners, however, seem to regard fractures as injuries belonging to a department of surgery in which no advances have been made, and they continue the

routine measures of the last generation. It is this conservatism or want of progress in surgical practice that leads me to call attention to tenotomy as an aid in the reduction of fractures and displacement. The suggestion was made a good many years ago by some one; and it has been used by many surgeons with great satisfaction. It is not, I think, employed as often as it should be, because its simplicity and effectiveness have received such scant recognition. Its adoption by every physician who knows how to perform an aseptic subcutaneous division of a tendon, would, I am convinced, result in lessening the number of cases of deformity after fractures, especially of the tibia and fibula. Surgical specialists are well aware of its usefulness in oblique fractures of the leg near the ankle, but I am not sure that even they adopt it as often as is desirable in fractures of the shaft of the tibia and fibula. One who has cut the tendon of Achilles in tibial fractures in which the ordinary fracture-dressings seemed unavailing in preventing overriding and deformity will be pretty sure to adopt it in subsequent cases. The ease with which reduction is effected and coaptation maintained is a source of much satisfaction, after such an operation.

It is essential that the skin and the tenotome be made aseptic and that the whole tendon be cut. If a few fibers are left undivided, the heel will still be drawn up by the calf-muscles and the operation will fail of its object. If the operator can feel through the skin a distinct gap between the cut ends of the tendon, showing that the whole width and thickness of the tendon have been severed, the fragments will be easily adjusted; and will be kept in proper position by any simple form of retentive fracture-dressing he may prefer. The pain due to spasmodic contractions of the calf-muscles will be absent after such a tenotomy and the patient's comfort thereby greatly increased. The puncture made by the tenotome is to be covered by a compress of aseptic gauze or sealed with a little aseptic cotton or gauze held in place with collodion.

This little operation, to which I have been resorting for years in selected cases, does not appear to impair the subsequent power and usefulness of the foot. It obviates the necessity for complicated fracture-appliances to overcome spasm of the calf-

muscles, which are causing pain and displacement of the ends of the broken bone.

I have, so far as I recollect, only employed tenotomy in this manner for aiding the reduction of fractures of the leg. It would probably be available in fractures of the upper part of the femoral shaft, when the ilio-psoas muscle flexes and everts the upper fragment. The operation here would probably require open incision and inspection of the parts, in order to divide the tendon without injuring important structures in its neighborhood. It would perhaps take the place of cutting down upon and wiring the fragments in these troublesome fractures.

The tilting up of the inner fragment in some fractures of the clavicle could probably be avoided by subcutaneous tenotomy of the clavicular portion of the sterno-cleido-mastoid muscle. The upward displacement of the olecranon after fracture might be managed in the same way, if it were difficult to obtain and maintain coaptation.

There is a possibility that intra-articular operations for bringing together the fragments in transverse fracture of the patella may be avoided by a free tenotomy and myotomy of the four-headed extensor muscle of the thigh.—*Phil. Med. Jour.*

FOR WHAT PERIOD OF TIME CAN IMMUNITY FROM DIPHTHERIA BE CONFERRED BY A SINGLE IN- JECTION OF ANTITOXIN? THE DOSAGE.

BY F. GORDON MORRILL, M. D., Visiting Physician to the
Children's Hospital Boston.

WHILE one reads an occasional mention of immunization against diphtheria in the journals, the literature of the subject is vague and unsatisfactory as regards the vital question. For how long a time can safety be insured, and what is the proper dose of antitoxin? The most satisfactory report which I have seen is that of Dr. Hermann Mr. Biggs, of New York, "The

Use of Antitoxin Serum for the Prevention of Diphtheria," to which I shall have occasion to refer later on. The longest paper, or rather series of papers of which I have any knowledge is that of Kassowitz,* slightest degree of immunity. To arrive at anything like a definite and respectable conclusion as to what can or cannot be achieved in the prevention of diphtheria the careful personal observation of a large number of recorded cases during a period of years is required, and it has been our good (or bad) fortune to have used antitoxin for immunization at the Children's Hospital since January 13, 1895; and while my object in preparing this paper has been to present what I believe to be the truth about immunization, rather than to answer Dr. Kassowitz, I venture to hope that I can at least cast a substantial doubt upon the soundness of his conclusions and means (in part) by which he has reached them.

An outline sketch of what has been done to prevent the occurrence of diphtheria in our wards, and of the circumstances which led to our adoption of a system which we still employ is as follows:

For years we had been seriously handicapped by occasional outbreaks of diphtheria in the hospital, and during the year of 1894 we were obliged to discharge every child in the house and close our door on three separate occasions. After each of these epidemics we went through a thorough process of cleaning and disinfection, and enforced such rules as to the admission of visitors as seemed likely to prevent a recurrence of the trouble. But notwithstanding these precautions, on January 13, 1895, we were confronted by the serious fact that we had three clinical and six of what we soon learned to regard as bacteriological cases of diphtheria in our infectious ward; and the question of closing the hospital for the fourth time within twelve months, or trying what immunization might do to aid us in keeping our doors open and going on with our work, arose, and the latter course decided upon. Accordingly all the children and nurses were injected, and with complete success so far as promptly stopping the further development of any symptoms which were thought to characterize diphtheria previous to the birth of the *Kleb-Loeffer* bacillus.

*Vienna Medical Weekly, May 16, 1896.

At that time there prevailed decidedly vague notions as to what could be accomplished in the way of immunization, and the amount of serum injected for the purpose was too small, 150 units being the usual dose employed.

Equally indefinite ideas as to the significance of the presence of the bacillus *per se* were in vogue, and we fell readily into line with the opinion that this alone constituted diphtheria; and thus fresh terrors were attached to a name which we had already sufficient cause for disliking. So that while we congratulated ourselves upon having escaped a very immediate danger, the question of how often to inject remained to be settled; and while sending all children who had the bacillus but no clinical symptoms of diphtheria to the infectious ward seemed rather a harsh measure, we feared the disapproval of the bacteriologists if we failed to perform what they proclaimed to be an obvious duty, all of which resulted in an overcrowding of the infectious ward, and a great waste of serum, which we used in frequently repeated injections in such cases as had the bacillus, but no clinical symptoms, hoping thereby to rid our patients of microbes which were really doing them no harm.

Each child was injected upon entering the house, and cultures were made to the extent that we were able to impose upon the good nature of the gentlemen at the Bacteriological Laboratory of the Harvard Medical School (who certainly did all in their power to aid us), and deluded with the belief that each new discovery of the bacillus meant a fresh infection, the interval permitted to elapse between the routine immunizations of well children was fixed at thirteen days; so that while the doses given were too small, their frequency made up for this deficiency in a great majority of cases so far as the prevention of clinical diphtheria was concerned. On May 5th the infectious ward was empty, all throats and noses were free of the bacillus, and our experience could be briefly summed up as follows: None of the children who had been sent to the infectious ward with merely bacillary throats or noses had manifested any symptoms of clinical diphtheria, although thoroughly exposed to infection both from their own mucous membranes and from patients having well-marked deposits of diphtheritic membrane.

Two emergency cases had broken down within twenty-four

hours of admission and immunization. One boy who had received 150 units January 29th had unmistakable symptoms February 15th; and a girl who had been injected with a like amount broke down March 25th. No antitoxin was used (excepting for curative purposes in cases which I shall shortly mention) after May 15th until the succeeding autumn.

June 30th two girls returned from the Convalescent Home at Wellesley with diphtheria.

July 14th Theresa R., and August 5th William M., were sent over to the infectious ward from the house.

On November 15, 1895, immunization was again begun and our statistics up to that date are: Of 279 immunized children, four had diphtheria—two of these within twenty-four hours after injection and two from the fact (as I shall hope to prove) that the amount of antitoxin used was altogether too small. As to the first two cases, it is merely stating a truism to say that one can immunize too late, just as one may vaccinate too late, and that such cases are merely the natural results of (often unavoidable) delay.

Of 414 non-immunized patients who were in the house between May 15th and November 15th, four had diphtheria; and this at a time when the disease was far less prevalent, and when open windows afforded free ventilation for those in the hospital, while the two who broke down at Wellesley had enjoyed plenty of outdoor air.

In view of our previous experience, it was now decided to inject each child in the bath-room on admittance before permitting it to enter any of the wards—the amount to be injected being fixed at one-half the curative dose for children of eight or over, one-third for those between five and eight, and one-fourth for patients between two and five.* No delay was permitted (for bacteriological examination) in the admission of patients, but all new cases were sent into rooms in the last wing, there to remain until their cultures showed their fitness to occupy beds in the common wards. To this section of the house were also

*From November 15, 1895, to March 16, 1896, the serum made by Dr. Ernst was used; and the test of potency being based on the French system, affords no satisfactory means of comparison with the present standard in units. Since the last-mentioned date we have been supplied by the State Board of Health, and the dosage fixed by the prevailing standard.

sent all cases acquiring the bacillus while in the hospital. The injections were repeated every 28 days, and in case of fresh discoveries of the microbe the children having it were at once injected providing 10 days had elapsed since their last immunization.

December 15, 1895, Dr. H. W. Gross entered upon his duties as bacteriologist to the hospital, and weekly cultures were made from every throat and nose in the house.

During the winter and succeeding spring (1896), although nearly eight per cent. of the children had the bacillus, and we were free from its presence for five days only, as shown by the cultures, the only cases of diphtheria were: a case in which the antitoxin was accidentally omitted for 36 days, and two who were sent to the City Hospital from Wellesley after omission of immunization for three months and 43 days respectively. By the middle of May all the cultures were negative and injections stopped.

During the summer no cases of diphtheria occurred and we did not resume the antitoxin until November, 1896, when we determined to pay no further attention to the bacillus, but to simply inject every 28 days with the same dose employed during the preceding winter. The result of the previous year being: Of 421 children injected every four weeks, none had diphtheria, while of 425 either non-immunized patients or in whom the serum had been omitted for at least 36 days, three had contracted the disease.

Accordingly, no further cultures were made, and applicants were freely admitted to the common wards. All went well until February 18, 1896, when a boy of ten was sent to the City Hospital from Wellesley 23 days after receiving 250 units. It was not thought best, however, to shorten the intervals on account of the exception, particularly in view of the fact that an insufficient amount had been used,* and matters proceeded as before until March 5th, when a girl, age six, who had been given 300 units 23 days previously showed unmistakable symptoms; and again on April 26th, when a child of twelve who had been injected with 400 units 22 days before broke down. May 7th an interne and two nurses and one child (all non-immunized) came down.

*Probably on account of a temporary deficiency of serum.

Since April 26, 1896, from 250 to 500 units (in accordance with age†) have been given each case every three weeks, and we have had no further trouble. Whether any of the patients have bacillary mucous membranes we do not know; but judging by our previous experience, some of them probably have—just a certain percentage of children one sees playing about the streets have.

Since November, 1896, of 423 cases immunized every 28 days, three contracted diphtheria, the minimum time elapsed between the infection and clinical symptoms being 28 days; while of non-immunized children and adults four contracted the disease. Of 680 who have been immunized every three weeks none have had it.‡

Glancing back over what I have said, it will be seen that of 1,808 patients immunized at least once every 28 days with amounts of serum varying from 150 to 500 units, seven had diphtheria; three from insufficient dosing, two within twenty-four hours of being injected, and two in whom the time of infection came 23 and 22 days respectively after being given an amount which has thus far proved entirely effective when given every three weeks. Of 829 who were given no antitoxin, or in whom more than 28 days elapsed after the injections, nine had diphtheria, besides three non-immunized adults.

In New York the results as set forth by Dr. Hermann M. Biggs* are strongly corroborative of the views which our experience has led us to adopt: In the New York Infant Asylum, between September, 1894, and January 19, 1895, there were 107 cases of diphtheria. Two hundred and thirty-four children were immunized on January 17th, and but one case occurred until 30 days had elapsed, when five more developed during the succeeding 12 days at which time an increased dose (125 to 225 units) was given 245 children, and no further trouble was experienced for 31 days. At the Juvenile Asylum 12 cases occurred during the two months preceding April 13, 1895, when 81 children were immunized during that, and the succeeding

†The patients at the Boston Children's Hospital are from two to twelve years of age, inclusive.

‡Immunization has been carried out this summer.

*Loc. cit.

few weeks,† and the only cases of diphtheria which developed were those of two non-immunized children and one adult. Similar experiences were had at the Nursery and Child's Hospital, the Bellevue and the Catholic Protectory. At the last-named institution the amounts injected at the second immunization corresponded very closely to those which we now employ, and no cases occurred within 30 days, excepting one which appeared within twenty-four hours of the injection. The inspectors of the health department immunized 232 persons, and in three of the four cases which broke down within the succeeding 30 days, the symptoms appeared within twenty-four hours—examples of the unavoidable.

Of 1,043 cases tabulated in Dr. Biggs's report (a large percentage having had positive cultures and all having been more or less exposed to infection) three only, aside from those in which symptoms were obscured within twenty-four hours, broke down—on the 12th, 17th and 19th days respectively; and in these three cases the dose administered varied "from 100 to 250 units" examples of insufficient dosage—while at the Catholic Protectory (where only one break-down and that within twenty-four hours occurred) much larger quantities were. Surely these results are enough to prove that there "is something in" immunization—something which not only saves life, but does so with a degree of certainty which vaccination alone can rival.

Dr. Kassowit bases his theory of the utter futility of immunization partly upon the fact that the disease itself confers no immunity from early or late reinfection even in cases treated with the serum, and partly on cases which he quotes when antitoxin has failed to ensure safety. As to reinfection after diphtheria, I am perfectly willing to concede that there is scarcely a disease which a human being cannot have a second time if he survive the first attack; and as to his instances of quick relapse after the serum treatment it must be asked if they may not have been due to failure to use a sufficient quantity during the original seizure.

The cases which he cites as proving that antitoxin administered to healthy children confers no immunity are for the greater part quoted without reference to the journals in which they were originally published, and without stating the number of days elap-

†Interval between injections not stated.

sing before infection took place—thus rendering fair criticism impossible. Of the few he mentions with definite references, some have proved inaccessible to me, but in any event his cases include twelve brothers and sisters who accompanied diphtheritic children to the hospital, and were each injected with 120 units—three of those who were given this insufficient dose had diphtheria at some indefinite time later on. Two cases in which infection took place in twenty-four hours, and which merely substantiate the fact that one can immunize too late. One case in which an inadequate dose (150 units) was followed by infection on the 18th day. One case in which there was infection on the 28th day.

I do not wish to be understood as implying that the cases which I have not read in their original sources of publication may not carry a degree of belief in Dr Kassowitz' theory. To do this would be to question the good faith which doubtless inspired him to publish his articles. I can only say from the material at my command, and an experience of nearly three years in this special line, I can arrive at nothing but a total disagreement with his expressed opinion.

So far as bad results from the injections are concerned, the only cases which I have seen where anything like dangerous symptoms appeared were those of a boy with asplenic leucocythemia, and another with a nephritis. In the latter instance the antitoxin caused a distinct increase of the albuminuria and dropsy. In another case in which the same clinical symptoms were present and the urinary analysis corresponded very closely to that of the first, the injections produced no unpleasant effects. We have given in all about 3,000 injections; and with the above exceptions, aside from an occasional urticaria (far more rare now than formerly) and an insignificant and transitory albuminuria, nothing worth noting has followed them. Very rarely has the antitoxin been omitted or postponed, no matter how sick the patient may have been. In one instance of very severe cerebro-spinal meningitis in which no injections were given, the child contracted a diphtheria which proved fatal.

I am quite sure that the fact of our ability to confer safety for a definite time by promptly injecting exposed cases with an adequate dose of antitoxic serum is not sufficiently recognised; and I think that the prevailing opinion among the medical profession regarding immunization may be stated as follows: It is an

uncertain thing at best, and perhaps it is, upon the whole, just as well to watch exposed cases, and inject promptly the first moment that symptoms of diphtheria appear. Should advice of this kind be given as regards vaccinating persons exposed to small-pox it would be just as logical—yet these principles are printed, preached and practised today, and the point that it is an obvious duty to immunize every person who has been exposed to diphtheria is either denied, dodged by half-hearted approval, and the recommendation of insufficient doses.

From actual experience we are perfectly justified in believing:

(1) That immunity in any given case, of no matter how thorough exposure to diphtheria, may be conferred, for at least ten days, by the injection of a small dose (100-250 units) of serum, provided it is given twenty four hours previous to actual infection.

(2) That a larger dose (250 units for a child of two, up to 500 units for one of eight or over) will confer safety for three weeks—or to be a little more conservative, let us say twenty days—under similar conditions.

(3) That no harm will result from the treatment in a vast majority of cases of *sick* children, and probably in no case of a healthy child, provided the serum used is up to the present standard of purity.

In conclusion, I would say that any one who thinks that anti-toxin will prevent the occurrence of a follicular tonsilitis or of a coryza in an individual who happens to have the Klebs-Löffler bacillus in his throat or nose will be disappointed; for neither of these conditions constitutes a diphtheria any more than the coexistence of the pneumococcus in the saliva and a bronchitis constitutes a frank pneumonia. I will add that a physician who fails to promptly immunize the members of a family or close community in which diphtheria breaks out, neglects to do his duty by those whose safety lies in his hands.—*Boston Med. Surg. Jour.*

NORTH CAROLINA MEDICAL JOURNAL.

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Editorial.

THE SURVIVAL OF THE FITTEST.

In these days of "progress and rapid advancement" one often sees the old tried friend pushed aside and the new man, the man of modern ideas, set up in his place, and the sight cannot fail to bring a feeling of sadness and of wonder at the ways of men. The editor of the *Hot Springs Medical Journal* has portrayed in such a forcible manner this phase of 19th century character that we cannot refrain from copying a portion of his remarks. After referring to the passing of the American Indian, the putting aside of the old horse worn out after years of faithful service and of the faithful dog, who in his own way has done his part to

add to his master's pleasure, he goes on to show that even the lawyer, the friend, and the minister must share in the common fate of those who are not "up-to-date."

"And the doctor! What of him in the pitiless operations of this law? Surely, he may escape it! No, indeed. He feels its force probably before the old lawyer or the old friend. He may have spent his best days and nights in ministering to the wants and whims of his clientele. He has answered their calls at all times, gone to them through the storms, and snows, and floods, and when the sun was a fiery furnace. In pestilence, he has stood by them. He has ushered into the world the children of the family, has saved the lives of these children in some dreadful sickness, has borne them upon his heart and in his brain, and known no rest until the burning fever was assuaged and the glow of health was mantling again their cheeks. He has snatched the mother, maybe from an untimely grave, or the father, the bread-winner, has been enabled to go back to labor with a glad heart and vigorous frame. The invalid wife has

"The bright flush of health mantling high on her cheeks,"

and grows fat and strong. And all this because of the judgment and skill of some humble disciple of Æsculapius. One would think, surely this man is exempt! As man and as physician, and as friend, surely he is not bound to this dreadful juggernaut, to be ground to pieces in its awful progress! Yes, though he is friend and physician, he must feel its crushing effects. He, too, must see his clientele forsake him for another who pleases the fancy or tickles the palate. The woman who has looked into his eyes with tears of gratitude in hers, gratitude for the life of a husband or child, snatched as it were from the grave, now meets his look coldly as he passes by. Maybe her own health has been restored by this humble doctor, and, instead of praises, she now speaks of him as "too old," or "his medicines are too strong," and she has gone off to some pathy, or some new and wonderful man has arrived in town, and the true and tried man loses his business and his friends at one fell swoop. We have all seen the old doctor, ripe in years and experience, deserted by those whom he has saved, and left to nearly starve in a land of plenty. The beautiful tribute Talmage paid to his family physician is not in their hearts."

To prepare himself for such a time Dr. Jelks admonishes physicians to cultivate more carefully the business side of life; see that your accounts are collected promptly; lay by you in store for that rainy day, when even if your friends stick to you your physical conditions will cause you to lay down the spatula and scalpel; and when, like the old horse who has fulfilled his mission, you may not, otherwise, find a pasture wherein you may graze. For the man of small means we know of no better investment than the modern life insurance policy, which for a nominal sum per annum provides for a man's family in case of his death and for his own old age in case of his continued living. Reader, if you have no certain provision for your family and your own old age, let it be one of your new year resolutions to invest something in this way at once. If your income will not permit you to take a policy for \$10,000, or \$5,000, then take one for \$3,000 or even \$1,000, payable to yourself at the end of ten or twenty years, and to your family in case of your earlier death. Old age may come, and death must; don't let them find you unprepared.

THE SOCIETY MEETING.

We beg to remind members of the Society that only a little more than a month intervenes between this and the time of meeting. The meetings at Charlotte are always good—it is a point easily reached, the hotel accommodation is good and ample, and the hospitality of the people knows no bound. There is every reason to believe then that the coming meeting on the 3rd, 4th, and 5th, of May, will be one of the most successful in the history of the Society. Members intending to read papers are reminded that it is time the titles of their papers were in the hands of the secretary. We would also suggest that writers of papers secure the promise from one or two of their friends to open the discussion on their papers. Many times a valuable paper falls flat and loses much its usefulness because every one waits for some one else to start a discussion of the subject. One member making a few remarks is often the signal for a wide and

valuable expression of the views of members present. The great value of the Society meetings is in this interchange of views and experiences, for the opinion of the writer alone can be just as well, or better, obtained by a quiet reading of his essay after its publication in the JOURNAL or the Transactions. We would, therefore, insist on the great advantage of each author securing some particular member to open a discussion on his paper.

The address of the Secretary has been changed from Wilmington to Winston, N. C.

THE REMOVAL OF THE JOURNALS PLANT and its rearrangement causes an unavoidable delay in the appearance of this issue. We ask our readers to bear with us this time, promising that the next issue will appear on time.

Review of Current Literature.

GYNECOLOGY AND ABDOMINAL SURGERY.

IN CHARGE OF

H. S. LOTT, M. D.,

J. W. LONG, M. D.,

HUBERT A. ROYSTER, M. D.

ENDOMETRITIS CHRONICA.—F. J. Sharp (Brooklyn Med. Jour., March 1898) writes an interesting and practical paper on this very common gynecologic complaint. Its pathology receives due attention. The scope of his article was confined to the disease in its simple form and "as it occurs in common with laceration of the cervix." Treatment: in mild cases, applications of carbolic acid or iodized carbolic paste to the interior of the uterine canal, followed by antiseptic douches; in the severer forms, thorough curettage, under strict antiseptic precautions, followed by antiseptic applications and douches; puncture nabathian follicles and repair any deep cervical lacerations. He considers that a slight laceration does not interfere with resolution.

H. A. R.

SUPRA-PUBIC VS. VAGINAL SECTION IN PELVIC PUS ACCUMULATIONS.—T. A. Ashby (Bulletin of the Maryland Univ. Hosp., Feb. 1898) presents the pros and cons of this question concisely and fairly. He divides the subject into three heads, viz., first, the advantages of the supra-pulvic route; second the value of the vaginal route and third, the general indications which should lead to the adoption of the one or the other. His argument may be summarized as follows:

1. The abdominal route "admits of careful inspection, dissection, evacuation and repair of invaded tissues"—i.e., "a completed operation," and yet is conservative in its tendency.

2. The vaginal route possesses one great advantage—the matter of drainage, "It is more accessible, less dangerous and will often permit of the removal of pus accumulations when encysted and closed off from the peritoneal cavity."

3. The vaginal method may be chosen when, with a bilateral salpingitis and an infected uterus, it is considered proper to do a total extirpation; the abdominal, when only one ovary or tube is involved or where the diagnosis cannot be sufficiently clear.

The author is distinctly a suprapubic operator and thinks that, in America, where abdominal surgery had its birth, this method "has more than held its own against the assaults made by the French school of vaginal sectionists."

H. A. R.

CONSERVATIVE SURGERY OF THE UTERINE APPENDAGES.—A. P. Dudley (Amer. Jour. Obstet. Jan. 1898) chooses this subject to answer criticisms and to show the results of his work for the past ten years. He thinks the pendulum has swung too far and that many organs are unnecessarily removed from the pelvis of women, deprecating emphatically the frequent performance of hysterectomy—an operation stimulated to a certain extent by fashion. The author then proceeds to answer the question "To what extent can we do conservative surgery upon the uterine appendages with safety to the patient?" by a running account of his own cases and a summing up of his results. In 88 cases he removed portions of tubes and ovaries and returned the remaining portion of the appendage to the pelvis. The after history of all was not obtainable but 14 of them subsequently became pregnant, while, out of the whole 88 cases, secondary inflammatory disturbance followed in only one—which was gonorrhœal in origin. The rule in operating on the ovary was to save all of the organ possible. He has cross-sectioned it and sewed it together (always using fine silk); taken V-shaped pieces out and closed the edges; punctured cystic ovaries through and through; cut them completely in two longitudinally, removed cysts from the centre and stitched them up again; evacuated pus from the ovary and left the healthy portion behind; removed almost the entire ovary, leaving a very small part (size of pea) and fastened that to the end of the tube. The fallopian tube he has treated conservatively for various forms of disease. He opens up occluded tubes and always

stitches the mucous lining to the peritoneal coat, after slitting it upon the upper surface and everting it—in the manner of a phimosis operation. He has incised a pyo-salpinx, washed out the pus with an aseptic solution, after passing a probe through the tube into the uterus, thus dilating the tubo-uterine stricture, and has had his patients recover without the first signs of peritonitis. He adds, however, that he never treats a tube in this manner, if there be any odor to the pus showing internal gonorrhæal or septic inflammation. The author concludes with two reasons for his devotion to such work:

1. The inability to anticipate or estimate the effect of an early induction of the menopause on a woman's nervous system—possibly, personal suffering and domestic unhappiness.

2. ‘Pelvic surgery should not be compassed about by the opinion even of a majority of the profession. Hysterectomy is the last resort to effect a cure.’ The prediction is expressed that if any advance is made during the next 10 years, it will be along this line of conservative surgery upon the appendages. H. A. R.

GENERAL SURGERY.

IN CHARGE OF

H. T. BAHNSON, M.D.,

R. L. GIBSON, M.D.,

J. HOWELL WAY, M.D.

THE FIRST CARE OF THE INJURED IN RAILWAY ACCIDENTS.—The above is the title of a very excellent paper by Dr. B. R. Wilson, (*The International Jour. Surg.*) from which the following conclusions are derived:

1. Stop hæmorrhage by ligating vessels and applying compresses and bandages.

2. Treat shock by stimulants, both alcoholic and with strychnia and nitroglycerine.

3. Relieve pain by the hypodermatic use of morphia, and local applications of cocaine, antipyrine, acetanilide, and exclude air.

4. Reduce dislocations at once, coaptate broken bones, and retain them in place by any appliances that will temporarily prevent motion of the injured part as much as possible.

5. Dress all wounds temporarily with gauze, cotton or clean waste and bandages.

6. Transport the patient to the hospital or some other place as soon as possible, and with as much comfort as it is possible to obtain under the circumstances.

7. Do not perform any capital operation while the patient is suffering from shock, exercise your best judgment, however, and give the patient the benefit of the doubt. J. H. W.

SURGICAL TREATMENT OF TUBERCULOUS BONE DISEASE.—Cabot, (Boston Med. and Surg. Jour., Jan. 27, 1898). In cases of local Tuberculosis the tissues make an effort to protect themselves by throwing up a wall of connective tissue about the focus of infection, thus encapsulating it. The success of this limiting effort on the part of the tissues depends in a considerable degree upon the vigor of the individual. In many instances the surgeon's reliance must be upon this power of nature, simply directing his attention to the general condition of the patient and affording rest to the diseased part. As tuberculosis of bone is generally secondary to some deeper infection, its removal is only palliative, the deeper infection remaining. The primary infection having been encapsulated, a return to health may often be expected if the local infection can be thoroughly removed without bringing the tuberculous parts into contact with the healthy. This is rarely possible in tuberculosis of bone, and especially of joints; for the infected synovial membrane is often very difficult of removal, as it dips in between the ligaments and the surrounding muscles and must be dissected away piece-meal. Fortunately, however, the tissues are able to dispose of a moderate dose of the poison. In the removal of tuberculous bone a considerable quantity of the surrounding bone should be taken away with it, when possible. This is done in resections of the knee and elbow, and of the hip when the disease is confined to the head of the femur. In disease of the long bones where removal of portions of the bones would destroy the function of the member, the surgeon has to depend upon curetting. The diseased bone being soft can usually be quite thoroughly removed with the sharp spoon, the hard healthy bone giving a very good idea as to the amount to be removed. After such an operation it is not uncommon to see the surface curetted remain in a carious condition for some little time. This is due to a death of the surface of the bone bruised by the instrument. And in some cases the presence of the tuberculous process reinfects the bone and leads to a continuance of the tuberculosis.

In the carpus and tarsus this recurrence of tuberculosis is almost certain to occur. This is doubtless due in part to the comparatively ill-nourished condition of these bones. Surrounded as they are by cartilaginous joint-surfaces, their periosteal envelope, through which they receive nourishment, is comparatively scanty. It is usually well, therefore, to wholly remove any of these bones that are diseased.

It is often a nice question of judgment whether, in a certain patient, to choose a partial operation, as the removal of the diseased tarsal bones, for instance, or to give up any attempt to save the joint and accomplish a thorough removal of the tuberculous parts by amputation.

As regards the success of the treatment, the older the patient the

worse the prognosis. It is of the greatest importance to get the patient out of bed and out of doors as speedily as possible. In regard to after treatment of the local condition, we should give the part absolute rest, and, if possible, apply gentle, even pressure over the whole seat of disease. Iodoform has a specific effect upon tuberculous material. In a case of extensive cavity it is usually applied in the form of iodoform gauze or by means of setons, which are very useful in the ankle and wrist-joints. In sinuses iodoform oil affords a good means of applying the drug to the deeper parts and often excellent results are obtained.

Therapeutic Hints.

ACUTE CATARRHAL BRONCHITIS:

℞—Potassium Citrate.	℥ ss;
Apomorphin Hydrochlor.	gr. i;
Syr. Ipecac.	℥ ss;
Lemon Juice.	℥ ij;
Simple Syrup sufficient to make	℥ iv.

M. Dose.—Tablespoonful in water every 3 hours.—WOOD.
Phil. Med. Jour.

THE TREATMENT OF CORYZA IN CHILDHOOD.—Daucher gave the following directions to a ten-year old child with lymphatic habitus and inclination to struma:

1. Every morning, on awakening, the nasal cavities are to be thoroughly washed out with a sponge or napkin wet in a lukewarm solution of common salt.

2. After a few days this irrigation is replaced by one containing a 10-20 per cent. solution of alum. If headache is severe, the child is to inhale every two hours the steam from the following mixture:

℞—Chloroformi	5.0
Æther sulfur	15.0
Ol. terebinth	3.0

M. D. S.—For external use.

These inhalations are to act as anodyne and revulsive, but not as a narcotic.—*Die Therapie d. Gegenwart.—Pediatrics.*

DIPHThERIA ANTITOXIN BY THE STOMACH.—Dr. J. Lindsey Porteous, of Yonkers, N. Y., reported a number of microscopically proven cases of diphtheria to the *New York Medical Record*, of December 25th. The cases were severe and demanded the antitoxin treatment, which Dr. Porteous gave them, administering the remedy by the stomach instead of hypodermically as has heretofore been the universal custom. Every case recovered and showed the prompt action of the antitoxin as plainly as if it had been given under the skin.

The doctor concludes: "If this mode of administration has been tried before, I am not aware of it. My object in writing these notes is to prove that the antitoxin of diphtheria is not rendered inert by changes in the stomach, and that this is an easy method of giving it to nervous children."

ALOPECIA:

R—Tr. Canthar.	. . . . .	ʒ iv.
Tr. Capsici.	. . . . .	ʒ i.
Ol. Ricini.	. . . . .	ʒ iss.
Alcoholis q. s. ad.	. . . . .	ʒ iv.

M. Sig.—Use as a lotion.—*Med. and Surg. Rep.*

Notes and Items.

A Western newspaper threatens to publish the name of the attending physician in each case where the patient dies.

The *Medical and Surgical Reporter*, of Philadelphia, is now published semi-monthly instead of weekly. It appears in enlarged and improved form. We trust it will always continue to be as good as it has been for some years past.

A sad event happened recently in the Catholic Hospital at Herne, in Westphalia. A man who had received a gunshot wound of the abdomen was brought to the hospital and was, of course, at once operated on. The operation was very difficult and chloroform-administration had to be kept up for about four hours. Gas was the illuminant used in the operating

room, and it appeared that the gaslight decomposed the chloroform with evolution of powerful chlorinated vapors which overcame the two surgeons and the Sisters of Mercy. One of the sisters died on the second day and the lives of the others were in great danger.—*Lancet*.

THE MIDWIVES' QUESTION IN ENGLAND.—The activity that we have recently noted as being manifest in medical circles in New York over a proposal to restrict or abolish midwives, has its exact counterpart just now in England. The bill for the registration of midwives, which has already been read once in the House of Commons, and which is set down for second reading in a little over two months' time (May 11th), has been published, and its wording and tenor have produced much apprehension in the minds of the mass of English practitioners. Under this bill, which has for its nominal purpose the securing to the parturient poor of adequate obstetric nursing, many persons of experience predict that the bulk of the midwifery practice of the kingdom will be at once transferred from the hands of properly qualified physicians and surgeons to a half-educated body of women. The conviction that such a transference would be a most serious danger to the public, no less than a natural desire that the precincts of medicine should not be invaded, has, in consequence, led many medical men, until now ready to welcome a piece of legislation whose charitable object seemed to be beyond suspicion, to fiercely oppose all attempts to regularize by law the position of the midwife, and even to emulate their more thorough-going colleagues in New York, and to demand *the abolition of midwives as a dangerous and immoral class*. The wording of the proposed measure, or to be accurate, a certain omission in its wording, is responsible for this widespread distrust of its designs and fear of its consequences. For there is no clause in the bill defining the scope of the work which will be expected from the new midwifery nurses created under its provisions. Exactly what a midwifery nurse or "legal midwife" may do and may not do, is left entirely to the imagination, and the medical profession has elected to believe (on very good grounds, it should be added) that she will be allowed to do almost everything. Therefore, the members of the medical profession in England, save those who, by

position or class of practice, are indifferent to the matter, or chiefly concerned in having under their hands a large supply of trained obstetric nurses, are becoming daily more unanimous in their opinion that the suggested measure must not become law. The British Medical Association is now attempting to make the supporters and opponents of the bill shake hands over another bill. The bill promoted by the Association is an excellent measure for the protection of pregnant and lying-in women and newly-born children, and for this reason should obtain the full approval of the public. At the same time, the Association has carefully tackled the awkward question of what shall be the sphere of the educated "legal midwife," by defining the various situations, some twenty-four in number, when the midwife must send for proper medical aid. It is possible that the bill of the Association may prove the basis of reconciliation between the combatants.

THE HEALTH OF SIR RICHARD QUAIN.—A well informed correspondent in London writes under date February 26th: "Sir Richard Quain, the President of the General Medical Council of Great Britain is, I hear, very ill." It is an open secret that Sir Richard, who is 82 years of age, underwent a severe surgical operation last year—a colotomy for malignant disease—so that we are not surprised to learn that his hold upon life is an insecure one. His health did not allow him to preside at the last meetings of the Council, when his place was taken by his probable successor as President, Sir William Turner of Edinburgh.—*Phil. Med. Jour.*

TWO CURIOUS "FREAKS."—The following account of two performers at Barnum & Bailey's Circus at the Olympia is taken from the *Lancet* of February 2d:

One of these entertainers, whose name is Delno Fritz, is a sword-swallower, and asserts that he can swallow longer swords than have ever been swallowed before. We for our part never want to see any one swallow more rigid metal. To those who know the surface markings of the abdomen and the situation of the stomach it is little short of appalling to see this man pass a sword down his gullet until the hilt impinges upon his teeth

and then withdraw the weapon and demonstrate by outside measurement that in the erect posture the point falls some inches below the usual line of the lower curvature of the stomach. What really happens, of course, is that Delno Fritz has learned, consciously or unconsciously, to stretch the somewhat loose and elastic tissues between the lips and the cardiac orifice of the stomach, so that these tissues will lie along his blunted sword in a condition of extension, while a protruded chin assists in the prolongation of the pharynx. It should be added that the solidity of the weapon with which the feat is performed is beyond question. A second person in whom medical men must be interested is one Young Hermann, who can expand and contract his chest and abdomen at will to really remarkable dimensions. He is able to make a *bona fide* difference of sixteen inches in his chest measurement, and accordingly to snap chains and straps fastened across his thorax by the standing pressure he is able to effect upon them. The alterations which he produces in his abdominal outlines are no less striking. By swallowing air and then effecting pressure upon it by contractions of the rectus abdominis muscle he can rapidly pass from the appearance of extreme corpulency to the appearance of horrible emaciation, the skin of the abdomen appearing in the latter case to lie against the spinal column. His extraordinary power of swallowing and inhaling air enables him to shift the apex beat of the heart many inches and otherwise to displace his viscera.

The power of swallowing air is not exceedingly rare, but the extent to which Young Hermann possesses it is unexampled in our experience. It is probable that Joseph Clark, the celebrated posture maker of the seventeenth century, possessed the secret of this trick in addition to his unwholesome knack of dislocating many of his joints at will. It may be remembered that Clark's favorite joke was to go to a tailor to be measured with his right shoulder, say, much higher than the left, to return to fit the suit on with the protuberance on the other side, and finally to call at the shop and reject the clothes indignantly, having this time assumed a central hump. Young Hermann might amuse himself in a similarly ill-natured way if the inclination took him.—*Boston Med. and Surg. Jour.*

A NEW AMUSEMENT ENTERPRISE.—The editors of this journal

recently received complimentary invitation cards, requesting their presence at the Lion Institute, Fifth avenue, New York, to witness the following stellar attraction:

Lion's Infant Incubators,
Containing Live Babies,
On View Daily, from 10 to 10.

The manager of this enterprise is one of the Kiralfy family, who, "years ago, were leading factors in the American Amusement World."

Thus do we evolve. Thus does the dime museum come in touch with the scientific world. Thus do these sad accidents, these weazened, shrivelled, premature babies contribute to our entertainment. Thus can Americans be said to take their troubles hilariously.

What may happen when in the multiplication of these amusement enterprises, the supply of premature births may not equal the demand? Will the abortionist be called in, or will the dime museum take a step higher?

What an alluring bill of fare the following might be:

Doors Open from 10 to 10.

Stomachs Washed Out on Upper Stage Every Hour.

Infants Fed Every Three Hours on Top Floor.

Osteoclasis for Bow-Legs Daily at 10 a. m.

(Conducted by Prof. Slump).

Special—Schlatter Operation To-day at 2 p. m.

Transplantation of Skin from Elastic-Skin Man to Every Lady
Holding Reserved Seat.

Get Seats Early for Amphitheater—Special Attraction—"A
Run With the Police Surgeon"—Illustrating Arsenical
Poisoning of Demi-Mondaine—Real Arsenic—Real Demi-
Mondaine.—*Western Med. and Surg. Gazette.*

SOME "DON'T" ABOUT HEART DISEASE.—*Don't* feel called upon to give digitalis as soon as you hear a murmur over the heart. Study and treat the patient not the murmur.

Don't conclude that every murmur indicates disease of the heart.

Don't forget that the pulse and general appearance of the patient often tell more than auscultation.

Don't neglect to note the character of the pulse when you feel

it. Possibly you may look at the tongue to satisfy the patient; feel the pulse to instruct yourself.

Don't think every systolic murmur at the apex indicates mitral regurgitation; every systolic murmur at the aortic interspace, aortic stenosis. The former may be trivial; the latter may be due to atheroma of the arch of the aorta.

Don't say every sudden death is due to heart disease.

Don't forget that the most serious diseases of the heart may occasion no murmur. A bad muscle is worse than a leaky valve.

Don't examine the heart through heavy clothing.

Don't give positive opinions after one examination.—*Philadelphia Medical Journal*.

THE PUBLIC SERVICE.

UNITED STATES MARINE HOSPITAL SERVICE.

Bailhache, Preston H., surgeon, to proceed to Cape Fear Quarantine, Southport, N. C., as inspector. March 8, 1898.

Peckham, C. T., passed assistant surgeon, upon being relieved by Passed Assistant surgeon W. J. S. Stewart, to proceed to Pittsburg, Pa., and assume command of service. March 8, 1898.

Pettus, W. J., passed assistant surgeon, relieved of command of service of Norfolk, Va., and to remain in command of Cape Charles Quarantine. March 10, 1898.

Magruder, G. M., passed assistant surgeon, to rejoin station, Memphis, Tenn., March 8, 1898.

Wertenbaker, C. P., passed assistant surgeon, to proceed to Middleboro, Ky., for special temporary duty. March 10, 1898.

Brown, B. W., passed assistant surgeon, to proceed to Norfolk, Va., and assume command of service. March 7, 1898.

Stewart, W. J. S., passed assistant surgeon, upon being relieved by Passed Assistant Surgeon G. M. Magruder, to rejoin station at Vineyard Haven, Mass. March 8, 1898.

Oakley, J. H., passed assistant surgeon, granted leave of absence for one month. March 4, 1898.

Hastings, Hill, passed assistant surgeon, to rejoin station, New Orleans, La. March 8, 1898.

Von Ezdorf, R. H., assistant surgeon, to proceed to New

Orleans, La., for duty and assignment to quarters. March 4, 1898.

APPOINTMENTS.

Rudolph von Ezdorf of the District of Columbia, and Milton H. Foster of Pennsylvania, commissioned as assistant surgeons.

NAVY.

Surgeon L. B. Baldwin, detached from the Puritan, March 17, and ordered home with two months' leave.

Surgeon J. D. Gatewood, detached from duty at the Naval Museum of Hygiene, Washington, D. C., March 15, and ordered to the Puritan, March 17.

Assistant Surgeon C. D. Kindleberger, detached from the Olympia, and ordered home with two months' leave.

Surgeon N. H. Drake, detached from duty with the Minneapolis and Columbia and ordered to the Minneapolis March 15.

Surgeon C. G. Herndon, ordered to the Columbia March 15.

NECROLOGY.

Sir Richard Quain, Bart., physician extraordinary to Queen Victoria and Editor of Quain's Dictionary of Medicine, March 15th, at the age of eighty-one.

Dr. Jno. Mason Strong, one of the oldest physicians of Mecklenburg county, March 11, 1898.

Dr. Thomas Jefferson Moore, aged 58 years, at Richmond, Va., February 22, 1898. Dr. Moore was a North Carolinian, having been born in Charlotte, April 30, 1840. He removed to Richmond in 1882. He was vice President of the Medical society of the State of North Carolina in 1882, and after his removal to Virginia was made an honorary member of the society.

Dr. William W. Luck, aged 27 years, in Middleburg, Va., February 20, 1898.

Dr. A. H. Dismond, aged 44 years, in Richmond, Va., March 1, 1868.

Reading Notices.

A PRE-ANTITOXIN MORTALTY OF 40 PER CENT, REDUCED TO 3.6 PER CENT.—Prior to the introduction of Anti-Diphtheritic Serum, the mortality from diphtheria at the Harper Hospital, Detroit, averaged for a number of years 40 per cent. According to the 34th annual report of the Hospital authorities, as published in the February number of the *Harper Hospital Bulletin*, page 73, 141 cases were treated at the Hospital during 1897, with the following results:

	CASES.	DEATHS.
Ordinary Diphtheria.....	115	1
Laryngeal Diphtheria.....	26	6
	141	7
Excluding two cases Moribund on Admission.	2	2
	139	5
Mortality under Antitoxin Treatment.....		3.6 per cent.

The antitoxin employed exclusively in Harper Hospital during 1897, was the Anti-Diphtheritic Serum of Parke, Davis & Co.'s Biological Department, and the remarkable reduction displayed in the death-rate reflects the highest credit on the efficacy of this matchless product.

PETROLEUM EMULSION.—Although the medical properties of petroleum have been known since a very early date, yet it is only within a few years that the remedy has been prominently brought to the attention of the profession. There can be no question whatever but that petroleum is an oil which is digested and absorbed like any of the fatty foods. The oil is emulsified by the pancreatic juices and absorbed by the lacteals. The Angier Chemical Co. put petroleum on the market in the form of an emulsion because they believe that as the process of emulsifying thoroughly breaks up the oil into minute particles it thus predigests it and puts it in a condition so that it can be absorbed at once. The Angier Chemical Co., emulsion has combined with it the wellknown hypophosphites. Each ounce of the emulsion contains $33\frac{1}{3}$ per cent. of purified petroleum and twelve grains of the combined salts of lime and soda. In consumption, bronchitis, and in all the various diseases of the pulmonary tract, experience shows this preparation to be of great use.

PARTURITION.---ALETRIS CORDIAL (Rio).
given in teaspoonful doses every hour or two after Parturition, is the best agent to prevent after-pains and hemorrhage. By its direct tonic action on the uterus, it expels blood clots, closes the uterine sinuses, causes the womb to contract, and prevents subinvolution. In severe cases, it can be combined with ergot in the proportion of one ounce of fluid Ext. Ergot to three ounces Aletris Cordial (Rio). It is the experience of eminent practitioners, in all cases where ergot is indicated, that its action is rendered much more efficacious by combining it with Aletris Cordial, Rio, in the proportions above stated.

A sample bottle will be sent free to any physician who desires to test it, if he will pay the express charges.

RIO CHEMICAL CO., St. Louis, Mo., U. S. A.

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DESCRIPTIVE LITERATURE

UPON APPLICATION.

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a Postal card to Murray Drug Co., Gen'l Ag'ts, Columbia, S. C., they will
dily send samples. See their Ad' in this Journal.

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APRIL 5, 1898.

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Robert D. Jewett, M. D. Editor.

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Original Communications.

TYPHOID FEVER—AND ITS TREATMENT.*

By THOS. M. RIDDICK, M.D., Woodville, N. C.

THIS paper is not presented in any didactic spirit, nor with any idea or purpose of making a valuable contribution to the history of therapeutic science, but only in the hope that the discussion of the subject, which it may provoke, will elicit the practical views and opinions of gentlemen who have battled successfully with this oftentimes fatal malady. While there are few doctors who question the existence of enteric fever in the tidewater section, there are, on the other hand, many practical and learned physicians who have seen and treated typical cases of genuine typhoid fever in the same region, and the testimony which they furnish can not be received with incredulity or treated with indifference. Although malaria is the kindly screen behind which are hid many diagnostic sins, the clinical picture presented by an established case of enteric fever is so radically different from any febrile affection caused by malarial infection that it is not easy to confound the two affections in diagnosis. The quinine test too, when fully and liberally made, eliminates every feature of doubt, for remittent fever will yield as readily to cinchona, as intestinal colic will to cathartics, opium and hot water.

*Read before the Tidewater Medical Association, January 20, 1898.

I shall omit any descriptive reference to the causation and pathology of this disease for I take it that you are all more than familiar with those features. The treatment of the trouble and its complications only will be considered.

In the very outset I want to say that I have never given any faith to the so-called abortive treatment of typhoid fever. As Dr. Austin Flint says, "it is essentially a self limited disease and runs its course, and while the severity of an attack may be mitigated, in a measure, by proper and judicious palliative measures, the morbidic factors at work can not be jugulated, by any species of therapeutic interference." Or I take it, a physician can no more suppress or abort an attack of enteric fever, when once developed, than an experienced mariner can quell the howling of the elements by commanding, "Peace be still!" The doctor can only guide and pilot his patient through the dread seizure, just as the nautical man brings his ship into port over tossing and billowy waters.

Of course in expressing that opinion, so dogmatically, I mean no unjust criticism of these gentlemen who hold to the views of Dr. Woodbridge, for evidently they are as honest in their own convictions as I am in mine.

The cardinal points on the treatment of typhoid fever are to control undue pyrexia; to keep the emunctories active, so as to expedite the elimination of toxins from the system, and limit their absorption; to support the enfeebled and flagging heart, so as to maintain throughout the system a uniform circulatory activity and prevent local engorgement and congestion; to heal the lesions in the peyerian glands; to tranquilize the nervous system and maintain its tone as far as in our power lies; and to generously nourish the patient, so as to check the waste of time, support the strength, and inhibit the progress of degenerative processes.

Now what are the means and measures by which these desirable results can be best accomplished?

For the reduction of temperature undoubtedly there is no system of treatment superior to the cold water immersion of Brand, but that is not always available to country practitioners who lack the facilities and mechanical appliances which are always accessible in hospital practice. In many localities too, the laity have not been educated up to the point of only addre-

ciating that antithermic measure, and the medical man who might have the misfortune to lose a patient who had been subjected to the plunging process would not only be regarded as a bold and daring innovator, but the most severe and unjust proscription would be visited upon him by many who did not endorse his practice. Indeed, he might even be threatened with the inquisition of a grand jury, and have a narrow escape from the toils of the law.

My method has been to compromise upon the application of cold to the head, and in grave cases, to the bowels also. The cold pack is also used, if the hyperpyrexia demands it. At the same time I give, during the afternoon hours, when the temperature elevation is greatest, small doses of acetanilide, every three or four hours. That generally suffices, in most cases, to keep the fever under 103, and it is only the continued excessive temperature that superinduces degeneration of the cardiac muscular tissue, and begets marked excitability and prostration of the nervous system.

Perhaps there are no features of more importance in the management of typhoid patients than the free and prompt action of the kidneys, and the proper regulation of the bowels, for it is chiefly through these routes that the death dealing poisons make their exit from the system. To secure good nephritic activity there is nothing better than the Buffalo Lithia Water—though that is not always available. In the absence of it I substitute the mixture of potassium acetate and spirits nitre, with lithia tablets. In the second week, when the cardiac energy begins to wane, I give tinct. digitalis and strychnia sulphate, to buttress the flagging heart. Water too, the best of diuretics, is given in generous draughts, *ad libitum*, for thorough internal irrigation is altogether desirable in this affection, to flush out the system, so to speak. The water should be boiled, filtered, and afterwards cooled, so as to render it palatable to the patient.

Calomel I regard as a drug of great potency in typhoid treatment, and frequently give it in eight or ten grain doses, twice, and even three times, during an attack, always subdividing the quantity in its administration and following with a saline draught. It not only sweeps out the intestinal tube, and keeps the secretions active and free, but also exercises a germicidal effect

upon the bacilli. It is always my initial dose in assuming charge of a typhoid case.

Should constipation be present at any time, together with pronounced tympanites, an enema of warm water, glycerine, and spirits turpentine is given to open bowels, and turpentine stupes are applied over bowels. While it is always my aim to keep the bowels open and free, anything like hypercatharsis should always be controlled, because of the increased debility which it produces. Bismuth salicylate, or sub-nitrate, are my choice of astringents, unless hemorrhage should occur, when the lead and opium pill is substituted, an ice bag applied over bowels, and ergotine is given by hypodermic injection.

Many and various remedies have strong advocates as intestinal antiseptics and perhaps there are none of them devoid of merit. Guaiacol carbonate, salol, creosote, beta naphthol, all find favor with their respective friends. But to me there is no one preferable to that venerable old time favorite, turpentine, first introduced to the profession as a healing agent in typhoid fever, by the eminent and practical Dr. Geo. B. Wood, of Philadelphia. To an adult I administer gtts. vj , in half a tumbler of milk and lime water every two hours—and to that is added, as an antiseptic nutrient a tablespoonful of liquid peptonoids, with creosote. If asthenia be marked, good brandy or whiskey are given as occasion may require. As an auxiliary intestinal antiseptic, I know of nothing better than the carbolic acid and iodine mixture—given three times a day.

While turpentine meets many requirements in typhoid cases as an antiseptic, diuretic, hæmostatic, and diffusible stimulant, I have seen cases where it produced such renal irritation as to contraindicate its use. At other times, there is great gastric intolerance. In that event my reliance, as an intestinal healer, is upon silver nitrate, so highly commended by Dr. Pepper.

The coexistence of pneumonia, pleurisy or bronchitis, must be controlled by such therapeutic means as will suggest themselves to every prudent and judicious doctor.

When meningeal inflammation supervenes I never fail to shave the head and blister. This is followed by the ice cap to head. The nervous excitement is controlled by codeine and sodium bromide. Sleep is secured by trional if needful.

I take it that it is wholly needless to advert to the necessity of perfect rest and quietude for patient—the use of the bed-pan, a thoroughly liquid diet, for at least two weeks after convalescence, and the thorough disinfection and removal to a distant point, of all excreta of patient. The thorough disinfection of the sick room with Platt's chlorides or other disinfectant is indispensable, and in no case are the hygienic advantages of thorough cleanliness more apparent than in typhoid fever. After the cessation of fever, and convalescence is progressing, it is often my custom to prescribe the elixir phosphate iron, quinine and strychnine—together with Fairchild's essence pepsine. This not only aids the frequent faulty digestion, but also exercises its tonic and roborant action upon the system and hastens the restoration of the patient to his former condition of health and vigor.

Clinical Lectures.

PELVIC INFLAMMATION.*

C. A. VON HOFMAN, M.D., Professor of Gynecology, Medical Department, University of California.

GENTLEMEN: We had last time three cases; the examination showed that in the first case there was a mass in the pelvis on the left side of the uterus, pushing the uterus to the right side: this mass was not circumscribed, not a round mass; it filled out the left side of the pelvis, between the uterus and the bones. It extended posteriorly about half way to the median line of the uterus, but was not felt in the Douglas pouch, and extended upwards to about the line corresponding to the fundus of the uterus, below and downwards to the junction of the vagina and the uterus. It did not offer any fluctuation.

Second and third cases: The two other cases showed masses behind the uterus pushing the uterus upward and forward.

*Delivered at City and County Hospital, January 1898.

These masses could be felt above the cervix in the Douglas pouch, extending to both sides of the pelvis, but did not reach as far down on the side as the mass in the first case. The masses in the second and third cases could be felt more as round circumscribed masses.

The diagnosis in all the three cases was pelvic inflammation. These three cases did not give the same results upon examination, but the diagnosis in all three cases was the same; different conditions may exist in this disease of pelvic inflammation, and to understand these conditions it is best to divide the different cases. In non-infective cases the disease may remain localized at the spot where the inflammation first commenced, and not attack any of the neighboring organs, or infect the whole system. In infective cases the whole system would be infected and the inflammation would spread from the point of entrance of infection to the neighboring organs, and may spread into the peritoneum, and general peritonitis may result.

The seat of the inflammation may be different; it may be in the connective tissue of the pelvis or in the peritoneum. In the first case the connective tissue was affected. In those cases in which the peritoneum is the seat of inflammation I would expect also parametritis, as both of these forms are common at the same time. But in the first case the seat of the inflammation was the connective tissue of the broad ligament, and in the two other cases the seat of inflammation was in the peritoneum, involving at the same time the tubes and ovaries, so that the two forms can be easily shown in these cases. In the first case we found parametritis, in the two other cases perimetritis.

As the broad ligament consists of only very little connective tissue covered by the peritoneum, it is natural that both parts be generally affected together. The seat of the tumor often enables us to make the diagnosis between these two conditions, parametritis and perimetritis. Non-infective perimetritis is often overlooked in the acute stage and we find only the results; the results of non-infective perimetritis would be adhesions between the uterus and the rectum, ovaries and tubes, and ovaries and uterus, ovaries and rectum. The results of non-infective parametritis would be cicatricial tissue in the broad ligament, as we see after laceration of the cervix, which extends into the broad ligament; the patient

after the confinement during which such tear occurs, does not show any symptoms of fever. The injury in the broad ligament will heal; but afterwards the result of the non-infective perimetritis can be felt as a hard, dense band in the broad ligament, pulling the cervix over to this side.

The infective forms of the disease are of greater importance. We take up first infective perimetritis. We can distinguish two different forms: the septic and the gonorrhœal. In septic acute perimetritis the infection takes place in the uterus in some cases and travels upwards into the peritoneum through the Fallopian tubes, or it travels from any infected place in the cervix through the lymphatic vessels and so reaches the ovaries and the peritoneum. The disease shows in the beginning all the symptoms of acute inflammation of the peritoneum and very soon an exudation takes place, the liquid exudate sinks down into the Douglas sac, the deepest part of the peritoneal cavity; this purulent exudate will remain for some time, and the peritoneum forms adhesions above it, so that the general peritoneal cavity is protected against further infection. The purulent effusion can change so that the liquid parts of the pus are absorbed and the thick pus remains. Abscess is formed in this way; these abscesses can break through into the vagina or rectum or bladder, and under some circumstances into the peritoneal cavity. After the abscess breaks and the pus comes away, the walls of the abscess may fall together and heal.

When the abscess breaks into the rectum, fecal matter may get into the abscess cavity and the abscess continue to discharge and will not heal without surgical assistance. As soon as this exudation takes place, the patient offers symptoms of pain in the pelvis, high fever, often beginning with a chill; will have pain on micturition, pain on defecation, and will complain of pain in the lower abdomen. This pain extends to the back and often down the thighs. The patient should be kept in bed, on the back, perfectly quiet and with a frame to support the bedding to relieve the pressure upon the abdomen. The irritation of the peritoneum will give symptoms of nausea and very often vomiting. On examination we find that the pelvis is filled up with a mass, especially behind the cervix in the Douglas, extending to either or both sides, or at least to one of the sides more than to the

other, and which fixes at the same time all the organs of the pelvis. This is one of the characteristic signs of pelvic-inflammation—the organs, especially the uterus, are fixed and immovable.

We cannot make out in these cases the ovaries and Fallopian tubes; they are contained in the mass of adhesions; they are always inflamed by it, and infected by the septic poison. The diagnosis of the condition is made by the examination from the characteristic signs, the seat of the tumor behind the cervix, the pain on pressure, the fixation of the organs and the high temperature. Later on the diagnosis of the abscess is made by the signs of localized softening, or by the feeling of fluctuation.

The prognosis is grave; if the abscess breaks and heals, the patient may be an invalid for a long time. The danger is present as long as the acute symptoms of general infection last; but after the abscess breaks and the pus is removed, there is a possibility of all the organs becoming normal again, especially in cases of septic infection. In gonorrhœal infection we see the same symptoms, only the history is different in the beginning. The patient will offer first the symptoms of acute gonorrhœa: before the infection travels through the uterus into the Fallopian tubes and fixes the tube and ovaries and then into the peritoneum, so that we are able to make a diagnosis.

The diagnosis is made before the peritoneum is affected. Very soon effusion or an exudation will take place, and then we have the same symptoms as the septic infection.

Treatment in the acute cases should be perfect rest, which we can obtain by keeping the patient in bed, giving her opium or morphine, and a good plan is to combine opium with quinine. If you find in the beginning of the case that the rectum is full, the rectum should be emptied by injection and then left alone for several days; after five days you may begin to give calomel in small doses, one grain every hour, until the bowels move. Outside applications can be made of flax-seed poultices of turpentine stupes. Diet should be liquid food, milk, beef-tea gruel and barley water. If the cases have passed the acute stage and the sensibility is less, and the patient able to be moved, then hot baths, *glycerine tampons* or suppositories during the night will be found of great benefit. If the exudation has disappeared or is absorbed, we find the adhesions and we must try to lessen them

and to bring the uterus into condition so that it is movable again. To lessen these adhesions we can try rectal injections, for which we use a great quantity of warm water or sweet oil, hip baths, wet applications and vaginal douches, tampons with ichthyol and iodine and painting the roof of the vagina and cervix with iodine. This treatment must be continued for several months before any results are to be expected. The adhesions can be broken down by force, but this should be only when the patient is under ether. Massage can be of benefit; the use of the sound will bring up the uterus until it finally can be replaced and brought into normal position; as soon as the fluctuation is felt the abscess should be opened, washed out and drained, and cleaned every day until the walls fall together and the abscess heals.

If the patient continues to complain and cannot be made comfortable, the adhesions can be broken down. The question rises if it would not be better to remove the ovaries and the tubes at the same time. To establish good drainage, the removal of the uterus has been recommended.

Septic parametritis is seen generally after confinements or after operations; the inflammation is found here especially in the connective tissue of the ligaments; you notice the signs of inflammation, swelling, congestion, and exudation into the tissue by which the small blood vessels are compressed: stasis of the blood vessels takes place in cases where the tissue suppurates. The process may be arrested at any time before suppuration takes place, then the thickening of the broad ligament results. If suppuration takes place the pus can find its way along the iliac fascia, and can reach the anterior abdominal wall by following the connective tissue. The abscess may break above Poupart's ligament, into the vagina, rectum or bladder.

The *diagnosis* can be made if we find the organs of the pelvis fixed, the mass pushing the uterus over to either side, high fever and sensitiveness. The diagnosis between peri and parametritis can be made by the seat of the tumor; the symptoms are the same as in perimetritis and the treatment is the same also.

This form of pelvic inflammation can be prevented by cleanliness during operations and during confinements; in acute stages the patient is to be kept in bed perfectly quiet; opium and

quinine may be given, hot vaginal douches and flax-seed poultices are used; later, hot applications or blisters may be applied. If there is no suppuration, massage will be of benefit; if it comes to an abscess, fluctuation can usually be felt generally at the lowest point of the mass in the roof of the vagina; if the abscess is to be opened, wash out, drain, and clean it. In the last few years the pelvic suppurations have been treated by the removal of the uterus from below, or by removal of the ovaries and tubes and opening the abscess from above. In France especially, it has been recommended to remove the uterus in any case of pelvic suppuration to establish free drainage; and even in cases in which several smaller abscesses are present it is claimed that the removal of the uterus is sufficient in order to get these patients well, even if all the different abscesses be not opened. Other physicians are against treating pelvic suppurations from below, and want to treat all the cases by abdominal incision, opening and draining the abscess through such incisions. I do not think that all cases can be treated alike.

In my opinion the best way of treating pelvic suppurations is, if you can feel the fluctuation from below, to open the abscess and to drain. If no suppuration can be felt, especially if the ovaries and Fallopian tubes are affected, I would consider it better to open the abdomen above, remove the diseased organs, and drain if necessary. I consider it too dangerous to work among adhesions from below; you cannot see; you have to feel. Many cases are reported in which the rectum has been opened by the physician, who thought that he was opening a pyosalpinx; this opening of the rectum generally heals without any further trouble, but it shows that the physician cannot be absolutely sure of what he is doing when he is at work with his fingers in the dark. If he can see the organs as we do after the abdominal incision he can remove them without injuring the neighboring organs, which of course would be much safer for the patient.

It has been recommended during the last few years to treat pelvic inflammation from the beginning by an incision into the diseased tissues before the pus has appeared; as the recovery of the patient after this procedure is no quicker than by using the old-fashioned treatment, I do not recommend this method. I am not very much in favor of removing the uterus in pelvic sup-

purations. I believe we can remove the pus by opening the abscess; the uterus will be healthy afterwards; and an organ should not be removed which can be kept without injury to the patient. In septic cases we often see that organs are perfectly normal afterwards. This is shown by subsequent confinements, which of course cannot occur when the uterus is removed.—*Pacific Record of Medicine and Surgery.*

Society Reports.

SECTION ON ORTHOPEDIC SURGERY BEFORE THE NEW YORK ACADEMY OF MEDICINE.

Meeting of February 17, 1898. Dr. E. G. Janeway, President
of the Academy in the Chair.

Dr. T. H. Myers read a paper on "Non-Tubercular Inflammations of the Spine." The following is an abstract of the paper and discussion:

Dr. Myers said that syphilitic inflammation of the spine was found in all regions of the column and might involve any of the tissues and any of the vertebral parts, with the exhibition of periostitic, osteitic and other varieties of inflammation. In the cases of two boys whose histories were related, the cervical and dorsal regions were affected respectively. In the former there was the deformity of wry-neck and in the latter a kyphosis. Pain and rigidity were present. There was no history of transmission but the presence of syphilitic dactylitis and prompt and repeated response to anti-syphilitic medication determined the diagnoses. Both patients were much relieved by mechanical treatment.

Dr. W. R. Townsend said that this form of spine disease was a rare affection. The kyphosis did not differ from that of the spine affected with tuberculosis and there was generally a history of inherited syphilis.

Dr. R. H. Sayre said that in making a diagnosis in children the presence of multiple arthritis would indicate syphilitic rather than tubercular disease of the spine, especially if the child were under 18 months of age.

Dr. B. Lapowski said that dactylitis syphilitic had no characteristic symptoms and was therefore valueless in distinguishing between syphilis and tuberculosis. Neither was a response to anti-syphilitic treatment a certain guide since anti-syphilitic medication produced good results in tubercular diseases and of late hypodermic injections of sublimate had been used with good effect in gonorrhœal rheumatism.

The President said that it was not rare to see a person suffering from both tuberculosis and syphilis. He had also seen cases which were thought to be tubercular but which yielded to anti-syphilitic treatment.

Dr. Myers said that the relation of congenital syphilis to tuberculosis was not well understood. It was possible that transmission might make the offspring a more than usually favorable soil for tubercular infection. Moreover, there were cases of a mixed infection, a tuberculous subject acquiring syphilis or vice versa.

Rheumatic Inflammation of the Spine was more certainly recognized. In rheumatoid arthritis, which was by far the most common, other joints were also affected and there was slowly increasing and poorly defined deformity from inability of the column to withstand the superimposed weight, with a varying degree of pain. Mobility and pain declined together and the latter ceased when ankylosis was established. The bones exhibited sclerosis with atrophy and absorption under pressure. Active medication was required with protection and immobilization. Every effort should be made to secure ankylosis, if it was inevitable, in the best possible position of the spine.

Dr. C. C. Ransom would make a clear distinction between spinal rheumatoid arthritis and rheumatic disease of the spine. The latter affection, when limited to the spine, was comparatively rare and usually affected the lower dorsal and upper cervical regions, rarely exhibiting cartilaginous and osseous changes only in very exceptional patients and in those of advanced years. Rheumatoid arthritis of the spine, on the other hand, exhibited

muscular atrophy, deposits about the joints and characteristic deformities of other affected joints. In its treatment the classic remedie sused in rheumatism had little if any effect and, with the exception of iodide of potassium, were apt to do more harm than good. In the treatment of rheumatism of the spine, however, the methods usually employed in rheumatism would be found to give good results. Specific remedies, such as salicylic compounds, iodide of potassium and colchicum might be used in the active stage and to relieve distressing symptoms. But to cure the trouble our dependence must be on general tonic and hygienic treatment including iron, arsenic, the hypophosphites, hydrotherapy, massage and, when pain on motion had sufficiently subsided, proper forms of active exercise regularly carried out.

Dr. Townsend could recall but one or two cases in which the diagnosis of rheumatic affection of the spine could be clearly made out. He referred to rheumatic changes in the bones and joints of the spine. Rheumatic pains affecting the spinal muscles were sufficiently common.

Dr. Sayre recalled a case which at first seemed to be tubercular inflammation of the cervical spine. There were pain and limited motion. A support enabled the patient to move without pain. Different diagnoses were made by a number of observers. Syphilis was eliminated. Atrophy and an inelastic condition of the muscles suggested a nervous origin of the trouble. The inflammation progressed and a few years later the entire spine was rigid. Stiffness of the costo-sternal and costo-vertebral joints interfered with full respiration and other joints were involved. There had been some relief from gentle massage.

Dr. Myers said that the diagnosis of malignant disease of the spine was readily made in cases in which a malignant growth had already occurred in another part of the body, but if the primary manifestation was in the spine the affection might be overlooked. The growth might infiltrate the bodies, transverse processes, laminæ and spines or occur externally on the sides of the vertebræ. Small metastases might occur in the neighborhood and the spinal nerves were oppressed by invasion of the inter-vertebral foramina. The average duration of life after

the onset was eight months. The most constant symptoms were pain and motor paralysis. Kyphosis was found in some cases. Severe pain and the occurrence of sensory paralysis before the appearance of the motor symptoms were considered as rather diagnostic.

Dr. V. P. Gibney said that this affection was very interesting to the general practitioner and to the specialist because of the peculiar symptoms and the difficulty of making the diagnosis, which, however, could as a rule be made early. The severity of the symptoms was so great and the pain in certain regions was so acute and persistent that their significance could generally be recognized. Another point was the cicatrix in the mammary region showing a previous amputation of the breast, a fact which was often concealed by the patient. If this was found, the disease of the spine was undoubtedly malignant.

Dr. B. Curtis had operated in a case in which the diagnosis was uncertain. The patient was a woman of 35 years. The right breast had been amputated a year previously for a supposed malignant growth. She had complained for five months of pain, not very severe in the back and chest. Examination showed practically nothing. Later the knee reflex was lost and very soon anæsthesia appeared. The prick of a pin was not felt below the level of the umbilicus. There were retention of urine, involuntary discharge of fæces, complete paralysis of the lower extremities and kyphosis in the mid-dorsal region. A bed-sore developed over the sacrum. The patient was examined by a number of men whose diagnoses varied from secondary deposit to Potts' disease. Operation was urged and rather against his own judgment, as he favored the former opinion, he was induced to do a laminectomy on the 5th, 6th and 7th dorsal vertebræ. He found the cord slightly compressed and congested. The 6th dorsal was softened and projected somewhat against the anterior surface of the cord. There was, however, no marked thinning of the cord and nothing in the cord to account for the severity of the symptoms, which were not relieved. The wound healed by primary union but the bed sore was very extensive and the sacrum necrotic. The patient died of sepsis on the 16th day after the operation.

Dr. C. N. Dowd referred to the tendency of breast cancer to form spinal metastases. In 29 cases there were five in which

this had occurred. The suffering was intense. The possibility of such a metastasis was a strong argument for early operation on the primary growth.

The President said that primary malignant disease of the spine was rare but its appearance secondarily was not uncommon. In the latter case, if the pain was severe, the diagnosis could generally be made. The diagnosis of primary new growth in the spine was more difficult, but could usually be made by watching the course of the case. There was usually great pain and often paraplegia, so that the name *paraplegia dolorosa* had been applied to the disease. There was no pain more severe. If the patient developed pain in the spine after having had a tumor removed there was probably a location of the disease in the spine, although the surgeon who operated might not want to admit it.

Dr. S. Lloyd had operated for the removal of an hydatid tumor of the spine in a case which the diagnosis had long been uncertain. There was a distinct kyphosis and among the symptoms had been pain in the lumbar region, partial sensory and complete motor paralysis, vaso-motor disturbances, sphincter paralysis and cystitis. The patient had been treated by a number of surgeons for tubercular disease of the spine. Nine years from the beginning of the symptoms the tumor was discovered and removed from between the processes of the 8th and 9th dorsal vertebrae where the adjacent bones were eroded. The paralysis disappeared and the man went back to his trade. A few months later he died paraplegic after being crushed in a railroad accident. The spine was fractured and at the autopsy two hydatid cysts were found in the cauda equina.

Dr. Myers said that gonorrhœal inflammation of the spine was a rare affection and that typhoid spine was more common, depending on an inflammation of the periosteum or other fibrous structures. Infectious inflammations of the spine followed attacks of the infectious diseases of childhood. He gave histories of two cases in which wry-neck, not differing from that of vertebral caries had disappeared without sequel after treatment by the application of a brace with a chin-piece.

Dr. Sayre had seen only one case of gonorrhœal disease of the spine. The history was clear and there were pain and disability of the spine, a slight kyphosis and stiffness in the other

joints. He had seen a few cases in which erosion by an aneurism with marked kyphosis had been confounded with Potts' disease. Cases were on record in which suspension for the reduction of the kyphosis had been followed by rupture of the aneurismal sac and death.

The President said that several such cases had come under his observation which had been supposed to be tubercular disease of the spine. In one the patient suddenly fell back in bed and expired.

Dr. Myers said the traumatic inflammation of the spine was seen in adults more often than in children and was usually the result of considerable violence. The kyphosis was not often significant. An abscess sometimes followed and the symptoms might include pain in the spine, not anteriorly, great disability, muscular twitching and exaggerated knee reflex. The prognosis was good except in severe injuries. Fracture should be carefully protected and for a long time.

Dr. Lloyd said that the violence might cause tearing of the muscles and possibly an infected inflammatory area with rigidity but without kyphosis. There might be paralysis below the point of injury with rectal and vesical symptoms and in some cases an abscess with finally good recovery. In other cases a greater degree of violence produced partial dislocation or fracture, with or without kyphosis. In these cases the crepitus was especially important as symptoms of compression of the cord might not appear till two or three weeks after the injury.

Dr. G. R. Elliott said that when we had a distinct lesion of the spine such as fracture of the vertebrae, laceration of the ligaments, extra-dural hemorrhage, the cord itself escaping, together with clearly demonstrable objective signs such as possible bony changes, muscular atrophy, some motor paralysis and distinct electrical degenerative reactions, we had a condition far from common and one very much more valuable in a medico-legal sense than the neurotic symptom-group called *railway spine* which, when standing alone and unsupported by objective signs, admits of endless neurological speculation.

The President recalled the case of a woman who had been shot in the mouth with a blank cartridge. Stiffness of the neck and spinal paralysis developed and the autopsy showed suppuration running down the cervical vertebrae beneath the periosteum and

into the inter-vertebral foramina with a secondary inflammation of the cord. Also the case of a boy who has been kicked over the sacrum and who was suffering from what was supposed to be spinal meningitis. An autopsy showed necrosis of a portion of the inner surface of the sacrum with exudate outside of the dura mater but running along the roots of the nerves and also an inflammation with exudate intradural and subarachnoid.

Dr Townsend said that instances of non-tubercular inflammation of the spine were extremely rare in comparison with the vast number of tubercular cases which came under observation and treatment.

Dr A.B. Judson said that when a patient complained of spinal pain and spinal disability, the first thought was to exclude Pott's disease. It was strange that these symptoms were not found in a condition so closely simulating fracture or the worst type of traumatism. On the other hand, in the non-tubercular inflammation as a rule spinal disability and pain were early and prominent symptoms, marking a frank and sometimes alarming onset very different from the long continued and insidious approach of vertebral caries.

Dr. Gibney said that we were not apt to look for tuberculous diseases of the spine in adults while they were very frequent in children.

The President said that the possibility of making a mistake should be borne in mind, for instance in an injury occurring in a man who was both tubercular and syphilitic. The only way was to go over all the points of each disease and exclude as many as possible, not forgetting that two diseases might be present in the same patient.

Dr. Myers said that if a patient were curable within a year the diagnosis of tuberculous spondylitis should be re-considered. From a medico-legal standpoint it was important to remember that a considerable number of chronic and increasing kyphoses were not tubercular in their origin and that such disabilities should not be rated so high in awarding damages as those which were tubercular. In life insurance, also, applicants with non-tubercular impairment of the spine should have a more favorable consideration than those whose disability had a tubercular origin.

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Editorial.

STATE PRODUCTION OF DRUGS.

There has recently been considerable discussion in the medical press in regard to the action of the City of New York in undertaking to produce antitoxin. It is clearly the duty of a municipality to use every means within its power to prevent the spread of infectious diseases. It has been clearly and conclusively demonstrated that antitoxin acts both as a curative and preventive agent in diphtheria. It is then, important as regards the welfare of the community, that it be made available for use in the poorer classes. At the present prices it is absolutely beyond their ability to purchase it. Then it should be provided by the city or county.

But how shall the city or county do this? By establishing laboratories, buying horses, employing bacteriologists, and appointing agents for its distribution to those who are attacked, or in danger of being attacked, by the disease and who are unable to purchase the remedy? This would be a big undertaking and unless the quantity to be used was very large, would cause the cost per dose to be very great. In regard to the experiment by the New York Health Department, Dr. B. I. Whitmore, in an article in the *Bulletin of Pharmacy* makes the statement that the antitoxin made by the city at a cost of \$60,000 would not have cost more than \$10,000 if made under other than municipal auspices. There are numerous concerns in this country and Europe which manufacture antitoxin, and whose facilities enable, and whose reputation require, them to dispense preparations as nearly perfect as it is possible to make them.

There seems to be as much reason for the State to engage in the manufacture of quinine, or shoes, or clothing, as to enter the market for the manufacture of these preparations which belong legitimately to the pharmaceutical laboratories.

ELECTION OF MEMBERS TO THE BOARD OF MEDICAL EXAMINERS.

Among the most important things to be done at the coming meeting of the State Society, is the election of two new members to the Board of Medical Examiners, to fill the vacancies caused by the expiration of the terms of office of Dr. Julian M. Baker, of Tarboro, and Dr. H. B. Weaver, of Asheville. These gentlemen were elected in 1892 for a term of six years. Both have proven faithful to the trust bestowed upon them. During the last two years these gentlemen have acted respectively in the capacity of President and Secretary of the Board; they have been constant and interested attendants upon each meeting of the Board except in the event of sickness, and deserve the hearty thanks of the Society for their conscientious attention to duty.

The new members will be elected for a term of four years, in

accordance with the resolutions adopted by the Society in 1896, which provides that the terms of all six members of the Board shall expire in 1902, looking to a return to the former plan of electing the entire Board once each six years.

A SERIES OF CLINICAL LECTURES ON GYNÆCOLOGY.

We are pleased to announce that we have made arrangements with Dr. Augustine H. Goelet for a series of Clinical Lectures on Operative Gynæcology, which he is delivering at the Manhattan Hospital. Dr. Goelet is Professor of Gynæcology in the New York School of Clinical Medicine, and has made an enviable reputation in New York City in this branch of surgery, and our readers will undoubtedly appreciate this opportunity of following him in a series of diversified and interesting cases. The first of the series appeared in the last issue of the *JOURNAL*, being a lecture on Shortening of the Round Ligaments by a New Method for Reducible Retroflexion of the Uterus. The next lecture will appear in the issue of April 20th—Conservative Oöphorectomy—Prolapsus of the Uterus Complicated with Broad Ligament Cyst.

Reviews and Book Notices.

Natural History. By R. Lydekker, B. A., F.R.S., V.P.G.S.; W. F. Kirby, F.L.S., F.E.S.; B. B. Woodward, F.L.S., F.G.S.; R. Kirkpatrick; R. I. Pacock; R. Bowdler Sharpe, LL.D.; W. Garstang, M.A., F.Z.S.; F. A. Bather, M.A., F.G.S.; H. M. Bernard, M.A., F.L.S. Octavo, cloth, pp 772. D. Appleton & Co., New York. 1897.

This is a concise and accurate Natural History and would be a useful addition to every library. The several departments are treated by men who have made a specialty of the subject upon which they have written, and who have done much original investigation. The volume is fully illustrated and supplied with both a systematic and alphabetical index.

The International Medical Annual and Practitioner's Index. A work of Reference for Medical Practitioners. Sixteenth year. Octavo, cloth, pages 740. Price \$3.00. E. B. Treat & Co., New York. 1898.

This work has become the daily friend of the practitioner. Issued early in the year it keeps its readers informed in regard to the latest and best methods of treatment. The work is entrusted to the hands of careful and able men, and they have never done their work better than in the present volume. Part I, of the present edition is devoted to a review of new remedies, electrotherapeutics, hypnotism and suggestion. Then follows the main part of the work, being a dictionary of new treatment in medicine and surgery. Following this is a useful atlas of the bacteria pathogenic to man. This is illustrated by colored plates and description of methods used in cultivating and staining. The volume closes with short chapters on legal decisions, sanitary science, concealed alcohol in drugs, new inventions, and a list of the most important medical books published during the year.

Review of Current Literature.

GENERAL SURGERY.

IN CHARGE OF

H. T. BAHNSON, M.D.,

R. L. GIBBON, M.D.,

J. HOWELL WAY, M.D.

APPENDICITIS.—Appendicitis should be operated on as soon as the diagnosis is made, is the radical opinion of Dr. R. T. Morris (correspondence, Jour. Am. Med. Assn., March 1898) who has given us one of the most extreme volumes we have in advocacy of cutting in all cases. He epitomizes his present views as follows:

1. No physician will ever be able to prejudicate upon the extent of bacterial ravages in any given case of appendicitis.

2. If we wait to see whether a mild case is to remain a mild case, the cases that are not mild become complicated cases before operation is done and we then have an unnecessary death rate, an unnecessary suffering rate, an unnecessary loss of time rate.

3. Operations properly performed as the outset of infective appendi-

citis have a smaller loss of time rate, a smaller suffering rate and a smaller death rate than can be given by any sort of medical treatment.

4. Operations performed properly by the surgeon when bacteria are causing progressive destruction of tissues outside of the appendix, are less dangerous than the operations that the bacteria perform.

5. Operations performed properly when patients are apparently convalescing from acute appendicitis, avoid the surprises that appear in the form of infective phlebitis, portal embolism and other metastatic complications which are so often observed by those of us who are engaged in appendicitis work.

6. Operations performed properly, in the interval between attacks of appendicitis, give results similar to those performed in the early infection stage.

I believe that it will be an easy matter to refute any arguments to the contrary of my proposition, but I would like very much to have the matter discussed very promptly because patients are hourly dying unnecessarily from appendicitis, and it is high time that a preventable death rate be prevented.

[All of which is very interesting and readable. What has Morris ever written that was not readable and interesting? But the metropolitan surgical specialists and teachers will have a difficult field to till in seeking to engraft such extreme views upon the common, every-day general practitioners, who after all do the bulk of the treating of human disease. On March 14, 1888, the writer did his first celiotomy for appendicitis. The patient made an excellent recovery. In the ten years since then he has treated upwards of 40 cases—the majority being seen through the courtesy of colleges. The majority have not been subjected to operation. Of the cases operated upon, more than 70 per cent. have recovered. No case has died without operation being performed, even when in some cases it was evident that a fatal result was inevitable. Yet it is to-day his calm deliberate judgment that the professional teachers and writers, in the main, have gone entirely too far in the matter of operations for appendicitis. The majority of all cases will recover without operation, and the greater number of them will remain permanently free from any recurrence of the disease. The "experience" of one man is always a very little thing to be influenced by—yet after ten or fifteen years in practice a man is wholly unfit to practice medicine who has not pretty firmly established certain things in his own mind.

The great Sir Astley Cooper compared the magnificent clinical experience it had been his good fortune to have to "only a tiny drop in the vast ocean of surgery," hence the writer submits his opinion with much diffidence, yet he feels that it is now time for the general practitioner to "have his say" on the appendicitis question.] J. H. W.

THE SURGICAL TREATMENT OF GASTRIC ULCER is the title of an interesting clinical report (Jour. Am. Med. Ass., March 1898) by Dr.

Knott. The case, a female aged 32 consulted the doctor for severe gastralgia and digestive disturbance of a year's standing.

She complained of very acute abdominal pain coming on soon after eating, which was frequently attended with vomiting. Coughing, sneezing, etc., were attended by the most excruciating pain. She had been constantly under treatment for one year, her ailment being diagnosed as dyspepsia, and was almost discouraged concerning her condition. Owing to the difficulty with which food was retained in stomach, she was extremely emaciated. Temperature was the 100, pulse 85. An examination of the abdomen revealed, upon palpation, a tender indurated spot about one-half an inch above and the same distance to the left of the umbilicus. This, together with the symptoms above enumerated, led to the diagnosis of an adhesion between the stomach and the abdominal wall, with possibly the formation of an abscess. In addition to the usual preparations for the celiotomy, the stomach was thoroughly washed out. The abdomen was opened in the median line and the adhesion existing between the anterior surface of the stomach and the abdominal wall was readily found. This point was walled off from the surrounding tissues with gauze sponges and the adhesion separated, keeping close to the abdominal wall. No pus was present and the stomach wall at this point was found to be intact, the ulcer having apparently healed. The ulcerated area, however, was folded in and retained by close suturing. As no abscess existed and the stomach had not been opened the abdominal incision was closed without drainage. The troublesome symptoms immediately disappeared and, fifteen months after operation, had not recurred. The patient rapidly regained her lost weight and has since been in perfect health.

J. H. W.

THE CONSERVATIVE AGENCY OF SHOCK.—Wetherill (*Jour. Am. Med. Assn.*, March 1893) from a thoughtful study of the phenomena of shock deduces these suggestive conclusions:

1. Surgical shock entirely unassociated with hemorrhage is a condition rarely seen and one which may usually be successfully treated in persons who are otherwise in good health.

2. Hemorrhage though small in amount is a far more important factor in the production of surgical shock (as it is seen clinically) than we have been accustomed to think it.

3. This mixed shock (traumatic asthenia) should be designated by some distinctive title, or the term shock be construed to comprehend all the factors in its genesis.

4. While not proven it seems probable, that the effects of even a small continuous arterial hemorrhage is to produce through its reflex action lower blood pressure and in general a condition so like true shock as to be very difficult of differentiation, particularly if the hemorrhage is concealed: as in ruptured ectopic pregnancy.

5. Surgical shock, with or without hemorrhage, must be construed as primarily conservative in its tendencies. The incident prevention of rapid exhaustion, of acute suffering, or great blood loss when the blood vessels are opened, all tend to the ultimate saving of life.

6. Premature stimulation in the treatment of traumatic asthenia may defeat this conservative effort of nature. Bleeding should be stopped and proper provision made for the comfort and welfare of the patient before strong stimulation is resorted to, unless there is imminent danger of death.

7. Anesthetics must be sparingly and carefully given to patients suffering from surgical shock (traumatic asthenia), chiefly because they completely obliterate the reflexes. The saturation of the patient with an anesthetic may turn the scale against him even though the direct effect of the anesthetic be stimulant. The same rule holds good in regard to the employment of alcoholic stimulants if too freely used.

8. We should co-operate with and supplement nature's conservative efforts. They are always exercised in behalf of the patient, never against him.

J. H. W.

SURGICAL INTERVENTION IN PERFORATING PERITONITIS FROM TYPHOID FEVER.—Monod, (*Am. Med. Asso. Jour.*, quotation from *Cbl. f. Chir.*, March 1898) reports a case in which he performed laparotomy, but the patient died three days later, as the peritonitis continued its ravages. He has had five recover out of thirty-two operated on in these conditions, and considers an operation indicated and justified as a last resort. Routier, Brun and Lejars have each a record of one or two cases thus treated, but none recovered.

J. H. W.

AMPUTATIONS OF EXTREMITIES WITHOUT LIGATURES.—O. R. Barber (*Medical Age*) describes a method of closing the wounds in amputations without the use of ligatures, and in which he claims originality. After rendering the limb bloodless with the elastic roller bandage, the amputation is completed and the flaps adjusted. With a long piece of aseptic catgut he then stitches into the muscle next the bone at one edge of the wound, and sews back and forth, the same as any wound is closed by deep buried sutures; bringing the muscular tissue into snug apposition, but not too tightly, and when getting to the outer edge whips the outer and last rows of stitches by the over-and-over method, so that the muscular tissue is smooth, round and compact. Then the skin is brought over and stitched over all. The "Esmarch" is then removed. He claims to have used this method in six amputations of the lower extremity for crushing injury during the last four months, and in no case has there been even a drop of hemorrhage. The results have been very favorable in giving a rounded, painless stump.

PATHOLOGY.

IN CHARGE OF

ALBERT ANDERSON, M. D., WILSON, N. C.

IMMUNITY.—The results from sero-therapy and sero-diagnosis within the last three years have been remarkable and former theories of immunity from infectious diseases have been greatly modified by these results. Formerly we looked upon immunity as of two kinds, natural and acquired, and now to these we may add an artificial type—"for of immunity, as of greatness, it may be truly said:" "Some are born immune, some achieve immunity and some have immunity thrust upon them." Natural immunity is supposed to be due to "alexins, which are germicidal proteids, of general character, without specific action, and universally present in all animals which are either actively or passively immunized." These alexins are in the blood. Whence did they come? Perhaps by inheritance. If we have a true history of men and animals that are so-called naturally immunized to certain infectious diseases, we might find out that this was only acquired immunity which had been transmitted through the generations.

Metschnikoff's theory of immunity by the germ-devouring action of certain voracious leucocytes, by this action termed phagocytosis, was easily comprehended, pretty and plausible. But this theory has not withstood the test of further experimentation by such men as Mettall who was the first to give it a severe blow. He showed very plainly that the leucocytes were not essential to the destruction of virulent bacteria in the blood, but that the serum, with the cellular elements eliminated, possessed equal germicidal ability. It probably is a fact that the leucocytes manufacture substances that are inimical to the germs and these circulate in the blood and attack the germs at a distance from the leucocytes.

In typhoid, diphtheria, cholera, pneumonia, dysentery and others, we know that bacteria producing these are physiologically outside of the body, because they do not enter the blood, lymph or tissues. We find them anatomically within the alimentary canal and air passages but physiologically outside of tissues mentioned above. At different places they are localized and there do the work of forming toxins and these enter the blood, lymph and tissues, and the leucocytes have only one point of attack on the bacteria, in the throat in diphtheria, in the intestinal glands in typhoid and likewise in others. As it is said by Thompson, "it is clearly impossible for leucocytes to cause immunity by phagocytosis in such instances, although it may be admitted that exceptionally, where the germs tend to invade the blood or viscera, there may be something of a battle royal between the leucocyte and bacillus. Even in such cases, is it not possible that the leucocyte first

kills the germ at a distance by means of some secretion and then devours it as a foreign body?"

The antitoxin theory of immunity is one that has come to stay, though there is a great deal to be learned about it yet. Antitoxins act either as chemical antagonists, i. e., by neutralization of toxins, or as physiological antagonists, i. e., by stimulating the cells of the body to increased resistance. Dr. Thompson says:

"The poison of any infection must necessarily pass through the blood or lymph in order to reach the body tissues generally; hence it is a distinct gain, both in point of time and substance, to have its action neutralized in the blood serum. The "resistance of "tissues" is, after all, a somewhat vague phrase, and any definite knowledge of how to increase this resistance artificially, and thereby produce immunity, is lacking. The phagocytosis theory deals with the germs rather than their toxins. The toxins may have been formed before the phagocytosis can act, and, moreover, we possess no reliable means of producing immunity through stimulation of phagocytosis. The theory of exhaustion of the soil in which the germs grow presupposes the complete development of the infection. But serum which is antitoxic, whether so rendered artificially or naturally, is the ideal immunizing agent: for it is independent of tissues, it is universally present in the body, and before either phagocytosis or soil sterilization or exhaustion has time to act it opposes the toxin as fast as formed, so that, as for example, in diphtheria, the antitoxin practically cures the disease and immunizes the patient long before the bacilli have left the throat. The blood serum, which is the chief transmitter of infection, thus becomes its chief antagonist. From the data thus far accumulated, however, it would appear that artificial antitoxin immunity is not so strong or so lasting as natural immunity, thus rendering reinoculation desirable in time of exposure. This is true even of small-pox and vaccinia. No one would think of the revaccination of a patient who had had a typical attack of small-pox, for immunity is practically permanent. W. M. Welch says that "no person during the last quarter of a century has been admitted to the Philadelphia Municipal Hospital twice suffering from the disease."

"Yet we know that the immunity against variola produced by vaccinia (which is in all probability due to an antitoxin formed in the blood after inoculation with this latter disease) must, in order to become permanent, be renewed several times after intervals of a half-dozen years. The artificial immunity established by inoculations of tetanus antitoxin, diphtheria antitoxin, antistreptococcus serum, etc., is far from permanent. A protective inoculation of three hundred diphtheria antitoxin units confers immunity in man of but from three to eight weeks (Park). Paterson, of Glasgow, procured artificial immunity in fowls from fowl tuberculosis which persisted for only five months. Powell, in a summary of all the published experiments in India in anticholera inoculations, concludes that doses large enough

to occasion decided febrile movement seem to confer immunity, but that smaller doses confer very brief if any protection.

Attractive as is the question of immunity by antitoxins, it yet leaves many facts unexplained. It of course does not account for natural or congenital immunity in distinction from that conferred by a single attack of an infectious disease. During the prevalence of an epidemic, doubtless many persons escape infection merely because the specific germs do not happen to find entrance to the body at a propitious time for this development."

GYNECOLOGY AND ABDOMINAL SURGERY.

IN CHARGE OF

H. S. LOTT, M. D.,

J. W. LONG, M. D.,

HUBERT A. ROYSTER, M. D.

RUPTURED TUBAL PREGNANCY.—A Laphorn Smith (*American Jour. of Surg. and Gynæ.*) reports in full a case which is of interest as showing the extreme degree of peril from which surgery saved the patient. "On the night of 2nd of December while on her way to the closet, something broke inside and she fell in a faint. She was put to bed and revived, but was in great pain all night, and next day Dr. G. T. Ross was called in. He found a woman with a blanched face, a pulse of 122, and a temperature of 101½. Her respiration was normal but her countenance was anxious, and she was sweating profusely. There was constant nausea and vomiting, and great tenderness over right side of abdomen extending to the epigastrium. No tumor could be felt either by palpation of the abdomen or by digital examination. Although the right vaginal fornix was very tender, no tumor could be made out there. The abdomen was resonant and even tympanitic everywhere. Dr. Ross only saw this patient on the one occasion yet taking into consideration her previous history and her present appearance, he at once decided that rupture of an extra-uterine pregnancy had occurred, and that something must be done very soon. He therefore had the patient sent to the Samaritan Hospital in the ambulance, where I found her soon afterwards. She now had all the appearance of a woman with hemorrhage, and yet there was no evidence of tubal pregnancy to be obtained by local examination. With the hope that I might be able to get her bowels moved, and the distention relieved, and the pulse improved, I delayed a day; this, however, proved unwise. By that time the vomiting had become fecal and the pulse had gone up to 150. The fecal vomiting led me to suspect obstruction

of the bowel. However as I had seen Martin, of Berlin, save two women whose abdomens were full of blood, and who were moribund and operated on without any anesthetic, not being conscious, I decided to put her on the table and operate at all hazards. Time was taken to make the field of operation aseptic, and on opening the abdomen the dark blood gushed forth, and on introducing the hand, the abdomen was found to be filled with clots, the intestines being pushed to the front. The right tube, from which the blood was pouring, was at once seized and tied, and with the ovary removed. The tube was very thin and small, not much larger than normal; the placenta having been expelled with the fetus through a tear in the side of the tube. The placenta was lost among the clots. The quantity of clots and fluid blood removed was estimated by my assistant to be between three and four quarts. After this had been removed, the abdomen was irrigated with a long nozzle and clots removed from beneath the stomach and liver. Then a gallon of hot salt solution was poured in and left in. The left ovary was found adherent but was not disturbed. In addition to the gallon of salt solution introduced at the operation, she had three quarts more by enema the same day, and two quarts more the second day, making nine quarts of salt solution retained in two days. This brought her pulse down from 150 to 80 per minute. This patient is sitting up with normal pulse and temperature three weeks after operation. I think we have reason to be proud of our profession when we see a general practitioner diagnose accurately and at once such an obscure case. Without his diagnosis and prompt action this woman was condemned to certain death."

H. S. L.

J. E. ANDREW (*Australasian Med. Gaz.* May 20, 1897,—*American Gynaec. and Obstet. Jour.*) reports a case of ectopic gestation, "not so much on account of its rarity, as to enforce the importance of immediate operation as soon as a diagnosis is made. Soon after midnight Dr. Andrew was summoned to a patient whom he found in a state of collapse and suffering great abdominal pain. The history was largely obtained from the family. The patient had been married five months, had missed one period, and the two previous had been scanty. There had been a little morning sickness a month ago, and slight enlargement of the mammary glands. A week before she had a little pain in the abdomen, but so slight as not to require medical advice. But at 9 o'clock the previous evening she complained of a sudden pain about the navel, felt faint and vomited slightly. She went to bed, the pain increasing so that she screamed aloud. When seen a little after 12 o'clock, she looked as if dying. Extremities cold and clammy, pupils dilated, radial pulse absent, but the heart seemed to be doing fairly well. The abdomen was slightly distended and a little tender, there was dullness on each side and half way up to the umbilicus. The uterus was low in the vagina but not enlarged, nor was there any discharge; there was a feeling of fluid in Douglas' pouch. These conditions, together with the history, led to a diagnosis of ruptured tubal pregnancy. Dr. Anderson was summoned, with a view to removing the extra-uterine pregnancy, with the appendages on that side. He agreed as to the diagnosis, but after some dis-

cussion, it was agreed to wait until half-past eight to see if the patient would rally. A tenth of a grain of morphia was given hypodermically, iced cloths were placed on the abdomen, hot bottles were placed to her feet and legs and a little brandy and water were ordered. At half-past eight she was, if anything, worse. A hypodermic of strychnia was given. At eleven o'clock she was anæsthetized. On opening the abdominal cavity, it was found to be filled with clotted blood and fluid. The left Fallopian tube was ruptured, and contained the foetus in its unbroken membranes. The patient died before the operation was completed. She would undoubtedly, have had a much better chance of living had the operation been performed ten hours sooner."

[These two cases, with such different results, exemplify most forcibly the field for prompt and lifesaving abdominal surgery. Ruptured ectopic gestation is a clear case of bleeding from a torn artery, and with the lights of to-day should be recognized and the patient saved. The diagnosis, with the picture once fixed in the mind, is not difficult. In most cases there is a history of several years of sterility, then a suspicion of pregnancy, in the early months of which there is the sudden occurrence of "intense abdominal pain, followed by anxious countenance, acute anemia and collapse" (Price). If there is doubt the diagnosis will be confirmed on making the incision through the abdominal wall, as on exposure the omentum will be almost black having been flooded with blood. In the cases I saw operated on by Dr. Price this condition invariably existed, and furthermore, he impressed upon me the fact that in most cases coming to the surgeon, the rupture would be found in the distal half of the tube, those cases in which it occurred in the proximal half generally proving fatal.]

H. S. L.

Therapeutic Hints.

FOR FACIAL ERYSIPELAS (*Medical News*):

℞—Ac. carbolic,	}	aa	3 i;
Tr. iodi,			
Alcohol,			
Ol. terebinth,		. . . . .	3 ij;
Glycerini,		. . . . .	3 iiij.

M.—Sig: Paint over affected parts.

DRUGS WHICH MAY OR MAY NOT BE PRESCRIBED DURING PREGNANCY.—Boissard (*Journal des Practiciens*, Aug. 28, 1897) states that drugs having an ecbolic action are always to be avoided except in cases of contracted pelvis where it is thought

necessary to interrupt the utero-gestation. Quinine, sodium salicylate, narcotic, analgesic and anesthetic remedies may be employed when indicated without injury. Mercury finds its application in known specific cases, and purgatives during the whole course of pregnancy should be administered without fear of producing untoward or dangerous results.—*Med. Age.*

A LOCAL ANÆSTHETIC FOR EXTRACTION OF TEETH.

R—Menthol	gr. 160
Tinct. myrrh.	drops 80
Alcohol	̄ij

M.—Sig: Thoroughly dry the gums and apply freely for a few minutes. Use more freely for a permanent than a deciduous tooth.—*Pediatrics.*

FOREIGN BODIES IN THE EAR.—Burnett (*Philadelphia Polyclinic*) in commenting upon a case of foreign body in the ear occurring in his practice, advances the following practical deductions:

1. Always examine an ear said to contain a foreign body, and find out whether such is the case before endeavoring to remove the foreign substance.
2. Whatever a child puts into its ear, or allows to be placed there, is placed there easily and painlessly, and can be as easily and painlessly removed by any physician who can properly syringe the ear.
3. A foreign substance was never known to be impacted in a child's ear by the child. Neither has a foreign body ever been impacted in the ear by syringing.
4. When impaction has occurred, or any injury to the ear, after the insertion of an inanimate substance by the child into its ear, such injuries have been the result of instrumental endeavors at extraction by means of probes, hooks, forceps, etc. The latter are never needed by anyone at first, as the syringe will suffice in all cases where no violence has been exerted upon the ear. Instruments of any other kind should never be employed at any time by any hand but the most skilled.
5. If animate bodies, insects, etc., get into the ear, a few drops of oil will smother them, and they can then be syringed

from the ear. Maggots can be destroyed by a few drops of ether or chloroform put into the ear. They can then be lifted out by means of forceps. But this latter act can be performed only by an expert. However, the intense pain caused by the presence of maggots in the ear can be allayed by the use of chloroform in the ear, as stated above.—*Int. Med. Mag.*

THE PUBLIC SERVICE.

NAVY DEPARTMENT.

Changes in the Medical Corps of U. S. Navy for the 2 weeks ending March 24, 1898.

Surgeon L. G. Heneberger, detached from the Maine and ordered home to wait orders.

Surgeon S. H. Griffith, detached from the Museum of Hygiene, Washington, and ordered to the Mayflower.

Medical Inspector W. S. Dixon, detached from Brooklyn and ordered at once to the hospital at Norfolk, Va., for treatment.

Medical Inspector P. Fitzsimons, detached from duty as a member of the Board of Inspection and Survey, Washington, and ordered to the Brooklyn.

Surgeon J. E. Gardner ordered to the Dolphin, March 24.

Passed Assistant Surgeon T. W. Richards detached from the New York Navy Yard and ordered to the Machias, March 22.

Passed Assistant Surgeon H. R. Pigott, detached from the Machias, March 22, proceed home and wait orders.

Notes and Items.

DR. NICHOLAS SENN.—It is said that was recently taken to Galena, in the care of the Sheriff, to answer to the charge of contempt of Court. As his testimony turned out to be immaterial and it was shown that he was a very busy man, he was excused.

Dr. A. H. McLead has removed from Hoffman to Aberdeen, N. C.

THE NEW YORK SKIN AND CANCER HOSPITAL is now in the new building corner of 19th Street and 2d Avenue. This building was opened March 5th with appropriate ceremonies.

BIG ONES.—A Winston druggist has exposed in his window a vaccination shield. Some wag inscribed below it these words: "Chicago corn plaster."

PARASITES IN HEART OF DOG.—Dr. Lamb showed at a recent meeting of the Medical Society of the District of Columbia, the heart of a dog containing in the right ventricle the *filaria immitis*, one of the thread worms. The specimen was from New Orleans, where it is said many dogs die of this parasitic disease. This worm is found mainly in the right ventricle of the heart and pulmonary artery of the dog; and in many parts of the world, especially in China and Japan. It seems to destroy the animal usually by obstructing the circulation. The usual symptoms are debility, dullness, dropsy and convulsions.—*National Med. Review.*

MOUNT SINAI HOSPITAL.—A new building to cost \$1,000,000 is to be erected on a block of ground between 100th and 101st streets and Madison and Fifth Avenues. The cost of the ground was \$350,000.

MISS MARGARET LONG, according to the *Woman's Medical Journal*, has just passed a most brilliant examination and matriculated in the senior class of the medical school of the Johns Hopkins University. She is a daughter of the Secretary of the Navy, and will practise medicine in Boston.

A GOOD TRUE STORY is told of a San Francisco woman and a doctor with a conscience. The doctor performed a successful operation for a rich woman, and when asked for his bill, presented one for \$50. The lady smiled and said, "Do you consider that a reasonable charge considering my circumstances?" The doctor replied: "That is my charge for that operation; your circumstances have nothing to do with it." The lady drew a check for \$500, and presented it to him. He handed it back,

saying: "I cannot accept this. My charge for that operation is \$50." Very well," the lady replied: "Keep the check and put the balance to my credit." Some months after, she received a lengthy itemized bill, upon which were entered charges for treatment of various kinds rendered to all sorts of odds and ends of humanity, male and female, black and white, who had been mended at her expense. She was so delighted at it that she immediately placed another check for \$500 to her credit on the same terms, and it is now being earned in the same way.—*Phil. Med. Jour.*

QUEER VACCINATION.—During the recent small-pox scare in a North Carolina town, a lady who desired to be vaccinated admonished her physician to be sure to "have some perfectly fresh uterus to vaccinate her with."

The chair of diseases of the eye, ear, and throat at the Medical College of Virginia, made vacant by the death of Professor Charles M. Shields, will be filled at the annual meeting of the of visitors of the college April 21st. All applications, accompanied by credentials, should be forwarded to Christopher Tompkins, M. D., Dean, Richmond, Va.

AGE OF PARENTS, AND ITS INFLUENCE ON THEIR PROGENY.—Jarosie has brought an interesting subject under the notice of the Director of the Hungarian Statistics Bureau, wherein he argues, from 24,000 carefully investigated cases, that the offsprings of a parent between twenty and twenty-five years are likely to be weak and feeble, but between twenty-five and forty-five years, strong. The mother has most robust children between twenty-five and thirty-five. More healthy children are born when the mother is ten years younger than the father—ten per cent. more favorable than when about the same age.

ON TOOTHACHE REMEDIES.—Dr. Frederick C. Coley, in an article on the medical treatment of toothache, in a recent issue of the "Practitioner," states that of all medical remedies for toothache he knows of none which is so successful as salicylate of sodium. He believes it is especially useful in those cases when pain is started by "taking cold." Even in the condition which

called by dentists "periostitis," where the carious tooth becomes slightly loosened and projects beyond its neighbors, and is exquisitely tender when eating is attempted, he has often known sodium salicylate to be completely and permanently successful. A dose of gr. xv. will usually relieve the pain very promptly, and if this is repeated every four hours the inflammation may entirely subside, leaving, of course, a carious tooth to be disposed of according to circumstances. The addition of belladonna is often advantageous. Fifteen grains of sodium salicylate, with 15 minims of tr. belladonna will often procure refreshing sleep instead of a night of agony." Dr. Coley believes that this use of salicylate of sodium is not generally known. He first became aware of it by experience on his own person, and since then he has used it with many brilliant successes and few failures in a very large number of patients. He has once, however, known phenacetin to succeed where salicylate failed, but he finds the salicylate is much more worthy of confidence as a rule. It is especially valuable with children, where extraction of teeth is to be avoided, if possible, lest the development of the maxilla should be injured.—*Inter. Med. Mag.*

HUMAN NATURE IN THE STEERAGE.—H. Phelps Whitmarsh writes of "The Steerage of To-day" in the February "Century." Mr. Whitmarsh, who crossed the ocean in the steerage himself, says: To me the most noticeable thing about the life was the ease with which the yoke of civilization was thrown off. If conditions be favorable, I opine that a large proportion of the steerage passengers throw back to their Darwinian ancestry about the third day out. Away from home, country and religious influences, unrestrained by custom conventionality, bound by no laws of action, and separated from all that force of opinion so strong in the world ashore, they let themselves go, and allow their baser natures to run riot. No sooner has the seasickness left them than they growl and snarl over their food like dogs, scrambling for the choice pieces, and running off to their bunks with them; they grow quarrelsome; their talk is lewd and insulting; brute strength is the ascendant; and, without shame, both sexes show the animal side of their natures. But most apparent and obnoxious are the filthy habits into which many of them fall. The sea seems to demoralize them. Some of them

will remain for days in their births, where, without changing their clothes, they eat, sleep, and are sick with the utmost impartiality, and without the blessing of soap and water. Hence the steerage as a whole, the "married quarters" (where there were children) in particular, was ill-smelling and otherwise objectionable.—*The Sanitarian*.

Dr. Edwin Klebs, now of the Post-Graduate Medical School of Chicago, formerly of the University of Zurich, Switzerland, and the joint-discoverer with Dr. Loeffler of the bacillus of diphtheria, has lately examined the stomachs, duodenums and livers of two patients that died of yellow fever in Mobile. He sought for Sannarelli's *Bacillus icteroides* but could find no trace of it. Instead, however, he found what he thinks is a virulent, pathogenic ameba that he suspects has something to do with the production of the disease. He is writing for a fresh supply of material on which to work before making a distinct claim of results.—*Am. Med. Surg. Bull.*

THE PATERNAL GOVERNMENT OF OUR HEALTH BOARD.—The therapeutists of the New York City board of health are constantly widening their sphere of usefulness, and now announce that any one bitten by a mad dog can step up to the laboratory and be cured at the city's expense. The person in charge of this new venture has reported to Colonel Murphy that "the new laboratory in the vaccine building contains every means for carrying on the treatment in the most satisfactory manner. As the treatment reduces the mortality of those bitten by rabid animals from 10 per cent. or more to less than 1 per cent., and as there is now no place where the very poor can receive free treatment, it is respectfully advised that the department of health authorize the administration of this treatment to those who have been bitten by rabid animals and who may present themselves for treatment." Colonel Murphy has given the desired authorization, and now the press agent of the department tells the newspapers that seven fortunates from the borough of Richmond are at present under treatment, and that there is every prospect of their returning home alive. It is not said whether the dog that bit the seven was mad or only angry.—*Med. Record*.

Reading Notices.

CLEANLINESS IN CATARRHAL AFFECTIONS.—One of the fundamental principles in the treatment of catarrhal troubles of the nose and throat may be summed up in a single word "cleanliness." To permit secretions to remain on the surface of the inflamed mucous membranes is to increase the existing irritation and delay the healing process. The retained mucus and crusts form a fertile soil for the growth of microbes, and, after undergoing decomposition act as severe irritants. It follows, therefore, that means should be taken to remove these inflammatory products and keep the mucous membranes as clean as possible. All rough manipulation should be avoided—the object is not to scrub off the mucus and crusts which are often quite firmly adherent, but to dissolve them and wash them away. For this purpose an alkaline antiseptic solution such as Bensolyptus (Schieffelin) is especially indicated. Experience has shown that an alkaline fluid is not only the best solvent for mucus, but also exerts a soothing effect upon the inflamed mucous membranes. In Bensolyptus these beneficial effects of the alkaline ingredients are supplemented by its antiseptic and anti-catarrhal properties, in consequence of which it arrests all growth of microbes and facilitates the process of healing. In the various forms of rhinitis, pharyngitis and tonsillitis, Bensolyptus has proved an important auxiliary in the treatment by promoting cleanliness, allaying irritation and preventing bacterial infection.

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NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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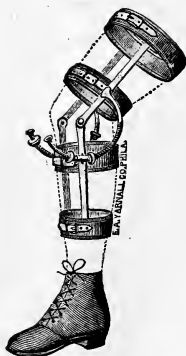
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No. 8.

Original Communications.

CLINICAL DEMONSTRATIONS IN OPERATIVE GYNE- COLOGY.

BY AUGUSTIN H. GOELET, M. D., Professor of Gynecology in
the New York School of Clinical Medicine, etc.

CONSERVATIVE OÖPHORECTOMY.

GENTLEMEN:—The first operation to-day is for removal of both ovaries. The patient is 29 year old and has suffered from puberty with severe dysmenorrhœa. For the past four or five years she has suffered not only during the menstrual periods but also during the interval with severe ovarian pain which has become gradually worse and now she is a complete invalid. Everything has been done for her relief, including curettage for a chronic endometritis which has existed for a long time, but with only temporary benefit. I am convinced that nothing short of removal of the ovaries, which I believe are in a state of cystic degeneration, will afford permanent relief. On account of the age of the patient I shall, if possible, do a conservative operation and save a piece of one ovary if both require removal. I have done this in a number of instances and always with the happiest result. The patients have recovered fully and menstruation has continued undisturbed.

We will begin by curetting the uterus to overcome the endometritis which has not been cured by the curettage done six months ago. The condition is one of chronic catarrhal inflammation, with, as you see, a glary mucous discharge and considerable erosion of the external os and cervix. I shall use the stiff dull curette within the cavity and the sharp curette for removing the tough, hypertrophied granulations about the internal os, which always offer a barrier to free drainage. The sharp curette is used likewise in the cervical canal and upon the eroded surface about the external os. Though I do not usually pack the uterus with gauze after curettage in these cases of catarrhal endometritis, I shall do so in this case so as to secure better drainage for the first 48 hours, since to irrigate the uterus so soon after an abdominal operation would disturb the patient. This gauze will not be permitted to remain longer than 48 hours by which time it will have accomplished all that is required of it, and it would dam back the secretion and irritate if left longer. After this during convalescence the uterus may be irrigated as required.

The abdominal cavity has now been opened by a small incision in the median line above the pubis and I insert two fingers of my left hand to explore the pelvis. The adhesions are few and easily broken up and the left ovary is drawn up into the incision. You see it is in a bad state of degeneration and it will not be possible to save any portion of it. The tube as you see is also enlarged and much thickened showing an interstitial salpingitis. This will be removed also.

Both are drawn well up into the wound so as to pucker up the broad ligament and form a pedicle. The broad ligament is now transfixed with a double ligature of stout silk which is tied on either side, thus including both ends of the ovarian artery. This is probably the best manner of tying off the appendages as it puckers up the remaining stump of broad ligament, thus forming better support for the uterus afterwards. The tube and ovary are now excised, the ligature ends cut short and the stump dropped back into the pelvis. I prefer silk for ligature, because it is safer, stronger and can be depended upon not to give way if tied properly. As a proof of this I have never had a case of secondary hæmorrhage, and I invariably use silk upon the ovarian and uterine arteries.

The right ovary you see is also in bad condition, but the tube is not thickened, and it is probably pervious, though there may be some catarrhal inflammation of its lining membrane. I shall leave the tube and excise the diseased portion of the ovary. Catching the ovary between the middle and index fingers or between the thumb and index finger, the vessels supplying it are compressed, and with a pair of curved scissors at least three quarters of its structure is removed. This has removed all that is diseased and we may safely leave the remainder. The vessels are usually small and do not require a ligature, the oozing being controlled by the suture employed for uniting the cut edges. In this case I shall apply a ligature of fine cat gut to one point which bleeds rather freely when the pressure is relaxed. With a fine cat gut or silk ligature and a fine curved needle the two cut edges are drawn together by a continuous Lembert suture from within outward toward the extremity of the tube. One of the fimbriæ of the tube is caught in the last loop of the suture which attaches it closely to the remaining ovarian tissue.

There will be no occasion for flushing the peritoneal cavity for it has not been soiled. We will now examine the stump on the other side to make sure that the ligature remains secure. We are now ready to close the abdominal incision which is done as before described, viz., first inserting deep silk worm gut, interrupted sutures including the whole thickness of the abdominal wall, then a continuous suture of fine chromicized cat gut which is made to include in the first layer the peritoneal edges and the muscular layer, and in the second layer the fascia. This method is always preferred because it gives the strongest possible cicatrix.

PROLAPSUS OF THE UTERUS COMPLICATED WITH BROAD LIGAMENT CYST.

The second operation will be suspension of the uterus to overcome an advanced degree of procidentia complicated with a cyst on the right side the size of a cocoanut. The patient, who is 35 years old, had one child ten years ago, since which time she has suffered more or less from uterine troubles. For the past three or four years she has noticed that there was a prolapsus which has been getting worse. In addition to this

she has during the past year suffered more than usual with backache and a severe dragging pain in the right side low down. It is probably this, more than anything else, that has driven her to seek aid. Her physician who referred her to me attempted to hold the uterus in place by means of a pessary in the vagina but it would not remain after she assumed the erect position although the vulva orifice is not very much relaxed. The presence of the tumor above forces the uterus down. This leads me to believe it is a cyst of the broad ligament developed upward, as they produce more displacement of the uterus than the ordinary ovarian cysts which are pedunculated.

The uterus is much enlarged and the cervix is elongated, and I will begin by curetting and packing with gauze which I shall expect to aid materially in reducing the size and weight of the organ. The perineum is intact and will therefore need no attention. The prolapsus of the vaginal wall will be overcome when the uterus is drawn up against the abdominal wall as it is at first when suspended.

We will now proceed with the abdominal operation. The peritoneal cavity has been opened and you can see the cyst protruding up into the incision as the abdomen is compressed. As I pass my hand into the cavity and sweep it around the tumor I find there are no adhesions but the tumor has a broad surface of attachment confirming my suspicion that it is developed between the folds of the broad ligament. The walls, are as you see very thin and it will be quite impossible to enucleate it without rupturing it. I shall, therefore, tap it as I would an ordinary ovarian cyst and enucleate the sac. The fluid is perfectly clear, thin and straw colored.

It is going to be much more difficult to enucleate this sac than that of the ordinary ovarian tumor which has a distinct pedicle. In those cases the pedicle is transfixed with a double ligature which, being tied on either side, permits us to sever it on the outer side of the ligature.

In these cases the broad ligament must be split and separated until the base and attachment of the cyst is reached. Instead of splitting the peritoneum at the top of the cyst which would leave considerable redundancy to be trimmed off afterwards, I will divide the peritoneal covering in front and behind low

down near the base of the cyst sac. I now peel the peritoneum down with the thumb nail drawing the sac up meanwhile. I have succeeded in separating the folds of the broad ligament nearly down to its base and have secured a pedicle which may be ligated in the usual manner, and divided to the outer side of the ligature.

The intestines being held back you can see how nicely the edges of the broad ligament fall together. I will unite them by a running suture of fine cat gut, burring the stump between the folds of the broad ligament. Should drainage become necessary subsequently it is obtained by puncturing the vaginal roof up into the broad ligament.

I will now proceed to attach the uterus to the anterior abdominal wall. Seizing the fundus with a pair of angular tenaculum forceps it is drawn up into the abdominal wound. Three sustaining sutures are used in this case inserted through the peritoneum and subperitoneal fascia of the abdominal wall on each side near the lower angle of the abdominal incision and upon the posterior aspect of the fundus about an eighth of an inch apart. These sutures are of medium size silk and they are tied within the peritoneal cavity, being closed within this cavity when the peritoneal margins of the abdominal incision are united over them. The deep silk worm gut sutures at the lower angle of the wound are inserted so as to secure the peritoneum near the attachment sutures, and prevent too early sagging of the uterus away from the abdominal wall.

In other respects the abdominal wound is closed as was done in the first operation to-day.

NOTE.—Both of these patients made an excellent recovery, and the results have been all that was anticipated.

GASTROTOMY FOR REMOVAL OF FOREIGN BODIES.

ABSTRACT OF A PAPER BY DR. A. H. MEISENBACH, St. Louis, Mo.

THE author presents in the *Journal of the American Medical Association* the report of a case recently subjected to operation in St. Louis which pertinently illustrates the verity of the old truism as to the fact of truth's being stranger

than fiction. Along with a carefully detailed report of his case the doctor gives a valuable review of similar cases reported up to date.

His patient aged 22, had for nine years previous given frequent exhibitions as a professional sword swallower. Along with this feat he combined other deglutatory attainments which won for him the title of "The Human Ostrich." Nails, screws, pearl top lamp chimneys, fence staples, etc., were among the articles with which he was wont to entertain his audiences.

Coming for treatment he stated to the doctor, that up to 1897 he experienced no inconveniences from his practices. In March of that year he began to have pains in his stomach and he noticed for the first time a lump in his stomach. On March 30, he was admitted to the Rebekah Hospital and a most scrutinizing examination made.

The physical examination alone was sufficient to establish the diagnosis of foreign bodies in the stomach. The patient was willing to have an operation performed, and so was admitted at once (March 30) to the Rebekah Hospital for observation and preparation for the operation. He was placed on liquid diet and orders left to look after the bowels and stools.

The question whether the foreign bodies were located in the stomach or elsewhere was a very important one from an operative and prognostic standpoint. That they were in the stomach was demonstrated to my mind by the constancy of the position of the mass and the position that it occupied. The previous history of the patient was also a valuable point in determining this. The points on which this diagnosis was based were:

1, the position of the mass when the patient was placed in the upright position; 2, the position of the mass when the patient was reclining on his back; 3, the position of the mass when the patient was reclining on his right or left side; 4, the previous history of the patient.

1. The position of the mass when the patient was on his feet or lying on his back. Palpation and percussion demonstrated that it was mostly in the umbilical, but partly in the lumbar region. The mass being a large one and composed, as it was, of heavy objects, the *raison d'être* naturally would be that such a mass would in time have its effect on the stomach and pro-

duce dilatation of that part with which it was in contact; gravitating toward the lowest point, this being some part of the greater curvature. Gravitation and dilatation would explain its position in these regions. The only other position that the mass might have occupied would be in some part of the large or small intestine. But this supposition becomes untenable when we critically analyze the possibilities. If the mass had accumulated in the small bowel there would have been symptoms of obstruction and previous history of pain, possibly inflammation. Also, the tumor would not have been as constant in position unless surrounded by inflammatory adhesions that would make a solid, immovable mass. The same would be true of the colon; if in the cecum, we would certainly have had a train of symptoms of either obstruction or inflammation; if in the transverse colon, the position would have been lower. The only other part of the colon would have been the sigmoid or rectum, in either of which the symptoms of obstruction or inflammatory reaction would have been prominent.

2 and 3. Position of mass when patient reclined on right or left side and return to the median line when the patient was on his back was a strong argument in favor of its location in the stomach. No other location could explain the constancy of position in either region when the patient lay on either side.

4. Previous history of the patient. In establishing a diagnosis this is of the utmost importance. Such a mass accumulated anywhere else in the gastro-intestinal tract would very soon have given rise to very serious symptoms, either of inflammation or obstruction.

Valuable confirmatory testimony was brought out by the X-ray experiments.

On April 7th the patient was submitted to celiotomy by a median incision. The stomach was laid open two inches in length, which was subsequently enlarged to four and a half inches. A large mass of miscellaneous hardware now came in view and was removed partly by a pair of Bergmann calculus forceps, partly by the operator's hand.

The stomach wound was closed by three rows of sutures. The first was a strong No. 6 silk, threaded on a straight thick darning needle, and was passed through the mucosa in the form

of a continuous suture. The second was of the same silk as the former, a continuous suture, and introduced through the peritoneum and muscular coat, so as to bring the peritoneal surfaces into apposition. The beginning of this line of sutures was one-fourth of an inch from the end of the wound, in the form of a Lembert stitch. The first stitch being tied, the rest of the suture was passed, entering a little more than one-eighth of an inch from the lip of the wound, coming out of the wound and re-entering the opposite lip of the wound. The third row was made with No. 2 braided silk threaded on a straight No. 8 sewing needle. This was a continuous layer of sutures.

The stomach was carefully wiped off with gauze sponges, as was also the abdominal wound. The packing of gauze, which was hardly soiled so carefully had the operation been done, was removed from the abdominal wound, everything again "re-viewed," and then the stomach was dropped into the abdominal cavity. There was a strong temptation to lessen the size of the stomach by imbricating a portion of the wall, but I concluded to allow nature to assert herself and correct the dilatation.

The abdominal wound was closed by interrupted through and through sutures. Iodoform collodion was applied over the abdominal sutures, and a cotton pad and a bandage applied.

The time of operation was one hour. The list of articles removed from the stomach shows: Twenty-five staples for barbed fence wire; 15 one and one-half inch screws; 6 two inch horseshoe nails; 16 two inch wire nails; 30 one and one-half inch wire nails; 16 thirty-two caliber cartridges; 5 thirty-eight caliber cartridges; 2 pocket-knife blades (broken); 2 inches of brass wash-stand chain, and 2 small staples; total 119 pieces. Eight cartridges passed after operation. There was also one ounce of comminuted glass (electric light globe); making the total number of objects 127, total weight, one pound.

With the exceptions of hypostatic pneumonia which developed on the fourth day following the operation, and from a slight omental protrusion, the progress of the case was without special incident. From both the complications the patient haply recovered and was discharged cured on May 1st. Much interesting discussion ensued during the progress of the case among the hospital staff as to the influence of the X-ray in the possible

production of the hypostatic pneumonia. The general consensus of opinion being that the ray was the cause of the disease.

Points of special interest in the case were the period of time over which the swallowing of the foreign bodies was continued, the large number of them found in the stomach, their character and the absence of symptoms of irritation.

From the very carefully prepared table submitted by Dr. Meisenbach in connection with his clinical report, it is noteworthy that from the first gastrotomy in 1602 for the removal of foreign bodies to 1887, a period of 285 years, only 35 cases have been recorded. From 1887 to 1898, 22 cases have been recorded. Summarizing all cases reported to 1898 we have the following:

Total number of cases reported to date, 58. Of this number there were forty-seven recoveries or 81.03 per cent.; ten deaths or 17.24 per cent., and one doubtful, or 1.73 per cent.

Of those cases in which no adhesions of the stomach to the abdominal walls or surrounding viscera were present, thirty-eight in all, there were thirty recoveries, or 78.95 per cent.; seven deaths or 18.42 per cent.; one doubtful or 2.63 per cent.

Of those cases in which adhesions were present, thirteen in all, there were eleven recoveries, or 84.62 per cent.; two death, or 15.38 per cent. Of those cases in which the existence of adhesions was doubtful, seven in all, there were six recoveries or 85.72 per cent., one death or 14.28 per cent. It will thus be seen that the existence or absence of adhesions had, apparently at least, no influence on the mortality rate.

Assuming that the period of antiseptic surgery began with the year 1880, and dividing the reported cases into two groups, i.e., those reported before 1880, and those reported since that date, we have the following exhibit of mortality percentages.

1. Before the introduction of antiseptics: Total number of cases eighteen; recoveries fifteen or 83.33 per cent.; deaths three or 16.66 per cent. 2. After the introduction of antiseptics: Total number of cases forty; recoveries thirty-two or 80 per cent.; deaths seven or 17.50 per cent.; doubtful result one or 2.50 per cent.

A noteworthy fact in connection with the cases enumerated in

the table is the short period intervening between the entrance into the stomach of the foreign body or the diagnosis of its presence there, and the performance of the operation, during the period since the introduction of antiseptics. This is probably attributable to two factors: 1. The improved methods and facilities for making diagnoses; and 2, the improvement in surgical technique and the extension of surgical interference since the introduction of antiseptics. Taking into consideration all the cases contained in the table, however, we find that the time intervening between the introduction of the foreign body into the stomach and its removal, is definitely known in only so few cases, that its consideration as a factor of possible influence on the mortality rate would be entirely unsatisfactory. It has, therefore, not been considered separately.

The following is a summary of the foreign bodies removed from the stomach by operation:

Forks in thirteen cases; hairballs in seven; knives in six; plates with teeth in six; spoons in five; pieces of wood in four; pieces of metal wire in four; nails in four; buttons in three; needles in three; tooth brushes in two; safety-pin in two; peach-stones in two; and screws, bar of lead, piece of earthen ware, tracheal catheter, metal probang, part of sword-blade, clay-pipe stem, razor, pocket-knives, hair-pins, pieces of glass, keys, window latch, piece of graphite, and tacks in one case each.

J. H. W.

Selected Papers.

THE PRESENT STATUS OF RECTAL SURGERY.*

BY J. M. MATTHEWS, M.D., Louisville, Ky.

PLEASE permit me to thank you for the courtesy extended me in the invitation to read a paper before this distinguished society. At the suggestion of my friend, Doctor Foster, I have selected as my subject something in the line of

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thought with what has been my daily work for twenty years. Therefore, with your permission I will occupy the time allotted me in considering The Present Status of Rectal Surgery.

Of course this paper can be only a brief epitome of the more salient points of the subject, and in the consideration of the same I shall try to avoid discussion, but rather give my own views, which may be at variance with others who have written on the subject.

Time was when intelligent rectal literature was very scarce, for the reason that very little attention was accorded it by the respectable part of our profession. Hence it was but natural that diseases of the rectum were treated mainly by the charlatan. Literature from such a source would be both incomplete and untrustworthy. In the last decade or two, however, much attention has been given this subject both in Europe and in this country, and to-day the status of rectal surgery is very different from what it was twenty years ago.

Across the water we are to thank for this elucidation such men as Allingham, sr. and jr., Cripps, Edwards, Cooper, Goodsall, and Ball; in this country, Earle, Bacon, Martin, Cook, Straus, Tuttle Kelsey, Lange, Matas, Grant, Beach, and others. To-day, therefore, these diseases are receiving rational treatment from a scientific standpoint.

Whereas in the past the consideration of this part of the anatomy included only such diseases as piles and fistulæ, to-day we intelligently cope with cancer, stricture, syphilis, tumors of whatever nature, and the terrors of the same are greatly reduced.

The person who considers that only slight diseases are within the range of this special field must be advised of the resection of the rectum by Kraske's operation, of anastomosing the colon to the rectum, of the resection of strictures, of the two colostomies, and other major operations pertaining to this special surgery.

The writer begs pardon for a little personal pride in that it has been just twenty years since he embarked in this special study and urged upon his professional brethren the importance of the work. How much of this great advance from a neglected and a somewhat obscure subject to its present prominent position in the scientific world is due to his efforts, he would beg to submit to his brethren. He is fully repaid if he has been the means of

encouraging the thought in others to accomplish what they have in this line, for beside their work he considers his own insignificant.

In order that some practical points may be embraced in this paper, I will take the liberty of giving some consideration to most of the important diseases of the rectum which require surgical treatment. First in the list, in a practical way, should be *Hemorrhoids*.

The writer will be excused from discussing the *palliative* treatment of any of these rectal affections, first because the time given would not permit of it, and secondly for the reason that he can scarcely recall a single rectal affection which calls for *palliative* treatment. To the contrary, he believes that all of them should be treated surgically.

Referring to hemorrhoids, it is best to give but two divisions, viz., *external* and *internal*. The external variety, of course, is formed outside the sphincter muscle. It may appear superfluous to so state, but I do it purposely, for the reason that in many, very many cases of inflamed *external* piles it is the common practice with physicians to try to place them by force in the rectum. I do not say *back* in the rectum, for they did not have their origin in the rectum, never were there, and no effort of course should be made to push them in. Of whatever kind (external) or whatever size, they should be allowed to remain *outside* the sphincter muscle.

Suppose, therefore, a case of this kind is under observation, what shall be the treatment? Mr. Ercesen said, "All external piles should be cut off." No better injunction can be given now. You will permit me to call attention to the difference between *cutting* an external pile *of* and "letting out the clot of blood described by most authors. The latter plan in my opinion should never be indulged in; far better leave nature to reabsorb the clot than to add to the inflammatory process by doing a half job. All external piles should be cut off."

Internal hemorrhoids is a much more serious condition. In a matter of diagnosis I desire to say what may appear to you to be a very contradictory statement in so far as authors are concerned, viz, every disease or pathological condition in the rectum can be detected with the finger, except one—internal piles in a quiescent

state. I say this is in contradiction to the authorities who direct that a digital examination be made in order to detect piles, and that the speculum be used in detecting any special or all manner of disease in the rectum.

What shall be done with internal piles? It would not be dogmatic to say that there is but one thing to do—operate—for no local application, as ointments, etc., ever cured an internal pile. Should internal hemorrhoids be operated on in the *inflamed* state? By all means, for thereby you stop the inflammatory process and remove the inflammatory deposit, at the same time cure the patient of the disease.

What is the best operation for internal piles? In the experience of the writer, covering twenty years and several thousand operations, he unhesitatingly says that the ligature is the safest of all methods. Next to this plan, of course, is the clamp and cautery. The injection of acids, etc., into the pile tumor is dangerous, unsurgical, and not attended by radical results.

Fistula in Ano. Fistula in ano should receive more serious consideration from the profession than it does. A more destructive local condition can hardly be imagined. Beginning, as it always does, with an abscess, it is fraught from its start with danger, both constitutional and local. If physicians would bear this in mind and at the very incipency of the trouble establish free *drainage*, the comparative number of cases of fistulæ would be greatly reduced.

I have taken occasion to dissent from the division of fistula in ano as given nearly universally by authors. It is of very little significance to say that a fistula is an external or an internal one, and it is simplified not at all to add that the sinus may be complete. What is of much more purport is to indicate whether the condition is going to do little or much harm. The writer has therefore divided these fistulæ into progressive and non-progressive types. It will be observed that there is a class of fistulæ which is limited to a narrow channel, said channel being lined by a tough cartilaginous membrane miscalled pyogenic, which can be left for an indefinite time because non-progressive; another class, where the pus formation and disintegration of tissue are very rapid, which should be called *progressive*, and which demand immediate attention. To the ravages of this latter class I have

often seen one or both buttocks destroyed, the perineum involved, and the peritoneal cavity encroached upon. Patients suffering from this condition often die from a slow or rapid sepsis.

In a matter of diagnosis authors lay great stress upon the matter of finding the internal opening of a fistulous track. How very unnecessary this injunction is can be estimated when it is affirmed that if an external fistula exists, it calls for an operation, and that during said operation the internal opening, if any, will be discovered. And yet I have known surgeons to refuse to operate because the internal opening could not be detected.

As to the cure of fistula in ano, it must be positively asserted that it is a surgical disease and must be cured by surgical means. The text-books on surgery very inadequately describe the operation. Copying from one *verbatim*, the directions are as follows: "Insert a grooved director into the external opening, push it into the bowel, catch the distal end on the finger, pull it out of the anus, and then divide all the tissues remaining on director."

Such a procedure would not cure one in fifty cases. Each individual sinus must be traced and freely divided, the bottom of all channels freely cut through or curetted, and the edges trimmed closely. Occasionally we find cases in which union by first intention can be secured by bringing the edges together, but these are the exceptions. Allingham once said to me that it required more dexterity and delicate surgery to cure a complicated case of fistula in ano than any condition that he knew of. I quite agree with him.

Prolapse of the Rectum. In regard to prolapse of the rectum, the writer desires to say that he regards it as a very infrequent condition in the adult. Twelve cases will cover all that he has seen in twenty years' experience. In the infant, for anatomical reasons, it is much more frequently met with.

In the adult it always calls for surgical treatment. The methods proposed have proven very unsuccessful. The linear lines drawn by the thermo-cautery, suggested by Van Buren, are very inefficient. The taking out of elliptical pieces and suturing the edges is a slow and not very effective operation. The application of acids to the surface of mucous membrane is unsurgical and should not be thought of. The writer has proposed and practiced a free circular incision around anus, and drawing down the prolapsed

membrane, which is superfluous, and removing it and then stitching membrane to the true skin.

Pruritus Ani. It would appear at first thought that pruritus was an affection to be treated medically and not surgically. But I am sure that every physician here has been convinced of the futility of such methods. In all cases, especially of long standing, where the so-called "scarf skin" has formed, the most efficacious plan will be found to be a thorough application of the thermo-cautery, under chloroform, or what is better, a clean dissection of all the skin involved.

Fissure of the Rectum. Fissure of the rectum I believe to be a misnomer, because it is impossible for the pouch of the rectum to become fissured, as is intimated by the use of the term. Fissure of the anus is a much more appropriate term.

This affection, too, I believe, should avail for surgical and not palliative treatment. It is so simple of cure by gentle divulsion of the sphincter muscle that it looks cruel to subject a patient to many weeks of treatment by burning local applications. If the physician is averse to giving an anesthetic for this purpose, let him practice moderate stretching several times with a small divulsor, and a rapid cure will be affected in the greatest number of cases.

A distinction should be drawn between a fissure of the anus and an *irritable ulcer* of the rectum or anus. For the latter, free and rapid divulsion with thorough curettement should be the treatment.

Ulceration of the Rectum. The writer desires most emphatically to dissent from the view that benign ulceration of the rectum is of frequent occurrence. To the contrary, he is on record as believing that it is one of the rarest conditions found in this portion of the gut.

I would respectfully ask, especially of those who have given much study and observation to diseased conditions of mucous membrane any where, if it is not a rare thing to notice an innocent ulceration of the same? If, on the other hand, a well-defined ulcer is observed with elevated edges and a hardened base, is it not invariably suspicioned as being of constitutional origin? Therefore, I would beg to say if such condition is found in the

rectum, the question of an innocent origin is at once dissipated and the cause sought from conditions much more serious.

Among the list of such causes are syphilis, cancer, and tuberculosis. Valuable time indeed would be lost if such diagnosis were neglected. In order then to present succinctly my subject, I will take this proposition as granted. How shall we deal with ulcerations the result of these separate causes? 1. Tuberculosis. 2. Syphilis. 3. Cancer.

1. *Tubercular*. It is now a well-recognized pathological fact that tuberculosis may select any tissue for invasion. A local lesion early recognized, diagnosed, and properly treated will oftentimes save the patient from general tuberculosis. The rectum is a favorite seat for such deposit. Its nature is so insidious that it is seldom detected early, and if seen is taken for something less serious. Being local in character, it precedes any constitutional symptoms, hence is easily overlooked. The microscope is of much diagnostic aid in the affection.

When a diagnosis is once made, there should be no hesitancy in applying the proper treatment. Local remedies are perfectly *nil* in their effect, and such methods are but temporizing with the disease. It should be recognized that only surgical means will avail any thing. The curette and knife are the only remedies to be thought of. The idea, of course, is to get rid of the diseased, infectious tissue. The same rule that is observed in removing a malignant growth should be practiced in operating for a tuberculous ulcer, viz, excise all the affected tissue. For this reason I much prefer the knife. The curette is a most excellent adjuvant to the knife, but when used alone is ineffectual. Indeed the actual cautery will be found of greater service in eradicating this diseased structure than the curette. 2. *Syphilitic*. The writer is on record as believing that sixty per cent. of strictures of the rectum are caused by syphilis. This is the percentage claimed by him, and so published ten years ago. He has no reason to-day to retract the assertion. He is glad to record the fact that he has been in receipt of many letters from prominent men in the profession, both in this country and in Europe, affirming the proposition.

This was stated with some emphasis at a time when syphilis—secondary—was regarded as a small factor, or no factor at all, in

causing ulceration and stricture of the rectum. He can recall the time when most eminent writers thought that the only manner in which syphilis could play a part in producing ulceration of the rectum was by the extension of chancrous pus. Instead of accepting this theory, the writer has often asserted that chancrous pus can in no manner produce syphilitic ulceration of the rectum. To the contrary, it is by secondary deposit alone that syphilis manifests itself in the rectum, and upon this theory only can a proper treatment be afforded.

I know that I will be pardoned here if I offer an explanation of certain quotations of a distinguished friend of mine in the East, who persists in saying that I affirm that ninety-nine per cent. of the cases of stricture of the rectum are caused by syphilis. In the writer's book on Diseases of the Rectum, Anus and Sigmoid Flexure will be found these words: "If a case presented, and after a thorough examination it could be affirmed that it was not *cancer*, in ninety-nine cases out of one hundred it would prove to be syphilis." In explanation it is argued that syphilis and cancer are so akin in symptoms, both clinical and general, that it is often an impossibility to diagnosticate between them; syphilitic stricture is unlike all other forms of stricture save cancer. Therefore, if it proves not to be cancer, it must of necessity be syphilitic. I am sure that you can see the difference between such a statement and one affirming that ninety-nine out of every hundred cases are syphilitic.

What, then, are we to do with syphilitic ulceration and stricture of the rectum? Permit me to say that after the disease assumes the fibrous nature which constitutes a stricture, it is utterly incurable by either local medication or by general means. There is but one course to be pursued looking to a radical cure, and that is the entire resection of the affected tissue. The question then arises, can this be done? Unfortunately, the case in which such a procedure could be practiced would be a rare one. What course is left? Nothing save proctotomy and colostomy, either one of which is only a palliative remedy. This is indeed a melancholy class of patients, as incurable as cancer, with the disadvantage over the latter, that life is for a much longer period made a thing of much misery and suffering.

3. *Cancerous.* Cancer is yet the "horror of horrors" to the

medical man. In its presence we bow submissively in ignorance and acknowledge our inability to cope with the monster. Located in certain regions of the rectum it assumes new features of torture, and soon evades the limits of surgical interference. And yet surgery has done much in the last decade or two looking to the eradication of this terrible disease.

In times past it would have been thought both unwise and unsurgical to have attempted the removal of the entire rectum for cancerous or other disease. To-day it is often practised. Let us for a moment consider whether such attempt is justifiable, and if so, how often? No one denies the anatomical and surgical fact that the rectum can be removed even in its entirety, but under what conditions should such surgery be advocated? In this day of performing great surgical feats, there is such a thing as overstepping the bounds of all reason in order to show great dexterity. Because, forsooth, one stomach was removed and the patient lived, is no reason that a search should be instituted for stomachs to remove.

It is a principle in surgery that unless all tissues involved in the cancerous disease can be removed, an operation is useless. It is a well-recognized fact that the rectum is contiguous to a large distribution of glands and lymphatics. Cancer situated above and not involving the sphincter muscle is often an insidious disease. When the mass has so far extended as to embrace the whole rectum, it is safe to infer that the infiltrative process has so extended that it has embraced structures which can not be removed; hence to resect simply the mass in sight would avail nothing. Much better to leave such a patient to the tender mercy of an opiate than to further wreck life by a fruitless major surgical operation.

If, on the contrary, the growth can be circumscribed, and the assurance had that *all* diseased structures can be removed, then resection, or rather extirpation, should be advised.

I desire to say in this connection that the operation is much more preferable than to perform a colostomy in such a case. The latter can only be palliative, if that, while the former anticipates a radical cure. There have been a number of methods proposed for accomplishing the removal of the rectum, but the writer prefers to avoid such operations as Kraske recommends,

if a lesser one will accomplish the purpose. I have practiced removing portions of the rectum by the simple circular incision and a careful dissection of the gut with the fingers. In a few instances I have removed the coccyx, as it materially increases the field in which to work.

Walker, of Detroit, and Tuttle, of New York, as well as Alexander, have in my opinion improved on Kraske's method. It is a very serious question to decide whether this operation should be recommended. I must say that but very few cases have fallen under my observation where I thought it justifiable to remove so much of the rectum. Infiltration and glandular enlargement must certainly take place before the whole rectum can be blocked with or by a malignant growth. Upon several occasions I have had to abandon the operation because of this fact, and regretted that I had ever begun. I would much prefer to remove the rectum for syphilitic disease than for cancer.

Disease of the Sigmoid Flexure. Before closing, you will permit me to call your attention to a non-surgical subject that has interested me for a long time, viz., disease in the sigmoid flexure. For want of a better term I have styled the trouble *sigmoiditis*. This term should be disassociated from the secretion neurosis of the colon, such as pseudo-membraneous colitis, colitis tubulosa, membranous colitis, etc., and from a syphilitic or tubercular manifestation in the colon. O'Bierne, of Dublin, demonstrated that the flexure and not the rectum was the receptacle of the fecal mass; that by an anti-peristaltic movement the feces were carried back and deposited in the flexure if not voided. My investigations have proven this to be true. The water is rapidly absorbed and the dried fecal mass is left in the flexure to irritate. As a result we have a congestion, inflammation, and ulceration of the flexure. These patients suffer from a discharge of mucus or blood, or both, and ultimately with a muco-purulent discharge. This condition is easily mistaken for a flux or cancer. They can be quickly relieved by an early diagnosis and proper local treatment. Internal administration of medicine does no good, but a great deal of harm. The instruments to be used are a bulb syringe and a Wales bougie. The agents, large quantities of warm water, or boric acid water, fluid hydrastis, iodoform oil, etc. They will often clear up as if by magic.

I had hoped to consider the subject of the surgical treatment of ano-rectal imperforation, but my paper is already too long.

Again I thank you, gentlemen, for your many courtesies.—
Matthews Quarterly Journal.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR

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Editorial.

SCHLEICH'S METHOD OF GENERAL ANÆTHESIA.

While the death-rate from anæsthesia is by no means large—one in two thousand from chloroform, and one in ten thousand from ether, according to various observers—the aggregate is sufficiently great to be a matter of or very serious consideration by medical men. Dr. C. L. Schleich, of Berlin, has recommended a method which seems to promise better results for the future. He reasoned that the absorption of a general anæsthetic depends upon (1) the surrounding temperature, and (2) the boiling point or maximum of evaporation of the anæsthetic. In the inhalation of an anæsthetic having a low boiling point

much less would be introduced into the circulation than in the case of one with a high point of maximum evaporation. If the maximum evaporation approaches the temperature of the body, the lungs alone would be able to regulate the elimination, exactly as much being exhaled as inhaled. With an anæsthetic with a maximum evaporation of 140°F .—e.g., chloroform—a larger quantity is absorbed than can be exhaled, and the heart, kidneys and liver must be called into action. Sulphuric ether with a maximum evaporation of 93°F ., must distend the pulmonary alveoli. It is this obstruction to respiration that causes a certain degree of cyanosis. The pressure of carbonic acid accumulating in the blood partially overcomes this tension, and the cyanosis disappears and true ether narcosis begins: It is evident that the safest anæsthetic would be one in which the amount eliminated by expiration would nearly equal that absorbed during inspiration.

In a recent paper describing this method of anæsthesia Dr. Willy Meyer, of New York, enumerates the chief features of Schleich's work as follows: (1) Our familiar anæsthetics, ether and chloroform, were mixed with a benzin; (2) it was found that by so mixing various ethereal substances the resulting fluid was a true solution in a chemical sense, and not a mere mixture of different ethereal substances; (3) it was ascertained that by changing the proportion of the constituents we can change the boiling point at will, and so, in a given case adapt the maximum evaporation of the anæsthetic to the temperature of the patient at the time; (4) these effects were found to hold good, and were verified in cold-blooded as well as in warm-blooded animals; (5) the result is the same whether the anæsthetic was inhaled, given by rectum, or injected subcutaneously; and (6) the result was exactly the same in the human subject as in the lower animals. He recommended three different solutions, made up by volume and not by weight. Solution No. 1 is composed of chloroform, $1\frac{1}{2}$ oz.; petroleum ether, $\frac{1}{2}$ oz.; sulphuric ether, 6 oz. Solution No. 2 is composed of chloroform, $1\frac{1}{2}$ oz.; petroleum ether, $\frac{1}{2}$ oz.; and sulphuric ether, 5 oz. Solution No. 3 is composed of chloroform, 1 oz.; petroleum ether, $\frac{1}{2}$ oz.; and sulphuric ether, $2\frac{2}{3}$ oz.

Dr. Meyer's conclusions were based upon the use of this

method in one hundred cases. He says excitement was very rare during the induction of anæsthesia and not marked at any time. There is rarely accumulation of mucus, never cyanosis.

During the stage of anæsthesia, in spite of the fact that the solution contains sixty to eighty per cent. of sulphuric ether, there is no accumulation of mucus and cyanosis is rare. During this stage the pulse is full and regular, sometimes fuller than before. The respirations are not impaired so long as the narcotizer attends to his work. The type of the respiration is the direct index of the patient's condition. When the respirations become deep and frequent, it indicates the approach of the danger limit. The recovery from the anæsthesia is more rapid than after chloroform or ether. Vomiting occurs, but less frequently. In the administration he believed a mask which did not allow free evaporation was the best. The amount of anæsthetic depended on the kind of mask and the solution used. On an average he used six to eight ounces for an operation lasting forty-five minutes to two hours.

As in nearly all new things in medicine the first cases reported seem to show unusually good results—it may be on account of the especial care that is exercised—but it remains to be seen whether this new method will prove more satisfactory than the good old way with chloroform. Dr. Meyer struck what we consider the key-note in the successful use of anæsthetics generally when he said “the respirations are not impaired so long as the narcotizer *attends to his work*,” but just so surely as the important duty of administering the anæsthetic is entrusted to the hands of incompetent and inattentive persons, as surely may we expect accidents whether the anæsthetic be chloroform, ether or a mixture.

Reviews and Book Notices.

NEW BOOKS.—Messrs. Lea Brothers & Co., announce for early publication the following books by eminent authorities. Complete catalogues of the publications of this firm may be had by

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A Manual of Otology. By Gorham Bacon, A.M., M.D., Professor of Otology in University Medical College, New York. With an introductory chapter by Clarence J. Black, M.D., Professor of Otology in the Harvard Medical School, Boston, Mass. In one handsome 12mo. volume, with numerous illustrations.

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A Text-Book of Dental Pathology, Therapeutics, and Pharmacology. Being a treatise on the Principles and Practice of Dental Medicine. By Henry H. Burchard, M.D., D.D.S., special lecturer on Dental Pathology and Therapeutics at the Philadelphia Dental College, Philadelphia. In one handsome octavo volume of about 550 pages, with 400 illustrations.

The Principles of Treatment. By J. Mitchell Bruce, M.D., F.R.C.P., physician and lecturer on Materia Medica and Therapeutics at Charing-Cross Hospital, London. In one octavo volume.

Diseases of the Nose, Throat, Naso-Pharynx, and Trachea: A manual for students and practitioners. By Cornelius G. Coakley, M.D., Professor of Laryngology in University Medical College, New York. In one volume, 12mo., of about 400 pages, with illustrations, many of which are in colors.

Diseases of Women; A manual of non-surgical gynecology, designed especially for the use of students and general practitioners. By Francis H. Davenport, M.D., Instructor in Gynecology in the Medical Department of Harvard University, Boston. Third edition, thoroughly revised and enlarged, with many additional illustrations.

A Treatise on Gynecology. By E. C. Dudley, A.M., M.D., Professor of Gynecology in the Chicago Medical College, Chicago. In one octavo volume of about 600 pages, with 425 illustrations, many of which are in colors.

Manual of Skin Diseases. With special reference to Diagnosis and Treatment. For the use of students and general practitioners. By W. B. Hardaway, M.D., Professor of Skin Diseases in the Missouri Medical College. Second edition, entirely

rewritten and much enlarged. In one handsome 12mo. volume with illustrations.

The Principles and Practice of Obstetrics. By American authois. Edited by Charles Jewett, M.D., Professor of Obstetrics in the Long Island College Hospital, Brooklyn, N. Y. In one handsome octavo volume, with many illustrations in black and in colors.

Review of Current Literature.

GENERAL SURGERY.

IN CHARGE OF

H. T. BAHNSON, M.D.,

R. L. GIBBON, M.D.,

J. HOWELL WAY, M.D.

INJURIES OF THE HAND.—Dr. R. L. Payne of Norfolk, Va., formerly a distinguished North Carolina doctor, contributes an interesting article (*Int. Jour. Surg.*) on the above subject from which we quote:

“The treatment of injuries of the hand is usually relegated to the department of minor surgery, and yet no class of injuries demand greater skill and judgment for their successful management, and in no class of injuries are surgical sins more common. The laudable desire to obtain a condition of the parts in which rapid healing will occur, together with the thirst for operation and the facility with which operations on the hand may be done under local anæsthesia, are responsible for many of the mutilating operations done in injuries of the hand; but when we remember how essential the hand is to the maintenance of the life and happiness of the individual, we may well raise a cry for conservatism and carefully consider any and all methods looking to the preservation of this important member. In hemorrhage in injuries of the hand, if the digital vessels be divided, it is usually only necessary to apply a snugly fitting bandage and elevate the parts; but in injuries of the palm I need hardly recall the fact that, because of the free anastomosis of the vessels forming the palmer arches, it is necessary to ligate both ends of the divided vessel, and this should always be done through the wound, enlarging it, if necessary, and making the dissection dry by means of the Esmarch’s bandage. In some cases, however, for one of many reasons, it may be inexpedient to ligate the

divided arch, and then the following method may be used with the best results: The hemorrhage being temporarily restrained by the elastic bandage, or otherwise, the wound is carefully cleansed and dressed antiseptically. Over this dressing a firm ball of sterile gauze is fixed in the palm and the fingers bandaged firmly over it. Long strips of adhesive strap are now laid along the arm from just above the elbow to the wrist, and the bandage carried up the arm over these. The free ends of the plaster are now united over a block as in the Buck's extension apparatus, the patient is placed in the bed lying upon his back, and the arm suspended by the block in a vertical position, so that all the forces of gravity are brought into play to prevent hemorrhage. In from twenty-four to thirty-six hours the arm may be lowered into a slightly elevated position, and at the end of forty-eight hours the dressing may with safety be removed and changed. This plan has sometimes served me well when by reason of poor light or want of instruments or assistants ligation was impracticable.

A finger or any part of it should never be amputated unless its condition is such that its nutrition is inevitably destroyed. There is only one exception to this rule, and that is where the joints, and especially the metacarpo-phalangeal joint, are so much injured that ankylosis is inevitable; then the stiff finger will always be in the way and amputation should be done at once. If a portion of a finger be cut off smoothly and an aseptic condition of the parts can be obtained, as is usually the case, then it is not necessary to cut back the bone as is generally done in order that its end may be covered in, for if the parts be kept clean, granulations quickly spring up, covering in its end and preserving a greater length of finger.

The next point in the management of this class of injuries, is always take care of injured tendons. Never close a wound of the hand without having first carefully examined to see if any of the tendons have been divided, and if so, carefully suture with catgut ligature the divided ends, and if the wound and ligature is clean, union will result, and no impairment of function will follow. If the tendon is so lacerated or contused that union could not be expected, then, with sharp scissors, cut back the tendon to sound tissue, and if it be necessary, in order to accomplish this end, enlarge the wound, and then having cut off the ends smoothly, if the divided tendon cannot be sutured without tension, the ends may be united with long stitches of catgut, hoping that along this framework new tendinous structure may be developed and the ends thus united, or, if possible, the divided ends of the sheath may be stitched together, and in this canal a connecting tendinous band will gradually develop. All of these methods are useful, but if the ends are widely separated the method of Czerny is, perhaps, best of all. The tendon is half way divided at a proper distance from its wounded end, and the free end of the split portion is turned downward and sutured to the end of the distal portion of the divided tendon. If none of these methods are feasible, then the end of the lower por-

tion of the divided tendon may be sutured to any other tendon running the same course and having similar function.

It is, however, in contused and lacerated wounds of the hand that one is most embarrassed as to what is best to be done. Let us consider it an axiom in this class of injuries a hand that is almost hopelessly crushed will often assume a so much better appearance under one or two dressings that much that was apparently lost may be saved, and the great necessity of saving even a portion of a finger more than counterbalances the danger of a secondary amputation. It is, of course, necessary to first arrest hemorrhage, and then the injured parts must be cleansed and disinfected. This class of wounds is more liable than any other to septic infection. The vitality of the tissues is materially lowered by injury to the circulation, and especially the capillary circulation, and phagocytosis is at its minimum while dirt, grease—indeed, any and all sorts of septic matter—are ground into the tissues. This must all be removed with the greatest care, and then I am in the habit of immersing the injured parts in a warm solution of acetate of aluminum. This is one of the least irritant and most deeply penetrating of all antiseptics with which I am acquainted, and is less liable than the more generally used corrosive sublimate to coat the contused tissues with a covering of coagulated albumen and thus seal them against the penetration of antiseptics, while at the same time septic material is shut in. Following the immersion the injured part is placed in an easy position, ample provision is made for free drainage, the torn and contused tissues are as accurately coaptated as possible, using very few, if any, stitches, and the whole enveloped in wax paper or rubber protective to prevent evaporation. No attempt is usually made at this first dressing to cut away ragged tissues, because when the dressing is removed at the end of twenty-four hours, much that appeared lifeless will be found assuming a healthy appearance, and it is usually best to wait till nature's line of demarcation indicates which tissues should be removed. From day to day the dressings are removed and the parts immersed in warm solutions of acetate of aluminum or carbolic acid for an half hour, disorganized and sloughing tissues are from time to time separated with the scissors, and the warm wet dressings continued till a clean, granulating wound indicates the substitution of the usual dry dressings.

One word as to punctured wounds, and that is always provide for free drainage, and do this without delay. In this class of wounds sepsis is almost always present, and pus may form at the bottom of such wounds and burrow deeply at work upward along the tendons, doing irreparable damage almost before its presence is suspected. If we neglect to provide for drainage and pus makes its appearance, then the wound must be freely laid open, and with grooved director and knife or scissors each pocket and sinus must be opened up, curetted and scrubbed with 1-500 sublimate solution, and packed with iodoform

gauze. In this way only, can we reasonably hope to stay the process of destruction.

In all injuries of the hand early and persistent passive motion may be indicated and will give excellent results. J. H. W.

PRACTICE OF MEDICINE.

IN CHARGE OF

S. WESTRY BATTLE, M.D., U. S. N., ASHEVILLE, N. C.

MALARIAL HÆMATURIA.—In the Monthly Cyclopædia of Practical Medicine we find an interesting review of recent opinions regarding the use of quinine in malarial hæmaturia. The views of Italian physicians are particularly valuable in this connection. Their great experience, owing to the numerous malarial districts of their country, added to their innate acumen, enables them to advance an authoritative opinion on the subject.

Baccelli attributes hæmoglobinuria of malaria, not to the hæmoparasite, but to its toxins. Quinine may bring it on even in moderate doses. He recognizes four classes: (1) Pernicious malaria with hæmoglobinuria cured by quinine; (2) mild attacks of malaria accompanied by hæmoglobinuria only when quinine is given; (3) hæmoglobinuria coming on in persons who have had malaria some time ago, and not associated with quinine; (4) hæmoglobinuria, if the malarial attack require it. He also recommends persulphate of iron and inhalations of oxygen.

More to the point are the views of Bastianelli, who regards it as practically proved that hæmoglobinuria occurs only in infections with the æstivo-autumnal parasite. An interesting observation is that hæmoglobinuria following quinine is extremely rare in Italy, no case having ever been reported from the Campagna. The frequency with which these cases occur increases as one passes southward. Hæmoglobinuria due to quinine never occurs, excepting in patients who are suffering or who have recently suffered from malarial fever.

The hæmoglobinuric attack is produced every time quinine is administered, whether it be given while the malarial attack is in progress (Tomaselli) or whether it be given when the malarial infection has run its course (Murri). Extremely small doses are capable of bringing on an attack. Quinine hæmoglobinuria has been seen in patients who have already suffered from spontaneous hæmoglobinuria (Murri). The preceding malaria creates the fundamental disposition, the existing malaria the accidental disposition, and the quinine the provocative agent.

Quinine hæmoglobinuria is divided into two forms:

1. That occurring during the paroxysm—paroxysmal quinine hæmoglobinuria is divided into two forms:

2. Postmalarial quinine hæmoglobinuria.

In these varieties quinine, through a very considerable length of time, will produce an hæmoglobinuria whenever administered. There are, however, instances where the hæmoglobinuria due to the taking of quinine occurs only now and then during the paroxysm. These cases are rare.

As regards treatment, Bastianelli argues that the course to be pursued depends upon the blood examination. If hæmoglobinuria occurs during a malarial paroxysm and parasites are not found, either as a result of previous administration of quinine or on account of the spontaneous disappearance of the organisms, we may remember that the administration of quinine will have no effect upon this attack and that, for the time being, certainly another attack is not to be expected. In these cases Bastianelli considers quinine as contra-indicated owing to the possibility that the paroxysm may have been due to its previous administration.

If in an attack occurring in the middle of an ordinary malarial paroxysm there arises doubt as to its origin from quinine, it is well to abstain from further administration of the remedy, for the quinine already given is usually sufficient to hinder the development of a new febrile paroxysm. But, if, in an hæmoglobinuric attack which has come on after the giving of quinine, the parasites are still found in the blood, one is justified, despite the danger, in insisting upon the specific treatment; if there be doubt as to the origin from quinine, we may be sure what the result will be if we allow the parasites to go on developing, and it is, therefore, safer to interfere.

Dr. Meek, who, as already stated, objects, with other American authorities, to the use of quinine, recommends the following treatment: 1. Sodium hyposulphite in drachm doses every two hours until the patient is thoroughly purged; continued in smaller doses until the system is saturated with it. This is a stimulant to the hepatic secretion, causing, in large doses, an abundant biliary secretion; and is also a valuable intestinal antiseptic. He believes that free sulphurous acid is disengaged in the blood, and that this agent is an antizymotic to such an extent that it destroys the micro-organisms that are the real cause of the disease, and thus arrests the process of corpuscular disintegration. 2. Morphine and atropine hypodermically, sufficient to quiet the stomach; and blisters over the epigastrium, if necessary. 3. An abundance of water to wash out the coagula that must necessarily accumulate in the urinary tubules after a hæmorrhage. Hot water or hot lemonade is frequently better borne by the stomach than cold. Cupping over the loins is also to be recommended. 4. A mild diet; fresh butter-milk is usually well borne, and also acts as a mild diuretic. 5. The patient should remain in a strictly recumbent position.

Now is a good time to subscribe for the JOURNAL.

Therapeutic Hints.

ANTINEURALGIC LINIMENT.

℞—Ichthyol	1 part.
Mercury ointment	1 “
Chloroform	6 “
Spts. Camphor	6 “

M. Externally. Shake well. Rub upon affected parts.—*Med. Weekly.*

NEURASTHENIA.—The following prescription has been useful in the treatment of some of the cases of neurasthenia seen in Dr. Spiller's clinic:

Tincture of nux vomica	10 minims.
Sodium bromid	10 grains.
Compound tincture of cardamom suf- ficient to make	1 fluidran.

Mix.

Directions.—One dose to be given three times daily in a wine-glassful of water after meals.—*Phil. Polyclinic.*

INCOMPATIBILITY OF CALOMEL WITH CHLORIDES, ACIDS, AND ALBUMINOIDS.—Articles and notes in journals and text and reference books on Incompatibility have repeatedly warned the pharmacist that chlorides and certain acids “oxidize,” or better, convert, calomel (mercurous chloride) into corrosive sublimate (mercuric chloride). Now, however, Jovanne (*Pharm. Rundschau*) declares, as the result of very thorough test-tube experiments, that calomel is not changed into corrosive sublimate either by chlorides, inorganic or organic acids. This is contrary to the belief of the past, but to substantiate his discoveries Jovanne administered to sixty children calomel in connection with lemonade containing hydrochloric, citric and tartaric acids, with broth containing salt, and with orange juice. No ill effects resulted. Experiments on dogs were attended with similar results.—*Bull. of Phar.*

When writing to advertisers please mention the JOURNAL.

PUBLIC SERVICE.

From March 24, 1898, to April 6, 1898.

The order assigning 1st Lieut. Bailey K. Ashford, assistant surgeon, to station at Fort Sam Houston, Texas, is revoked and he is ordered to Fort St. Philip, Louisiana, for duty at that post.

Capt. Joseph T. Clarke, assistant surgeon, is relieved from duty at Columbus Barracks, Ohio, and ordered to Madison Barracks, New York, for duty, relieving Capt. Paul Shillock, assistant surgeon. Capt. Shillock upon being so relieved, will proceed to Key West, Florida, and report to the commanding officer, 25th Infantry, for duty with that regiment.

1st Lieut. George Rauchfuss, assistant surgeon, resigned April 2, 1898.

Capt. Edward Everts, assistant surgeon, upon the abandonment of Whipple Barracks, Arizona, Ty., is ordered to Fort Apache, Ariz. 1st Lieut. Alexander S. Porter, assistant surgeon, is relieved from duty at Whipple Barracks, Arizona, and upon expiration of his present leave of absence is ordered to San Diego Barracks, California, for duty.

The order assigning 1st Lieut. George Rauchfuss, assistant surgeon, to Fort Apache, Arizona Ty., is revoked.

Leave of absence for four months, on surgeon's certificate of disability, to date from his arrival at the Army and Navy General Hospital, Hot Springs, Arkansas, is granted Maj. Henry McElderry, surgeon.

The leave of absence on surgeons certificate of disability granted Maj. Charles K. Winne, surgeon, is further extended six months on surgeon's certificate disability.

Capt. Robert J. Gibson, assistant surgeon, is relieved from duty at Fort Thomas, Kentucky, and ordered to Fort Meade, South Dakota, for duty.

Maj. Louis W. Crampton, surgeon, will be relieved from duty at Fort Mead, S. D., upon the arrival there of Capt. Gibson, and is ordered to Fort McHenry, Md. to relieve Maj. Charles K. Winne, surgeon.

Maj. Henry McElderry, surgeon, now at Fort Leavenworth, Kansas, will proceed to Hot Springs, Arkansas, and report to the commanding officer of the Army and Navy General Hospital for treatment therein.

Notes and Items.

Dr. C. Daligny has removed from Thompsonville to El Dorado, N. C.

“OLE DOCTEUR FISET,” WHO HAS “GOT NINETY YEARS OR SO.”

But Docteur Fiset, not moche fonne he get,
 Drivin' all over de whole contree;
 If de road she's bad, if de road she's good,
 When ev'ryt'ing's drown on de Spring-tam flood,
 An' working for not'ing half time mebbe!

Let her rain or snow, all he want to know
 Is jus' if anywan's feelin' sick,
 For Docteur Fiset 's de ole-fashion kin',
 Doin' good was de only t'ing on hees min',
 So he got no use for de politique.

—*British Medical Journal*.

EPILEPTIC COLONY.—The Legislature of New Jersey has passed a bill appropriating \$15,000 for an epileptic colony.

PUZZLING CASES.—An apparently healthy child, a girl of ten, had acute curvature of the spine. Physicians were consulted by the solicitous parents, and mechanical devices were spoken of among several suggested methods of treatment. The physician upon one occasion called at the house to examine the child, and when she came into the room he noticed that she was carrying upon one shoulder a large pet cat of which she was very fond. Upon inquiry it was learned that the girl was in the habit of carrying this cat several hours a day, and always upon the same shoulder, which was also raised to make a better resting-place for the cat. The physician ordered the cat to be carried upon the other shoulder for a week, then to be carried no more, whatever. The spinal column soon became perfectly straight and normal.—*Phil. Med. Jour.*

WOMEN DOCTORS.—This country is undoubtedly the happy hunting-ground of the woman doctor. The increase in her numbers has within the last twenty years been phenomenal. It is estimated that there are now about 4500 woman practitioners in America as against 527 in 1870. The majority of these are, of course, general practitioners, but there are as well homeopaths, hospital physicians and surgeons, professors in schools, specialists for diseases of women, alienists, orthopedists, ocu-

lists, aurists and electro-therapeutists. Doubtless like their brothers they suffer from the stress of keen competition, but it is stated that most of them succeed in making good headway, while one or two of the leading lights are credited with amassing the eminently satisfactory income of \$25,000.—*Med. Record.*

IS A VIOLENT DEATH PAINFUL.—Severe injuries to the body are seldom very painful at first. The severity of the nervous shock seems to paralyze the nerve centre where consciousness of pain is situated, and in fatal cases there is often no sense of pain, even when death is delayed a day or two. In such cases it may be supposed that the shock not only paralyzes but even destroys the nerve centre. It may be compared to a lightning flash along the telegraph wires, which, although of the same nature as the electric telegraph current, yet is so intense as to destroy the receiving instruments, so that no subsequent messages can be received. In some fatal injuries the nerve that would carry the pain to the brain is destroyed, and such accidents are almost painless. Our sense of pain is greatest in the skin, and deep wounds are therefore not more painful than shallow ones. In surgical operations the skin incision is often the most painful part, and those who have been run through the body say they were conscious only of something cold passing through them, with just a prick at the points of entry and exit of the weapon. On the other hand, some fatal injuries are very painful, especially those that interfere with breathing, such as injuries to the chest and throat.—*New York Advertiser.*

ENGLISH IN PRESCRIPTION-WRITING.—We think it time that Latin should not be used any longer in writing prescriptions. There is not one in a hundred physicians who can write Latin correctly, and a prescription that is one-half or one-fourth in Latin and the rest in English is bastardly ridiculous. We all hide our philologic ignorance under contractions that lead to ambiguity and even danger, and when we can no longer hold out with our wretched sham we are compelled to plunge into English for the directions. All arguments for this medieval nonsense do not amount to a pinch of snuff. As for hiding the knowledge of the drug from the patient and the advantage to

patients traveling abroad, the facts need only to be looked squarely in the face, and the argument for Latin becomes a bad boomerang. The practice is a pompous bit of humbug which should be left to medievalists and not scientists. So soon as we get our therapeutics out into the daylight of common sense and genuine science we shall surely dispense with the sorry jumble of bad Latin and poor English illustrated by nine-tenths of the actual prescriptions on file to-day at the drug-stores.—*Philadelphia Med. Jour.*

PASSAGE OF SUBSTANCES THROUGH THE PLACENTA.—A. Sicard and R. Mercill reported before the Biological Society of Paris on January 15, 1898, the results of their experiments. Injections were made into primiparæ and multiparæ from three minutes to twenty-two hours before delivery. The shortest time taken for the passage of the blue into the urine of the child was one hour and twenty minutes. The women were all healthy, having no history of tuberculosis or of syphilis. In no case did the placenta show any macroscopic change.—*La Rev. Med.*

LONGEVITY OF GERMS IN DUST.—In a recent number of the *Annals de Micrographie*, Dr. Miguel gives the results of some interesting observations made by him in respect to the vitality of disease germs. In May, 1881, he took some earth from the Montsouris Park, at a depth of ten inches below the turf. This he dried for two days at a temperature of 30° C., and then he placed the dust in hermetically sealed tubes which he put aside in a dark corner of the laboratory. When taken, the soil contained an average of six and one-half million bacteria per gram. After desiccation the number had fallen to rather less than four million. Sixteen years later—that is to say, last year—he still found three and one half million per gram, and he was enabled to isolate the specific microbe of tetanus. The inoculation of this soil in guinea-pigs determined death from tetanus after an incubation period of two days, showing the remarkable vitality of pathogenic microbes under favorable conditions.—*Medical Press.*

The Board of Medical Examiners will meet in Charlotte, N. C., April 28 to May 3, 1898. The time for meeting was first

made May 2-6, but the Secretary of the Board, Dr. H. B. Weaver, of Asheville, has just sent out notices of the change. We are pleased to note this change in as much as it will give opportunity for the applicants to finish their work, and attend the meeting of the Society, which will be held May 3rd, 4th, and 5th. They will also probably have the verdict passed upon their papers in time for the successful applicants to present their names for membership in the Society. We hope that all who are successful will take advantage of the opportunity and associate themselves with this body of their professional brethren and lend their influence in promoting the welfare of the profession in the State.

HOSPITALS CLOSED.—Misfortune is befalling certain hospitals as a result of the consolidation of cities to form Greater New York. The Astoria (Long Island) Hospital, which was established by the women of Astoria section of Long Island City, closed its doors on the first of the present month. Under the new charter, the city authorities are not permitted to send public patients to the hospital, and the institution could not be successfully conducted without the income thus secured. As a last resort, the managers endeavored to form a union with some other hospital entitled to receive patients at the city's expense, but their efforts were unavailing. St. John's Hospital, also in Long Island City, and the Flushing Hospital are in a similar financial predicament. Last year an addition to the former hospital, which is managed by the Sisters of St. Joseph, was commenced. It was designed to cost \$100,000, but when nearing completion, work had to be suspended because of lack of funds. Resort has been had to the authorities, but it is hardly likely that any material aid will be secured.—*Phil. Med. Jour.*

THE MODERN DETERIORATION OF MEMORY.—A teacher of 50 years of experience in our public schools says the modern child is greatly inferior to the child of 50 years ago in the power of memory. The fact seems beyond question, and should give cause for pondering to our pedagogic scientists. We have seen school-books in which the simplest tables of weights and measures, the multiplication-table, etc., were placed at the back

of the book *for reference*. It is said that the most and best educated man nowadays is not he who knows most, but only he who best known where knowledge is to be found. In the immense complexity of modern life and knowledge, this one-sided dictum has a certain amount of truth, but the question remains: Should there not be some basis of the memorized known? We have seen modern school-children studying all sorts of adult higher subjects a dozen years beyond them, and yet who did not know their alphabet,—at least couldn't pronounce the letters when they saw them. Are we not, indeed, confusing mental evolution and killing memory by modern pedagogic methods? Does not the superficial smattering of a hundred things weaken both mnemonic power and real logical ability? Recently, in answer to a question why the days were longer in summer than in winter, one of these products of over-pressure and mechanical education answered that "it is the natural result of heat to elongate things." That is the kind of logic that is quite popular at present. How much is our public-school system responsible for it?—*Phil. Med. Jour.*

NECROLOGY.

Dr. A. Russell Strachan, aged 70 years, at New York, March 1, 1898. He received fatal injuries while bravely risking his own life to save a woman and child from being run over by a cable car. The woman and child were gotten out of the way.

Dr. W. H. Johnston, aged 59 years, at Birmingham, Ala., April 3, 1898. He was a native of Lincoln Co., N. C., educated at Davidson college and the University of North Carolina. He served in the 23rd N. C. Infantry during the war between the States. He graduated in medicine from the University of the City of New York.

Now is a good time to subscribe for the JOURNAL.

Reading Notices.

A FOOD FOR DIARRHOEA IN INFANTS.—The difficulty of feeding children suffering from diarrhoeal troubles has long been recognized by pediatricians. In many of these cases, milk must be entirely discarded and replaced by other foods. The idea not long ago occurred to a German chemist that by converting albuminous constituents of milk into albumoses, they would be not only more readily absorbed and assimilated, but would also be less irritating to the mucous membrane of the alimentary tract. It was further found that by addition of a small percentage of an astringent (tannic) in firm organic combination with the albumoses base, an unirritating and nutritious food product is secured, of especial value in diarrhoeal affections. This product has been introduced under the name of lacto-somatose, and has been thoroughly tested in the medical clinic of Bonn and other institutions in Germany.

The results thus far obtained are so satisfactory as to encourage extensive use of this astringent nutritive preparation in all diarrhoeal troubles where other foods are not tolerated.

PAIN IN OTITIS.—Dr. George H. Powers, Professor of Ophthalmology and Otology in the University of California, San Francisco, in an article in *The Medical News*, writes as follows, in reference to the treatment of pain in otitis: "At my first visit I found a copious discharge of bloody serum from the ear with hardly a trace of pus. He suffered from severe cephalalgia, but there was no special tenderness in or about the ear, and no swelling. Thorough cleansing of the meatus with dry cotton relieved the pain in the head remarkably, and with a dose of antikamnia, 10 grains, he slept some hours."

SANMETTO THE STANDARD PREPARATION FOR GENITO-URINARY DISEASES.—For some years I have been a very warm admirer of Sanmetto, and have found its action marked and well defined in the cases wherein I have used it. In cases of prostatitis, with loss of virile power in elderly men I find its action superb. In chronic specific urethritis, cystitis and all irritable conditions of the urinary tract I find Sanmetto very efficacious. I do not hesitate to recommend it as a standard preparation in cases where the action of pure santal and saw-palmetto is indicated.

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JOS. MARSHALL, M.D.

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Original Communications.

PRESIDENT'S ADDRESS.*

BY FRANCIS DUFFY, M.D., NEWBERN, N. C.

Gentlemen of the Medical Society of the State of North Carolina:

In accordance with the rules of this Society, it becomes my duty to present to you an address on assuming the functions of the office to which you have done me the honor to call me.

Some of the presiding officers in our past history have discussed medical topics by inviting the attention of the society to some chosen subject, others have looked over the field which we occupy and have advised, according to their judgment, such action as was likely to promote the objects which we, co-laborers, are seeking to attain, while other addresses have been inspiring and elevating by sentiments expressed, not merely rhetorical and pleasing the ear, but utilitarian in the highest sense, like a poem, which by stirring and emotions builds resolve. and has its fruition in the best deeds of men.

I desire to submit to your consideration certain matters which, during my connection with the Society, have occurred to my mind from time to time. First, as to the necessity of increasing the membership and usefulness of our Society. It is obvious that all the legislation regulating the practice of medicine and maintaining a higher standard of medical education in the State

*Read at 45th Annual Meeting of the North Carolina Medical Society, Charlotte, May 3, 1898.

has originated in the persistent organized efforts of the North Carolina Medical Society. The same may be said as to the enactment of laws establishing the Board of Health, or in any respect pertaining to public sanitation. As the importance of these matters can hardly be over-estimated, it is evident that anything tending to build up the Society and increase its power must be of corresponding importance. In this connection I call attention to the fact that since written examinations have been adopted by our Medical Examining Board, it has been impracticable for licentiates of the Board to join the Medical Society during the meeting at which they were licensed. Reference to Society Annals will show that a much larger number have been licensed than have become members of the Society at the same session. These young men form the best element from which to recruit the ranks of the Society. When they miss the first opportunity, they do not as a rule have the same interest in public medical affairs that they would have as members of the Society. They do not often go long distances to join, but wait one of the migratory incursions which does not usually occur oftener than once in a decade. If our Medical Examining Boards would shodld their meetings long enough before the Society met to finish their examinations and report thereon before the adjournment of the Society, these disadvantages would be obviated, and at the same time the law complied with, which requires that the Board should meet at the same time and place as the Medical Society.

I believe it would be well to remit the usual initiation fee to those who join during the year in which they receive their licenses. This, instead of being a loss to the Society, would likely be a gain, as the annual dues in 2½ years will amount to \$5.00, while the average length of time which elapses before the joining of those, who join at all, is much longer than that period, while many never become members of the Society; besides many meritorious young men have spent all their money in obtaining medical education and license, and have not even \$5.00, to spare at the time they have to equip themselves for practicing their profession. There are other reasons than those I have touched upon, why the way should be made easy for young men to join the Society. The first year of professional life is the formative stage

of professional character. The moral sense and those delicate instincts, which point to rectitude as their polar star, are not strong alike in all, nor have the home influences and other sources of training which build upon the foundations of character been the same. Young men of various bias, without any knowledge of the Code of Medical Ethics, enter a profession which from the time of Hypocrates has had its Ethical Code, and which as it is to-day is the outgrowth of the wisdom and experience of generations of practitioners who stand upon the delicate ground where meet self interest and self abnegation. These first years of professional life are, with many, associated with necessities which would naturally foster carelessness. Is it any wonder that there are so many deviations from the paths of moral and Ethical rectitude?

The influence of a Medical Association is very beneficial in forming and promulgating rules to harmonize and make pleasant the business relations of medical men; in stimulating the efforts of co-workers, by which they become co-educators and in inspiring higher ideals from which spring higher realizations.

I trust it is not amiss to make further suggestions as to the work of the Board of Medical Examiners, for although the Legislature has given them full power to fix the standard of qualification and make by-laws governing their own action, the elective power in choosing these Boards is vested in the North Carolina Medical Society, and the sentiments of the Society would naturally be reflected by the Board chosen.

It has been and is the custom to admit to examination any and all persons presenting themselves. The only requirement being the easy-to-be-obtained certificates of moral character, and the merit of having existed 21 years. It by any means the applicant can answer a certain percentage of questions propounded, he obtains a license founded on the declaration that he is found qualified to practice medicine in all its branches.

In those parts of the world where the standard of medical education is highest, men are admitted to examinations only after a sufficiently long training, not only didactically, but clinically and in the laboratory. The mere correct answering of a few questions on a branch of medicine, regardless of antecedent practical training or experience, cannot be sufficient evidence of

qualification. To obviate this difficulty it has been proposed to have clinical examinations. This is hardly practicable. Sufficient material of different kinds are hard to obtain. The diagnosis of any given subject once made would soon become known to all, and even if the candidate failed in the clinical test, he yet might average the percent necessary to obtain license. An examination which ignores the candidate's past as to training would require to be long and tedious, especially if clinical and laboratory features are included. Better, far, trust something to schools which are equipped for giving all necessary training and require all candidates for examination to give evidence sufficient clinical and laboratory experience. If the examining Board have not authority to regulate these matters, our law ought to be amended.

Another matter of importance may be harder to regulate, yet worthy of the attempt. Namely the interchange of courtesies between the States, at least those bordering on North Carolina. Where a sufficiently high standard is maintained by any State Board its licentiates might very well be admitted to other States. It means an unnecessary hardship, for instance, for a physician living on the border of North Carolina and Virginia to have to pass the Boards of both States.

It may be like the re-threshing of old straw to refer to the importance of public hygiene, and the necessity of procuring legislation for the promotion of that object, but as that sort of straw has yielded so comparatively little of the grain which it is capable of producing, I am impressed that we should continue to thresh. As far as we are concerned, I do not feel that it is necessary to remind this body of these things, much less to offer instructions, but with the people in general as well as their legal representatives it is different. They have not yet found out the best way to spend their money with the medical profession to get the best returns. With them, the time honored function of the doctor is to apply remedies to diseases, and according to the law of supply and demand, the physician usually equips himself for the performance of that function, and by solicitation and practice grows in that direction. It is not my purpose to derogate this part of the physician's work. The world would be much poorer without the legitimate use of opium, chloroform,

cocain, quinine, iodine, mercury and other remedies. If the evil is upon us, that which removes or mitigates it will continue to be appreciated and sought, but where cure can save its thousands, prevention can save its tens of thousands, and it is a crying necessity to-day that this fact receive both a thoeretical and practical realization by the whole people.

Before we can hope to leaven the whole lump of the body politic let the physician scrutinize himself and the field that he occupies, to see how far he is the exponent of the true science, or to what extent he typifies or justifies a recent cartoon that represents nature and disease in fierce combat, while the doctor comes up blind-folded, and with his cudgel strikes right and left, now striking the disease and now the patient.

The history of the application of therapeutic measures (drugs mainly) does much to justify this cartoon. It is not necessary to more than refer to the incantations and other absurdities of ignorance and superstition which were in keeping with the dark ages in which they practiced. Within the memory of the men of to-day, famishing fever patients have been deprived of water by their mis-guided attendants, who were governed by tradition and custom, rather than by the dictates of common sense, and the unerring cravings of nature. Even the foul air of the patient's room was carefully confined by closing the doors and windows, and perhaps his strength still more reduced by copious blood letting.

My mother related to me an experience in her early life. Her father living on his plantation was stricken with fever, and after some days, or weeks, of bleeding and famishing he died. A number of his negro slaves were also stricken and under the same management went the same way. One servant begged to be let alone, and not subjected to the treatment. His wishes were gratified and he alone recovered. I remember the old man well. He lived to advanced age.

Homeopathy and a number of other pathies, in spite of their absurdities, had fruitful soil in which to grow. They were less aggressive on the persons of the suffering sick, and if they gave no aid, were not so likely to hinder natural recoveries, and so the regular profession looked on, learning from experience, grew in knowledge, by its natural evolution, and became wiser than

their critics. But the medical millennium has not yet come, nor are the days of mal-practice past. Even among operative procedures, the fads of gynecologists and the exploits of those seeking fame by startling measures in other fields require constantly to be challenged, to show cause why they should not be discontinued. If the novice takes up an optimistic modern work on *materia medica*, and studies the physiological effect of drugs and their therapeutic application, he might easily be impressed with the belief that drugs could control every pathological process, and remove every morbid condition. Coupled with these studies, he is very much surprised to find that works on practice of medicine (perhaps especially those of the scientific Germans) will give exhaustive descriptions of disease, pathology, etiology, clinical history, diagnosis, and prognosis, but beyond general reference to hygiene, nothing specific as to the treatment. The fact of the limited power of drugs to work beneficial changes, begins to dawn upon him, and that even those that are of undoubted value are like edged tools, and require careful handling. Even our comparatively harmless quinine, which so effectually destroys the malarial plasmodium has been made to do its share of harm. On no less authority than the German professor, Leibermeister, 40 grains at a dose have been given to typhoid patients. Within recent years the cold tar antipyretics were hailed with delight. Fever killers had come at last! A Baltimore professor told his class that antipyrine was what he had been praying for. I think you will agree with me that more patients than fevers have been killed by them; and these remedies are in rather common use among the laity.

Not many days ago I visited a child to whom the mother had administered a dose of acetanilid before the cold stage of an intermittent fever had disappeared. Alarming symptoms followed. Another case came under my notice, where a farmer had administered a dose of acetanilid under similar circumstances. The child died, apparently from its effects.

Not many years ago, the doctrine was promulgated that disease, a condition of lowered vitality, required to be combatted by copious administration of alcoholics. This fascinating theory had many adherents, and did much harm. In the field of dietetics, we went from starvation to stuffing. Even to-day an

American text book advises that a typhoid fever patient may take as much as six quarts of milk a day, a quantity that has been shown by physiological experiment to be one-third more than the full digestive capacity of a healthy man, eating nothing else and digesting all the day. We have no infallible guides. Our reason must challenge every theory, and our experience prove all things, and hold fast to that which is good.

But why this arraignment of a profession, which in the matter of education, conscientiousness and faithfulness compares favorably with any on earth. It is to lament that our most uncertain and dangerous functions are most in demand; that millions of dollars are paid by the people for the practice of medicine as it is being done, and as to some little extent has been indicated in the foregoing pages, while our best functions or capabilities are dwarfed by disuse and neglect. The public health officer would have to be a missionary at his own expense, while a premium is put on disease. This is not a mere perverse and unnatural choice of the people. They are as wise as we are, and will seek their own good as they conceive it to be. We are of them, and differ only as regards these matters in knowledge.

If they, the masses of the people, knew as much of the sources of the disease as the educated, better element of physicians, who do you suppose would be in the van of the procession to stamp it out? The man who reaps a harvest when disease runs riot or the man who pays the bills? That the people should become possessed of this knowledge is the prime requisite, for should we obtain such legislation as in our judgment was all that was necessary, and such appropriations as would leave our Board of Health unhampered in the discharge of their functions, the laws would be largely inoperative if lacking in popular sympathy and support; besides many of these things would depend on habits of individuals which legislation could not control. It is to be, then, chiefly a matter of education; and how to accomplish this, is the problem.

If the individual physician in his professional and social contact with his clients sows the seed, if our Boards of Health, local and State, continue and even improve upon their good work, and if our schools from the lowest to the highest teach the rudiments of the science of health, and unfold to the mind

of the pupil the necessity of expert work in the prevention of disease, knowledge must grow. And if our State Society, in its organized capacity, with the courage of its convictions, does not hesitate to urge necessary legislation, they will have discharged their duty, and may soon accomplish much.

Typhoid fever, which is perhaps entirely preventable, causes the State the loss of many a victim and much treasure. Current knowledge or opinion ascribes its propagation almost entirely to intestinal discharges of the infected. Prevention would seem to be in easy reach, yet it goes on. Personal observation leads me to believe that disinfection of the dejections is not accomplished in one half the cases. Many cases of continued fever are not considered typhoid fever, which are most likely of that nature. I will not discuss the subject, but pass it by with the recommendation that the dejections of all fever patients be disinfected. The public should be instructed to do so, even where physicians are not employed, as they often are not, and it may be a fit subject for compulsory legislation. Our Board of Health has done a good service in the matter of prevention of malarial fevers by use of deep well and cistern water. But a properly managed cistern is an exception. Infectious germs are carried from the atmosphere or house-tops to the cistern. Filters, often imperfect, remain unchanged, until oversaturated. They become thus the source of infection. Tuberculosis continues to be propagated by the expectoration of the infected without hindrance, except perhaps in one municipality in the State. Milk is sold from any kind of cow which will afford it. Diseased meats are sold in the markets. Ice is imported from impure sources and people believe that freezing purifies it, which is true only to a limited extent, and may be manufactured from impure water. Any kind of canned food is sold that any one will buy. There is no check on adulteration or fraud as to what the people eat or drink or take as medicines, patent or proprietary, save their own unskilled judgment, warped or blinded by alluring advertisements and unblushing false assertions.

The physician often finds that a patient unable to pay him has raked up money enough to pay an exorbitant price for worthless medicines or appliances. Druggists practise medicine. Spectacle venders, ignorant or unscrupulous, still practice this

branch of the medical art, though a medical college graduate has first to pass our State Board. * Dangerous drug habits or other evil consequences arise from headache cures and the like. Beverages (coca cola for instance) sold from the soda fountains should be subject to analysis and the people advised, or the sale interdicted if necessary. I refrain from further specific references.

The doctor of the future will probably differ more widely from the one of to-day, than the doctor of to-day differs from the one of the past. We know something of him of the past and present and that the tares have been mixed with the wheat in varying proportions. With prophetic eye we may contemplate him of the future, but we know not how far distant, or how near at hand. The poet or philosopher may by inspiration point the way; the scientist by experimental research may demonstrate; still events occur only in the fulness of time, or that period in the evolution of the human race, under the sovereignty of God, when it is possible to achieve that which before was not attainable, but the sword of the doctor (his weapons of warfare on disease or the diseased) will be changed to the pruning hook, which cuts away the poisonous branches upon which grows the deadly fruit.

In the propagation of the race, in the construction of human habitations, in clothing and in food, in labor and in recreation there is a rational wisdom, and in connection with these there should be skilled advisers. If physic should be thrown to the dogs, will the doctor's occupation be gone? Not when he has proper surveillance over everything that affects the health of people. In his present status of equipment he could do much more than he does or is permitted to do, but when the new order of things creates the demand, medical colleges will not condone ignorance of chemistry and physics even as now imperfectly taught, nor make side shows of the microscope and laboratory. These stones which are well nigh rejected by the builders of medical education will become the heads of the corner. These things will be *sine qua non*.

North Carolina has been called the Rip Van Winkle of States; still she has been known to arouse from her lethargy. In the matter of legislation regulating the practice of medicine, she

was (through the influence of our Society) in the van of the procession. And in this historic city, (Mecklenburg County) May 20th, 1775, she sounded the bugle call as a pioneer of liberty. It is fitting that we should here resolve to push still further the lines of human progress.

ANNUAL ORATION.

TWO SOUTHERN PIONEER HEROES IN SURGERY
AND GYNECOLOGY.*

BY ALBERT ANDERSON, M.D., Wilson, N. C.

Mr. President and Gentlemen of the N. C. Medical Society:

DECADE after decade it has been asserted that North Carolina is the Rip Van Winkle State. I deny the charge.

Of all places in the world this is the most appropriate to make the denial. We are upon historic ground. It is well to remember to-night that we tread soil of the nativity of American liberty. Upon the soil of old Mecklenburg was born the Declaration of Independence more than fourteen months before that immortal document was produced at Philadelphia. The heroes of this county in convention assembled declared in thundering tones those great principles of personal liberty and American independence which have become the foundation and tower of human rights throughout Christendom. In thundering tones, I said, and remember that the roar of thunder is born in the flask of lightning. May 20, 1775, there flashed forth from the immortal soul of Dr. Ephraim Brevard this declaration: "Let us declare our independence and defend it with our mutual honor." This came from a crowd "neither sleepy, hungry nor fatigued."

The seven revolutionary engagements fought within forty miles of this beautiful city vindicated the heroism of this daring deed, and eternally established the right of this place to be called the "Hornets' Nest" of the Revolution. It makes a great difference to the force of any sentence whether there be a man behind it or not. Through every word, every clause, every

sentence of that Mecklenburg Declaration, we meet the eye of the most determined, heroic man. Their force and terror inundate every word; the commas and dashes are alive; the writing is athletic and nimble. It went far—is going to-day—will live forever and travel to the world's remotest bounds. Great patriotic doctor! We honor thee to-night as the chiefest lover of thy country. Thy single eye saw political truth; thy intelligence formulated it, and thy courageous hand penned words embodying our inalienable rights, which are but the transcript from the will of God. Thy patriotism bore the fruits of union, domestic tranquility, justice, liberty and welfare.

Here, too, was the home for a long time of North Carolina's greatest, wisest, purest statesman. Like Ephraim Brevard he died with a single physical eye, typifying the great ruling purpose of his life's work, to serve the best interest of his beloved people. In peace, war or imprisonment, he was first and most loved of all. North Carolina never had any honor too great, any love too precious to give their first citizen and greatest statesman—Zebulon Baird Vance.

There are common traits that mark heroes wherever you find them, under all claims, in every profession. Take the medical or surgical hero. He maintains his equilibrium. He always rides; is not reduced to dismount and walk, because his passions are running off with him in some distant direction. "Calm and serene" amidst the lightning's flash or the thunder's roar, the tumult and uproar of the howling mob, or the terror and excitement of home. After the smoke of battle has cleared away, there is no trouble to the dullest vision in seeing victory flashing from his eye. "Will he never come?" she cries, an' a' heard the soond o' the horses feet on the road a mile awa' in the frosty air. The doctor comes skelpin into the close, the foam fleeing frae his horse's mouth. Whar is he? wes a' that passed his lips an' in five meenus he hed him on the feeding board and wes at his work-sic work, neeburs,—but he did it weel. An' ae thing a' thocht ræl thouchfu' o' him, he first sent the laddie's moither toe get a bed ready. It was mighty tae see him come intae the yaird that day, neeburs; the vera look o' him was victory." This William McClure was an ideal type of a hero. We have some in North Carolina. Like McClure they "do their best for the

need of every man, woman and child in their wild straggling districts, year in, year out; in the snow, in the heat; in the dark, in the light; without rest or holiday for forty years," and the very sight of them is victory.

Is the physician always brave enough to stand by his patient when the laity see in the form of convulsions the death angel coming with rapid, but sure speed—when the cries come quick and loud for help! help!! help!!! At such times a hero "with a military attitude of soul affirms his ability to cope single handed with the infinite army of enemies" and thereby emulates the example of the great physician when he stepped out upon the turbulent waters and said "peace be still."

There are other foes than external that a doctor must meet and conquer,—those of his own nature. To cope with these he must have a will that says, "Thus far and no farther." When did you yield to the clamoring demands of a patient for more opium or whiskey? Then it was you who played the part of a coward. Such cowardice in pandering to damning appetites is retroactive and damns the doctor with short patronage, supreme contempt and the habit itself.

"Vice is a monster of so frightful mien,
As to be hated, needs but to be seen,
But seen too oft, familiar with his face,
We first endure, then pity, then embrace."

"Cleave to the right as a ladder that leads up to manhood and God."

Let us not forget results which science teaches. "In the shipwreck only the pilot chooses with science the means of escape, he who comes to land must sail with him." There is a secret impulse in every character. Obey it, tho' the heavens fall and the earth swings from beneath your feet. We ought to know from experience, observation and science the things to touch not, taste not and handle not. Yet in the face of this triple vantage ground, is it a fact that to our numbers we have the largest per cent. of any other class that takes whiskey and morphine as a panacea for our restoration to rest and health? Insomnia comes to our couch; sleep we must have in order to work. If trional is not a sufficient hypnotic, morphine is, and too often the arms of Morpheus enclose us in his sweet but fatal embraces. It is appropriate now to sound this note of duty. Put on the armor

of manhood. Teach by example as well by precept. No man can fill the place of a hero in our ranks who does not check the ordinary evil propensities of his own nature.

Take the father of gynecology,—J. Marion Sims. Test the material out of which he was made. He was patient and persistent. He carried the plans of his powerful mind into minute details, manipulating with that skillful hand to a hair's point, finishing every step as carefully as if he were going to receive a fortune at once. Without encouragement, at one time without friends, without money and without health, the hero worked on till victory was his. The heroic mould of this man will bear the scrutiny of the solar microscope.

“Slave to no secret, who took to private road,
But looked through Nature up to Nature's God.”

His nature opened a foreground in the medical world, and like the breath of morning landscapes, invited his comrades on. The conditions that met this pioneer have always existed. Surgeons had looked on and declared by their inactivity and non-interference that it was impossible to remedy the miserable existence. After efforts lasting four years, doing the operation thirty times on one patient, “with palpitating heart and anxious mind, he found on removing the stitches a perfect union of the little fistula.” Our hero broke the unbiblical cord that holds so many of us to nature and rose to the platform of pure genius and has ever since received the gratitude of thousands of women restored to health through his discovery and work. He did not peer into the future for some niche in the temple of fame where his name would be placed, but did his work perfectly, patiently, without reward or hope of reward. Thus it is ever with a true man. “That which a man feels intensely, he struggles to speak out of himself, to see represented before him in visual shape”—with a kind of life and historical reality in it. With Sims it was a most earnest thing to be alive in the world. The occasion of woman being thrown from her pony furnished him with the opportunity of inventing his speculum. A vista of wonderful possibilities was opened to his inquiring mind. He saw results giving to woman relief and happiness that thrilled him. “A hero is a hero at all points, in the soul and thought of him first of all.” Like truth, tho crushed to earth, he rose after every failure. He did not complain at nature and hold her re-

sponsible for his failures. His work, not nature, was considered at fault. Eliminating first one factor and another that prevented his success till the darkest hour came, and like the last hour before dawn—so the dawn soon came to his professional work, and he cried "Eureka." Success followed success till there was no man or surgeon above him in honor or skill. In his trials, failures, successes, honors and fame, we always find him a great soul, loyally submissive, reverent to Him who is above. Had he followed the advice of his brother-in-law, "to resign the whole subject and give it up" he would not have been the father of gynecology, the founder of the Woman's Hospital in New York, and the recipient of honors and honorariums of kings, queens; emperors, empresses; princes, princesses. When John Hancock signed his name to the Declaration of American Independence, it was said that he wrote his signature in letters so large and so loud that the cry for liberty, which they represented, was heard around the world. With equal truth it has been said that when Marion Sims fell so suddenly into the arms of death, the shock was felt wherever woman suffers or surgery is practised. (Had this been said of Ephraim Brevard instead of John Hancock, it would have been the whole truth.)

When thinking of the daring deeds of heroism in surgery, we naturally and with pleasure turn our thoughts to those accomplished by southern heroes, and for good reasons, because they are unexcelled in skill and ability by men at any other point of the compass. With thrilling delight we mention another hero in the surgical galaxy of the deathless the Father of Ovariectomy, Ephraim McDowell, of Danville, Ky. This fatherhood is 99 years of age next December 13th. The result of this parentage, I should say from the best obtainable statistics, is the addition of over fifty thousand years to the life of woman. Such a tremendous boon to woman comes from inspiration, skill and heroism. He was born not to die to surgery. He is also immortal in the moral and spiritual spheres. Long and faithfully had he studied the possible success of ovariectomy when his first subject came under his professional eye. After a most thorough and critical examination Dr. McDowell informed his patient, a woman of unusual courage and strength of mind, that the only chance for relief was the removal of the diseased mass. He explained to

her with great clearness and fidelity the nature and hazard of the operation. He told her he had never performed it, but that he was ready, if she was willing, to undertake it and to risk his reputation on the issue, saying it was an experiment, but one well worthy of trial. A hero and a heroine had met. Unlike Felix to Paul, she listened and was fully persuaded. His life hung on the recovery of this heroic woman. The mob led by the profession (shame be it said) would have put an end to this heroic life had this woman died. But with confidence in God and in his own ability, he dared to do and if necessary to die to save this woman's life. No anæsthetic to wrap into insensibility the quivering nerves of his subject—"Only a covering thrown over her pallid face to shut from view the flashing of the instruments used. The operation was done, the woman lived. The result was, is, and ever will be, the greatest boon hitherto to woman and an eternal inheritance to surgery.

Just prior to this operation he communed with his God. That prayer of the immortal McDowell was the true index of his nature. His purpose was strong as Gibraltar. His conception of the operation was clear as the noon-day. To relieve suffering by surgical means was an uncontrollable purpose. Do you suppose for a moment that he considered the effect of the operation upon his success—whether it would enlarge his influence among the laity or make his name immortal to the profession? Utility only thrilled him, the relief of a woman moved him to action. "Let a man do his work; the fruit of it is the care of another." Are not all true doctors that live or that have lived, "soldiers of the same army enlisted under heaven's captain and to do battle against the same enemies?" Ephraim McDowell, triple immortal spirit, we hail thee as hero, christian and chiefest surgeon of thy day the world over.

The work and words of these pioneer heroes are the richest fruitage we possess to day. Out of the depths of their souls sprang deeds immortal. To every loyal son of Æsculapius they are brothers.

"On one occasion an orator was contrasting the fame of statesmen, orators and military men, and said he, chief among all these is he who bears the mark of our guild, Ephraim McDowell. For the labors of the statesmen will give away to the pitiless

logic of events, the voice of the orator grew fainter in the coming ages and the deeds of the soldiers eventually find place only in the library of the student of military campaigns; while the achievements of the village surgeon, like the widening waves of the sea, shall reach the remotest shores of time." Verily the achievements of these heroes prove the truth of this beautiful contrast. These two were rural surgeons. We should take encouragement from the history of these. We, as they did, live away from medical centers in small towns and rural districts. Such places have grown men who have given to the world the most practicable discoveries and advances in surgery, medicine and hygiene. These are too numerous to mention, but they have erected in all ages their monuments, imperishable and eternal. "It is said that the ploughman, tilling the fields of the western slope of our continent, who keeps his eyes intently on the furrow, may occasionally find nuggets of gold; so the faithful toiler amidst human ills is liable to unearth jewels of fact, which garnered and recorded, will add to the wealth of surgical knowledge." Sims and McDowell kept their eyes intently upon their work. They recorded only a fraction of their discoveries; yet they kept a sufficient record to render themselves deathless and their facts invaluable. "The spirits of great men, like immortal ships, sail the ocean of time, bearing treasures of the civilization which gave them birth. They outlive the fury of all the storms and will sail on till,

"The stars grow old,

The sun grows cold,

And the leaves of the Judgment Book unfold."

"Their day is done; their sun is set. But from the scene of its setting there streams up a trailing brightness—the shining example of those who, while profound in silence, wise in counsel and excellent in skill, were also sincere in piety, true in friendship and genial in intercourse. Their presence entered the sick chamber like a sunbeam from heaven streaming into a darkened room. Its mild radiance lingers in hundreds of homes and thousands of hearts. They burn as pure stars fixed in the surgical firmament, at which the great and high of all ages kindle themselves."

SOME REFLECTIONS ON POST-GRADUATE INSTRUCTION.*

BY C. E. MOORE, M. D., Wilson, N. C.

AT your request I have departed from the usual custom of presenting a paper on some special medical subject and have selected as a topic for my running remarks, "Some reflections on Post Graduate Instruction."

As this was my first visit to the great city of New York where multitudes of rushing humanity throng the crowded avenues and your enquiring eyes meet only the gaze of passing strangers, you can imagine my security of thought and feeling when I realized I had the pleasureable companionship of my colleague Dr. M. and also that of my former classmate Dr. J. With such pleasant environments of social confreres I was permitted at once to enter the amphitheatre of medical instruction, and with a sense of personal security, they would assist in eliminating an over dose of the toxins and ptomains of new ideas and assist me in digesting and assimilating only such thought as was conducive to healthy medical growth. Not expecting to become a specialist in the short space of three weeks, but wishing to appropriate whatever good there might be in Zion I took out a general ticket which admitted me to all the departments from which I might gather some facts and ideas serviceable to the practitioner. Perhaps the first thing that impresses one about the city doctor is his personel; his tidy dress, his animated freshness, his physical vigor, his courteous manner and his deliberate positive manhood. You again notice on early stage of your acquaintance his educational qualifications and are at once impressed with the scholastic mind training he has received in addition to his medical studies. 'Tis true his habitation and environments are responsible for this—nevertheless 'tis true, and places him at a decided advantage over his less fortunate colleagues. Who is it could not win position, if blessed with strong physique strengthened by scholastic training and literary attainments, with the best medical advantages at home and abroad with no special thought as to livelihood since poverty and want

*Read before the Medical Society of Wilson, N. C.

are unknown factors in his household? The institutions in New York, for Post Graduate Instruction are well equipped buildings with every convenience and comfort for the student body, and supplied with abundant clinical material that is readily accessible to all who may desire closer investigation. To do effective work in physical diagnosis of the eye, ear, nose and throat each student must provide himself with necessary suitable instruments as none of these are furnished there and without them you are denied privileges you would otherwise have.

The great majority of all diseases were regarded as either syphilitic or tubercular and where no history of the former could be had it was classified under the broad head of tubercular, and treatment directed accordingly. Medicines are not used with the same lavish hand that we dispense them, the dominating idea being constitutional reconstructive agents with good hygiene, and leave the rest to nature. I saw quinine prescribed only one time, that a case of intermittent fever, and the method of administration being somewhat different from ours I give it for your consideration. Fifteen grains bisulph quinine every night at bedtime and Warburg's Tr. every morning before breakfast; give this for 6 days and then give as a tonic,

Fowler's Solution	3 i
Tr. Cinchonadine	
Tr. Eucalyptus	aa ʒ i
Sig—20 drops 3 times a day.	

Just at this point I would remark that my impression is we give too much quinine in our section, that is we are too prone to regard malaria as the *fons et origo* of all our disorders and as a result quinine becomes one, if not the chief, component part of our therapeutic remedies. I do not wish to say one word of unkind criticism against the value of quinine in malaria; its utility is recognized and unquestioned, its virtues are known to every creed and nation of civilized people and its potentive value has builded for itself a monumental fame upon every sea and shore. But it is a question if the idea of malarial complication has not grown upon us, to the exclusion of other maladies which a thorough and scientific investigation would demonstrate. I believe this to be a fact and not a fancy, and while I do admit the great prevalence of malaria in its multiform complications,

yet I also believe it oftentimes serves as the mysterious hiding place of our ignorance or proper appreciation of the true pathological condition. I noticed with a keen sense of interest their management of diseases of children, their constant aim to provoke a smile from outraged nature, their persistent effort by dietary and hygienic surroundings to so imitate the ways and means of nature that the greater part of the medicinal treatment was reduced to a minimum. But this is nothing new, we all appreciate its truth but are too timid to apply it, fearing unless we keep baby on a goodly supply of mixtures and powders we receive the condemnation of the family or perchance the criticism of the neighboring physician. I suppose you could find doctors (but not in our Society) who would sit by with complacent smile and apparently with an easy conscience as they administered flag-tea, paregoric or soothing syrup and waited for the tardy action of a small dose of castor oil to relieve the agony of a bottle fed baby occasioned by the ingestion of an inordinate quantity of undiluted cow's milk, filling its delicate stomach with undigested casein while a little warm water introduced by means of a stomach tube would remove the *materies morbi* promptly and the tranquil infant would fall asleep in the mother's arms. And in spite of this the self constituted doctor swears at the thought of the stomach washing and condemns the action as a barbarous practice.

In the field of surgery the universal concensus of opinion, the dominating thought, the paramount central idea in all cases whether minor or major, is perfect cleanliness, thorough asepsis; and their results are so convincing as to exclude the idea of doubt as to the correctness of their method. No case however trivial escapes the thoroughness of their technique and it is comforting to observe the satisfactory result, alike pleasing to patient and doctor.

I observed the very limited use of iodoform in wound treatment. Whether this was due to the superiority of other antiseptics or was simply a step toward economy I am unable to say, but the results were satisfactory to the patient and economical to the clinical staff. All suppurating wounds were treated with moist dressings of 2 per cent. carbolic. Any physician can equip his office with the necessary paraphernalia to treat asep-

tically such cases as would be likely to apply for office treatment at a cost not exceeding five dollars, and his results would pay a handsome interest on the investment and a comforting solace to his own conscience. I sometimes think if we would do less work and do that more thoroughly, we would better maintain our own self esteem and the respect of our clientele, and we would obviate the necessity of encroaching upon our brother practitioners sensibilities or his field of labor, and save ourselves the tedium and annoyance of free practice to advance agents and long tongued grannies, who sing our praises in church yards and chimney corners in a tune and to a meter that is entirely out of harmony with the occasion or the subject. 'Tis brains, not tongues, thoughts, not words that encourage our confidence and inspire our faith.

In the field of gynaecology I received but little inspiration, except perhaps to better familiarize myself with the mode of examination and method of application, and confirming my opinion as to the incurability of many conditions except by resort to radical operation. So far nothing has superseded the tampons of boroglyceride as a local application to the pelvic viscera, or perhaps the addition of a little ichthyol when inflammatory exudation was well marked. In simple vaginitis they use boric acid on absorbent cotton followed by astringent douches. The philosophy of this is apparent to each of us.

In the department of the eye and ear I saw nothing worthy of mention because at the same hour my attention was directed to the nose and throat with the special view of observing their treatment of catarrhal conditions. Here we had an abundance of clinical material, and to me some very interesting conditions. In private practice I had never observed a deviated septum, but in the clinic the cases were frequently seen and were regarded as a patent factor in producing acute rhinitis. Adenoid growths were of frequent occurrence and occasional much difficulty in breathing. Their treatment is removal. These cases bleed very freely and your first experience will doubtless occasion you some alarm. I saw the operation done with and without an anæsthetic and with either method I would counsel you have none of the family present. Tonsillitis simple and follicular was treated by astringent gargles and the favorite one in the clinic was equal parts of alum, borax and chlorate potash—3 i

to $\frac{1}{2}$ glass water as gargle. While hypertrophied tonsils were removed. Nasal, post nasal and pharyngeal catarrhs were treated by cleansing douches or sprays, the removal of exciting cause and attention to general health by appropriate remedies. This brings me to the miscellaneous portion of my paper and I will give such notes and recipes as I think would most interest you. The chloride of ethyle has been supplanted by a more efficient local anaesthetic in what is known as Sleich's mixture which is a combination of hydrochlorate of cocaine and morphine and salt. It can be had in hypodermic tablet form from any of the manufacturing chemists. The point to be observed in the use of this remedy is to inject in the skin at several points and not subcutaneously and we do morphia. Sleich's mixture for general anaesthesia, while warmly advocated by some, has not yet been sufficiently tested to gain rank over Squibb's ether which is used in the greater per cent of cases.

Antiseptic irrigations following operations on joints and abdomen are condemned upon the theory that all antiseptics destroy epithelium instead of protecting it and the treatment suggested is $\frac{6}{10}$ of 1% of salt in sterile water, unless in tubercular disease of joint peroxide of hydragen or bichloride 1 to 5,000 is used. Stiff joint is nearly always the result when we have pus present. Where we have ulceration on the scrotum if the epididymis alone is involved it is tubercular, and if the testicle alone it is syphilis.

Treatment for epididymitis.

Ten per cent. solution nitrate silver, and if that don't cure, put to bed, apply poultice followed by ichthyol ointment.

Treatment for orchitis.

Iodide Pot	3 i
Tr. Phytolacca	3 vi
Aqua q. s.	$\bar{3}$ iii. Sig 3 i every 2 hours.

Put to bed and apply hot flaxseed poultice.

Gonorrhoea is treated by injections of argonin 3% solution, and protargol $\frac{1}{4}$ to $\frac{1}{2}$ of 1% solution but what seemed the most popular treatment was permanganate of potash 1 to 3,000 by irrigation method. No medicines internally, unless required by complicatng conditions.

Local treatment for Boils:

Carbolic Acid	grs. v. to x.
Fl. ext. Ergot	3 i to 3 ii
Pulv Amyli	3 ii
Zinci Oxidi	3 ii
Rose Water Ung	5̄ i

Apply every 12 hours.

Local treatment for warts and corns, monochlor acetic acid or terchloride of antimony. Advised not to burn a wart in patient over 40; in such cases better cut it out.

Treatment of ganglion is injection of 5 or 6 drops Churchill's tr. iodine, pressure made after 2 or 3 days. The presence of rice bodies in ganglion indicate that it is tubercular. Hypertrophied scar tissue is cured by injection near the site of 1% watery solution of thiasinamine 3 times a week. Bone felon should be cut early as necrosis of bone felon if cut after the 8th day.

Rheumatism in the acute stage is treated with the salicylates and the gubacate or chronic by the addition of iodide of potash as follows:

℞—Solicylic Acid	3 iii
Bicarb Soda	3 ii
Iodide Pot.	3 iii
Elix Gaultheria	5̄ i
Aqua qs	5̄ iv

M.—Sig—3 i t. i. d.

To determine synovitis of knee joint place hand above the knee and press down and if the joint is normal the patella will lie flat, if synovitis it will be elevated and there will be puffiness. In the first stage patient feels like he has a cushion in the knee. Treat by placing a posterior splint and bandage from toe to knee, skip the knee and go above and bandage then go back to knee and bandage, by this means the knee can be dressed without disturbing the splint. I never use a blister on the knee, but simple counter irritants as the tr. iodine. In hip joint disease in 1st stage use traction and fixation; in the 2nd stage the same; and in the 3rd stage fixation only. The early signs of phtthisis are difficulty in movement of the chest walls or lack of motion, high pitched respiratory murmur, dullness on percussion and bronchial breathing. In acute phtthisis give

Beechwood Creosote

Tr. Gent. Co. aa. . . . ʒ ii

Whiskey qs. . . . ʒ viij

Sig. Teaspoonful in wineglass water or milk an hour after meals, increased 50% every 10 days till tablespoonful is reached.

For emphysema, give

Liq Ammon Annis . . . ʒ ss

Aqua ʒ vi

Iodide Pot ʒ ii

Simple Syrup ʒ ii

Sig. ½ to 1 tablespoonful every 2 to 4 hours.

For asthma, pyridine 15 drops by inhalation will give relief in 15 minutes but the objection is its stench; next best is iodide of ethyl 15 to 20 drops by inhalation which will relieve it in 30 minutes. As an internal remedy they use fl. ext. quebracho in hot water.

The cough remedies used as expectoratus were apomorphine and cocillana. Erysipelas by some was treated with 10% ichthyol and by others with pure carbolic acid as mentioned in our previous meeting. Chlorosis or green sickness generally comes on about the third year after beginning of menses, which may be normal, excessive or absent. Takes about six weeks to cure these cases. Give them good food, fresh air and exercise.

℞—Tr. Nux Vom. . . . ʒ ss

Dil. Mur. Acid ʒ ii

Tr. Gent. Co. . . . ʒ i

Aqua qs. ʒ iiij

Sig. Teaspoonful three times a day before meals, also give a teaspoonful of the following after meals. (Always keep the bowels open with aloes.)

℞—Tr. Ferri Chlor.

Glycerine

Aqua aa ʒ i

Sig.—ʒ i t.i.d.

Should the iron disagree give Blaud's pills or Gudes Peptamangan. Chorea was treated with ascending doses of arsenic to point of tolerance. Neuritis with strychnia in same manner. In digestive disorders always regulate the diet, ⅓ of food stuff

peptonized in the stomach and $\frac{2}{3}$ in the intestinal canal. If the stomach is faulty give hydrochloric acid and if the intestinal digestion is faulty improve the oxidizing condition of the system by giving pure creoline and ox bile, with the addition of colocynt or podophyllin if constipation is present.

For acid eructations of flatulency.

Bicarb Soda

Magnesia.

Sabgallate Bismuth aa grv. Before meals.

For nervous dyspepsia, give pepsin 5 gr., brom pot. 10 gr., and charcoal 10 grs. in camphor water after meals.

For dilatation of stomach give resorcin 3 gr. bismuth 20 gr. one half hour before meals. In all cases of eczema examine the scalp as seborrhoeic eczema represents 80% of all eczema and causes 92% of all cases of alopecia. Shave the head and apply sulphur $\frac{5}{8}$ i to $\frac{5}{8}$ i oint. or 5% to 10% resorcin in alcohol, apply every night and use no ammonia, as the hair will come out.

Erythematous exzema. Promote diuresis and use as lotion,

Salicylate soda grs. xxv

Carb. Magnesia grs. xv

Ox. Zinc grs. xv

Rose Water $\frac{5}{8}$ i

Parasitic eczema, ichthyol 10% to $\frac{5}{8}$ i Zinc Aug, or salicylic acid 5% Bal. Peru 10% to $\frac{5}{8}$ i Zinc ung.

Impetigo—Stop all soaps and use only emollient salves.

Psoriasis—Give arsenic internally to point of tolerance and

Pyrogallic Acid 5%

Oil Ricini

Alcohol aa $\frac{5}{8}$ i

Ringworm of the body use white prec ointment. In ringworm of scalp.

Pyrogallic Acid

Schthyol aa 5

Salicylic Acid 2

Vaseline and Lonoline equal parts

Also sometimes used 2 to 5 gr. bichlor. mercury to $\frac{5}{8}$ i kerosene oil. A difficult condition to cure, lasts from six to twelve months.

Alopecia, carbolic acid, tr. iodine and chloral hydrate, equal parts.

The notes and receipts which I have read are such as I picked up from the different departments and are presented for your consideration rather than your acceptance or endorsement, for many of them are new to me and I shall select my cases and judge of their usefulness when I have given them practical test.

In summing up my opinion on post graduate study, I must differ from that of some doctors who for some reason see it in a different light from myself and with cordiality of spirit I give it my hearty endorsement.

It is a refreshing educational shower that stimulates new germs of thought and inspires the old with renewed vigor and life, it expands and broadens because we see and know more clearly; it invigorates and stimulates because it brushes away some of the dusty cobwebs and mirrors some of the advanced thought in medical science. It pays, not only the head but the pocket as well.

Correspondence.

THE PRESENT SITUATION.

Editor N. C. Medical Journal:

In the editorial of the last number of your esteemed JOURNAL I noticed an article which seemed to me to be peculiarly appropriate to the present time, in bringing before the profession the more material—aside from the ethical—part of the daily life, and pointing out the total lack of business sagacity extant, and the improvident thoughtlessness of futurity, financially speaking, among us.

Among one of the first lessons inculcated upon the physician's mind is that the practice of medicine is somehow conducted on a wrong and unsubstantial basis, and that *gratitude* is an x quantity among patients.

Somewhat later he learns that the world is conducted on a business basis, pure and simple; and that flights of the ideal,

and plays of sentiment, are strangely out of place in this the dawn of the twentieth century.

He feels that the code written to guide physicians in their conduct in the remote and chivalric past, is too utopian for the assertive present, and that it needs revision sadly, especially regarding its financial portion.

Still later he sees the utility of having strict business rules, and abiding by them. In other words, he sees the world is opposite of sentimental; that it expects him to follow his business in a *business* way, and that if he does not do so and makes a financial failure, he only is to blame. Quite logical too, isn't it?

In these modern days the physician is not looked upon as such a paragon, but is valued solely for his skill and knowledge of medicine.

His anxiety, worry, sleepless nights, and sympathy have no market value; they are entirely extraneous to the purpose in view. He is supposed—nay, is *commanded* to exercise a given degree or amount of skill, for its equivalent in gold. Higher consideration of gratitude etc., for the invaluable work done are utterly ignored: the case well, and the doctor paid—that ends the matter! They feel under no obligation whatever to the physician and have not the least compunction of feeling in discarding him and calling in another doctor in the very next case.

The world forces us to look upon the matter as a business transaction, and forces us to receive it as such—whether we will or not.

Other valuable lessons he learns (or should), in the battle of life; and while comparisons are odious, still he is often found comparing his profession with others in the matters of work, leisure, remuneration, health, pleasure, wealth etc., and usually with detriment to his own.

A great many physicians have a false conception of the practice of medicine; they set themselves up as *'demi gods*, to deal out life and death, to give complete immunity from past errors, and sins committed etc.,—and expect to be regarded as having that prerogative. Their lives are visionary, with no thought of the morrow, or of health, or finances—their self-aggrandizement is reward enough! They are “working for the good of

humanity," they say—yet if you will follow their death lists, the contrary seems more true!

"Working for the good of humanity"!—when they should have sense and foresight enough to work for their own families—to provide for themselves, their wives and children against the days of need and old age; for the old adage says that "he who does not provide for his own family is worse than an infidel." Moreover, brother, who would take it upon himself to provide for your family in case of your demise—would any of your favored patients, or friends?

Just such men are the ones who are ruining the profession to day with their lax business methods—their supposed magnanimity and charity(?). They practice indiscriminately among loafers, and dead-beats—in fact anybody who will send for them, simply for appearances and to say they are "busy," thereby encouraging thriftlessness, idleness and dishonesty. They keep men, by so doing, from paying some honest doctor his dues, and create a large contingent of worthless practice in every community. People have sense enough to know that a doctor cannot spend years of study, and thousands of dollars for education, books, instruments etc., pay his expenses (for, bless you they expect the doctor to pay) and work for nothing! Do they expect it of a lawyer? Do they expect a merchant to give his wares away? Do they expect the minister to endeavor to save souls gratis? No!

Is the doctor then better than all these?—or is he a bigger fool? Whose fault is it that the present state of affairs exists? Does it take occult science to determine?

We have excellent medical laws in this State, perhaps the best in the union regarding the *practice* of medicine, but what laws have we for the collection of our bills, after the practice? We are not as well off there as the common laborer. In all States, and most counties and cities, hospitals, asylums, homes and dispensaries are provided for the worthy indigent, and their officers are paid salaries by the city, county, or State. Yet there are some physicians in this (and I presume in every State) who apparently think this work comes under their jurisdiction, and attempt to do it, when the State does not ask it, and is fully able and capable of caring for her poor.

However to the *worthy* poor no one will deny service, but imposition is practised in 90% of all cases regarded and treated as such, and it is just that 90% that need looking after with the closest scrutiny.

THE TIME IS PRESENT for the practice of medicine to be placed on a sensible, business basis, and to relegate to hopeless oblivion the chimeras of the past.

Let the people know that you intend to be paid for your work,—tell them how much better service you will be able to give them from hospital, laboratory, and other advantages secured from the proceeds; and that you much prefer idleness to wearing yourself out working for nothing and fostering laziness and dishonesty. If they *cannot* pay all, make them pay proportionately. They will respect you more, have more faith in your skill, and will soon co-operate with you for mutual benefit.

The fees for some things are rather too high, I think, to be conducive to honesty in payment. Perhaps a little reduction would have a wholesome influence in that particular.

Finally, from all directions comes the tidings that the medical world is awakening from its long lethargy, and that the practice of medicine is destined, ere long, to be placed on scientific, reasonable, and *sensible* lines.

It behooves us all, therefore, to hasten the day.

J. THOMAS WRIGHT, M. D.

THE *New York Evening Post* of March 26, in a semi-editorial article, shows the following remarkable appreciation of the work and character of physicians: "Their opportunity is unique, but their influence and assistance in the history of our households is a great testimony to the sympathy and patience and large-hearted comprehension of man with and for his fellow man in this urgent, crowded, self-seeking age of ours. Human brotherhood, which has no name or guild, is vitally alive among our doctors. Sleepless nights and anxious days, hours of tense apprehension, the exertion of almost superhuman ingenuity to relieve pain, mark the going to and fro of many a quick-moving 'buggy' in our streets; and if one in a thousand is so fortunate as to acquire wealth as the result of his practice, let us rejoice for him."—*Medical Age*.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR

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Editorial.

TIMELY SUGGESTIONS.

The address of Dr. Francis Duffy, President of the State Medical Society, which was delivered before the Society a few days since, appears in this issue and is well worthy of consideration, not only by the Society as a body but by the individual members. The matter of the earlier meeting of the Board of Examiners has been agitated several times at Society meetings, and we are pleased to note that the suggestion was acted upon this year by the Board. The membership of the Society has been rather on the decrease the past few years, and this is due, in a very great measure, to the fact that the applicants for

license have been unable to join at the time of their examination. We agree with the President in believing that it would be wise to remit the initiation in the case of new licentiates who desire to unite themselves with the Society. They have been at considerable expense, and most of them must regard seriously the expenditure of each dollar. There can be no doubt that quite a number, who would make good members, drift off and never attend a meeting, and feel that they are getting along quite as well without being affiliated with the Society. This is not so, however. The Society needs all the members possible, for each one adds his influence, be it greater or less, to the accomplishment of those objects for which the Society is striving, and these objects attained, redounded to the benefit of all the profession.

The modern tendency on the part of the profession to follow all the therapeutic and surgical fads that are daily arising, is to be greatly depreciated. There seems to be a feeling on the part of Dr. A. that he will not be considered up-to-date if he allows Dr. B. to get ahead of him in the use of some new thing or idea. It would be well to permit these new things to season awhile before adopting them in your practice. They frequently emanate from the brain of some man who is seeking fortune or fame, and a little experience would probably make one content to let them religiously alone. There may be such a thing as too much medication, any way. We should not lose sight of the fact that Nature is the power which *cures* the patient—it is the physician's part to assist her. The mighty ship, with its human freight, needs the pilot to guide her upon the trackless ocean lest she go astray, but it is the ship and not the pilot that bears the freight to its destination. In disease (generally) it is the physician's part to aid Nature in keeping in the way that leads to recovery, but it is Nature that causes the recovery. We had better learn to say "the patient recovered," not "we cured him."

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Translations and Foreign Reviews.

IN CHARGE OF

RICHARD H. WHITEHEAD, M.D., CHAPEL HILL, N. C.

PERSISTENT VITELLINE (OMPHALO-MESENTERIC) DUCT AND ITS CONSEQUENCES.—In the *Deutsch. Med. Woch.* No. 7, 1898, W. Korte gives an account of this condition, and narrates a case submitted to operation. As is well-known the vitelline duct, which during early foetal life, connects the yolk-sack with the small intestine, usually atrophies and disappears so that at birth only very slight remains can be detected in the navel and umbilical cord. Should, however, the duct fail to atrophy, malformations result which are liable to be attended by serious consequences. These may take one of these grades. In the first and most frequent case the origin of the duct from the ileum remains open, and constitutes the so-called diverticulum of Meckel. This presents itself as a blind pouch growing out from the ileum at a point which varies from 15 to 20 inches above the ileo-cæcal valve and is composed of all three coats of the gut, serous, muscular, and mucous. There is no means of detecting it in the unopened abdomen. This diverticulum may give rise to dangerous sickness in several ways. Foreign bodies may be impacted therein and lead to perforation. Korte has seen such a case due to cherry stones.

Again, by contracting adhesions with the abdominal wall or surrounding organs, the diverticulum forms a sling under which a loop of intestine may become strangulated. Sometimes a fibrous cord runs from the apex of the diverticulum to the navel, representing the omphalo-mesenteric vessels, and this is very apt to cause intestinal obstruction. Korte has seen four such cases.

In the second grade, remains of the living mucous membrane of the duct are left in the navel which develop tumors—the so-called umbilical teratomata. While in these cases there is no communication between the navel and the intestine, a fibrous band sometimes connects the two, indicating the site of the original duct.

In the third grade, the entire duct persists as a canal composed of all the coats of the intestine running from the navel through the abdominal cavity into the ileum. This condition is usually discovered soon after birth. When the cord drops off a small red, moist swelling, which is generally taken to be a clump of granulations, is noticed in the navel. Soon, however, it is observed that fœcal matter sometimes escapes at this point, and then, introducing a probe, the physician recognizes the presence of a fistulous passage into the intestine. With this condition there are connected dangers of a peculiar sort, the principal one of which is prolapse of intestine. During crying and other muscular efforts of the infant, the duct is imagnated and everted, so

that a long, sausage-like body covered with mucous membrane projects out of the navel, to be usually reduced when the abdomen becomes lax. The prolapse does not consist only of the mucous lining of the duct, as has been supposed, but all of its coats take part in the invagination. Should then, the surgeon cut away the prolapse of its base he would open into the abdominal cavity. As time goes on, the prolapse is increased, and the duct, which we have seen is directly continuous with the ileum, drags that intestine along after it, and finally acute intestinal obstruction is produced. When this stage has been reached all cases, so far as is now known, end fatally. Operation under such circumstances is exceedingly difficult and dangerous, however, such children are from the beginning badly developed, and suffer from intestinal catarrh, and consequently are poor subjects for operation.

There are two other ways in which the persisting vitelline duct may lead to obstructing the bowels. In the first case a knuckle of bowel is pushed into the space between the prolapsed duct and the circumference of the navel and there strangulated; while in the second the duct running through the abdominal cavity acts as a cause of strangulation in the manner previously mentioned.

In the way of treatment, cauterization, ligature, and excision have all failed. Even if the mouth of the duct be closed by caustics, the main body of the duct remains open, and prolapse will recur through the scar—on the other hand if we successfully remove the prolapse by ligature or excision—very dangerous to themselves owing to the liability to opening of the abdomen or inclusion of the ileum—the intestine is left adherent to the back of the navel, and the danger of strangulation is as great as before.

In view of the great danger of this condition and the failure of other treatment, Barth suggested excision of the entire abnormal structure including its openings on the navel and into the ileum. Korte reports at length a case successfully operated upon by himself, and mentions seven cases treated in the same way by other surgeons, five of which were cured, two dying.

Review of Current Literature.

PEDIATRICS.

IN CHARGE OF

J. W. P. SMITHWICK, M. D., LA GRANGE, N. C.

A NEW DIAGNOSTIC SIGN OF MEASLES:—Dr. Henry Koplik, (Medical Record, Vol. 53, no 05), describes a new sign, which he claims, is absolutely pathognomonic of the disease. It consists of minute bluish-

white specks, punctate in character, situated in the centre of the reddish areas which cover the mucous membrane of the cheeks and lips in the beginning of the disease. As the exanthem appears and spreads on the skin, the eruption on the mucous membrane of the lips and cheeks becomes diffuse, losing the characters of a discreet eruption, and we have an intense general redness which is simply dusted over by myriads of these bluish-white specks. When the exanthem is at its height the buccal eruption begins to fade, and in the latter stages of the fading of the skin eruption the phenomena, described above, entirely disappear. In order to recognize and properly appreciate the above sign the patient must be examined in the strongest day light, and the mucous membrane of the cheek everted so as to expose it thoroughly to the light. Then we see a minute bluish-white spot situated in the centre of the irregular reddish spots which cover the mucous membrane of the cheeks and lips, and does not occur elsewhere. He says they cannot be mistaken for sprue, as they are not so deeply white, nor are they as large, nor do they coalesce to become plaque-like in form, and they always retain punctate form. The value of this sign seems to lie in the fact that an early diagnosis of measles can be absolutely made, and isolation perfected before exposure is great, and it ought to be sought for by all physicians when they are called to cases that do not admit of an easy diagnosis.

J. W. P. S.

A CONTRIBUTION TO THE THERAPEUTICS OF ENURESIS:—An accidental discovery was made in the treatment of this trouble by Dr. Alfred Hand, Jr., (*Pediatrics*, Vol. 5, No 7). He prescribed pills of following composition:

Ext. Cannab. Ind. gr. 1-8
 Hyoscyam. gr. 1-40
 Zinc. Phosphid. gr. 1-10

for the mother who was suffering from nervousness incident to the care of the child. She misunderstood the directions and gave them to her child with the result that the enuresis ceased in two days, and had not returned at the end of six weeks, the time of the writing.

J. W. P. S.

GENERAL SURGERY.

IN CHARGE OF

H. T. BAHNSON, M.D.,

R. L. GIBBON, M.D.,

J. HOWELL WAY, M.D.

TREATMENT OF INGUINAL HERNIA BY INJECTION.—Dr. Theo. Griffin (*Int. Jour. Surg.*) claims to have produced some very successful cures in the treatment of inguinal hernia by injection. The following

is his method in detail:—I prepare my patient by first seeing that he has a truss that retains the gut perfectly. It must not be allowed to rest within the inguinal canal, but must be held out of it by the pad of a truss that fits firmly over the internal abdominal ring. Having ascertained that this is well done, after two or three days' observation, we are now ready to proceed with the injection. I desire to state herethat, in a majority of cases, during the treatment the patient can remove the truss at night, taking it off and putting it on while in a reclining posture, but under no circumstances must the gut be allowed to come down.

The patient now lies down upon the table, and we scrub the parts thoroughly with warm water and soap, dry well, and finally bathe with a 2 per. cent solution of bichloride of mercury, cutting the hair short over the seat of the proposed puncture. I now inject hypodermically a 5 per. cent solution eucaine, about one-half to the inside and a little below the external abdominal ring. Wait now two or three minutes for the local action of the anesthetic, during which time a syringe is charged with 10 to 15 minims of the injection fluid mentioned in my previous article, or the following which I sometimes use.

℞—Fld. ext. quercu alb. . . . ʒ iv.
Tinct. cantharides ʒ l.
Acid carbolic. m x.

M. Sig.—Inject 10 to 15 minims as directed.—This syringe is furnished with a silver probe, known as a cocaine applicator, which can be obtained of any instrument seller, and can be screwed on the syringe in the place of the hypodermic needle. Have this in readiness for the purpose of placing the fluid into and along the inguinal canal. I now take a small trocar and canula—I use one which I found in a veterinary hypodermic case—and plunge it into the tissue at the point where the local anesthetic was injected; direct the point of the trocar towards the external abdominal ring, pushing it up to the ring if possible. Now withdraw the trocar and invaginate the index finger in the loose folds of the scrotum, and push it up to and into the external abdominal ring. As the finger reaches the ring it will come in contact with the canula, which has been left in the tissues. With the free hand guide the point of the canula into the ring, aided by the invaginated finger. As soon as the point of the canula is engaged in the ring, depress the free extremity, bringing the canula almost parallel with Poupart's ligament, and force the canula gently into inguinal canal. It should be passed the full length of the canal, if possible. This being done I take up the syringe with the silver probe attachment, containing the injection fluid, and pass the probe point through the canula to the internal abdominal ring. The point should project a little beyond the end of the canula, so that none of the injected fluid will run back through the canula. Having done this, slowly inject the fluid, at the same time kneading the tissue over the canal with the fingers, gradually withdrawing the canula and syringe point.

In this manner we surely get the fluid where we want it. It is, how-

ever, sometimes difficult for me to get into the inguinal canal, but perseverance usually results in success. The external ring is rendered more open and is more accessible by having the leg flexed upon the thigh. There is usually some swelling, but little pain or inconvenience results; so far I have had no abscess or suppuration of any kind. I have been recently informed that two of the cases reported by me have relapsed—case No. 4 with an omental hernia, and case No. 5 which at the time of my report I had just discharged from my treatment. Since then I have treated two other cases, the ultimate result of which it is too early to ascertain. The chief difficulty in the way of successful treatment is to get the injection properly into the inguinal canal. If this is well done the chances are good for a cure. The unsuccessful results are, no, doubt, in a majority of cases due to the failure of the operator to do his work properly. Each patient should have at least three or four injections; this is an arbitrary rule, as there is nothing to guide you as to the exact number required.

Notes and Items.

DR. ROSCOE E. FRANKLIN, of Richmond, Virginia, has gone to seek his fortune in the Klondike gold fields.

Dr. W. Clair Spruell has been reappointed resident physician at the University Hospital, Baltimore. A very richly deserved compliment.

BOARD OF EXAMINERS.—There were upwards of eighty applicants before the Board at the Charlotte meeting, just closed. At time of going to press the number of successful applicants had not been determined upon.

The Medical College of Virginia graduated 39 Doctors of Medicine April 21. The following North Carolenians are among the number—Dr. G. A. Caton, Greensboro; Dr. R. B. Miller, Goldsboro; Dr. R. J. Price, Wilmington.

SURGEON-GENERAL VAN REYPEN, of the Navy, has received over three hundred offers from physicians of service as acting assistant surgeons in the Navy. These offers cannot be accepted until Congress authorizes the temporary appointment of acting surgeons. There are about twenty vacancies in the regular service, for which there are few or no applications because of the

humiliating treatment to which newly appointed assistant surgeons are subjected. If Congress will remove these objectionable features and will authorize the appointment of acting assistant surgeons, there will be no lack of competent men for vacancies.—*Medical Age*.

MEDICAL OFFICERS OF THE ARMY.—The House Committee on Military Affairs has made a favorable report on the House bill providing for the increase of the number of medical officers in the army by adding 15 assistant surgeons, with the rank of first lieutenant, and authorizing the surgeon-general of the army, with the approval of the Secretary of War, to appoint as many contract surgeons in emergencies as may be necessary, at not exceeding \$150 per month.—*Philadelphia Medical Journal*.

ACTING ASSISTANT SURGEONS.—Over eight hundred medical men have offered their services to the army authorities and more than a thousand to the naval medical department. These are by no means all young men or recent graduates, for many offers are received daily from men, some of whom saw service in the civil war on one side or the other, and others who have come on the stage since that time but who stand in the front rank of the profession.—*Medical Record*.

CARE OF THE SICK AND WOUNDED.—It has been decided that the naval ambulance ship *Solace* shall be used as a transport for the sick and wounded of both army and navy. She will carry men physicians disqualified for active service from the fleet or from Cuba to Key West and Tampa. A hospital train will run from Tampa to northern points, in order to give the sick a benefit of a change to the cooler climate of the middle and northern Atlantic seaboard. A general army and navy hospital will be established at Key West, and hospital tents will be sent there to accommodate any overflow of incapacitated seamen and soldiers. The selection of Key West for this general hospital is due chiefly to the fact that the island is more healthful than places on the mainland, in the event of a fever outbreak among the men in Cuba or on the warships, the treatment of the stricken there would lessen the danger of a spread of the disease to the coast proper. Other hospitals are to be established in the department of the Gulf, but that at Key West will be the headquarters of the medical corps of both military services, in addition to the Marine Hospital service.—*Medical Record*.

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NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, in prescribing the Syrup, to write "Syr. Hypophos. Fellows."

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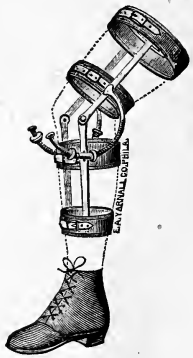
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No. 10.

Society Reports.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Forty-Fifth Annual Meeting Held in Charlotte, May 3, 4
and 5, 1898.

The 45 annual meeting of the Medical Society of the State of North Carolina was convened in the Court House of Charlotte, May 3, 1898, President Francis Duffy, of Newbern, in the chair.

The Society was called to order by Dr. R. J. Brevard, chairman committee of arrangements.

After a prayer by A. D. Barron, D. C., C. W. Tillett, Esq., of Charlotte, made the following

ADDRESS OF WELCOME.

Ladies and gentlemen of the North Carolina Medical Society:

The first thing I ever saw in my life was a doctor. It seems that he had promised that I would be a girl, and when I arrived on the scene of action, he was very much disappointed and looked very angry at me, whereupon, if I remember aright, I got mad and twisted up my little face and hollered at him as loud as I could. That seemed to bring him to his senses and he apologized and said I was a fine boy, and we shook hands and from that day to this I have been on the most excellent terms with the doctors. The fact is, that I liked them so well that when I arrived at the age of discretion nothing would suit me

but that I must have a doctor's daughter for my wife! You will believe me then, when I say that I am very much gratified at the honor which the Medical Society of this city conferred upon me in requesting me to represent them in extending to you a most hearty welcome for them and in telling you how much delighted the whole city is to have your Society meet here. The doctors of the city are really and truly glad to see you, and if the doctors are glad to see you, by how much more are the laymen pleased. I fear it will be difficult for me to tell you how much pleased the laity of the city are to know that they have in their midst scores of the foremost physicians of the State making us visits, and just to think that for once in our lives, it will not be \$2 per visit.

Your profession as physicians and ours as lawyers are closely identified. We meet particularly upon the common platform of medical juris-prudence, and the lawyers have often to call upon the doctors as witnesses in court. Sometimes we have one doctor pitted against another in the court house and when we have battles between both the lawyers and the doctors at the same time it makes a very interesting occasion. I remember once when preparing to demolish the opposite side in a case, I ran up my torpedo boat in the shape of a doctor witness close to the flag ship of the enemy and was in the act of blowing it up as I thought, when all of a sudden there came up on my flank in the shape of a doctor witness, a torpedo destroyer, and—well, you know what happened. The jury of investigation which sat on the case brought in a report that my destruction was accomplished by an external explosion which was caused by an expert. We, of the legal profession, are called upon from time to time to study almost every phase of the Medical Science in the preparation of our cases for trial. A short time ago we had in this city a case in court which involved the question as to what was the origin of malaria. The lawyers borrowed from the doctors all of the medical works on the subject of malaria that they could and studied them so diligently that when the case came on for trial, I could say without disparaging our doctors, that the lawyers knew as much, theoretically speaking, about malaria as the doctors did. In fact I heard one of the doctors say that the next case of malaria he

had, he intended to call in one of the lawyers as consulting physician. You need not be alarmed about that for I can tell you now that if the lawyer should undertake to prescribe for a case of malaria, he would "fling it into fits" and then you would get the job certain, for while I have seen lawyers who could give a man fits, I never saw one who could cure it.

Gentlemen, the city of Charlotte is yours, and all that we possess while you are here is at your command. And I might pause to tell you into what great possessions you have come; I might tell you of our manly men and womanly women; of our pluck and enterprise; of our many and diversified industries; of our beautiful streets and elegant homes; I might tell you that the city of Charlotte in the last ten years has more than doubled her population, and has forged her way far in advance of any other city in the old North State; but I am afraid to bear down too heavy upon this point for it might come to pass that about one-half of you doctors would decide to locate here for the practice of your profession, and if my speech should accomplish such a result as that, our home doctors would say that I had over-done the thing, and they would never invite me again to deliver their address of welcome. More than that it might happen that you would go home and tell your lawyer friends what I had said about the greatness of Charlotte and they too would come trooping in and settle here to divide up the law practice which is already subjected to long division. So it has been suggested to me that I hint to you in a round about way that while Charlotte is undoubtedly a thrifty and popular city it is also an exceedingly healthy one. But I might as well be frank with you gentlemen and say without any circumlocution that while we are more than glad to have you here and hope that you will have a delightful time, still we do not expect you to spend your life time in our midst.

Gentlemen, as I have already said the city is yours, and I would like to suggest that the motto for the assemblage be this "If you do not see what you want, ask for it." It is said that among the Fallaheens of the Desert, noted for their unbounded hospitality, it is not considered proper to ask a guest to partake of anything at all, until he first signifies that he wishes it, but when the request is once made by the guest the thing asked for, must be had at once and at all hazards. An artist writer tells

the story that he recently visited a shiek of the Fallabeens and went out one morning to paint a picture of a quaint and beautiful cemetery when he said to the Shiek at his side; "This is a most beautiful scene for a picture but one thing is lacking." "What is that?" asked the Shiek. The artist replied; "It lacks a funeral procession coming in to bury the dead to make the picture complete." "Hold on" said the Shiek "I know a man in the village who is about to die, and I will go and hurry him up." Before the artist could remonstrate, the Shiek was off and created such a bluster and excitement around the sick man's house that he died in a few minutes, and in less than two hours the Shiek had a genuine funeral procession going to the cemetery and the artist's picture was complete. Gentlemen, look around you, if you do not see what you want, ask for it. Go down to our beautiful cemetery and if you decide you would like to see how we bury our dead, I can assure you that any of our home doctors can get up a funeral in a very short time. But I should apologize for that. I have been told that it is not good form to speak of funerals in the presence of doctors. They say that it is an embarrassing subject and I am really sorry that I had anything to say about it.

I trust that while you are here that the members of your Society will enjoy good health, but if any of you get sick I should like to know of it,—Not only because I desire to show attention to a sick guest, but for the additional reason that I desire to know if a sick doctor takes any medicine. There is, you know, a deep seated conviction that you doctors do not take any of your own medicine. So far as my own experience goes I can say that while I have seen doctors taste medicine and smell medicine, I have never seen one take a *bona fide* dose of it. Since I have resided in Charlotte, I have sat up all night with two of our most prominent physicians who were sick, and I can only say that according to my recollection, I never saw either one take a single drop of medicine. Charles Dickens more than fifty years ago called attention to this fact that doctors do not take medicine. It is true that he said something in this same connection about lawyers not having lawsuits, and said that "lawyers were shy of meddling with the law on their own account, well knowing that it was an edged tool of uncertain

application, and very expensive in its operation and rather remarkable for its properties of close shaving than of always shaving the right person." But that was a fling at the lawyers that was unworthy of Dickens and I will take occasion to refute it at some other time. I am impressing you now with what he said about doctors, and if what he said is not true I would like for you to refute it and if it is true I would like for you to explain it.

And just here comes a part of my speech which it seems to me I will have to omit. I had begun the preparation of this while the president was about to call for volunteers and I expect about one-half or you doctors would respond to the call and that your meeting would be a sad one owing to the absence of members who had gone to Cuba. I had prepared some very touching remarks which I thought well calculated to bring you to tears but as I find that your ranks are still intact I think that part of my speech would fall flat and I will have to omit it and ask leave to print it. Of the crowd that went from this place on yesterday, only one doctor went and only one lawyer, and he was from a distant county, all of which goes to show that the doctors and the lawyers are not anxious to get in the way of the enemy's bullets. I am reminded of the story of a great orator who just before the breaking out of the last war was exhorting the men of his audience to fight and die for their country, and in the climax he quoted that beautiful line from Horace: "*Dulce et decorum est patria mori*"; whereupon one of his auditors arose and asked the speaker that if it was such a sweet and honorable thing to die for one's country, why he did not go to the front. "That" said the orator "is very easily explained, I never was fond of sweet things!" And gentlemen, while we all agree that it is sweet to die for one's native land, not many of us appear to be fond of sweet things.

But speaking seriously there is no body of men in all the State that could present a more interesting spectacle than this Medical Society. I say this, not only because the men before me are men of education, position, and men whose whole livess in a measure are devoted to charity, and good works but I am proud of you because of your fidelity and ability in your profession. I see before me men in whose breasts are locked up the secrets

of hundreds of homes throughout the country. It is said that there is a skeleton in every closet, and if so, it happens ninety-nine times in a hundred that the family physician is the only outsider who has ever looked upon that skeleton. If the seal upon your lips were broken and you were to tell the plain facts within your knowledge of the family secrets you know there would be a consternation all over the State a thousand fold greater than that caused by the blowing up of the Maine. More than that you go into the innermost recesses of our homes. You are admitted where none but the doctor can go and have about you opportunities not to say temptations to wrong, and I say all glory to the Medical Society of North Carolina, for while doctors of other States have wrecked homes and broken hearts there is not a member of this Society so far as I know who has been guilty of a breach of professional confidence.

But gentlemen the thing that moves me most, as I look into your earnest faces to day, is the thought of what you have been through since last you met. I love to look at the ragged remnant of the old regiment and it stirs me to think of the awful battles and fierce conflicts through which they have come, but these men fought with enemies of flesh and blood like themselves while the batallion which I see before me has been in daily conflict with the most fearful foe of mankind. In the gray dawn of the morning, in the heat of the noonday sun, through the long weary watches of the night, in the mountain fastnesses of the West, in the boggs and marshes of the eastern plains, anywhere, everywhere, you have pursued the Rider of the Pale Horse. Sometimes you have seen him bearing his victim in the distance down into the shadows of the great darkness and you have hotly pursued him to where the gates of death were creaking on their black hinges to let him in and you seized him and brought him back to light and life and health again.

The men here who have had the most awful conflicts are, I doubt not, the country doctors. God bless the country doctors! The whole world and particularly the medical profession owe Ian Maclaren a debt of unmeasureable gratitude for telling us of William McLure and how he lived and how he died. I doubt not that some country doctor here has been in hand to hand battles with the dread enemy of mankind and far away in the country, twenty-five miles it may be from any brother physician,

all night long, he has fought alone the "fight for life" as brave a heart and as true a nerve, as beat in the hearts of the Light Brigade at bloody Balaklava.

Gentlemen, I am fully persuaded that the world does not know one half of what it owes to your Medical Society. The man of average intelligence knows who the great warriors, the great explorers, orators, the scientists of the world have been, but very few indeed know who the great doctors are, and what they have done for mankind. There are a hundred men who know David Livingstone, explorer, to one that knows William Harvey, doctor; and yet when Harvey discovered the circulation of the blood and that the heart was the source from which it was pumped forth and back again, he did a thousand fold more for humanity than did Livingstone when he discovered the source of the Nile, and brought to light the wonders of darkest Africa. There are a hundred men who know the Duke of Wellington, warrior, to one that knows Edward Jenner, physician, and yet no one can deny that when Jenner put small-pox to flight with a drop of vaccine, that he did a thousand fold more for humanity than did the Iron Duke when he swept the proud Corsican and the Imperial Guard from the fateful field of Waterloo. Gentlemen, the world knows of its other heroes and why should it not know of the heroes of medicine. You owe to the world and to the great men of your profession who have wrought such wonders, to keep their deeds ever in the remembrance of the men. You should call the roll of the great doctors from time to time and tell of their beneficent deeds. I commend to you the beautiful way in which the Peruvians keep alive the memory of one of their great warriors. In the war with Chili the naval commander of the Peruvians was Admiral Grau, as brave an officer as ever commanded a fleet. In his last battle he commanded the the iron clad Huascar. It was engaged in deadly conflict war Chillian vessel and was about to sink her when another Chillian vessel came up on the other side of the Huascar and poured into her a perfect hell of shot and shell. The courageous Grau, not seeking a place of safety and not contemplating surrender, went aloft where the dangers were the thickest but where he could best give his command. Above the din and roar of battle his clarion voice was heard giving commands, but

finally, it was hushed. An officer going aloft, found the lifeless body stretched upon the floor, his head severed as tho' amputated by a surgeon's knife. Does Peru allow his name to be forgotten? Not so, but they tell that on every muster day, tho' the brave admiral has been dead for twenty years, his name is the first to be called on the roll, and when the name of Admiral Miguel Grau is called an officer steps forward and taking off his cap points with one hand above and answers: "Absent but accounted for, he is among the heroes!" I commend to you gentlemen, this beautiful story and ask that from time to time in your Society you call the roll of those who have done so much in alleviating the woes and sorrows of suffering humanity, and let some one rise and tell afresh the story of their greatness.

Dr. J. Howell Way, made the following

RESPONSE.

On behalf of my confreres of the North Carolina State Medical Society I thank you most sincerely for the eloquent words of gracious welcome to which we have just listened. And in doing so, it is with regret that for the present moment at least, I cannot lose my personality as a plain country doctor more given to work and action than to the evolution and delivery of eloquent words or oratorically turned phrases, and become endowed with the gifted tongue of a Depew or a Grady; so needful were I to essay to express in language our appreciation of your cordial reception.

The members of the Medical Society are no strangers to the splendid hospitality that has ever been a characteristic of the noble sons and gifted daughters of Mecklenburg. Twice before in the forty-nine years of our Society's existence have we been your honored guests. In 1874, near a quarter of a century ago, the doctors knocked at your hospitable gates and were made welcome. Upon which memorable occasion, your spokesman, that most illustrious of Carolina's sons, the immortal Vance, after assuring us that we were thrice welcome, and placing at our entire disposal the homes, the property, and all other of the material valuables of your charming city, in return only gravely asked that we permit you to escape with your lives.

Again in 1887, it was the happy fortune of the Society to visit you when the agreeable experiences of the former visit

were more than repeated. And now in this year of grace, 1898, in experiencing the charms of our third visit we feel that most opportune is our selection of the Queen City for our annual convocation. Queen City! sir, not only in that it is named for the beautiful princess Charlotte of Mecklenburg, but Queen City in that Charlotte stands pre-eminent among the cities of our loved State in her civic pride, in her progressive spirit, in her constant upward and onward march toward the goal of all that makes a municipality great and powerful and its citizens respected; pre-eminent in the cultivation in the bosoms of its noble population of that love of virtue, of patriotism, and of liberty which has ever been the priceless heritage, and as ever the constant attributes of her manly sons and beautiful daughters.

Opportune indeed is our assembling here upon the historic site of Old Queen's Museum in Mecklenburg, within a few days of the unveiling of that splendid shaft of granite which rising heavenward shall stand an object lesson in patriotism to the children of future generations, inculcating them with love of country and respect for the heroic deeds of their illustrious ancestors; and forever immortalizing the distinguished bravery, and the pure patriotism of those noble sons of Carolina, who in the dark and troublous days of 1775, gathered here and hung out to the enlightenment of the world the beacon light of liberty that cast the first luminous rays across the American Continent dispelling the universal darkness of oppression enshrouding the new world. In passing, it thrills the patriotic impulses of all hearts to note that the spirit of 1775 still lives in the hearts of the American people, and that it shall animate them, in noble emulation of our gallant Southern Fitz Hugh Lee, and Dewey the peerless of Manilla Bay, (applause) to continued patriotic action, which will see no end until Cuba Libre breathes the sweet air of freedom, and the now faint and glimmering light of her one struggling star shall have its effulgence brightened and beautified as it blends into the forty-sixth in the grand constellation of the States of the great American republic.

I refer to these things knowing as I do, that in the hearts of no class of our citizens is there a greater degree of patriotism than in those of the members of the medical profession. No portion

of our citizens are in so intimate a social contact with all classes and conditions of society as the doctor in his daily rounds dispensing mercy's kindly ministrations, into the homes of the rich and poor, the high and low, the strong and the weak, the learned savant and the illiterate. The saint and the sinner alike receive his attention, none, so low the doctor will not, in humble imitation of the Great Physician, stoop to succor; none so high his service can dispense with. Whether in the luxurious offices of the opulent metropolitan consultant, a Gross, a Flint, an Agnew, or a Sir Andrew Clark, or as the Carolina prototype of good old Doctor MacLure, of Drumtochty fame, plodding along the banks of the Cape Fear or Catawba, or the more sparkling waters of the Swannanoa or Pigeon, as an humble country doctor—where ere his lot be cast, the doctor lives in closest sympathy with humanity, and that which touches his fellow-man alike impresses him.

Is it to be wondered at that the family physician should be the chosen trusted friend? And this close confidential relation around the sanctity of which, both the law of the land and the unwritten higher law of public sentiment, has thrown a veil through which no curious or peering eyes may its secrets disclose, imposes upon the members of our profession weighty responsibilities and important duties to be most seriously considered. How well we have in North Carolina discharged these responsibilities in the past, our magnificent and splendidly officered institutions for the care of society's unfortunates; our State Board of Medical Examiners (the model from which almost every other State in the Union is now copying!), our State, county and municipal boards of health; our laws regarding epidemics and the regulations affecting contagious and infectious disease; the general and constant dissemination of valuable information among the people upon the vital subject of how best to live, to promote health, to attain longevity—the resultant ever increasing length in the average of human life—all these attest whether our physicians have well-borne the weightier responsibilities imposed on them by society at large and by the State!

But Sir, I stand not here today to express to you extreme laudation of the North Carolina doctors for the honesty of pur-

pose and the sincerity of action which have ever been the common characteristics of the members of our most noble of professions. Nor is it my province to indulge in fulsome eulogy of the energy, the progressiveness, the public-spiritedness, or the bravery, of the chivalrous sons, nor the grace, the wit, the beauty, the loveliness, or the true feminine worth of the accomplished daughters, of Mecklenburg. All these things are known of all men, for them your men are everywhere respected and honored, your lovely women alike adored and worshipped.

I thank you in the name of my colleagues for your most generous welcome, and assure you that as we return to our homes a day or two hence to resume the active duties and the varied responsibilities of our busy professional lives, that each of us will carry away from Charlotte, ineffably imprinted upon our hearts, a most pleasant remembrance of the Queen City and her truly regal people.

The roll was then called by the Secretary. Members present will be indicated in alphabetical list of members.

The following committees were appointed: On Credentials, Drs. J. C. Montgomery, T. M. Jordan, and A. A. Kent.; on Finance, Drs. C. M. Poole, Albert Anderson, and R. L. Gibbon.

Dr. J. S. Brown, chairman of section on Medical Jurisprudence and State Medicine read his report. Discussed by Drs. Long, Burroughs, McMullan, and Carr.

Dr. Carr offered the following resolution:

Resolved, That the Medical Society of North Carolina, in convention assembled in the city of Charlotte, May 3, 1898, expresses its unqualified disapproval of the Antivivisection Bill, now pending before Congress, and that the President of this Society appoint a committee of three to memorialize our Senators and Representatives in Congress to use all honorable means to defeat its passage.

The President appointed on this committee, Drs. A. G. Carr, G. W. Long and P. E. Hines.

Dr. W. T. Pate, Chairman of section on Pathology and Microscopy, made his report.

On motion the Society adjourned to meet at 3:30 o'clock.

FIRST DAY—AFTERNOON.

Dr. H. S. Lott, read a paper entitled

MEDDLESOME GYNECALOGY.

Discussed by Drs. McMullan, McGuire, Sikes and Royster.

Dr. Fletcher, Chairman of section on Practice of Medicine, made his report.

Dr. W. C. Brownson read a paper on

THE TOBACCO HABIT AS A CAUSE OF DISEASE.

Dr. J. A. Burroughs, Leader of Debate, opened the Annual Discussion by reading a well prepared paper entitled

A FEW SUGGESTIONS ON THE PREVENTION OF TUBERCULOSIS.

Drs. A. A. Kent, R. H. Lewis, J. W. Long, J. A. Reagan, Albert Anderson, Spencer and others took part in the decision.

Dr. G. S. Tennant read a paper on Uric Acid in the Causation of Retinal and Choroidal Disease.

On motion, the Society adjourned.

FIRST DAY—EVENING SESSION.

Dr. W. G. Stafford, Chairman of Section on Obstetrics, made his report.

Dr. H. S. Lott read a paper on "Treatment of Umbilical Cord without Ligature." Discussed by Drs. Stafford, Burroughs, Hays, Hines, McMullan, O'Hagan, and Kent.

Dr. E. F. Strickland read a paper on "Three Interesting Cases of Obstetrics."

Dr. J. P. Munroe presented a paper entitled "Some Observations on the Radical Cure of Inguinal Hernia, with Report of an Interesting Case." At the close of his paper he presented stereopticon pictures illustrating the various steps in the operation. Dr. Flippin discussed the paper.

The Society adjourned to meet the next morning at 10 o'clock.

SECOND DAY—MORNING SESSION.

The Society met at 10 o'clock and was called to order by the President, who appointed the following nominating committee:

Drs. O'Hagan, W. H. H. Cobb, W. P. Ivey, A. G. Carr, and H. H. Dodson.

Dr. R. L. Payne read a paper on Abortion, which was discussed by Drs. Hines and Jordan.

Dr. Long made the following report on President's Address:

Your Committee appointed to take into consideration the suggestions contained in the President's Address, desire to report as follows. We approve the following suggestions: An earlier meeting of the Medical Examining Board in order that its licentiates may have an opportunity of joining the Society, and as a further inducement, we heartily recommend that the usual initiation fee (\$5.00) be remitted to those licentiates who join the State Medical Society the same year that they receive their licenses. Furthermore, as cognate to this subject and in order that we may enlist the sympathy of all legal practitioners of the State, we recommend that any such physicians who shall be vouched for by the physicians already members of this Society, and who shall accompany his application with the usual five dollar fee and shall sign the Constitution by power of attorney invested in one of the recommending physicians shall be eligible for membership, provided such action be confirmed by a majority of the Society.

R. J. BREVARD,
OSCAR McMULLAN,
GEO. W. LONG.

Action on the report was postponed.

Dr. C. L. Minor read a paper entitled "What Should be the Attitude of the Profession towards Serum Therapy." Discussed by Dr. Burroughs, Dr. Levy, of Virginia, Dr. Reynolds.

The time having arrived for the special order of electing two members to the Board of Examiners to fill the places of Dr. Weaver and Dr. Baker, whose terms expired with this meeting. Drs. Albert Anderson, E. C. Register and M. H. Fletcher were put in nomination. Drs. H. A. Royster, T. S. McMullan, A. J. Crowell, and B. K. Hays were appointed tellers, the vote was taken, and Drs. Anderson and Register were elected, both having received a majority of the votes cast.

On motion of Dr. J. Allison Hodges, the following were made honorary fellows of the Society, having been active members of the Society for thirty years or more: Dr. Robert Gibbon, Dr. Allman Holmes, Dr. Peter E. Hines, Dr. R. H. Winborne, Dr. Geo. A. Foote, Dr. Eugene Grissom, Dr. W. J. Jones, Dr. Chas. J. O'Hagan, Dr. J. W. Jones, Dr. J. K. Ruffin, Dr. Wm. R. Wood, Dr. P. A. Barrier, Dr. Geo. L. Kirby,

Dr. J. F. Shaffner, Dr. W. T. Cheatham, Dr. F. J. Haywood, Dr. P. B. Alston.

On motion of Dr. O'Hagan, Dr. W. L. Robinson, of Danville, Va., was elected an Honorary member of the Society. Dr. Robinson accepted the courtesy in a few well chosen remarks.

The special hour having arrived, the Conjoint Session of the Board of Health was called, and in the absence of the President, Dr. S. Westray Battle took the chair. The Secretary read his report, which, after a full discussion, was ordered printed.

Dr. R. H. Lewis offered the following resolution, which was adopted:

Resolved, That the North Carolina Board of Health and the Medical Society of the State of North Carolina in conjoint session assembled endorse the Caffery bill, enlarging the powers of the U. S. Marine Hospital Service, and respectfully request our Senators and Representatives to support the same.

The session was then adjourned.

SECOND DAY—AFTERNOON SESSION.

The Society was called to order by the President.

A paper on "A Case of Osteo-Sarcoma Treated with the Toxins of Erysipelas and Bacillus Prodigiosus" was read by Dr. J. C. Walton, of Reidsville. Discussed by Dr. Robinson and Dr. Jewett.

Dr. K. P. Battle then read a paper on "A Shawl Pin in the Trachea." Discussed by Dr. Galloway, Dr. Payne, Dr. Carr, Dr. Faison, and Dr. Costner and others who cited cases in point.

Dr. R. H. McGinnis read a paper on "Some Thoughts about Typhoid Fever." By request, Dr. Taylor of Richmond discussed the surgery of typhoid fever.

The selection of place of next meeting being next in order, Asheville, Fayetteville, Wilmington, and Newbern were put in nomination. Asheville was selected, and on motion of the Society, the choice was made unanimous.

The Society then proceeded to election of officers. The name of Dr. L. J. Picot for President was put in nomination, and Dr.

C. M. Poole was instructed to cast the vote of the Society for Dr. Picot.

The following Vice Presidents were nominated, and on motion, the Secretary cast the vote of the Society for them. 1st, I. W. Faison, Charlotte; 2nd, H. H. Dodson, Milton; 3rd, J. W. White, Wilkesboro; 4th, W. C. Brownson, Asheville.

Drs. G. W. Pressley, R. D. Jewett and H. A. Royster were put in nomination for Secretary. By request of Dr. Jewett his name was withdrawn. Drs. Sikes and Fletcher were appointed tellers, the vote was taken, and Dr. Pressley was declared elected by a plurality vote.

For Treasurer, Dr. G. T. Sikes and Dr. T. M. Jordan were put in nomination. Dr. Fletcher and Dr. Nicholson were appointed tellers, the vote was taken, and Dr. Sikes was elected.

Dr. Weaver, Secretary of the Board of Medical examiners reported the following successful applicants for license and on motion they were referred to the committee on Credentials: J. A. Williams, J. T. Stewart, J. T. Burros, N. G. Shaw, R. S. Rierson, J. B. Hunter, F. T. Long, R. E. Jenkins, W. R. McCain; G. F. Duncan, Walter Jackson Jones, Thomas Springfield, J. E. Moore, John Davidson, W. A. Rogers, G. A. Canton, J. H. Mock, R. D. Flippin, W. L. Query, J. D. Williams, J. I. Campbell, Herbert B. Thomas, J. E. Kerr, H. D. Stewart, G. A. Stevens, F. H. Gilreath, Geo. D. Everington, J. T. Moore, S. T. Flippin, I. H. Foust, O. P. Schaub, John B. Ray, W. P. Knight, Martin McNeill, Benjamin Palmer, J. P. Thompson, Charles Highsmith, J. W. McPherson, R. J. Price, Thad. S. Troy, E. C. Boyte, A. S. Pendleton, S. F. Pfohl, O. L. Hollar, C. H. Bynum, E. H. Spainhower, W. H. Graves, Alonzo D. Lord, J. R. Mask, S. B. Woody, C. B. Stephenson, F. L. Darbonnier, Charles VanBergen, E. Moore, Eugene D. Denson, C. C. Whitley, A. S. McMillan, W. H. Brooks, Plato H. Lee, James R. Parker, J. W. Young, S. A. Malloy.

Of this numbers, Dr. W. H. Brooks, of Greensboro, made the highest general average — $97\frac{3}{4}$ —with one exception, the highest mark ever received by a candidate.

Drs. A. S. Pendleton, of Roanoke Rapids, and Plato H. Lee, of Alexandria, each made 93.

Dr. Jewett moved that the licentiates reported favorably by

the Committee on Credentials be allowed to join the Society, pay the \$5 initiation fee, which was to be immediately refunded to them. Carried.

The following resolution was offered:

Resolved, That the thanks of this Society are due and are hereby tendered to Drs. Jewett and Perry, Secretary and Treasurer, for the efficient manner in which they have performed the duties pertaining to their respective offices.

The Nominating Committee made the following report, which was adopted:

Orator—Dr. H. S. Lott.

Essayist—Dr. C. L. Minor.

Leader of Debate—Dr. J. P. Munroe.

Board of Censors—Drs. W. O. McDowell, H. H. Harris and J. H. Tucker.

Publication Committee—Drs. R. J. Brevard, J. C. Montgomery, R. D. Jewett and H. T. Bahnson.

Legislative Committee—Drs. R. H. Lewis, G. T. Sikes, Abner Alexander, James McKee, H. A. Royster.

Obituary Committee—Drs. G. W. Long, J. A. Reagan, K. P. Battle.

Delegates to American Public Health Association—Drs. W. J. Lumsden, Charles Duffy, J. A. Burroughs.

Delegates to North Carolina Pharmaceutical Association—Drs. J. W. McGee, Jr., J. R. Wheless, J. M. Flippin.

Delegates American Medical Association—Drs. W. T. Cheatham, Charles J. O'Hagan, Charles Duffy, Willis Alston, J. W. Long, H. T. Bahnson, E. C. Register, J. M. Baker.

Delegates to South Carolina Medical Association—Drs. I. W. Faison, G. H. Moran, W. T. Pate.

Delegates to Virginia Medical Society—Drs. J. C. Walton, W. A. Graham, A. G. Carr, S. L. Montgomery, W. H. H. Cobb.

The following communication from Dr. Anna M. Gove was received:

*Robert D. Jewett, M. D., Secretary Medical Society
of the State of North Carolina.*

Permit me to express through you my appreciation of the honor conferred upon me by the Medical Society of the State of North Carolina, in appointing me delegate to the XII International Congress of Medicine. My only regret is that my credentials from this body did not reach me in time to be presented;

in fact, I received them, after many forwardings, some two months after my return to North Carolina.

Much forethought on the part of the Russian committee served to make traveling easy for those of us unacquainted with the language and customs of the country. On the border, physicians or medical students met the trains, acted as interpreters—for nearly all educated Russians speak at least two languages besides their own—helped about tickets, passports, customs inspection, and registration of baggage. At the Moscow station, a bureau of lodgings undertook to provide for those who had not already secured rooms, and delegates wearing the XII Congress badge directed us to the bureau where membership tickets were issued. The Manege, right in the shadow of the Kremlin, served as general headquarters. Here were temporarily located a branch post office, banking department, and a restaurant for the special convenience of members.

General assemblies occurred in the Imperial Theater. Special sections were held in various buildings, as a rule within easy walking distance of the bureau. The opening Assembly was a most impressive spectacle, but here, as in many of the large sections, it was almost impossible to understand the speakers, which did not surprise me until English was spoken, when I discovered that it was not the language but the delivery which was at fault. As a rule, the European delegates were men of more maturity than our American representatives. Dr. Senn, of Chicago, gave at the second general assembly a paper on The Classification and Surgical Treatment of Acute Peritonitis. Dr. Senn is a man of presence, is well known abroad, and commanded the attention of a fairly good audience, which was a source of satisfaction to the Americans present, as there had been so much criticism of Dr. Osler's sending a substitute, Dr. Thayer, of Baltimore, an undoubtedly brilliant man, but one much better known at home than abroad, and who, from his very lack of years, failed to command the attention we could have wished accorded to one of our delegates. At the section of Internal Medicine, Dr. Thayer gave a paper on The Increase of Eosinophilic Cells in Trichinosis, and also a communication on Malrria, which was illustrated by many charts and very interesting.

On the outskirts of Moscow, forming a little village by itself, a group or separate buildings, well planned and equipped, offer an extensive and almost ideal arrangement for a series of clinics.

The Foundling Asylum, with sixteen thousand children received every year, is probably better known to foreigners than any other institution in Moscow. Here babies are received, remain in care of a wet nurse for two weeks, and are then transferred to country homes. Many of these children are born in the Maternity near by, where they average six thousand deliveries per

year. The Maternity is clean enough, but over crowded, and septic patients are left entirely too near the delivery rooms; yet I believe that the statistics—which I unfortunately have not now at hand—show pretty good results.

The social part of our entertainment was also well provided for by the committee. Receptions and concerts were arranged for evenings, and we left feeling that our Russian friends had been most cordial and hospitable in every particular.

Again extending my thanks to the Society, and to you its Secretary, for the courtesy shown me, I beg to subscribe myself.

Very sincerely,

ANNA M. GOVE.

On motion the session was then adjourned.

SECOND DAY—EVENING SESSION.

The Society was called to order by the President at 8:30 o'clock.

The Annual Oration was delivered by Dr. Albert Anderson, of Wilson, on "Two Southern Pioneer Heroes in Surgery and Gynecology."

The Annual Essay on "The Under Side of Things in a Doctors Life" was delivered by Dr. Hubert A. Royster, of Raleigh.

On motion of Dr. Bahnson, the Essay and the Oration were referred to the Committee on Publication, with thanks of the Society.

The Finance Committee made the following report, which was received and adopted:

Your Committee on Finance, having examined the books and accounts of the Treasurer, beg leave to report the following:

To balance on hand June 8, 1897.....	\$296.35
Amount collected since.....	574.96
Total.....	\$871.31
By amount paid Dr. R. H. Lewis.....	2.10
“ “ “ Treasurer.....	100.00
“ “ “ Secretary.....	125.00
“ “ “ Carolina Publishing Co.....	17.00
“ “ “ Stenographer.....	49.00
“ “ “ W. G. Edgerton.....	4.77
“ “ “ For stamps.....	2.00
“ “ “ Charlotte Observer.....	2.50
“ “ “ For printing Transactions.....	345.00
“ “ “ Dr. Jewett.....	85.50
“ “ “ Dr. Duffy, being prize money left in Treasury.....	50.00
	<u>\$782.92</u>
Balance on hand May 3, 1898.....	\$ 75.09

We recommend the usual assessment of \$2.00 per capita, that the salary of the Secretary be \$125.00 and that of the Treasurer be \$100.00 for the ensuing year.

In view of the depleted condition of the treasury, the Society cannot undertake to pay the traveling expenses of the above named officers. .

C. M. POOLE,
ALBERT ANDERSON,
R. L. GIBBON,
Committee on Finance.

THIRD DAY—MORNING SESSION.

The Society was called to order by the President.

On motion the time of next meeting was left to the Committee on Arrangements.

Dr. J. Howell Way presented a paper, entitled "Expert Medical Witnesses: What is the Cause of the seeming Disrepute in which their Testimony is held in Certain Recent Cases in the Courts?—Observations from the Standpoint of a Country Doctor." Discussed by Dr. Murphy.

Dr. StClair Davidson read a paper on "Exsection of the Gall Bladder for Impacted Gall Stone," which was referred to the Committee on Publication.

Dr. Poole offered the following resolution, which was adopted.

Resolved, That the Committee on Publication be instructed to have the transactions of this meeting bound in cloth, provided it can be done for a price not exceeding 50 cents a copy.

Dr. Way announced that the Board of Medical Examiners had that morning received the resignation of Dr. Burbank, and according to the rules, they proceeded to elect in his place Dr. W. H. H. Cobb, of Goldsboro.

Dr. J. P. Munroe offered the following amendment to the Constitution:

Resolved, That Article III., Section 2, be amended by adding to it the following: But any licentiate who shall apply for membership in this society at the current meeting during which he has been licensed by the Board of Examiners, and be recommended by the Committee on Credentials, shall be admitted without paying the initiation fee of five dollars.

According to the Constitution, it was left over till next meeting.

The Society then voted on the report of the Committee on President's Address, item by item.

1st. That the Board of Examiners meet earlier, in order that the successful candidates may have an opportunity of joining the Society. An amendment to this was adopted that the Society approves the action of the Board of Examiners in meeting at an earlier day, and requests the Board to continue this rule. 2nd, That those licentiates who join at these meetings shall not be required to pay the initiation fee of \$5. Adopted. 3rd, That members be allowed to join by proxy, being recommended by members of the Society. Not adopted.

The papers of Drs. D. J. Hill, on "Veratrum Viride, with Especial Reference to Its Therapeutic Uses in Serous and Parenchymatous Inflammations," J. M. Parrott on "Remarks on the Country Surgeon and His Work," and J. G. Blount, "Chemistry of the Stomach," were read by title and referred to Committee on Publication.

Dr. Carr offered the following resolution:

Resolved, That the North Carolina Medical Journal be no longer considered the official organ of the North Carolina Medical Society.

A motion to lay the resolution on the table was unanimously adopted.

The following resolution was offered and adopted.

Resolved, That the transactions of the North Carolina Medical Society be no longer published piece-meal in the North Carolina Medical Journal in bi-monthly issues, but published as a whole within 60 days after the meeting of said Society, or as soon thereafter as possible, and that a copy be furnished each member without delay.

The Editor of the JOURNAL asked if it were the intention of the Society that the papers and minutes were not to be printed in the JOURNAL, whereupon such intention was denied.

On motion, the Society proceeded to the installation of Officers. Dr. O'Hagan and Dr. Murphy were appointed to escort the newly elected President to the Chair. Dr. Francis Duffy, the retiring President, said: Gentlemen, in vacating this chair to my worthy successor, I desire to thank you again for the honor conferred upon me and also for your kindness and leniency towards my efforts to perform perfectly the functions of my office.

Dr. O'Hagan introduced Dr. Picot, the President-elect, who said: I wish to thank you gentlemen, for this evidence of kindness and partiality towards me, and I promise you to do my very best to promote the future interests and welfare of this Society. I can only hope that I can make good to you the promise of Dr. O'Hagan.

The President appointed the following Chairmen of Sections:
Pathology and Microscopy—Dr. E. B. Glenn, Asheville.

Anatomy and Surgery—Dr. Goode Cheatham, Henderson.

Medical Jurisprudence and State Medicine—Dr. Thos. F. Costner, Lincolnton.

Obstetrics—Dr. W. W. McKenzie, Salisbury.

Gynecology—Dr. W. A. Graham, Charlotte.

Practice of Medicine—Dr. Benj. K. Hays, Oxford.

Materia Medica and Therapeutics—Dr. C. S. Mangum, Chapel Hill.

Chemistry and Physiology—Dr. Josh Taylor, Washington.

An invitation to the Society from the Presbyterian College to a reception from 4 to 6 o'clock was read, and accepted with the thanks of the Society.

Also one from Elizabeth College, to visit it at the convenience of the Society.

The following names were favorably reported by the Committee on Credentials and recommended for membership:

Drs. G. A. Ramsaur, T. N. Ried, J. R. Alexander, S. J. Love, J. M. Blair, E. M. Brevard, W. M. Fowlkes, E. R. Russell, G. S. Tennent, H. N. Abernathy, Joy Harris, G. A. Brown, C. L. Minor, S. M. Crowell, J. W. P. Smithwick, S. F. Pfohl, J. A. Willipms, R. C. Ellis, J. D. Williams, L. A. Crewell, G. D. Everington, C. S. Mangum, F. M. Winchester, J. L. Campbell, H. D. Stewart, J. R. McClellan, O. P. Schaub, J. W. McPherson, J. B. Ray, W. P. Knight, J. R. Rierson, S. A. Stearns, S. T. Fluppin, J. E. S. Davidson, F. H. Gilreath, W. H. Rogers, J. I. Campbell, G. A. Katon, W. H. Brooks, E. H. Spainhower, J. R. Parker, C. M. Strong, W. R. McCain, Chas. Highsmith, E. B. Glenn, S. E. Ricks, W. E. Hemphill, C. P. Jones, T. E. McBrayer, O. C. Champion, W. S. Davidson, R. J. Teague, D. P. Whitley, W. H. Wooten, John Davidson.

Drs. W. L. Robinson, of Danville, Va., Edmund McGuire,

Hugh L. Taylor and Levy, of Richmond, were granted the privileges of the floor, the first named being the duly accredited delegates from the Virginia Medical Society.

On motion, the thanks of the Society were extended the Charlotte Medical Society and the citizens of Charlotte, for their generous hospitality.

The Society adjourned to meet in Asheville sine die.

R. D. JEWETT, M. D., Secretary,

Winston, N. C.

FRANCIS DUFFY, M. D., President,

Newbern, N. C.

ANNUAL ESSAY.

THE UNDER SIDE OF THINGS IN A DOCTOR'S LIFE.*

BY HUBERT A. ROYSTER, A. B., M. D., Raleigh, N. C.

INASMUCH as the essayist of the North Carolina Medical Society is privileged to address a general audience, it seems fitting to select a subject which closely concerns both the profession and the laity. One of my friends is fond of saying that nothing is interesting unless it be of human interest. The brief remarks which I shall make this evening will have much to do with folks and human nature. The intention will be to speak simply some thoughts which constantly push themselves forward in the mind of one busied with daily trials in the practice of medicine, especially as these thoughts bear on the personal relations of doctor and patient. My years are few and my experience is small, and it is, therefore, not to be expected that this paper will contain long philosophical deductions founded on a broad, matured view of life and its struggles. Enough has come, however, to convince me that too little is known by the physician and his patient of their own bearings toward each other. We seldom stop to think how each appears in the smaller affairs of our existence.

Why do folks employ physicians? Most people send for a doctor because they are sick or think they are sick. That seems

*Read at 45th Annual Meeting of the North Carolina Medical Society, Charlotte, May 3, 1898.

reasonable enough. There are some who must have a doctor because it is "the thing" to do, even when they believe a physician's services are not needed. Others for various reasons or excuses refrain from sending at the proper time, when they know they should do so. A curious phase of this question is presented by the man who refuses or avoids medical counsel because he is afraid the doctor will put him to bed, cut down his diet or tell him to stop his work and rest. Now the man himself realizes at once that he ought to do these things: if not why should he suppose that the doctor would so advise him? The physician has no desire to control a man's habits, to regulate narrowly his life and to place restrictions upon him. He would gladly cure his patient without these. It is the doctor's opinion that the sick man should lie in bed or be put on a liquid diet, this seems to be the only course to pursue. It is the only one pursued by those who have made up their minds from first to last to do right regardless of their own feelings. How difficult it is for us all to sacrifice our personal desires for what our conscience tells us is the absolute right. A little boy once said this was a hard, cruel world, because every thing that he wanted to do was wrong and every thing good to eat was unhealthy. Are we not all children of a larger growth? But these people of whom we have been speaking are those who cry with much vehemence: "Oh! yes, always do what your doctor tells you; what's the use of having a doctor and paying him, if you don't follow his directions?" The only use in their cases seems to be to do just what they please - to carry out just as much of a physician's orders as will not conflict with their own likes or dislikes. By large classes of people, doctors are looked upon as chronic objectors, who go about seeking to find something which they can order some body to stop. Let me say emphatically that the doctor is not an autocrat, a tyrant, an ogre - not even an exhorter or a pleader - but a medical adviser in the passive voice. There should be no getting down on the knees and begging the patient to do his bidding. The man is a free-will agent; he consults the doctor; a certain line of treatment is advised; the man is at liberty to carry it out or not as he chooses. The responsibility of the medical man ends with the advice given. Many imagine it is to please the physician that they obey his orders, that they

confer a great favor on him every time they take a dose of medicine. It is hard to make them see that the treatment is intended to do good to them, not to the doctor. Like school children, who are constantly endeavoring to shirk any duty, they fail to see that they are cheating themselves, not the teacher. Another still stranger feature is seen in those who send for a doctor in whom they have confidence, buy the medicine he prescribes, and that's the last of it. The ways of such people are like the ways of Providence—past finding out".

It is the physician's duty to answer all calls as promptly as possible. Complaints are being continually hurled at our heads for not getting to the patient as soon as the patient himself or the friends think we ought. There are several things to say about this. Emergency calls usually, I may say always, receive immediate attention. In the ordinary rounds of practice it is impossible to see every one first; the doctor cannot be in several places at the same time. He must use his own judgment as to the order in which he visits the sick. Frequently several persons will send all but simultaneously, each asking the doctor to stop by his house the first thing as he starts out. Time after time messages will be sent telling the doctor to come "at once" when on questioning at the time or on arriving at the house later it is found that no immediate attention was needed or expected by the patient. Very often the sick one will be in the kitchen or sitting up chatting with friends or, possibly, out for a little stroll. I have had occasion to observe in my own practice each of these circumstances. After such people cry "wolf" once or twice, the doctor learns them and he acts accordingly. Can you blame him? With some in my own practice, a hurry call means to hurry and I always do so. I know they need a doctor's services. Others make day and night hideous with false alarms, so that it is hard to distinguish the true ring. What most of folks, sick or well, need to learn is that there are one or two more people in the world besides themselves, for love of self, more than the love of money, is the root of all evil.

People universally seem to be in the dark concerning the real relations of physicians to one another. "You doctors are so awfully formal in your ways" and "your etiquette is very peculiar" are expressions very frequently heard. Etiquette among physicians is founded upon ethics, or the art of doing right, and,

defined as such, the way is perfectly plain. There will rarely be any friction between two doctors who are both gentlemen. A gentleman wants to do right. He may not always do it; but he always wants to do right. Among the members of the medical profession every where there are some men who are not gentlemen, even though, in many cases, their outward conduct may be apparently straightforward. They are not gentlemen at heart. And their professional brethren know it most of all. Personally, I would rather one of my respected fellow-workers should consider me capable than that whole cities full of people should rise up and called me blessed. It is a fact, I think, that the layman is scarcely capable of judging a physician upon his merits. The majority of people employ a certain doctor because of his general reputation gained through outward impressions on themselves or on their friends and associates. They continue to employ him, granting that he has average ability, if he is personally agreeable to them, not, as a rule, on account of any particular skill he may possess. There is a very general impression among the laity that for most ailments any physician will do; that because a man is a doctor he must know and do the same that all other doctors know and do. Studying medicine of itself does not endow a man with a better or bigger brain nor does it supply him with reasoning power not already his own. It only gives him some more facts, tools of the mind and skill to use them, all in his own measure. Mental grasp, judgment, the ability to draw correct conclusions, these are all individual attributes, obtained by inheritance and developed by general education. No one could really expect a physician to reason more logically on matters in medicine than about those of every day experience. This inability of the layman to correctly criticise the doctor is the cause of the success of many in the profession who are unworthy to be in it and who become notorious by playing to the public.

The doctor has most abundant opportunities for studying human nature, that weak thing in us all, with which we excuse a multitude of sins. Did you ever think how mean human nature really is? We express it in a measure when we attempt to forgive every thing low and vile in ourselves by saying "well, we can't help it; it's human nature." I believe it was Dr. Deems

who said that there was "lots of human nature in folks as well as in hogs." The human nature in folks is of vital importance to the physician. He comes into closer relations with the people in a community than do either ministers or lawyers. A man whom the church and the law regard as immaculate may be known to the physician as a profligate in his inner life and a scoundrel at heart. The doctor carries with him the secrets of life "even to the third and fourth generations." A trained eye and careful physical examination sometimes tell the medical man all he wishes to know. This is fortunate for there is nothing that the average person delights in more than to keep something from his doctor—a trait none but physicians (and observant ones) realize in its full import. It would be astonishing to the people in this audience if they could appreciate how often a man will sit in a doctor's office, where he has come to obtain relief, and lead the doctor off the track by telling deliberate falsehoods, and the patient would be equally astonished to learn in many cases that the doctor knows he is lying. Such things as this are of daily occurrence with busy and watchful physicians. Most men are naturally liars; some could not speak the truth, if they tried; very many do not even try. It has been said that if you run out in the street any where and grab the first man you meet, nine times out of ten you have a liar. But I was saying that doctors get very close to the people. They go into the home, into the family and learn every member of it, both in sickness and in health; for they study all the others while in attendance on the sick one. The remark is so often made that the doctor sees the sick man at his worst, on his back, suffering; and that therefore, he should excuse the man for all sorts of weaknesses and meanness, on the ground that the man is not himself. I claim that the patient unless he be delirious or comatose, is very much more himself, with his shell off, with his society manners laid aside and his true disposition revealed. His moral nature can then be observed in its primitive state. We can find out whether he is considerate of others, whether he is courageous in the presence of pain, whether he wants to do right. True illness of any kind is apt to make one disagreeable, but it does not add anything new—only brings out the old. The moral nature in folks is indeed an interesting and

profitable study for physicians. By this I do not mean the attribute in men which makes them religious, but the innate principle, the motive for doing things, good or bad. The study of nervous degeneracy and its hereditary influence is productive of valuable results. The lack of moral sense is often mistaken for feeble intellectual development. There are occasions when a doctor finds difficulty in having his directions carried out even after he has gone to great lengths in explaining them to some member of a family. The trouble is supposed to result from a want of understanding and at times, it may; but often it is due to the fact that the person to whom the orders are given is absolutely devoid of a sense of moral obligation and is arrayed on the opposite side always. Such a person never determined to do right about anything. Any one can comprehend a few directions simply stated, but it takes a person of strong moral nature to want to follow them implicitly.

It is wonderful how people neglect to take a doctor's advice, to what ends they will go to deceive him and then how ready they are to blame the doctor if anything goes wrong. I will acknowledge that most people do not cast the blame on their doctor unjustly. But many do and generally for the most trifling reasons and without cause. Just as a physician commonly makes his reputation by the smallest things, so in the same way he often mars or loses it. The conscientious medical man throughout all ages and countries has silently steeled himself against this and has plodded along.

“Knowing if he won the battle they would praise his Maker's name;
Knowing if he lost the battle then the doctor was to blame.”

This verse would serve as the text for a more elaborate effort than I feel able to undertake but it suffices to show one other phase in human nature. The gratitude of patients is worth much to physicians, more sometimes than any price which could be paid. How many times, when a man is flat on his back, would he offer his whole fortune to get well and when on his feet give nothing to the doctor in return save, perhaps, abuse for keeping him down so long; or promise fifty dollars before an operation and not even render thanks afterwards:

“When the devil was sick, the devil a saint would be;
When the devil got well, the Devil a saint was he.”

Alas! how often it is that "gratitude is a lively expectation of more favors to come." In the experience of nearly all doctors among ungrateful patients are those who receive the largest amount of charity work. The man who gets the attention and pays his money for it, feels that he has received full value and is accordingly grateful. It has been said that if you wish to make an enemy of a man, do him a personal favor or lend him money.

Turning away from this baser side it is refreshing to know that there are higher and better things in a doctor's life. To feel that we have been instrumental in saving the life of even one human being, be he grateful or ungrateful, scoundrel or gentleman, is a noble and satisfactory reflection. Nothing can take from us the consolation arising from a knowledge of duty well performed, suffering relieved, death averted. And yet the moral attitude of his patient must always have its influence on the physician, who is also human. A doctor would prefer a whipping to entering the doors of some homes; there are others in which the hard work he does is never irksome. The difference lies wholly in the moral sense of the people themselves. It is natural to separate the chaff from the wheat; to cast some people entirely out of our lives, while we grapple others to us with hooks of steel. A great part of a doctor's success lies in his ability to understand folks, their goodness and their meanness—to weigh their moral natures in the balance of cold logic. One of the most important points in any diagnosis is to find out whether the patient is lying or not. If he is, discard the history and depend on your physical examination; if he is not, shake hands with him, but consider carefully what he says.

As this article is being rounded to a close I am reminded that it savors extremely of the pessimistic. And yet the picture is not so black but that the light may be seen shining from behind the dark background. We cannot appreciate the good without knowing the bad. Nor can we do right unless we know what wrong is. I have brought before you here glimpses of the inner life of physicians (for we all have about the same sort of experiences) and the personality of their patients. In doing this I

have necessarily spoken of some evil, but with the hope that good may come. Doctors must not shut their eyes to the seamy side of nature but must study both the good and the bad in the characters of their patients. Nor will it profit to look upon every patient as a "case" forgetting the finer, deeper elements within each individual. There is too great a tendency toward this in these later days and it may not be amiss to say seriously in the language of another, that the human stomach is not a test tube and the body is not a laboratory.

323 W. Morgan Street.

THE TOBACCO HABIT AS A CAUSE OF DISEASE.

BY W. C. BROWNSON, M.D., Asheville, N. C.

I WISH to preface my remarks by stating that I am in no degree afflicted with tobacco phobia.

I do not believe with Meta Landers, whose hysterical denunciations of tobacco may be familiar to you, that the tobacco user is a vile creature, or that he must inevitably suffer in his mental and physical being from his indulgence of the habit. Many persons derive much pleasure from the moderate use of tobacco and no possible harm, but many are less fortunate and are injured by it. Let us consider for a few moments some of the most common manifestations of its evil effects.

The symptoms presented in acute poisoning by tobacco are known to every one. The pale, sweat-bedewed face, the deathly faintness, the complete muscular relaxation, the feeble, fluttering pulse shown by the beginner after his first cigar or initial "chew," prove that tobacco is a most virulent poison; it is also a local irritant.

Nicotine, the active principle of tobacco, is, it is probable, responsible almost entirely for the deleterious influence of the plant, but it contains, in addition, various salts and an empyreumatic oil, the latter by chemical processes yielding numerous alkaloids scarcely less poisonous than nicotine itself.

Tobacco, it seems from experimentation, has no perceptible

effect on the brain; its depressing action is exerted on the spinal cord and the sympathetic nervous system. Upon the heart it is said to have no direct, effect, though by its depressing influence on the pneumogastric and the vasomotor system, the heart is powerfully influenced.

The effects of the tobacco habit may be divided into its constitutional or general, and its local or irritant results. As to the general systemic disturbances, the various modes of using tobacco, smoking, chewing, snuffing and dipping, have much the same action; though there are without doubt individual idiosyncrasies, on account of which in the one case, smoking, in the other, chewing, may be better borne by the system, but the larger the amount of tobacco consumed, the greater the amount of nicotine absorbed into the system, the greater the constitutional disturbances.

As with other narcotic poisons, tolerance varies widely in different individuals. No special number of cigars or pipes per day can be prescribed as being within the danger line. What is moderation for one person would be excess for another. Those of lymphatic temperament, large feeders with a good digestion, can, as a rule, use an amount of tobacco without apparent injury that would be ruinous to one of spare build, nervous temperament and poor stomach.

Age is a most important factor in the results of the tobacco habit. In the young, growing boy, tobacco causes its most serious effects, and chorea, epilepsy and insanity have resulted from its excessive use.

The various forms of dyspepsia, faulty digestion, both gastric and intestinal, are the most frequent evidences of the baneful influence of tobacco. In part, they result from altered or deficient salivary secretion; in part, from the depressing effects of nicotine on the nervous system. If tobacco is given up, a gain in weight almost invariably follows. The functional diseases of the heart, characterized by its rapid, irregular or fluttering action, are very frequently caused by the abuse of tobacco as all observers agree. These functional disorders may lead to organic disease, to dilatation, hypertrophy and, perhaps, valvular changes. General arterio-sclerosis and angina pectoris are by some authorities said to be due to immoderate indulgence in to-

bacco. The manner in which these changes are brought about is not well understood, but, as is said by Page in his *Physical Diagnosis*, "It is so all the same." Tobacco, it would seem, has no direct effects upon the heart, as after painting it with a concentrated solution of nicotine, the heart beats on apparently undisturbed. Probably "a deficient action of the Pneumogastric" is brought about by the poisonous principle of tobacco "whereby the heart is not properly controlled," or "to sudden vasomotor relaxations which by dilating the blood paths reduce the normal arterial resistance."

It is my belief that tobacco is one of the most fruitful causes of neurasthenia, and it was a surprise to find in looking over Beard's *Classic "Treatise on Nervous Exhaustion"* recently, that he nowhere mentions tobacco as a cause of the disorder. Certainly, very many of the symptoms that he so graphically describes,—"the atonic voice," "the mental irritability," the "morbid fear" in its various divisions, such as "anthrophobia," (fear of man); "gynephobia," (fear of woman); "pathophobia," (fear of disease) etc., the frequent blushing, profuse sweating without cause, local spasms of muscle (tremor), nervous chills and flushes of heat, temporary paralysis etc.,—all these are met within the subjects of the tobacco habit. It is hard to fix the dividing line. It is a question often whether there be any dividing line between neurasthenia, hysteria, lithæmia, and we might add melancholia. Certain it is that all the various symptoms and manifestations described under these headings in our text books, are met within those who use tobacco to excess, and that they are caused by tobacco is evidenced by the fact that they either disappear entirely or are very much lessened in degree when tobacco is discontinued. All of the symptoms spoken of under neurasthenia may be met with in chronic alcoholics and also in those who are given to sexual excess. Therefore, it must frequently be impossible to decide which vice is the leading agent in the cause of these disturbances, but we will frequently be able to exclude any suspicion of alcoholic indulgence or of sexual indiscretions, and to decide positively that the immoderate consumption of tobacco is responsible for the patient's condition; but to convince him of this fact, and to include him to forego his unfortunate habit is often an impossible task.

Among the various toxic substances producing amblyopia or impairment of vision, tobacco is known to ophthalmologists to be one of the chief. The poisoning by nicotine occasions a retrobulbar neuritis which may result, if the tobacco habit is persisted in, in almost complete loss of sight. Tobacco amblyopia is known to result most frequently in heavy smokers of the pipe, who consume the strongest and most juicy tobacco. Many a man attributes his gradual failure of vision to advancing age, when his fondness for a rank and ancient pipe is alone answerable for his condition. When the cause of the defective sight is recognized and the tobacco is abandoned, a cure usually results.

Certain other diseases, notably *tabes dorsalis* and general paresis have been charged to the account of tobacco, but there is not sufficient evidence it would seem to prove a causative influence. Enough has been said of the constitutional effects of tobacco. A few words now as to its local action.

The irritative effects of tobacco upon the mucous membranes are almost invariably seen, to some degree, in all who use it largely, in all great smokers certainly. "Snuffing" is practically obsolete in this country and of its irritating effect on the nasal mucous membrane, we cannot judge by actual observation.

The habit of "dipping snuff" is very prevalent among women of the poorer classes in some portions of the South, and its evil results are manifold. In addition to the constitutional effects occasioned by this habit, shown in the muddy complexion, the dyspepsia, the palpitation of the heart and often neurasthenia and hysteria, there is the direct irritant action upon the gums; this is increased by the rubbing to which they are subjected by the snuff laden "brush" before it is tucked away in the cheek. A chronic gingivitis results, the gums recede from the teeth, the teeth drop out one by one, giving an appearance of premature and unlovely age to what should be a fresh, youthful, attractive face.

The chewing of tobacco, in so far as I have been able to observe, rarely causes local symptoms. The constant stimulation to the salivary glands occasioned by its presence in the mouth, has apparently no injurious effect upon these over-worked glands, and the mucous membrane of the mouth, pharynx and naso-

pharynx is apparently no more prone to inflammation in the chewer than in the non-user of tobacco.

Constitutional symptoms are perhaps more frequently induced by chewing than by smoking. The confirmed tobacco chewer is rarely ever without his quid and is, therefore, more constantly absorbing nicotine into his economy than the smoker.

Those who smoke to any considerable extent almost invariably present evidences of local irritation. In how much the irritation is due to the more or less heated smoke as smoke and in how much to the plant giving forth the smoke, is a question. It is very probable that the smoke from any dried leaves would have an equally injurious action upon mucous membranes as the smoke arising from burning tobacco. According to some authorities, (notably Bosworth), the catarrhal inflammations found in the smoker are not due to irritation by the smoke but to nicotine poisoning. However this may be, a large proportion of all smokers have constantly a furred tongue, most marked in the morning, and a bad breath. This condition, as a rule, does not indicate any special derangement of digestion, but is due to a chronic superficial glossitis. Cigar smokers are less prone to it than users of the pipe, and tobacco chewers are nearly exempt so far as my observation goes. The form of glossitis, commonly known as "black tongue," characterized by great elongation of the filiform papillæ with a blackish discoloration over a circumscribed spot of varying size, may sometimes be caused by the irritation of tobacco smoke; the two cases I have seen, at any rate were found in confirmed smokers.

Chronic pharyngitis and naso-pharyngeal catarrh are very common in those who smoke to excess. As I have said, Bosworth asserts that these cases are not due to local irritation from the smoke but to the absorption of nicotine and the disordered stomach occasioned by it. It is probably true, as he says, that the smoke does not reach the pharynx at all in ordinary cases. Any smoker knows from occasional experience with a green cigar or a very acrid tobacco, that the point of impact of the burning smoke in the anterior portion of the mouth and that no sensation of heat is felt in the pharynx. Beverly Robinson says nothing in his work of tobacco as a cause of

naso-pharyngeal catarrh; neither does Morell Mackenzie mention it as an etiological factor. Other authorities, however, and I may instance Dudley Buck, accuse tobacco smoking of causing a chronic irritation of the pharynx and resultant disease of the middle ear from extension along the eustachian tube. He says the man who smokes heavily frequently presents a pharynx strongly resembling that of a scarlet fever patient.

The hot smoke from a short pipe is more apt to inflame the throat than is the cooler smoke of a cigar. Some men, while using the pipe, constantly suffer from a more or less pronounced nasopharyngeal catarrh, which they are never troubled with using the less economical cigar.

Tobacco smoking has been said to cause epithelioma of the tongue and lip. Whether it does so is a mooted point, but as any prolonged irritation may produce a malignant growth in a subject prone to the development of neoplasms, it is probable that tobacco is at least an occasional cause of cancer.

There is no object in extending the list of disorders occasioned by the tobacco habit. Enough has been said to show that it is a frequent cause of disease, while it induces many more or less alarming symptoms that may lead to real disease.

Tobacco is a potent agent for harm. It should never be used by the young, growing boy or by the thin, nervous dyspeptic. The physician should always point out its dangers when he suspects it to be doing harm, and insist that it be given up at once.

REPORT OF CHAIRMAN OF SECTION ON PRACTICE OF MEDICINE.

BY M. H. FLETCHER, M. D., Asheville, N. C.

AFTER reviewing carefully during the past year a part, at least, of the abundance of literature which has been printed on medical subjects, and viewing it from the standpoint of a general practitioner, it is difficult to state just how much progress we have made. That which concerns us most is the treatment of disease, and I am not prepared to state that we

can better or more unsuccessfully treat disease now than we could ten years ago.

I would not for one minute intimate that medicine is not a progressive science. Certainly not within my knowledge have the members of the profession been so thoroughly aroused as to the possibilities and the future of medicine as at the present time, and the interest manifested is not confined to the medical centres. The country doctor and the doctor in the remote districts is alive to the interests of his profession. When we see thousands of good men in the laboratories, in the hospitals and in private practice, all working along different lines and arriving at the same conclusion, with the same object in view, i. e.: the study of medicine from a purely scientific standpoint, good must result from it.

The greatest advances are being made in etiology, pathology and diagnosis, and however much we dislike to have our pet theories in regard to certain diseases upset, or how often we are driven from our beliefs when nothing better is offered us, still, medicine is each year getting further away from empiricisms, and is being founded on a scientific basis. When we understand fully the cause and know thoroughly the pathology, symptoms and course of a disease, rational treatment must follow.

The increase in the number of medical colleges in the country may, in a measure, be responsible for an overcrowded profession and a number of other ills along this line, but at the same time, they are a stimulus to men to work and do good in this way.

In my judgement, one of the greatest dangers to the progress of treatment of disease lies in the encouragement given by the profession to the enterprising drug firms and the proprietary medicine men of the country. We often prescribe these remedies, the especial value of which consists in the way in which they are prepared,—a knowledge of which process we are entirely ignorant. 'Tis true, most of them bear a formula but I venture to assert that in nine cases out of ten when we prescribe these nostrums, we cannot tell just what size dose of each drug we are giving, or the effect each one is expected to produce. While the formula comes with the remedy, no competent druggist can

make a similar product from the same combination. These enterprising drug firms, who have no interest in medicine except the commercial side of it, will try to monopolize everything that is new, and resort to every kind of method of advertising in order to get a "Run" on worthless remedies. The most discouraging fact in this connection is that we make our local druggist who, as a rule, is a competent and an educated man, a distributing agent for the nostrums; while the enterprising manufacturer grows rich, our honest local druggist starves and his knowledge of pharmacy runs to seed. The agents of these firms who are always polite and agreeable are becoming a nuisance; they infest our offices and claim a share of our time when we ought to be otherwise employed; they are persistent in exacting a promise to prescribe this, that or the other remedy, in order to keep it from falling into disuse.

I realize that our local druggist cannot always be a manufacturer of drugs, but he ought to be allowed to combine the remedies which are daily in use. There are a number of agents used in medicine, such as vaccine virus, antitoxin and other serums which should be propagated under the supervision of our government. Useful remedies of this class are liable to be dropped from our list owing to the fault of their preparation.

We offer as proof that medicine is a progressive science,—books written ten years ago are now out of date. The pathology and the practice are constantly changing. With our recent theories in regard to the causation of disease being confirmed by so many good men, the pathology and then the treatment will follow and rest on a securer basis. There are still a number of questions in this particular which are yet unsettled in the mind of the general practitioner.

It is discouraging to note, for instance, in pneumonia, while its cause is better understood and we have made advances in its pathology and diagnosis, no distinct advancement has been made in its management and treatment; the death rate has not been diminished. If any drug exerted a specific influence in this disease, there would not be such a diversity of opinion in regard to its treatment. No two practitioners treat the disease alike,—one will advise you to use the cold pack, another a warm poultice. The pathologists tells us that there is hope of prog-

ress in this direction, now that its etiology is better understood. We are taught that the consolidations which occur rapidly in most cases are not in their nature purely inflammatory, on the contrary, the local exudation in the lungs is found to be dependent upon the presence of septic germs as a specific causative factor and the combined symptoms rank it as an essential fever. Our country laity are not so very wrong when they speak of it as "pneumonia fever." Even before we knew that pneumonia was dependent upon the presence of one or several microorganisms, we were positive that it should be classed among the infectious diseases and that it was disseminated by contact. I believe that we can often prevent pneumonia by treating it as a communicable disease. In the future, the object of treatment will be rather to diminish the number of cases and protect the community in this way.

The usual amount of discussion has occurred during the year as to the best method of treatment of Typhoid Fever. No one at the present time questions that Typhoid Fever is due to a specific germ and the object of treatment is to get rid of these germs and their weapons the toxins, without injury to the patient. Since we have no specific remedy to meet the indication as referred to above, we have a large number of methods of treatment offered us, in which particular, the profession is widely at variance. I think that Dr. Woodbridge has received too much attention at the hands of the profession. If we exerted our efforts to the destruction of these Typhoid germs and spent less time in the discussion of Woodbridge's pellets No. 1, 2, 3 and 4, science would be benefited. Some of our recent writers tell us that Carbonate of Guaiacal remains as such in the small intestine and will act as an antiseptic to the intestinal tract. At best, it is only a mild antiseptic and I doubt very much if the good effect of the drug along this line will counteract its bad effect by interfering with digestion. As yet, an ideal intestinal antiseptic has not been discovered. Neimeyer and other German authors a good many years ago advocated the use of large doses of calomel,—10 to 20 grains in the beginning of Typhoid Fever. I think it not only wise and safe to give these good-sized doses in the beginning of the disease, but it is equally as wise to give repeated and smaller doses, especially during the first weeks of the attack.

Osler says that his cases which are constipated get along best. He is very careful not to follow up the suggestion and advise that we produce a condition of constipation in all cases. My present belief is in free catharsis, especially in the beginning, large quantities of water internally and externally, and water as cold as the patient can bear it. It is difficult to state how often, if we can at all, abort typhoid fever; but I do know in my own section, a large number of cases of typhoid fever or typhoid infection will either abort or run its course in from 10 to 14 days. It may be argued that when typhoid fever aborts or runs a short course that there is a mistaken diagnosis. The symptoms are always such as to warrant a diagnosis of typhoid fever. The fever might be mistaken for malaria, but no competent observer has ever diagnosed a case of malaria in North Carolina west of the Blue Ridge among our native population who do not leave the mountains.

Your attention was called to the blood or serum test of Widal for typhoid fever at our last annual meeting. After being employed for a year, it shows just enough elements of uncertainty to make it of little value to the general practitioner. We had hoped that we had a test which was absolute in the early stages of typhoid fever. The blood examinations fail to confirm the diagnosis in about 12 per cent of cases. The test works on the blood shows the agglutination in about 12 per cent of cases which are not typhoid, and often the test proves of value only during convalescence. Like sputum examinations in pulmonary tuberculosis if the bacilli are found it is helpful, if not found the examination is of little value. The Widal re-action can only be of value in certain doubtful and puzzling cases, and only then when we are near a well equipped laboratory in the hands of an expert.

The most remarkable advancement in medicine in modern times is the good results obtained by thyroid treatment in cases of sporadic cretinism and in myxœdema; up to a short time ago, these subjects received little or no attention at the hands of the general practitioner. In fact, the cases were so few that they were not diagnosed outside of institutions. Since the thyroid treatment has come into vogue, a greater number of cases are being discovered, and like appendicitis, which up to a few years

ago was a rare disease, in future our medical journals will teem with reports of cases. In all seriousness, however, if such good men as Osler can be believed (and he is not an extremist on any subject), the cures reported in cases of sporadic cretinism are simply marvelous. When we think of the arrest of development of mind and body in these cases, their idiotic expression, the unspeakable affliction to their parents and relatives, and the changes that we are enabled to bring about with what may be called a specific remedy, the desiccated thyroid gland, it is one of the evidences that medicine is a progressive science.

Osler, in his admirable paper on this subject, has well nigh proven that endemic as well as sporadic cretinism results from a loss of function of the thyroid gland. The thyroid treatment is not of less value in cases of myxœdema and these cases also, Dr. Allen McLane Hamilton says, are of more frequent occurrence than is supposed. I was inclined to doubt the value of the remedy when my attention was first called to it, and fancied that I could see some resemblance between the principle involved in the action of the thyroid gland and Dr. Brown Sequard's elixir which brought medicine somewhat into ridicule, and I thought its fate would be the same as most new remedies which had been introduced in the past few years; but I had occasion to witness the use of the remedy in a well marked case of myxœdema, and while the case has not been cured, the whole appearance of her countenance, skin and complexion, has changed, and she seems entirely relieved as long as she is under the specific influence of the thyroid extract. She began first by taking three grains three times daily and continued till she became markedly nervous and had symptoms of hysteria; remedy was discontinued till nervous symptoms subsided; remedy was renewed, five grains daily with same beneficial effects; occasionally, the patient becomes very nervous and the remedy is discontinued for a time.

The X ray is continuing to excite interest in the profession, although its use has not fulfilled first expectations, while it has proven of unmistakable aid to the surgeon, it is going to occupy a place in medicine as an aid to diagnosis. In diagnosis of thoracic diseases, it has proven of greatest value. Those who are thoroughly familiar with the use of the fluoroscope, not only

report no harmful effects to the patient, but in a number of instances, it gives more accurate information concerning the location and extent of disease than we can detect in any other way.

“Dr. Francis Williams of Boston, in summing up the advantages of the use of the X ray, claims, (first) a given part of the chest may be darker than normal on account of the obstruction offered to the passage of the rays which is due to the increase of density that occurs in tuberculosis, pneumonia, infarction, oedema, congestion of the lungs, aneurisms, new growths, or to fluid in the pleural or pericardial sacs; (second) a given part of the chest may be brighter than normal because it is more permeable than in health by the X rays on account of the diminution in density due to increase in the amount of air in the lungs in case of pneumothorax or increase the amount of air entering the thorax and displacing the lung. The normal diaphragm lines which can be observed by the fluoroscope is of importance in diagnosing thoracic troubles. These lines vary on both sides of the chest in disease and include position, excursion and curve of diaphragm and the clearness with which they are seen. The fluoroscope gives us better assurance that the lungs are in a healthy condition than other methods of physical examination.”

The most interesting part of my subject, serum—therapy, will be presented to you by my friend, Dr. Minor, who has kindly consented to write on this branch.

A FEW SUGGESTIONS ON PREVENTION OF TUBERCULOSIS.*

BY J. A. BURROUGHS, M. D., Asheville, N. C.

THERE has been so much written on the subject of tuberculosis since Professor Koch in 1882 first discovered the germ that causes consumption, we hesitate in opening any phase of the subject, yet we are excusable when we state, from statistics, that this is a disease that causes the death of

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every seventh human being on the globe, and further, if proper precaution and sanitary regulations were observed, in a short time the number of cases could be greatly reduced and longevity raised several years.

All admit that tuberculosis is an infectious disease, and at the same time must admit that all contagious and infectious diseases could be prevented if we only knew what to do.

Located as I am, handling hundreds of these cases from every quarter of the United States and Canada, it is appalling to note the lack of knowledge of the contagiousness of tuberculosis and the great danger the infected are to others. It is no infrequent occurrence for a tubercular mother to expect to keep a baby and a few small children in her bedroom as no protest has been entered against the practice by family physicians at home.

As soon as a diagnosis of tuberculosis is made, first of all, without an exception, it should be communicated to the patient, and he should be informed of all known facts on contagiousness of the disease so that he would not be a source of danger to others or reinfect himself. The sputa is the principal means by which contagion is spread. All the sputa should be collected in a sanitary hand cuspidor and the papers removed at least twice daily and exposed to a strong solution of bichlorid of mercury, or cremated; see to the thorough destruction of these papers or sputa, do not allow them to be thrown into the sink to infect people or cattle miles away; do not permit a blaze to consume the dry portions of paper, leaving the sputa with its millions of germs unmolested to dry and do their deadly work; make the patient understand that it is the sputa you wish to have thoroughly burned.

Patients in the first stage, in fact all stages, of the disease do a greater portion of their coughing and expectorating on rising in the morning and it incurs no hardship to demand this duty of them, in which they soon acquiesce.

About two years ago the little city of Asheville, N. C. passed an anti-expectoration ordinance (which was, so far as I know, the first ordinance of the kind in this country) since which time one hundred and seventeen cities and towns in the United States have passed a similar law. It has proven a great educational feature with the masses and practically put a stop to the

dangerous insanitary nuisance of spitting upon the sidewalks, in the street cars and public buildings, in the city where the anti-expectoration ordinance was originated. All cities that have passed this ordinance have experienced trouble in enforcing a strict letter of the law, millionaires have instituted suits for damages against corporations because of reproof and ejection for vulgarly violating this ordinance, but this has only had a good, wholesome, and stimulating effect upon the people; it has put them to thinking.

The poor consumptive of today, who is properly informed, is careful with his sputa, he feels that indifference on this point may be death to others, cause him litigation, or hasten a crisis in his own case.

It is an admitted fact that no child is born with tuberculosis, yet they do inherit that peculiar, lymphatic, anemic, poorly nourished constitution which gives them but little or no resistance when exposed; to permit these unfortunate children to reside in tubercular homes with like habits and environments as their infected parents or relatives, is nothing short of criminal negligence. Such children should be removed to an altitude of dry, rarefied atmosphere loaded with ozone and perpetual sunshine; in conducting them into puberty and settled life, short school hours should be provided, with much time spent in the open air: this class should be induced and taught the necessity of eating such food as will make blood and build up good, healthy tissue cells so as to give them all possible means of resisting any invasion of this dreaded enemy.

I have at this time under my supervision many individuals and families of a tubercular diathesis who have undoubtedly escaped the disease by the above suggestion; at this moment I call to mind three younger members of a New Jersey family of ten, all of whom had died in quick succession with tuberculosis; these three located in western North Carolina eight years ago and no symptoms of tuberculosis have developed in either of them, the younger being now two two years older than any one of the brothers or sisters who died in New Jersey.

A complete change of climate in all tubercular families is wise sanitary advice and, to repeat, that change should be a higher altitude where the air contains a quantity of ozone and perpetual

sunshine and is freer from gases and bacteria. It is judicious to note here that sunshine and ozone are deadly to tubercle bacilli and, to this fact is due immunization of the points like Mexico, Denver and Asheville, that have been for years resorts for consumptives.

It is possible for the well-to-do class to avail themselves of these sanitary precautions, but it is quite different with those less fortunate.

What we shall do with our tubercular poor is a big question, and one which demands the most serious and careful consideration by every State and municipal Board of Health; to diagnose these cases and report them to the local Boards and have them registered, does but little good beyond the general advice given, and swelling our statistics. What that class needs is some provision by State or city where they could be placed under the best sanitary regulations so as to protect an innocent community and, at the same time, offer them the best chance for an arrest or cure; it is more necessary that this class should have official care as they are largely ignorant and careless, and it is principally these people who lounge around lawns and suburban fields, scattering millions of germs upon the grass which infect fowls, stock, and milk.

England has greatly reduced her death rate of pulmonary tuberculosis by providing hospitals for her poor; England has eighteen tubercular hospitals with the capacity of seven thousand beds.

With the exception of the States of New York and Massachusetts there has been no attempt at isolation of the bulk and file of tuberculosis in this country, so far as I know.

It is gratifying to note the good being accomplished in veterinary surgery under the various State Boards of Health in pointing out infected herds of cattle and disposing of same.

Every large collection of people should have a competent bacteriologist to keep a watch over its meat and milk supply, with an especial view to prevent tubercular infection; this official would doubtless save the corporation employing him, many times his salary, in pauper burial expenses, to say nothing of the protection to human life.

Mal-nutrition, insufficient food of a poor quality, and overcrowding of tenements and public buildings are subjects that

are constantly confronting Health Boards and individual practitioners; each is a subject within itself.

I wish to say something in behalf of our over-crowded school buildings and orphan homes; a glance at the pale, anemic faces in a public schoolroom would convince the most skeptical of the various results of improper ventilation. That many children become infected in the vitiated atmosphere of the schoolroom is a painful fact that is only too often brought to our notice.

If mountain air, containing as it does, large quantities of ozone, is beneficial, and often curative, in tuberculosis, why not bring a similar condition to bear in the insanitary schoolroom or other places where there is assembled a large and permanent collection of people.

It is a somewhat remarkable fact that ozone, which can be generated by means of an electric current with comparative economy and cheapness, has not been put to more extensive use for sanitary and prophylactic purposes: the extraordinary germicidal power of ozone has long been known and recognized by the scientific medical world: the ozonizing of the schoolroom and public building is a matter of minor mechanics. An ozone-generating apparatus is not expensive and can be connected with an electric dynamo; with the proper apparatus the whole building can be impregnated with this germ destroying gas.

In any large assemblage of children some one or more have tuberculosis which has not been suspected by teacher, family or consulting physician. If the ozonizing of school buildings were put to practice, that source of tuberculosis, with all other contagious and infectious diseases, would be practically cut off, and the children would have a nice, sweet, clean, non-germ fluid to breathe: this idea adopted in the school there would be fewer constitutions prepared for tubercular infection.

In my judgment no hospital or sanatorium, either private or public, should be kept open unless there was ample provision for ozonizing the entire building from cellar to garret. The statistics of mortality from tuberculosis in insane asylums and prisons of the different states, is sufficient to suggest a consideration of the above idea; all must acknowledge that something is wrong when strong men in a few months after incarceration become tubercular. With an ample ozonizing apparatus placed

in these prisons and asylums, there would be marked diminution of tuberculosis.

The ozonizing of all hotels and especially Pullman cars is the most rational solution of the danger along that line. Permit me to state that in one of the "babies wards" of New York Post-graduate Hospital where an ozone-generative apparatus is used, contagious diseases are almost a curiosity, whereas in non-ozoned wards quite a number have occurred.

Some ingenious pathologist has stated that the consumptive cadaver contains about eleven million tubercle bacilli: am not prepared to substantiate or deny the above statement, yet it is quite reasonable to presume that the calculation is approximately correct: we do know that these bacilli will live in the ground for more than a quarter of a century, retaining all the vitality of the same germ that was carelessly deposited in the hotel lobby the day before; knowing this, it does seem reasonable and practicable, from a prophylactic and sanitary position, that all tubercular dead should be cremated; to bury this class means to infect the soil and contaminate dependent water supplies for man and beast for more than a generation; a concerted action of all the civilized world in cremating its tubercular dead might not have much effect upon this generation but would lessen the dreaded disease for those who come after us.

There are many points of vital value on prevention of tuberculosis left out of this little paper which I trust may be brought out in the discussion.

The laity, as well as the profession, is waking up to the contagiousness of this disease and, in the judgment of some of our best thinkers, there will soon be a pronounced, recognizable reaction in the number of the tubercular; indeed a perceptible reaction has already begun, as is observed for an editorial in the *Journal of the American Medical Association* of February 26th, 1898, where the statistics from twenty of our principal cities having a population of seven million and five hundred thousand, have shown a decrease of the tubercular death rate thirty-three per cent since 1888, which is tersely ascribed to a more general knowledge of the contagiousness of the disease, better food supply, and more perfect sanitation.

DISCUSSION.

Dr. Kent:—After this paper read by Dr. Burroughs, I feel

my inability to add more than simple emphasis to the position taken by him, but I do wish to emphasize the matter of preventive measures in tuberculosis. If tubercular phthisis be a contagious infectious disease, then it is preventable, and if preventable, it behooves us as custodians of the public health to bestir ourselves that something effective may be done. Dr. Koch some sixteen years ago demonstrated the fact of the causal relation of bacillus tuberculosis to consumption. During that sixteen years of time, the most able scientists have been confirming his conclusions. That there are some who still doubt, we must admit, but while we admit it, I can frankly say it is well for us that there are those who have doubts. It makes discoverers more careful, it makes them more painstaking, and stimulates research, but the fact that there are those who doubt does not disprove, and it stands today among the best of the profession a well admitted fact that consumption is a contagious disease. Then, if contagious, what must we do? Shall we ask the Legislature to pass laws? In my opinion we must, but before we can enforce laws, we must have the moral support of the people, and in order to have the moral support of the public, we must educate them. We as leaders in this fight must teach it to the people, we must teach it in season and out of season, and so preach it that the people will learn it, and that once having learned it, they can put it into practice, for nothing is of value that cannot be put into practical use. I am glad to be able to say that our higher institutions of learning are already armed and equipped with proper information on this subject. I have had some little correspondance with our best equipped institutions, and I find that they are already enforcing proper sanitary regulations in regard to this disease. I am proud that it is a fact. These are the fountain heads of knowledge in our State, and from them it will gradually trickle down; but, gentlemen, more may be done, and more may be done quickly. It should be taught in the homes, it should be taught in the common schools, it should be taught in the high schools, it should be taught in the colleges, it should be taught in the hotels and boarding-houses, it should be taught in the church and in the State, and we can continue so to teach and so to preach it that the people will be ready to join hands with us in the battle against this arch enemy to home life. If we once get the people educated upon the subject, then we are ready for strict laws, and these laws will be enforced. Gentlemen, it behooves us to teach them. Once we have taught them this, with willing hand and educated brain and determined mind, they will take up the work with us, and with one common cause we can go on to the extermination of this greatest enemy to human life.

Dr. Lewis:—I wish to express my gratification at the excellent paper read by Dr. Burroughs, and the no less excellent remarks

of Dr. Kent. I think he has struck the key note when he speaks of the profession as the custodian of the public health. I do not think that anybody can deny that every physician is a health officer morally whether he is really so or not. It is a simple matter of education. Laws amount to nothing unless the people are willing to carry them out. There are one or two practical things I think we could carry out without any trouble if we would simply call attention to them. The ordinance against spitting in the street in Asheville is very well, and I am glad that the laws of the city of Asheville have done that. You all know, as Dr. Burroughs said, that sunshine and ozone are fatal to the life of the tubercle bacillus. People spitting out in the street out in the open air is not so dangerous as spitting in the houses, the dark unventilated houses where the bacteria flourish. To illustrate that point, I quote from the last Bulletin from Ohio, the history of a house in Ohio, in which there had been three deaths from tuberculosis evidently contracted from an original case in it. All these families who moved into the house had no hereditary predisposition to the disease. This seems to me to be a striking object lesson, and I am satisfied bears materially on the subject. If the profession insisted upon it and impressed the fact that tuberculosis is a contagious disease, and that if the patient don't take the proper precautions, they will not only die quicker, but will cause the death of those nearest and dearest to them, dearer to them than their own lives, I believe that there will be no difficulty in carrying out the proper precautions. As I intimated a moment ago, the most important of all is the thorough disinfection of rooms occupied by tubercular patients. If we could ever get the sentiment instilled into the minds of the people, that under no circumstances should they rent a house in which a case of consumption had lived, unless that house had been thoroughly disinfected and an official certificate to that effect be presented, I believe it would have a very great effect. Of course isolation of tuberculous patients is desirable, but practically it cannot be done. You can't take children away from parents, and the poor you can't manage because we haven't the money, and we all know that public sentiment in North Carolina is not ready for making an appropriation to take care of consumptives. If the profession would impress upon the people the fact that tuberculosis is a contagious disease and that general sanitary precautions should be taken, and above all absolute and thorough disinfection and ventilation of rooms, which can be most easily done, I believe great good can be accomplished.

Dr. ———:—The discussion of this paper has so fully covered the ground that I have very little to say. I rise simply to endorse what the doctor has said and what has been said by

the gentlemen who preceded me. I think, sir, that we cannot ring changes upon the prevention of tuberculosis too often. Every gentleman who has spoken has emphasized the necessity of educating the public along this line, and the only way we can educate the public is to keep talking about it. I do not believe we can spend an hour more profitably in any medical meeting than in discussing this prevention and means of preventing tuberculosis. One or two points I would like to call special attention to. One is the practical matter of preventing tuberculosis among physicians themselves. I think, if you will excuse the personal reference, that I inherited a tubercular tendency from my father. Every time I go to see a tubercular patient, it hangs over me like a terrible nightmare, and after every visit I take the precautions to wash my hands and my face, and particularly my beard, because it is by these means that the bacilli may be conveyed into the lungs. I think that the very reason that tuberculosis is so mildly infectious constitutes its most dangerous element. If we could show that it is as infectious as scarlatina or diphtheria, we might hope after a little while to take up some practical measure and insist on instituting measures to prevent it, but it is because it is so mildly infectious that we have such a hard time to educate the public. But to return to the point which I just mentioned, and that is tuberculosis among physicians. We all have seen it, and we have all had friends who have had it and have died of it. The practical question comes, how did they contract it? It is quite possible that we might set a good example to the laity by instituting some reforms ourselves, and in that way we could show them that it is important that we should disinfect ourselves. I have seen physicians and heard them talk about disinfecting themselves and isolating cases of scarlatina, etc., and yet this same physician would go to see a case of scarlatina and yet wear the same clothes and hat and overcoat, and never disinfect his hands or face or anything and go to see another patient. I say that we can best educate the public perhaps by instituting some reforms ourselves along this line.

Dr. Spencer reported the case of the keeper of the poor house for the aged and infirm in Caswell county who died not quite two years ago with phthisis. No family history of phthisis whatever. Since that time two children have died, and two remaining children now have phthisis. The wife now has tuberculosis, and two laborers who were there a while have also tuberculosis, or rather, they did have it, they are dead.

Dr. Reagan:—I know of a case which I would like to bring before the Society, which I think shows strongly the contagion of the disease. It was that of a gentleman of Peoria, Ill, who is now at my house. He was broken down from hard work and was advised to go to Colorado. They examined him there and

pronounced his lungs perfectly sound. In the hotel and in the streets there were no sanitary regulations at all, and the result was that after a stay there of a few months the last examination revealed, as the doctor said, some bugs in the sputa. He came to my house over eight months ago, and has had no hemorrhage since. He weighed 117 pounds when he came there, and now he weighs 137. I say then let us try to educate the people. I remember that about four or five years ago we discussed this thing in the Medical Society in Asheville, and one physician who was treating the disease contended that it was not contagious. He said that the attendants and nurses in the hospitals never contracted the disease. But that idea has given way and the Medical Society of Asheville has been able to pass an ordinance, endorsed by the town authorities, that prevents spitting on the sidewalks or in public places.

Dr. Walton.—I know of a case where the parents and two boys and two girls died of pthisis in rapid succession. After this the three living children broke up housekeeping, off, moved and none of the rest developed pthisis. This is pretty strong evidence of the contagiousness of tuberculosis. The mother was not of a consumptive family, and there was no heredity of that kind on her side. It was hereditary on the father's side.

Dr. Anderson.—I would like to say something in regard to the importance of making a correct diagnosis in these cases. Of course all of our patients who cough haven't consumption by a long ways, and those who don't cough, and very often look well, may have the beginning of consumption. I have in mind some few cases in my own town where it was important to make a diagnosis with the microscope, and we waited too long. One young man in my own profession who graduated only a little over a year ago, delayed having an examination made last summer, and when he did find tubercle bacilli in great abundance. I believe that if he had had that examination made twelve months ago and had taken the necessary precautions towards stamping out the disease, and had gone to some suitable climate and taken tonic remedies, using every precaution known to him, that perhaps he would have checked the disease and been on the road to recovery to day. It is a sad thing to look at that young man, so well prepared for his work and so devoted to his profession, it is the saddest picture in the history of my life. Another case I have in mind is that of a young lady. She is the very picture of health, or at least was six months ago. She had throat trouble, so her physician thought, with no tubercular trouble connected with it. Her trouble went on until she consulted a specialist, Dr. C hisholm, of Baltimore, and he treated her there a while. He asked for a specimen of the sputa, and just about the time she sent it, she consulted her physician and sent a specimen to me. I examined it, and found tubercle bacilli,

much to my surprise. I never made a physical examination, though her doctor could discover nothing. I wish to press the point that it is important to make a bacteriological examination with the microscope. It is the easiest thing done in bacteriology. We can absolutely tell from a stain of the bacilli, and we can hardly say that of any other germ, without culture. So peculiarly does it retain its stain that it is one of the easiest examinations to determine. It is an easy thing to, do and I believe that any doctor could learn how to do it in just a few hours time with a suitable magnifying lens.

Dr. Hunter.— I rise to inquire for information. If tuberculosis is so contagious and so contaminating, why is it that we never find our patients in the beginning of the disease at the age of 50 or 60 years? I have never seen, to my own knowledge, a case of tuberculosis that has been contracted after the age of 50 or 60 years. If tuberculosis is so contagious and so contaminating to younger persons, it seems to me that in the older and more depleted frame, it would be more so. I would like to have some light on this subject.

Dr. Carr—recited an instance in Switzerland where a soldier contracted consumption abroad and coming to his mountain home, his wife took the disease, both dying. A regular epidemic ensued, and an eminent French physician who investigated the matter came to the conclusion that the disease was spread by eating chickens which were sold about the place by the father of the woman. It was known that the chickens were in the habit of eating the sputa which the woman would expectorate upon the ground.

Dr. Crowell:—It seems to me almost impossible for disease to be communicated in that way, especially when the chicken was cooked, as heat would destroy the bacilli.

Dr. Carr:—We are not certain that they were cooked. Some people like rare chickens.

Dr. Brownson:—I wish to say a word about the case referred to by Dr Reagan. It seems to me that that was an instance which would show that great care should be exercised in making a diagnosis rather than showing that the disease was contracted later. The patient was said to be broken down and was sent to Denver, which to me would show that he was suspected of a tendency to tuberculosis, and that the tuberculosis was not discovered in the examinations, not after he got to Denver. It seems to me it does not prove that he did not have it when he went. It might be called latent tuberculosis, or so slight that it was not at first recognized. I frequently examine cases supposed to be tuberculosis without finding positive evidence of it, but still, if I do find it later, I do not suppose that the patient has been infected since I first examined him, but rather that he had it all along, and I failed to discover it.

Dr. McMullan:—It is rather too late for the Society to discuss the infectiousness of tuberculosis as it is an accepted fact. The only question is as to the degree. It would be very nice if we could have as Dr. Burroughs suggests, an apparatus in the cellar to keep a flow of ozone through the house, but while this is impossible, we can have a good supply of God's pure air in which there is at all times a supply of this blessed ozone. The great increase of consumption among the negroes since the war seems to be due to the altered mode of living. In ante-bellum days they lived in houses with big chimnies in which burned a roaring wood fire, which carried a column of air four feet in diameter out of the room, fresh air coming through the cracks. Now they are huddled in the cities, live in small rooms with stoves which give no ventilation, leaving the air stagnant. The air is breathed over and over again, and I would as soon expect a person to take into his alimentary canal over and over again his own dejecta and not contract disease as for him to breathe over and over again his pulmonary exhalations and not suffer. The same reasoning applies to the North American Indian who has had to change his life in the open air for one of laziness. It applies also to the modern habit of building houses with steam and hot air heaters. In these homes the people live and swelter and their skins are not taught to resist the influence of cold. I instruct my patients as to the manner of building their houses; and I think that we should instruct our patients that at night and in the summer one window should be thrown wide open to admit a good supply of God's pure atmosphere.

Dr. —:—I was interested in what the gentlemen said in regard to the cause to this, but there seems to be something more than bad air. I myself practice in the country, where we have the kind of houses he described, open walls and all that, yet I think I can say that in eighteen years of practice that one-third of deaths I have had among this negro population, has occurred from tuberculosis, in these open houses and in the open country. There seems to me to be some other cause possibly because they are badly clothed and badly fed.

Dr. McMullan:—I do not claim an instant that bad air will give a man consumption. I simply contend that it harbors the germs in concentration, and that it therefore makes you more vulnerable. Most of these darkies go to church and sit for hours and hours in this vicious atmosphere.

Dr. Burroughs:—I thank the gentlemen very heartily for their discussion of this paper. It has met the ends for which it was written. I wish to say this, that a tubercular patient is not considered dangerous to other patients as long as he is careful of his sputum. The physician attending and the nurses who nurse the tubercular patients are in the least danger of any of the contagious and infectious diseases, because it is so easy to control

by destruction of the sputum. I can say this, that I appreciate the remarks of Dr. McMullan on thorough ventilation. If we have the old-fashioned chimney, open doors and windows, and plenty of sunshine and fresh air, we get a plenty of ozone in our atmosphere, and ozone and sunshine are what kill. One point has not been brought out, on which I wish to lay emphasis. It is this, that every room which has been occupied by a consumptive should be disinfected as thoroughly, and sterilized, as if death from consumption had occurred in that room. It is bad sanitation to allow consumptives to move from house to house and others move into the rooms. In Asheville we have every consumptive registered and we have him give his residence to the Board of Health, and if he moves his residence, we have the Board of Health notified, and the physician who is up to his business sees to a thorough sterilization and disinfection of the rooms after the patient has gone. When our patients come to us, we see that they come into a room that is thoroughly sterilized. We do not sterilize our rooms with ozone. That is for larger institutions. The cheapest and best way to sterilize a room where a consumptive, or any other contagious and infectious disease has been, is by means of sulphur. Eight pounds of sulphur burned in a room 15 x 15 and burned eight hours, will sterilize it.

In reply to a question as to the manner of using sulphur Dr. Burroughs said dry sulphur fumes would kill the germs. However Dr. Fletcher stated that as a matter of fact steam was always generated along with the burning of the sulphur, and he believed the dry sulphur worthless. In regard to formaldehyde, he had not experimented with it himself, but referred to the report of the President of the Board of Health of a western state, whose experiments showed it to be unsatisfactory in disinfecting rooms infected with tubercle bacilli.

NORTH CAROLINA MEDICAL JOURNAL.

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Editorial.

THE SOCIETY MEETING.

The forty-fifth annual meeting of the State Society is now a matter of history. Beautiful weather and the well known hospitality of the people of the Queen City tempted out a good attendance, and those who came were not disappointed. The sessions were held in the new court house which proved one of the most comfortable meeting places the Society has ever assembled in. Clean, cool and roomy, and well removed from the din and rattle of paved streets, it was a real pleasure to sit and listen to the many interesting papers that were presented by some of the Society's best members. It was a noteworthy fact,

as showing the trend of medical workers at this day, that the most prolonged discussions were upon those papers treating of the prevention of disease.

The suggestions of the President in regard to the admission of licentiates of the Board of Examiners was productive of good results, the new members admitted at this meeting numbering fifty-five. At least one-half of the number licensed connected themselves with the Society, and it is quite certain that nearly all of these will take an interest in the Society and make valuable and influential members. How much better thus, than that they should be allowed to drift away and wait to join until the Society should happen to meet in their respective neighborhoods. Again, as it has repeatedly done before, the Society refused to permit admission of members by proxy. This may be a wise thing to do, but we candidly admit we do not see it that way.

This year sees quite a change in the personnel of the State Board of Medical Examiners. There were two vacancies caused by expiration of terms of service of Dr. J. M. Baker and Dr. H. B. Weaver. These were filled by the Society, Dr. Albert Anderson, of Wilson, and Dr. E. C. Register, of Charlotte, being elected. Two vacancies were caused by the resignation of Dr. R. H. Whitehead, of Chapel Hill, and Dr. T. S. Burbank, of Wilmington. These vacancies, in accordance with the State law, were filled by the Board, Dr. J. Howell Way, of Waynesville, being elected to succeed Dr. Whitehead, and Dr. W. H. H. Cobb, of Goldsboro, to succeed Dr. Burbank. The newly elected members are well known and will reflect credit upon the Society. We congratulate them upon having bestowed upon them the most responsible gift in the possession of the Society.

It is useless to say aught of the new President, Dr. L. J. Picot, of Littleton, but we are tempted not to wait until he joins the great majority to say of him "None know him but to love him, none name him but to praise." As he is a man, so will he make a president, *sui generis*.

Our readers will not fail to notice that this issue of the JOURNAL is twice the usual size and devoted almost entirely to the Society proceedings. The next issue will be likewise enlarged. In this connection we will say that we acknowledge with the highest appreciation the unanimously favorable action taken by the

Society in regard to the JOURNAL. In *high ethical standing, progressiveness* and *practical usefulness* the JOURNAL will continue striving to make itself worthy of being the mouthpiece of so distinguished and able a body as the Medical Society of North Carolina.

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NECROLOGY.

DR. ROBERT GIBBON.

Again the reaper Death has been a' work, and cut down him whose name stands first on the roll of the Medical Society of the State of North Carolina. On Saturday, May 14, 1898, Dr. Robert Gibbon, of Charlotte, N. C., ended a bright and useful career. From the Charlotte Observer we glean the following data:

The son of Dr. John H. Gibbon, he was born in Philadelphia in 1822, and his death, therefore, came at the age of 76 years. His father moved to Charlotte in 1837, having been appointed assayer of the United States Mint, which was established the year before. Dr. Gibbon received his education from various schools in Mecklenburg, and then attended Yale. He graduated

in medicine from Jefferson College. He came to Charlotte in 1848, and ever afterward made this his home. When the war broke out, Dr. Gibbon entered the army as surgeon of the Twenty-eighth North Carolina Regiment. He was with the army in Virginia from '61 to '64, and made a reputation as a surgeon second to none. He was a man of fine sense, judgment, skill and nerve, all of which qualities he found ample play for on the bloody fields of Virginia. In '64 he was given charge of the military hospital in Charlotte, and remained here until the surrender.

As a physician and surgeon he had few equals in this State. He was honest and upright in his dealings with his fellow-men; correct in his deportment; a man of unquestioned ability and unsoiled principles. He was full of pleasantries, and was, by reason of his agreeable address and manner, a good companion. He had a large practice, and amassed considerable property. In faith he was a Presbyterian. There was no more regular attendant upon the services of the sanctuary, and none who gave more heed unto private devotions than he.

Dr. Gibbon was one of the earliest members of the State Society, having joined in 1851. He was twice married, his second wife surviving him, with two sons—Drs. R. L. and J. H. Gibbon—children of the first marriage.

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Original Communications.

MEDDLESOME GYNÆCOLOGY.

By H. S. LOTT, M. D., Salem, N. C.

MUCH has been said and written, with justice on the subject of "meddlesome midwifery." It would be well for the profession to devote some time, and thought, to meddlesome Gyæncology.

The experimental stage of this branch of work is past; it is no longer a question of haphazard "uterine tinkering," but a distinctive and preeminently a special branch of surgery, wherein we may determine with a large degree of certainty, knowing the past history, what is the pathology and prognosis in a given case of intra-pelvic disease, and the treatment which gives greatest hope for the future comfort of the patient.

There comes an era in the march of all progress wherein it is well to review what has been done, being thus enabled to separate the good from the bad, render more perfect the result of past work, and come nearer to truth, which is the aim through all, and if in doing this we set aside instruments, methods or procedures it is not through disregard for their originators, but rather because we trust and honor them and are led by our very faith in the summary of their life-work, with deductions therefrom, and our own convictions, to abandon that which is hurtful and use that which is helpful.

*Read at 45th Annual Meeting of the North Carolina Medical Society, Charlotte, May 3, 1898.

To say that I never believed in and never practiced certain procedures which are largely the capital of men who are called gynaecologists, would carry with it little weight, but to quote from the life-work of the recognized masters, who in faithful trial of such procedures, have "weighed and found wanting," must have weight both in guiding our conscience and our hands. Says T. A. Emmet, so early as 1884, "It is believed that in time professional opinion can be influenced to abandon intra-uterine medication, as one not based upon sound views of pathology; to recognize the different forms and shades of pelvic inflammation outside of the uterus, now usually overlooked, as constituting the chief factor in the diseases of woman; and that the exciting causes of reflex disturbances will be more generally admitted." This same authority says: "We shall have made great advance it solving the problem as to the true pathology of many supposed uterine diseases when we seek the cause outside of the uterine limits. For many years I have been convinced of the truth that we had been misled by confounding cause and effect." And again,— "We look in vain after death for any evidence of metritis or endometritis, or for ulceration of the cervix as it is termed, for neither of the conditions, so called, is inflammatory."

Therefore under the old woman clature gynaecologists were justifiable in treating "ulceration of the womb" with caustic applications even though such treatment was followed by "the formation of cicatricial tissue about the cervix," with its accompanying train of symptoms such as, "general nervous irritability and neuralgia in different parts of the body." But under the light shed by the pathology of today we know that no such ulceration exists, and that this condition of the os and cervix is almost always that of everted tissue, resulting from a tear which has occurred during child-birth, and that nothing short of removing such tissue, and uniting the freshened edges of a plastic operation, gives promise of permanent relief to the patient. Under the same head comes, incising the cervix for flexures,—forcible dilatation, especially of the virgin womb,—curetting, and vaginal puncture.

Incising the cervix is inflicting a wound which is unnecessary, unjustifiable, and cannot be cured, or, union occurring, there results a cicatrix which, as a local irritant multiplies the dis-

comforts of the patient, and the dangers, many fold. Lawson Tait in speaking of this procedure in connection with the stem, in the treatment of what he terms "infantile uterus," says: "But looking back on my experience of pelvic surgery for the last fifteen years, I am entirely satisfied that it would have been far better for the world if neither of these proceedings had ever been heard of, especially the use of intra-uterine stems." And Emmet in closing his chapter on treatment of flexures of the uterus,—and results of incision,—disposes of the subject in this sentence, "Great care can be exercised in the proper selection of cases, and in the needed preparatory treatment, so that comparatively little damage may follow a division of the cervix. But so much harm has resulted from the operation, and so little permanent benefit,—if any,—has been derived that humanity would be the gainer if public opinion in the profession would forbid its performance. There are a few rare cases of congenital flexures of the neck below the vaginal junction, and a smaller number of permanent flexures of the body, where sometimes the operation may be of service. But these cases are so rare that I have not divided a cervix uteri in eight or ten years, nor in that time have I met with a single instance where it would have been justifiable to perform the operation; and yet it is one which is being constantly performed in the most irresponsible manner in ignorance of the cause of the difficulty and with perfect indifference as to the consequences."

Joseph Price says that forcible dilatation is a "Traumatism" and should never be inflicted. This is especially true of the virgin womb, and yet this procedure, followed "under strictly aseptic methods," by a "curettage" is largely the stock in trade of numbers of routinists who are called gynaecologists. Recently I received a letter from a young man asking advice as to the best course to pursue in order to prepare himself for the "routine work in gynaecology." Just think of it! What will become of the work when the workmen in flesh, blood and nerves, with all their vagaries, become routinists? And thus they are started out, armed with a *stretcher* and a *scraper* and fully licensed to inflict irreparable injury upon their helpless and innocent patients.

Even for the removal of placental tissue after labor or abortion the man who has intelligent fingers does not need the

curette, and the man who has not intelligent fingers has no business in the uterus at all.

Numbers of women conceive the idea that they have "womb trouble" when in fact they have a perfectly normal perineum, vagina, uterus, and appendages. Recently a husband, consulted me, much distressed because of his wife's sufferings from "falling of the womb," "her distress was great and there was no doubt about the condition, for her family physician had told her so and she had worn an instrument." Now the odds were much against me when upon examining this woman I found the reproductive organs in no abnormal position or condition at all, —but just where the urethra entered the bladder an exquisitely sensitive point. An examination of the urine, and finding it loaded with pus, confirmed the diagnosis of vesical catarrh, and forty grains of boracic acid daily, (ten grains, in capsules, after meals and at bed time)—in spite of her utter disbelief in my opinion and treatment, after a very few days, gave entire relief.

It is much harder work, and requires closer observation, to be able to recognize a normal pelvis, and pelvic organs which are not incompatible with the health and comfort of the patient, than it is to find a misplaced uterus, or other pathologic conditions when existing,—and in many of these cases it is a much easier task to gravely touch the cervical canal with a sound, and swab the vagina with cotton twice or thrice weekly,—in short to "give them treatment" (?) than it is to correct the mental error and convince them that they need no tinkering at all.

Vaginal puncture, for suppurating inflammation of pelvic organs, *is a stab in the dark*, and may be ascribed rather to timidity, than to a thorough investigation of results. That numbers of abdominal sections are done unnecessarily, I fully gree, but it is not such we are considering,—we cannot be responsible for the work of fanatics,—it is those in which there is pus in the pelvis which should be let out; and that its evacuation through the vaginal vault is simple and easy of execution, neither guarantees the future relief and comfort of the patient, nor establishes the wisdom of the procedure.

The cases in which the vagina affords a favorable field for work are few, and cases in which it is possible to determine be-

forehand the exact pathologic conditions, or position of the pelvic contents, and just what should be done, are none at all. It is just in this particular that the gynaecologist differs from that of the general surgeon. In fact the very years of ripe experience which best fit the general surgeon for the noble work in his broad field,—*unfit* him for successful work in abdominal and plastic surgery. There should be no rivalry between the two, each has in view the prolonging of human life and the relief of human suffering, and to go hand in hand gives strength to both. You do not hear of rivalry between the carpenter and the cabinet maker,—the world and the work are large enough for both, nor would you entrust a piece of work which you knew came within the province of one to the other.

A stab through the vagina may, by a happy chance, give vent to pus and *seemingly* relieve the patient, but, with the lights of today this fact does not relieve the hand that inflicts it of responsibility in the matter; nor does it save the patient from suffering which follows incomplete work, and the extensive bowel adhesions and lesions "with universal fixation of tubes and ovaries" (Price) which are found when she finally comes to the hands of the surgeon who is equipped to do *clean, thorough work*.

DISCUSSION.

Dr. McMullan.—I was deeply interested in the iconoclastic paper of my worthy friend and brother. In chaste and beautiful language, he told us how *not* to do it, and I listened with the gravest attention possible to find out from him how *to* do it. How does he correct these troubles that come to us in our practice from day to day in our female patients. When I have a patient come to me suffering from all symptoms of pelvic disease, and on making an examination find the uterus suffering from involution, misplaced and discharging a glairy substance very much like the dysenteric discharge we have in bowel trouble, there is a way which I have used that has always given me good results, and though the treatment is often tedious, if persisted in, I generally get there. I believe in tamponing with the boroglyceride tamponade, and in proper applications to the interior of the womb, the endometrium, and after a while when necessary, lifting of that uterus on a well-fitting retroversion pessary, when by so doing we would confer a benefit upon the patient, and in a great many instances cure the disease. Again, when he mentions vaginal atresia cervici, he tells us we must not cut, he tells us we must not dilate, but he fails to tell us how we shall relieve the excessive and excruciating suffering that many

of these dear ladies suffer. As long as any medicinal agent can be found to relieve them, it is improper to meddle, but when month after month I have exhausted every available resource and still find the patient doubling with excruciating pain and upon the verge of convulsions, what am I to do? I would like to ask the gentleman when he has atresia of the urethra, does he quietly sit down and fold his hands and use no means to dilate that stricture? I would get my coarser curette or sound and try to establish the normal caliber of the canal. I see no earthly reason why we should not attempt to establish the normal opening in the cervix uteri and I have conferred great benefit by gradual and careful dilatation from time to time. In the meantime, if the virgin should become married, that solves the whole riddle. I would be very glad if the doctor would tell me how to get over these difficult points without doing some of this which he characterizes as "meddlesome gynecology." It is not a pleasant thing to me to have to do it, and I take it up with reluctance when I find it has to be done.

Dr. Sikes:—There is one point in the doctor's paper I noticed, and that is in regard to the educated finger. My experience has been different from his as regards the educated finger. It is one of the most useful instruments, especially in cases of early abortion. Some of the most troublesome cases we have are excessive hemorrhage from early abortions before the cervix is not sufficiently dilated to pass out the product of conception. Sometimes life is very much endangered, and instead of waiting until the cervix is dilated enough for the product of conception to pass away, as soon as we find that abortion is inevitable, with a little, long-handled dressing forceps introduced at the end of a skilled finger—a skilled finger is a great acquisition to the practical physician—we can remove this little product of conception and it frequently puts the woman instantly at rest, arrests the hemorrhage, and in that way results in a most excellent result. I have in mind right now a case I had only a few weeks ago in which death seemed quite imminent from loss of blood, and in five minutes after I entered the house and removed the clot, there was not any more hemorrhage and the woman recovered.

Dr. McGuire:—It gives me great pleasure to meet you all in this session. I had intended to come here as a listener, and not to have anything to say. I have always been afraid of the North Carolina Medical Society, because I never met a North Carolinian who could not make a speech. When I was coming down here, Dr. Edwards, editor of the Virginia Medical Semi-monthly, said to me, "McGuire, don't you say anything down there. Those North Carolinians always make speeches, and they'll beat you all to pieces." So I determined to keep quiet until my friend brought me before the Society.

In regard to the discussion of the paper of Dr. Lott, I cannot

agree entirely with the doctor in regard to the operation of dilatation and curettement. I am sure I have seen dilatation repeatedly do good, and I do not hesitate to resort to it whenever it is demanded, either for constricted cervix or anteflexed uterus, so that the circulation and discharge are interfered with, and if it is kept up for a sufficient length of time, will produce an irritable condition of the nerves leading to the endometrium, and in a little while you will have, besides the pain incident to menstruation, that incident to nervous hyperaesthesia. I have seen these cases of dysmenorrhoea relieved easily and for a long time from the simple operation of dilatation. It is a perfectly safe operation if done in a clean way and there is no danger at all. Of course I would not dilate if there was intra-pelvic trouble which produced the painful menstruation.

Curettement is another valuable operation. I have the highest opinion of Dr. Price. I know him personally and I have seen him operate a great many times. He is not very fond of that operation, but he is very often a little extreme in his views. It is an operation accepted by the entire profession almost, with the exception of Dr. Price, all over this country, the operation of curetting and dilatation. I know of no simple operation which will so speedily give relief as these two, if done under the proper aseptic conditions. Of course we sometimes have cases in which remedies are useful to the endometrium, but I am not very much of a believer in intra-uterine medication. It ought to be done under the most perfect aseptic conditions, the same as a surgical operation, and in a great many cases, instead of the prolonged use of Churchill's Tincture of Iodine, the endometrium could be relieved much more quickly by the operation of curetting. Local application to the vagina I do believe in, and I have seen it do good. After pelvic inflammation I frequently resort to a species, you may call it, of uterine tinkering to reduce the congestion.

Dr. Royster:—I am very glad that the discussion of Dr. Lott's paper was called up before it was too late, for I am sure it is worthy of discussion by the Society. I came in late and therefore heard only the latter part of his paper, the part which perhaps interested me most, and on which I will try to make a few remarks, vaginal versus abdominal section for pus accumulation in the pelvis. It has been discussed and rediscussed for the past fifteen or twenty years, and professional opinion is constantly changing and rechanging. The French school of vaginal sectionists for a long time held sway, perhaps for the last three or four years, when opinion seems to be switching the other way, certainly at least in this country. My personal opinion in regard to this matter will not go very far, because my experience has been small, but the experience I have had justifies me in asserting a very conservative opinion on the question. And that is,

that every case is a law unto itself in this regard. While in most cases treatment by the abdominal route is the cleanest and nearest way, there are other cases in which the vaginal puncture is safest. I should hate to attack an accumulation of pus in the pelvis which was low down, seemingly walled off, through the abdominal passage-way, but should certainly not hesitate to open it through the vagina and give the woman instant and temporary relief. If there were any secondary operation to be done, I should feel more like attacking it through the abdomen. I have also done two vaginal sections for extra-uterine pregnancy, in the latter stages after the cessation of hemorrhage, and a case which presented true pelvic hæmatocele, walled off, in which the patient's condition was favorable. I have done two like that Dr. Kelly described, making an incision in the median line and following that with the fingers or scissors and removing the clots, washing with a salt solution, and also cleaning out the products of conception, if any remained. Both of my cases resulted in perfect cures. The last was over a year and a half ago, with absolutely no return of the pelvic symptoms. She has since become pregnant, and is now six months in that state. I am not a rabid abdominal sectionist, nor am I wedded to vaginal sections in all cases, but I hold the conservative view that I always treat every case by itself and of itself.

In regard to curetting, I must do myself the honor to agree with Dr. McGuire. I know of no simple operation in which the results are so satisfactory as in the simple operation of curettage of the uterus, either from troubles arising from bad development or from inflammatory diseases of the uterus. It must be done with the precautions which we would undertake in doing a perfect abdominal section, aseptic throughout. The different methods of doing curetting matter little, because if done promptly, any way is always good. In the matter of longer treatment, gynecological treatment, I have given that up entirely except in the matter of preparing for subsequent operations. Douches, tampons, boroglyceride treatments and applications to the vagina all do good, but if there is any deep-lying organic trouble, nothing but a surgical operation will relieve. I hope that this question of vaginal versus abdominal section for pus accumulations by inflammatory pelvic diseases will receive some discussion, because I am sure it is of interest to all of us, and it has never been fully discussed in the State.

Dr. Lott:—I would like to have a moment in order to thank these gentlemen most heartily for the discussion. My greatest hope in writing the paper was to bring up the discussion and throw light upon this subject.

REPORT OF CHAIRMAN OF THE SECTION ON OBSTETRICS.*

BY W. G. STAFFORD, M. D., Burlington, N. C.

FROM one hundred blanks sent to representative members of the North Carolina State Medical Society, I have received fourteen responses. These reports contain a summary of important cases treated during the year ending April the 15th 1898. It is to be regretted that so few reports were made. Still, there are enough to serve to illustrate the methods obtaining within the borders of our State and the success attending them:

One case of caesarean section for extra uterine gestation is reported by Dr. J. B. Powers. Operation performed by Dr. Hubert A. Royster, Dr. Powers being disabled by a carbuncle. The operation saved the life of the mother. Both children died.

Dr. W. O. Spencer reports two cases of placenta prævia, one central, the other marginal; four cases of puerperal eclampsia; three cases of forceps at pelvic brim; four cases of forceps in pelvis; three cases of version in utero; three cases curetted after labor; and nine after abortion. No case of death of mother; but three cases of death of child.

Dr. Henry T. Bahnson reports two cases of forceps at brim of pelvis, and five cases of forceps in pelvis. He reports one case of septic trouble, cause unknown, resulting in death of mother. No death of child.

Dr. J. Howell Way reports one case of forceps at brim of pelvis; two cases of forceps in pelvis; four cases curetted after abortion—prompt recovery in each case; two cases of version in utero, one of which was a *pseudocephalus*, classification after Geoffery St. Hilaire, and was still-born. One case of forceps in pelvis was in consultation, after ergot had been freely exhibited. No case of death of mother.

Dr. I. W. Faison reports a case of puerperal eclampsia, with shoulder and arm presenting, in which craniotomy was done and forceps applied in utero. Mother recovered.

Dr. E. F. Strickland reports one case of forceps at brim, three cases of forceps in pelvis, one case of version for shoulder pre-

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sentation, one case of septic trouble treated by curette, due to infection by retained membranes. He also reported an interesting case of twins of unequal development, and one case of triplets. These will be elaborately reported by Dr. S. in his paper.

Dr. W. H. H. Cobb reports six cases of forceps in pelvis, one case of version, two cases curetted after labor and four after abortion. He reports one case of sepsis due to typhoid infection, and two cases of *post partum* hæmorrhage. No death of mother or of child.

Dr. Geo. W. Long reports two cases of *placenta previa*, one seen in consultation. Both were treated by podalic version and delivery. Both mothers were saved, both children lost, being at 7th month in utero.

Dr. W. P. Ivey reports one case of shoulder presentation, which he treated by version. Mother and child saved. He also reports one case of septic infection, and one of *post partum* eclampsia. No death of mother or child.

Dr. Chas. J. O. H. Laughinghouse reports eight cases of forceps applied in pelvis, three cases of version, one case curetted after labor, and six cases after abortion. No case of death of mother or child.

Dr. Thomas M. Jordan reports a case of embryotomy on account of deformed pelvis. Septic trouble developed followed by the death of the patient.

Dr. C. N. Roberson reports two cases of *post partum* hæmorrhage. Patients recovered.

Dr. W. P. Beall reports seven cases of forceps applied in pelvis; one case of *placenta prævia*, treated by version and delivery. Both mother and child saved. He reports four cases curetted after abortion, two cases of which were septic. No case of death resulted.

Dr. Henry H. Dodson reports two cases of forceps applied in pelvis, and three cases curetted after abortion. No death of mother or child.

SUMMARY:

1	Cæsarean Section,
7	Cases forceps at brim,
37	“ “ in pelvis,
12	“ version,

7	“	curetted after labor,
32	“	“ “ “ abortion,
1	“	embryotomy,
4	“	post partum hæmorrhage,
6	“	eclampsia,
2	“	death of mother,
5	“	“ “ “ infant.

To my mind, these figures indicate great care and skill exercised both in operating and in the after treatment. The cases of death of mothers should be eliminated from the list, as they were beyond control of the physician before he was called.

It is gratifying to note that there is less disposition than formerly to meddle with normal cases.

For quite a while it was thought that, even in normal cases, douches should be given as a routine treatment. It is now fairly conceded that, under ordinary environment, they are of doubtful benefit if not positively harmful.

The use of the sharp curette to precede the douche, in cases with slight rise of temperature, finds but few advocates now; not many being willing to inflict such an extensive area of traumatism and lay open so many avenues to infection by cutting off terminal recesses which before, were blocked up by leucocytes.

If the uterus be properly cleaned out at the time of secundine expulsion, which nature will effect in most cases, there will be little use for any curette during the continuance of the puerperal state. If, however, shreds of membrane, broken-down placenta etc., have been retained, there is no objection to the dull instrument, using it as a manipulative adjunct rather than as a surgical instrument. The sharp instrument here is capable of doing no good beyond what may be readily accomplished by its dull prototype, while it is infinitely more potent for harm.

The hot saline or antiseptic douche should be applied to the interior of the uterus after any such curettement. My preference is for the saline. Instead of intra-uterine drainage my preference is for tampons of absorbent wool saturated with a 5 per cent solution of boroglyceride, previously sterilized, of course. This favors rapid exosmosis, while the canal of the cervix is patent and will suffice for drainage. In the meantime the temperature, strength, and ability to appropriate nourish-

ment, will give the index of the proper constitutional treatment.

Those of us who have practiced in the country have often been amused and perhaps, disgusted at some superstitions which, at first thought, seem to have their origin in an aversion to cleanliness and decency: such, for instance, as that the patient must not have a bath, and that the ashes must not be removed from the fireplace under the ninth day, etc. Still, it was probably the same superstition that caused those ignorant nurses to scorch and scrape all cloths that were to come in contact with the genitalia of the patient, burn the secundines, and give to the baby, for colic, a weak solution of creosote manufactured from the soot of the chimney by infusion.

Perhaps those poor nurses, unable to make microscopic or to analyze macroscopic observations, noticed that puerperal women did the best when interfered with the least, and that, with their environment, interference was apt to end in trouble, though they know not why it came—as from germ-life, or that it came from without; or, yet, that nature provided in the products of involution a material inhibitory of these agencies.

While the poor woman in child bed could keep a whole skin between herself and the army of microbes, though her bed might be full of them, so to speak, she was “clad in mail of proof,” thanks to beneficent Providence who decreed the lochia an obstacle to the development of dangerous germs, as well as that the uterine ciliated epithelium should be a bar to their ascent.

The lesson we learn from this wonderful immunity is, unless in the face of strong reasons to the contrary, not to meddle with a puerperal woman, except to keep herself and her surroundings clean.

In this connection, I am lead to remark that there is much yet to be desired in the way of prophylaxis against the necessity for operative procedure, especially in cases of contracted pelvis. That is, to prevent the *contracted pelvis*. Dress reform, within certain limits, will do much to correct; but other factors operate to produce the conditions besides ill-fitting dress. Insufficient and improper nourishment; constrained positions while at work or in school; scant exercise; want of light and fresh air—in a word, want of proper hygienic conditions—are the elements against which we have to do battle.

In contracted pelves, we have the origin of a ghastly train of evils which neither forceps, caesarean section, craniotomy nor symphysiotomy have served to forestall. At this door we may lay much of all that is implied in the general term of invalidism in woman. To particularize, we will say that much of lacerated cervix and perinæum, of loss of tone by over-distention, of pressure effects upon nerves, and of sepsis, are justly to be laid to the charge of their condition.

For the prevention and control of *post partum* hæmorrhage and combatting its effects, there seems little to be desired, either in remedies or in methods of application; more especially since the introduction of normal saline infusion. This can be introduced into the circulation by injection into a vein, into the cellular tissue, or into the rectum, giving all the advantages of transfusion of blood without its disadvantages.

The death of a noble victim of this condition, in the early part of the present century, provoked this comment from the most gifted subject:

“Scion of Chiefs and Monarchs, where art thou?
 Fond hope of many nations, art thou dead?
 Could not the grave forget thee and lay low,
 Some less majestic, less beloved head?
 In the sad midnight, while thy heart still bled,
 The mother of a monarch, o’er thy boy,
 Death hushed that pang forever: with thee fled,
 The present happiness and promised joy,
 Which fill’d the imperial isles so full it seem’d to cloy!
 Peasants bring forth in safety—can it be,
 O thou that wert so happy, so adored!
 Those who weep not for kings shall weep for thee,
 And freedoms’ heart, grown heavy cease to hoard
 Her many griefs for one; for she had pour’d,
 Her orisons for thee, and o’er thy head
 Beheld her Iris.—Thou, too, lonely lord,
 And desolate Consort—vainly wert thou wed,
 The husband of a year! the father of the dead!”

We rejoice that the lives of so many *uncrowned* years are now saved under like conditions; the causes that produce *post partum* hæmorrhage, and the means to control and correct its effects being better understood.

THREE INTERESTING CASES OF OBSTETRICS.*

By E. F. STRICKLAND, M. D., Bethania, N. C.

I DESIRE to express my appreciation and to return thanks to Dr. Stafford, Chairman of Section on Obstetrics, for his evident confidence and kindness in selecting me to write one of the papers to be presented under his section. I bespeak a rupture of that confidence ere this task is done but pray for a continuance of the friendship. The art of midwifery in general is, to the average practitioner, perhaps, the most interesting branch of our profession. The young doctor is filled with thoughts sublime and feels himself a hero when his first case of natural labor is concluded. The old practitioner recalls with pardonable pride the many obstacles he has met and overcome in contending with the emergencies of unnatural labor that threatened the life of either mother or child, or both, and the breaking up forever of the once tranquil and happy home. Childbirth should always be regarded as one of the most critical ordeals in human life, and we shudder as we think of the irresponsible, ignorant and untutored midwife as she stalks forth, filled with conceit and superstition, to meet a condition that tax the energy and exhaust the resources of the most skilled in the art. But the Chairman has designated that my paper consist of a report of the following "Three interesting cases of obstetrics" that have been recently added to my experience.

1st. On September 3rd 1897, I was called to see Mrs. P. who was in labor and who shortly after my arrival was delivered of twins. One child was stout and well developed; the other was quite small, weak and immature and lived but a few hours. The mother gave the following history: Nine months ago she menstruated as usual; a month later she imagined herself pregnant, as menstruation did not appear and "morning sickness" commenced, as in former pregnancies; still a month later, i. e., seven months prior to confinement, menstruation reappeared but has not since returned.

She knew not from which date to calculate the period of her delivery. From the appearance of the twins, the presence of

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two placentæ and the history, I began to theorize as follows: might not an independent conception have resulted from ovulation at the time of menstruation when the woman was already two month's pregnant, and thus an example of superfœtation? This case is all the more interesting because of the menstruation, as the coincidence of menstruation and superfœtation in early pregnancy is very rare—only the fewest member being on record.

2nd. On December 15th, 1897, I was called a distance of six or eight miles to the country to see Mrs. S. who was having alarming uterine hemorrhage. On my arrival, from appearances and information, I judged the loss of blood to be at least one-half gallon. I elicited the following history: On September 3rd, 1897, unattended by medical assistance, she had a miscarriage relieving her of what was supposed to be a six months' child. All seemed to go well and there was not the slightest anticipation of trouble ahead until more than two months later. I put the patient under the influence of a general anaesthetic (chloroform) and with considerable difficulty dilated the uterus and removed a mass of very offensive decomposing placenta half the size of the hand. I curetted the whole of the interior of the uterus and gave antiseptic intra-uterine injections consisting of bichloride of mercury, 1 to 2,000. She was put on iron, quinine and strychnia together with a generous nutritious diet and confined to bed for ten days. There was not the slightest elevation of temperature and no more hemorrhage, but a rapid return to her characteristic excellent state of health.

The notable features of this case are: 1st, that the constitutional vigor of the patient was so great that the poisonous products of decomposition in utero were cast off without making the least septic impression; 2nd, that she should have gone so long, seventy odd days, without the least vaginal discharge, purulent or otherwise; 3rd, that when the crisis did come it was so grave and yet her recovery so rapid and complete. She is an intelligent, honest and obedient patient and I feel grateful to Providence for her almost miraculous escape.

3rd. On January 31st, 1898, I was summoned to see Mrs. W. who was reported six months pregnant and "threatened with miscarriage." Patient stated that she had slipped

and fallen from door step three days before which gave her body a considerable jar and badly sprained her ankle. She felt no inconvenience afterwards, except from affected ankle, until on the 31st when suddenly there was a large discharge of amniotic fluid and hence my presence requested. In the next six hours I delivered my patient of triplets, all girls and well developed, and I might add equally well developed for they were as nearly alike as three peas in a pod. They all died within twelve hours after birth. The mother's recovery was uneventful and as rapid and complete as in former single births. The frequency of multiple births varies remarkably in different races and countries, depending perhaps upon the general fecundity of the inhabitants. Taking the average of a large number of cases collected by different authors in various countries we find that triplet pregnancies occur about once in 7,679 labors. The causes of multiple pregnancies are: 1st, the maturation and rupture of more than one Graffian follicle at or near the same time; 2nd, the casting off from a single Graffian follicle of more than one ovule; 3rd, the casting off from a single Graffian follicle of a single ovule containing more than one germ. It is credited by good authority that heredity plays an important part in multiple births. In the case cited, the father on hearing the mother give negative answers to my inquiry concerning multiple births in her family, promptly named several cases of twin births that had occurred in his own family which statement was verified by his mother. But here I stick the "safety-pin," and thank you all very much for your attention.

THE CHEMISTRY OF THE STOMACH.*

BY J. G. BLOUNT, M. D., Washington, N. C.

IN this rapidly advancing age where the strain of business, exhaustion of pleasure, sensual excesses in eating or drinking, or in this country especially, by the manifold errors committed in the preparation and consumption of food and the utter disregard of all hygienic rules in their habits of living,

*Read at 45th Annual Meeting of the North Carolina Medical Society, Charlotte, May 3, 1898.

we are daily called upon to treat a class of patients that are day by day becoming the more numerous. From bad to worse, from worse to utter despondency many of these patients go quietly on their way because in many instances from errors of omission and commission as well they are treated in a routine way, because of that lack of scientific exactness that marks the profession in many of its other branches, reminding us of the Epitaph "I was sick and desired to be better I sent for the doctor and here I am." The pharmacists having seen our dilemma have alas! fallen too easy a prey and today we are sold by the gallon essence of pepsin, Pan Peptic Elixir, Pancreopepsin and innumerable other preparations. Such great blindness do these same pharmacists attribute to us that they advertise and expect us to make use of all the ferments in one combination and yet does not our physiology go contrary to all such preparations and prove their incompatibility? The stomach with its normal capacity of five pints and its secretions is to me of all the members the most remarkable. Tho' later day scientists of the Schlatter type may prove that without our stomach we may live and move and have our being, its importance was immortalized by Æsop in the fable of Menenius Agrippa, a former Roman consul and general, wherein the members entered into a league and covenant against the belly and held firmly to their position until the belly starved the rebel members into subjection. What was true in Menenius Agrippa's day is today the same, and daily do we bear witness to some poor despised dyspeptic who once made the proud boast that his belly was of all his frame the strongest. Like the camel that bore his load uncomplainingly, in true camel fashion until the last straw was added, so the belly, if continually overtaxed will in time give way. Of no other member can it be more truly said "that he who transgresses nature's laws must pay the penalty." In health the foods, as divided by Gilman Thompson into six groups—water,—salts, proteids, starches, sugar, fats and oils enter that delicately arranged and devised laboratory of the stomach whereby that most complex of chemical processes, metabolism, they are made to serve their intended purpose as (1) nutrient, (2) heat producing, (3) force producing. In the lower animals that God given instinct prompts them to the proper selection of their foods both quantitatively and qualita-

tively, and rarely do we see them, when left entirely to their own selection, transgress those laws as dictated by that native instinct. But man, poor man! civilization has done too much, it has made him depart from that native instinct, and from his repeated gross insults to his gastric physiology do we find one or another train of symptoms developing. The first departure from the normal condition to which I will call attention is hyperacidity. Hydrochloric acid is one of the normal constituents of the gastric juice and we had better consider its importance from a physiological stand point before we enter upon a consideration of it pathologically. Hydrochloric acid acts: First: as an antizymotic or antiseptic. Second: it has the power to covert proenzymes of pepsin and zymogen into active ferments in a short time. Third: it aids in the regulation of peristalsis. Fourth: hydrochloric acid with the aid of pepsin transforms albuminous bodies into peptones. Fifth: by hydrochloric acid cane sugar is converted into invert sugar (dextrose and levulose). Sixth: it aids in bringing into solution the soluble calcium and magnesium salts introduced into the blood.

We see, therefore, by the above how essential it is that we should have thorough knowledge of its detection and to understand the end we have in view in its administration. Bunge sums up the entire usage of hydrochloric acid and cites as its principle object that of sterilization. In order to be able to test for hydrochloric acid we must first procure a specimen. The method of procuring the hydrochloric acid is after a test meal and the one most frequently employed is that of Ewald and Boas. This test meal includes one roll or a piece of wheat bread and eight ounces of water or tea without milk or sugar. The time for securing the specimen of gastric juice is one hour after this meal. Another very good method that is sometimes employed is at 8 a. m. to administer a small piece of meat scraped and broiled, a soft boiled egg, boiled rice, one glass of milk and a piece of bread, then at 12 m. the Ewald-Boas test meal. Now one hour after the administration of the last meal and five hours after the administration of the first meal draw off by means, of the lavage tube, the stomach contents. The advantage to be gained from this double test meal are that after withdrawing the stomach contents we are enabled often to recognize condi-

tions of gastric motility and secretion before we analyze the contents thus giving us an insight into the condition in question, and confirmatory of what we will find subsequently by chemical analysis. For instance, should the entire breakfast meal have disappeared it would point to a normal digestion. If on the contrary we find an absence of all proteid beef and egg and presence of considerable carbohydrate rice and bread, we would in all probability have a condition of hyperacidity to deal with, while an absence of all the carbohydrates and presence of some of the beef and egg would point to hypochloridia or subacidity. The presence of the entire meal with milk uncurdled would mean impaired motility with absence of acids and gastric ferments. The best method of securing a specimen of gastric juice is after the introduction of the stomach tube to direct the patient to bear down as in an effort at defecation, tho' sometimes the accompanying nausea involuntarily accomplishes this. If a failure is still imminent push the tube further in or partially remove and if the abdominal walls are flabby external abdominal pressure will sometimes bring about the desired result. Sometimes a small particle of food obstructs the eye of the instrument, and if so, a little water poured in washes away the offending particle and again resorting to the above methods will be crowned by success. At times however, a little suction is required and this is most easily accomplished by means of Vanburen's bladder syringe. The bulb is compressed and all air removed and the end inserted into the savage tube. Nature abhorring a vacuum, the bulb refills and gastric juice is thus extracted. Having secured the gastric juice we will proceed to its analysis. "Gunzberg's reagent, as modified by Boas, is a very delicate test and one easily applied. The solution has to be kept in a dark well stoppered, bottle and even then should be frequently renewed. I always buy the solution ready prepared from Eimer & Amend, New York. It consists of two grammes of phloroglucin and one gramme vanillin dissolved in 100 grammes of 80 per cent alcohol. A few drops of this solution is added to the same amount of filtered gastric contents. This is placed over a water bath and kept just below the boiling point until slowly evaporated. When the mixture is dried a fine rose tint will develop around the edges if hydrochloric acid is present in the propor-

tion of 0.5 per thousand; excessive heat however is utterly destructive to the test, for heat in excess will cause an appearance of a brown or brownish red color which resembles the color produced when free hydrochloric acid is absent.

Another test and one almost as delicate and always to be found in every physician's armamenta-rium is that of resorcin. This solution consists of five (5) grammes of resublimed resorcin, three (3) grammes of common sugar dissolved in 100 C. C. of 94 per cent alcohol. Eight or ten drops of the filtered gastric juice and half the number of drops of the solution are carefully evaporated on a porcelaine plate over a water bath, avoiding excessive heat as formerly. Free hydrochloric acid in excess will be indicated by "a fine vermilion red line forming down the edge of the solution as evaporation proceeds, while the color at the periphery gradually fades, disappearing entirely after a short time, leaving a redish brown stain." Another confirmatory test for hydrochloric acid is found in testing for free acids. The presence of free acids is detected by Congo red. Congo red is made into an aqueous solution and into this solution bibulous paper is dipped and allowed to dry. This paper is then used as an indicator. Dip this paper into the filtrate of the stomach contents and in the presence of free hydrochloric acid or organic acids the paper turns a bright blue. Warm gently over an alcoholic flame and if the blue color is produced by organic acids the gentle heat will cause the blue color to disappear, while the blue color if produced by the hydrochloric acid will upon gentle heat turn a lighter blue and does not disappear unless strongly heated. In contradistinction to hyperacidity we have hypochloridia or subacidity. In subacidity at the height of digestion hydrochloric acid and with it pepsin may be secreted but in smaller amounts than normal. Here however, it is entirely combined with the food as combined hydrochloric acid and not to be detected by any of the tests as given above. With unimpaired gastric motility, subacidity may be accompanied by few or no symptoms, but, permit motility to become bad or slightly insufficient and rapid decomposition of the stomach contents takes place because the amount of hydrochloric acid is not sufficient to inhibit or prevent the action of micro organisms. As a result of this decomposition gastric discomfort and sometimes intestinal distention supervene. There are no

pathognomonic signs of subacidity, but given by examination an absence of hydrochloric acid, presence of organic acids and upon removal of test meal we find that amolysis has proceeded more rapidly since the hydrochloric acid was not there to interrupt the continued action of the ptyalin, and on the other hand the digestion of meats, eggs, etc., unsatisfactory, then we would conclude we had a case of subacidity to deal with, provided carcinoma and chronic gastritis were excluded.

Pepsin, the proteolytic ferment of the gastric juice is active only in an acid medium and the ideal acid for this acidity is hydrochloric acid, though any of the other acids will suffice. Hydrochloric acid acts on the pepsinogen or propepsin, converting it into pepsin. We possess no chemical test for pepsin, it being of a qualitative nature, viz; its effect in acid solution upon proteid substances. These test tubes number, one, two and three, respectively, into each of which a thin slice of egg albumen has been previously added. Into No. 1, is put 3 C. C. of gastric juice. Into No. 2, is put 3 C. C. of gastric juice to which hydrochloric acid has been added, while in No. 3, acidulated as in No. 2, a few grains of pepsin is added. The tubes are now placed in a temperature of 104° F. for three hours. In the absence of a proper apparatus for the maintenance of the temperature at this point I wrap the tubes up in cotton and place them under the stove, taking care to avoid excessive heat. If at the end of three hours all three tubes show digestion by the rounding off and solution of the egg albumen, the specimen contained pepsin, if Nos. 2 and 3 only show digestion, the contents show pepsinogen but no pepsin; while if No. 3 only shows traces of digestion, the specimen contained neither pepsin or pepsinogen. Lactic acid when found in the stomach contents has either been introduced in the food, as such, or is the product of abnormal fermentation. After the injection of food in carcinoma, lactic acid may be formed and to a slight extent also in subacidity. The presence of lactic acid in large amounts points strongly to carcinoma. In an examination for the presence of lactic acid we must be sure none has been introduced in the food. To overcome this difficulty Boas has devised a meal consisting of oatmeal, to which only a little salt has been added. The evening prior to the administration of the above meal wash out the

stomach until no food particles can be found, and on the morning following administer Boas meal as directed above. Lactic acid found in the gastric filtrate one hour after the above meal would point strongly to carcinoma. Uffelmann has devised the best chemical test for lactic acid. Ten (10) C. C. of a 4 per cent solution of carbolic acid are mixed with twenty (20) C. C. of water and a drop of strong solution of ferric chloride added. A beautiful amethyst blue color is produced which turns a canary yellow when treated with with gastric juice containing lactic acid.

For all practical purposes the sense of smell will suffice for the detection of butyric acid, being that of rancid butter. Acetic acid can likewise be detected by the nasal sense.

While the importance of being able to make the above analysis cannot be over-estimated, it is of equal importance to be able to examine the motor or peristaltic function. Schlatter has proven that a man may live without his stomach, and daily observation teaches us that the secretory and absorptive functions of the stomach are not essential, for internal digestion would suffice. Hydrochloric acid, pepsin and gastric absorption may all be wanting, and yet life be maintained, and even a fair degree of health. Let the motor function be impaired, however, and the food will remain in the stomach and accumulate. Even if a normal gastric juice were possible when the peristalsis is paralyzed, the food could be only partly digested, for pepsin like the other ferments, has the property of changing an almost unlimited amount of proteids, *providing* the products of the action are *removed* when *formed*, and the temperature at a favorable point, as it appears to act by its presence not being itself destroyed or changed by the reaction. For the general practitioner Senbe's method affords an insight into the condition of gastric peristalsis, i. e. "to determine after a definite average of time of six to seven hours after a meal of 50 grammes bread, 200 grammes beef steak, and a glass of water, or two hours after a Ewald test breakfast, whether solid contents are still to be found in the stomach."

Another test for gastric motility and peristalsis is dependent upon the fact that salol is not altered in the stomach, but it is changed by the intestinal juices into salicylic acid and phenol.

In normal digestion salicylic acid will be found in the urine in from 40 to 75 minutes after the ingestion, and a failure in its appearance within these limits would indicate an impaired gastric motility. Huber has improved this method by ascertaining that in health salicyluric acid should disappear from the urine in 24 hours, whereas, when gastric peristalsis is retarded the reaction continues distinct even as long as 48 hours. Salicyluric acid is recognized in the urine by the violet color produced on the addition of neutral ferric chloride solution. The value of the function of gastric absorption cannot be over-estimated. It is best detected by the ingestion of potassium iodide. This substance when taken in solution into the stomach should appear in the urine and saliva in $6\frac{1}{2}$ to 15 minutes. Wet a piece of starch paper with the saliva of the patient every two minutes after the potassium iodide is taken, touching the spot with fuming nitric acid. Immediately upon the excretion of the iodide a blue color is apparent on the starch paper and should this color appear later than fifteen minutes, then the rate of absorption is reduced proportionately to the length of time of its appearance after the expiration of the fifteen minutes. Another method of testing power of absorption is by giving two decigrammes of powdered rhubarb which gives a red color in the urine with liquor potassæ in fifteen minutes. Whenever gastric motility is impaired, absorption lessened, and the secretions disturbed, from accumulation and distention we will in time have a condition known as a gastric dilatation. This is best detected by filling the stomach with carbon dioxide, and by palpitation and percussion map out the distended organ. This is best accomplished by dissolving one teaspoonful of bicarbonate of soda, and one of tartaric acid in separate glasses, containing four ounces of water each. Direct patient to first drink solution of tartaric acid and then that of bicarbonate of soda. Quickly an evolution of carbon dioxide takes place and the outline of the stomach can be easily made out. The tests given above are sufficiently elaborate to enable a careful practitioner to analyze and diagnose his cases and the diagnosis once correctly made, the doctor is already half way on the road to successful treatment. In the treatment, however, it is to be borne in mind that "a logical and individualizing diet is a more potent factor than medicine."

A careful adherence to the principles herein laid down will change our practice from that of empiricism to almost scientific exactness, and our labors will reach a rich harvest, first of all in personal satisfaction, and second in a daily increasing clientele that not every one of our confreres will be able to take away. There is no field more fertile in clinical material, no field more generally neglected by the profession at large, and no field that if properly cared for will yield a richer harvest.

I am fully aware that I have advanced nothing new but if, in passing in review the method and chemical tests as devised and adopted by the profession, I shall arouse a full and lengthy discussion, from which I hope to profit, I shall feel more than amply repaid.

VERATRUM VIRIDE: WITH ESPECIAL REFERENCE
TO ITS THERAPEUTIC USES IN SEROUS AND
PARENCHYMATOUS INFLAMMATIONS.*

BY D. J. HILL, M.D., Lexington, N. C.

VERATRUM viride, or swamp hellebore, is a perennial her-
bal plant formerly thought to exist only in this country,
being found in certain marshy sections of the Northern
Atlantic States, and as far south as the Carolinas. But it is
now known that veratrum album, which is practically identical
with this plant, grows in abundance in certain European States.
The several forms of the drug as accepted by the United States
Pharmacopœia are made from the fresh rhizome and roots of the
plant, which should be gathered in the winter. Historically
there is but little to be said of this drug. It is known that some
of the Medicine Men of the native Indian tribes were acquainted
with its peculiar intoxicating qualities, and it is alleged that
some tribes used it as an ordeal or test of strength and vigor.
The attention of the medical profession was first called to its
use as a cardiac depressant by the publication of a paper by Dr.

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Osgood in 1835, which was followed by the investigation of Dr. Norwood. It is not the purpose of this paper to enter into a detailed treatise on its two principal alkaloids, jervine and veratroidine, but rather to deal with the drug as a whole. *Veratrum viride* not only lessens the force and slows the time of the heart beat, but it also acts as a spinal depressant, and in this way differs from the other drugs belonging to this class. Its depressing effect upon the cord is probably due to the veratroidine. Professor Wood in summing up the physiological action of *veratrum viride* says: "It is a powerful spinal and arterial depressant, exerting little or no direct influence upon the cerebral centers. In full therapeutic doses it lowers the pulse-rate both by a direct action on the muscle (jervine) and by stimulating the inhibitory nerves (veratroidine); it diminishes the force of the heart beat by a direct influence on the cardiac muscle (jervine), and produces a general vaso-motor paralysis (jervine) more or less complete according to the size of the dose."

As to the positive action of *veratrum viride*; the frequency and force of the pulse of inflammation and irritation can absolutely and certainly be controlled by its timely and judicious administration. And of all the positive heart sedatives it is unquestionably the safest. It is not probable that a single dose even of enormous size, administered by the mouth, would kill, from the fact that an over dose will usually produce prompt emesis. Recovery after the injection of an ounce of the tincture has been reported, and recently Dr. Tuttle records a case in which four teaspoonfuls were taken instead of four drops in an hour with no worse results than severe vomiting, palor and prostration. It is true that the heroic administration of the drug may sometimes produce the appearance of dangerous collapse but if it does, this condition should occasion no alarm, as it is only transient—the patient promptly rallying even unaided. However, there is no objection to giving a small amount of alcoholic stimulant to assist reaction.

Professor Wood, summarizing again in a general way, says there are only two rational indications for the use of *veratrum viride*—namely, to *reduce spinal action* and to *reduce arterial action*. But if we employ the drug to reduce excessive heart-action in hypertrophy and in sthenic fever etc., we surely would

not expect it to reduce the rapid pulse of exhaustion as found in the last stages of phthisis and other wasting diseases.

The late Professor Lynch, of Baltimore, considered veratrum viride almost a specific in sthenic craupous pneumonia; and I am sure we may at least modify the course of the most violent cases of this trouble by its timely and judicious employment. At the outset of this much dreaded disease it is of paramount importance to allay vascular excitement, as this necessarily leads to a rapid depression of the vital forces. One predecessor resorted to venesection to accomplish this end, but the general experience of the profession led to the almost universal abandonment of this practice, as it was found that in this disease it involved absolute loss of vital power, and there is a positive distinction between *depression* of the vital forces, and absolute *loss* of power. I beg to insist that it should be employed in the early stages only—during the period of congestion, or hyperæmia. Giving it after hepatization comes on is contra-indicated, and worse than useless. In the stage of congestion, the patient should be brought fully under its influence as quickly as possible—for instance, giving from four to six drops of the tincture, waiting one hour, and giving in one drop doses every fifteen minutes—closely watching the effect until the pulse is reduced to 70 or 60 per minute, and then graduating the dose so as to keep up effect till hepatization sets in. Always carefully enjoining the recumbent posture. This plan faithfully prosecuted is far from chance of accident of over dose or accumulative effect and can give only the best results. You have thus attained all the good that could possibly result from the use of the lancet and still have a reservoir of much needed blood safely stowed away in the large venous trunks of the body to draw upon later on in the progress of the disease. In other words, you have temporarily lowered the vitality without in anywise destroying the vital forces. While not claiming for veratrum viride a positively specific action in pneumonitis; still, if the above plan of administration is carefully prosecuted, we will find the progress of the disease favorably modified, and resolution coming on more promptly. It is equally efficacious in pleuritis. Giving it so as to diminish the force and rate of the heart beat as above, with an opiate to relieve pain, and proper counter irritation, if

deemed advisable, we will rarely if ever have an effusion. In the early stages of acute amygdalitis its prompt administration with morphine if there be much pain will often determine and hasten resolution. It may be given with good effect in hepatitis and in acute inflammation of the other viscera. In the hands of many practitioners, one bar to the employment of *veratrum viride* in certain other troubles where such a heart sedative is indicated has been its tendency sometimes to cause vomiting. This however may usually be successfully overcome by carefully regulating the dose and giving with tincture of ginger. Dr. Barker relied on *veratrum viride* to reduce vascular excitement in puerperal phlebitis and puerperal peritonitis, given with tr. ginger as stated above. The pulse of puerperal peritonitis may readily and easily be controlled without producing vomiting. Dr. Walker reports a case of persistent priapism finally relieved by *veratrum viride* after having resisted a large number of other drugs; and I have obtained excellent results by giving large doses in acute mania. But of all the good things to be said of this drug, its greatest field of usefulness is undoubtedly in acute serous and parenchymatous inflammations, and we obtain the most marked and favorable results under this head from its administration in pneumonia and pleurisy.

It has long been a custom with many obstetricians to give *veratrum viride*, and often in large doses, to control puerperal eclampsia. I simply mention this fact in closing to condemn the practice. It is unscientific and should never be given in such cases.

THE COUNTRY SURGEON AND HIS WORK.*

BY JAMES M. PARROTT, M.D., Kinston, N. C.

THERE is certainly no branch of our noble profession more worthy of the careful study which has been given it than surgery. Like every distinctive subject it has its own special and peculiar field of work, and the surgeon, character-

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istics of his own. Hence in order that one may approach even closely to perfection in surgery one must, of necessity, be peculiarly adapted to, and especially trained for, his work. Like the poet the surgeon is born, but unlike the farmer he must also be made. One may possess the natural endowments requisite for success in this particular line of our work, yet one would of necessity fail without the required training. Special preparation is as essential to success in this branch of our noble profession as it is in the disease peculiar to the eye, the ear or any other organ. While all of us cannot be experts in surgery, because of the lack of skill or the proper training, yet I do believe that the general practitioner can and should be more of a surgeon than the average one is. No man can be perfect in any one medical subject, and hence we should not expect to be perfect in all; why then should we make ourselves believe that we are not competent to do surgical work because of our shortcomings and refer our patients to our city friends when they themselves are imperfect? Let us then study the subject closely, equip our offices with the instruments usually required in ordinary surgical work, and then do the work, thus saving our patients the annoyance and expense of travelling to, and remaining in a distant hospital, and at the same time save to ourselves the remuneration and reputation which our city brother would thus derive.

I would not for one moment advise a tyro to endanger the life of a patient by performing unassisted a most difficult operation, but I do advise him to properly equip himself so that he can do the common surgery which he as a general practitioner may be called upon to do. But says one, "how can I, with limited means, equip myself with instruments and acquire the skill necessary to the successful prosecution of surgical work, and after I am prepared what results can I expect to obtain?" The answer to this question which has often been propounded to me embodies the essential features of this paper, presented as it is in my own feeble manner with the hope that it prove of value to some one attempting or just beginning to walk in surgical ways.

It is needless to speak of the advantage of hospital experience to one intending to be a surgeon. Its value cannot be overestimated, but since it cannot be enjoyed by every one some substitute must be offered. To one without such opportunities I would

say go to the dead-house and there learn the technique of every operation. Such instruction can be now easily and quickly obtained in any of our large cities. After thus becoming familiar with the instruments and operations one is then prepared to begin surgical work. At first one should only undertake the most simple operations and then as ones experience grows the treatment of the more difficult cases may be undertaken, thus gradually reaching the goal to which one aspires without ever being a tyro in the true sense of the word. The time-honored custom of studying with an old doctor as a preceptor gave valuable assistance in obtaining experience which cannot be over-estimated. Just here let me say that I regret most thoroughly the later-day tendency to depart from this old medical usage, and I hope to see the day dawn very early when medical men like the druggist will be required to have some practical experience before they are allowed to graduate. After the young surgeon has thus been gradually educated, and has by these means gained confidence in himself, and has learned the *modus operandi* of his instruments, he is prepared to branch out into a strictly surgical field.

To the surgeon perhaps even more than to the physician the question of nursing is most important. With the country practitioner it is often most perplexing and exceedingly annoying. In almost every community there is some one who has a peculiar knack along this line and after careful instruction by the surgeon concerning the particular case to be nursed, he can by the close attention of the operator render with wonderful skill the necessary assistance. In my own country surgical practice I often send quite a distance for a person who has nursed for me several cases of the variety of disease I am about to treat. In this way I find my work about as effective as that obtained by the assistance of the trained nurse. However, professional nurses are now numerous, they can be easily secured and should be for a serious case when practical.

The question of assistance at the time of operation is important. Of course in the country this is necessarily crude, but after a short experience one soon learns to meet single handed almost all emergencies. The routine work of the assistant can be easily done by a colleague or by some one accustomed or

adapted to such work. It is wonderful how nicely a non-medical man can assist in a surgical operation if he be cool-headed and possesses a stout heart. I have for a long time and in many cases depended upon them almost, and frequently entirely for assistance, and in no case have I ever been annoyed by their ignorance or hampered by their lack of experience. This may be due, however, partly to the fact that I have gradually grown accustomed to their unskillfulness. The inexperienced assistant like the raw soldier does not know and consequently cannot comprehend the dangers of certain emergencies which may arise and so is not as easily rattled as the more experienced.

Every operator and particularly the country surgeon should always be on the lookout for any emergencies which may arise. Tact, skill and an intimate knowledge of the physiology and anatomy of man and the therapeutic use of drugs are of course absolutely essential to the successful avoidance of many reverses while a thorough acquaintance with the various uses to which the different instruments may be put will supply the knowledge needed in meeting the remaining emergencies. We should be so accustomed to our instruments that one may be very readily used if necessary for half a dozen purposes. For example if the needle holder be absent the artery forceps can be used in its stead and when the dilator is not at hand the instrumental hemostatic may again be called into service. The grooved director, the chief use of which in my opinion is to aid the ignorant surgeon, may be used as a probe, while the probe can be used as an aneurism needle or a retractor. This diversified use of instruments not only obviates the necessity for so much apparatus but also aids in meeting the emergency of a broken or absent instrument.

Just before each operation the instruments and dressings should be carefully sterilized. My own preference is the small Arnold's sterilizer. This can be easily heated on the common coal stove and may be conveniently carried in the buggy. The instruments should be carefully cleansed in carbolized water after each operation. They should be carefully dried before being replaced in the instrument case. When an operation is to be performed in the country or out of the office a medium size grip or brief-bag, lined each time with a freshly sterilized towel is a

very convenient case in which to carry the dressings and instruments.

The question of asepsis and antiseptics is really about the most important one likely to confront a country surgeon. Permit me to suggest that if the instruments are cleansed and kept clean as above described the problem of preventing sepsis is much simplified. In town and country surgery we are not annoyed by an impure atmosphere. This is most fortunate. Atmospheric impurities such as are found in our cities and hospitals are no doubt the cause of infection in 95 per cent. of the cases of septic surgery. Recently while in London I exposed a medium for 7 seconds in a ward in a large hospital and in due time saw grow several very large colonies of infective organisms, later I exposed the medium in my office 30 minutes and failed after culture to find any pus cocci. This to my mind explains the cause of the very remarkably low mortality in country surgery.

As to antiseptics I consider carbolic acid the best for all-round work, though for certain purposes, especially for cleansing the hands of the surgeon and the field of operation the bichloride of mercury is perhaps better. The hands of the surgeon should be thoroughly scrubbed with green soap and then carefully and slowly bathed in a 1-1000 solution bichloride of mercury, this being preceded by an application of alcohol or turpentine and followed by careful rinsing with strongly carbolised water. The patient is treated in a similar manner, the whole process being gone through with very slowly and carefully. Because of the absence of the septic germs in the atmosphere and on the instruments, this method is always sufficient. During the operation of course perfect cleanliness should be observed and the wound carefully protected. Lacerating and picking in pieces a wound by an unskillful or ignorant operator, or the too free use of over-strong antiseptics during or after an operation is more often the cause of the commencement of suppuration than direct or immediate infection. In my own work during the past three years I have not had a single case of pus formation following an operation and only one case of infection in accidental wounds. The value of the free use of boiled or sterilized water during an operation cannot be over estimated. I

prefer the boiled water which has been carefully covered and allowed to cool to water which has been sterilized. The pans or bowls furnished by the family should be carefully washed with carbolic water before being used. The towels supplied by the patient should be boiled or if this is not convenient washed in a carbolic acid solution. In laparotomies Thiersch's solution is a very valuable antiseptic and is to be preferred to all others.

The subject of dressings is very important. My own experience teaches me to rely on cheese cloth cut into the proper size. From sterilized cheese cloth we can easily make bichloride, iodoform or carbolic acid gauze by soaking it in the solution of the antiseptic we desire to use, and permitting it then to slowly dry. All our dressings should be carefully kept in screw-top jars, especially the medicated gauzes. Iodoform gauze can be easily made from iodoform emulsion, but it is preferable to purchase this from some reliable manufacturer. I never depend upon or use previously medicated gauze except in emergency work. Just here let me say that in my opinion iodoform is not so good a germicide as it is a disinfectant, even boracic acid in many instances being better as an antiseptic. Musquito bar cut and rolled in the proper manner forms not only the cheapest but the best bandage material. If it is dampened before being applied its efficacy is greatly increased. Bleached domestic is another valuable bandage material and can often be used to a great advantage. All of us can certainly afford a home made bandage roller and armed with this our wives and sisters in a few hours can make enough bandages to supply our wants in a great many cases. By them our cheese cloth dressings can also be made.

The emergency bag deserves our most careful attention. It is second to the instrument case the valuable aid to the country surgeon. The most convenient case of this character is a 16 inch obstetrical bag containing the following, viz: Absorbent cotton, bandages and gauze (may be medicated), a bottle of carbolic acid, 4 ounces of chloroform, 2 ounces of alcohol, hypodermic tablets of morphia and strychnia, the instruments usually found in an ordinary pocket case, one large scalpel, dressing forceps, two pair Pean artery forceps, half dozen spear pointed needles, one skein of medium size braided silk, one tank of cat gut, one

Esmarch's constrictor, one Esmarch's inhaler, one small saw, adhesive plaster, collodion and cocaine. With this outfit always ready one is constantly prepared to meet promptly almost any emergency which may arise. I was once enabled to go to a distance from my office, and with the assistance of Dr. John A. Pollock, to perform a double leg amputation within two hours after the injury calling for the operation had been received. No one pretending to do surgical work in small towns and villages can afford to be without such an outfit as before described.

The results of surgical work done in North Carolina are certainly surprising, especially to one who has not taken the trouble to look up the statistics on the subject. Save from the rarest and most difficult operations (and at the hands of some even from these) the mortality is less in North Carolina, where most of us are denominated Country Surgeons than in the cities at the large and handsomely furnished hospitals. Let us all remember that McDowell and Sims and a host of our shining lights achieved their best results and acquired their beginning greatness as country surgeons. There are all over our beloved State, I am proud to say, a great many medical men who are quietly and unassumingly, but fearlessly marching successfully along in the most difficult surgical paths relieving the distressed with a success which, if it were known, would strike wonder to the minds of the out side world and really even to themselves. In no state in the union, in no country in the world can there be found such men as these North Carolina surgeons are. Like Capt. Perry they can very truthfully exclaim. "We have met the enemy and they are ours!" Let us help them, therefore, and encourage them in every possible manner. Remember the test is not always in the distance. In this as in all things else, let us as far as practical patronize "home industry," and thus by helping them help and honor ourselves, always keeping in view that grand sentiment that the true surgeon is not necessarily of the city nor the gilded mansion, but he alone is worthy of our consideration who works for the relief of suffering humanity and carves, if need be, through the greatest difficulties to success.

SOME OBSERVATIONS ON THE RADICAL CURE OF
INGUINAL HERNIA WITH REPORT OF AN
UNUSUAL CASE.*

BY J. P. MUNROE, M. D., Davidson, N. C.

ALTHOUGH herina is not usually regarded a serious deformity, yet impairment of usefulness does not occur so often from any other anatomical defect as from this one. No condition of life, of rank, of age or of sex is exempt from this affliction, and when the viscera protrude through the abdominal walls that enclose them, the condition at once becomes one of great surgical importance, often fraught with gravest danger and sometimes with serious results.

No disease, perhaps, requires a more accurate anatomical knowledge for its successful treatment and it is one that always requires skill and often promptness on the part of the surgeon. The frequency of hernia is much greater than is generally supposed.

From the U. S. census reports in 1880, it was found that out of 756,893 deaths, 1 in 600 was from hernia. In Philadelphia alone 450,000 trusses are manufactured annually. It is estimated that between $\frac{1}{8}$ and $\frac{1}{16}$ of the human race are afflicted with hernia. In tables of Dr. Baxter, Surgeon General U. S. A., we find of 334,321 recruits examined for the army 16,901 were rejected for hernia, this being $\frac{1}{3}$ of total rejections for all causes. Of these, inguinal herina was about 827 of all kinds, and right inguinal exceeded all the rest combined.

The anatomical features require no detailed description here, but will be indicated briefly in the stereoptican illustrations to be shown.

The usual treatment, from time immemorial has been to adjust a properly fitting truss. There are a number of cases, however, much larger than is generally supposed, that should be operated upon. The operation is not in itself a serious one, and if done with proper care usually gives good results.

It is not my purpose to burden you with a detailed description of any one of the many operations for the radical cure, but to mention one or two points of importance in connection with the

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favorite methods and to report an interesting case operated upon.

The first point in the present day operation is to establish a new inguinal canal. In Bassini's operation this is done by making a new posterior wall for the canal by bringing the edge of the rectus, the internal oblique and the transversalis down to Poupart's ligament and attaching them there by strong ligatures.

The anterior wall is formed by stitching the cut edge of the external oblique to Poupart's ligament. Halsteads modification of this consists in including the external oblique in the stitches that form the posterior wall, and the new canal with the cord will then lie immediately under the skin and superficial fascia.

The other point of importance is to restore the obliquity of the *canal*.

This point is especially emphasized by Marcy to whom I am indebted for many valuable suggestions. The internal ring being about an inch and a half above and to the outer side of the external opening, the abdominal parietes act something like a valve in keeping the canal closed. This will be made clear by some models which I will show.

The best method of restoring the obliquity of the canal, whether it is located according to Bassini or Halstead is to stitch from below upward until the internal ring is pushed as it were, to the uppermost limit of the incision. The continuous buried suture may be used or the interrupted, which I think gives equally good results.

These points I will illustrate and also show a case of which I find but one parallel in my reading.

J. W. F. consulted me in January 1897, and gave the following history. "About six years ago, while working in a shop in Louisville, Ky., I was reaching up and lifting a heavy weight when suddenly I felt something give way in my side. Almost immediately afterward I had to take my bed and an immense, tender swelling developed in the lower part of my right side. My physician advised me to go to my home in Cincinnati. I did so and went with the expectation of being carried to the cemetery at an early day.

"An examination by physicians in the latter city led to the conclusion that pus was present, so an incision was made into the

swelling and three pints of pus were discharged. Relief was almost immediate and I made a rapid recovery. Two years ago a tumor developed at the same place. My physician in Florida opened it and took out some offensive material which he thought was the cause of the return of the abscess. Since that time I have had a severe attack, but there is a constant enlargement at the site of this cicatrix and it frequently becomes considerably larger and very tender."

With this history I found upon examination an inguinal hernia on both sides easily reduced, but on the right side at the point of the previous incisions a swelling remained that could not be entirely reduced. I was not certain whether this was a cicatricial thickening of tissue or an imperfectly reduced hernia. I advised an operation, but as it was not convenient for him to have it done at that time, I endeavored to fit him with a truss. After careful measurement a first class one was made to order, but it failed to give relief, and indeed was so painful to wear that he discarded it altogether after a faithful trial.

In August 1897, he consented to an operation, and with the assistance of Drs. Mengies, Johnson and Abernathy, of Hickory, I operated.

On opening the inguinal canal I found in addition to a small hernial sac the cœcum and appendix lying on the cord and closely adherent to it. The appendix extended down beside the cord and it took careful dissection to separate the two.

After removing the appendix and closing the opening in the appendix I broke up the adhesions of the cœcum, pushed it back into the abdominal cavity and proceeded as in an ordinary case of inguinal hernia.

The recovery from the operation was rapid and satisfactory. One interesting feature in connection with his convalescence was that after we began to give him medicines to act on his bowels he passed immense quantities of hardened fæces and among these was a tooth pick, which he remembered having swallowed two month before. This indicated an impaction of feces, although there had been no previous symptoms especially indicating it.

On account of the weakened condition of the parts I have not been very hopeful of a permanent result, but a letter from him last week informs me he is still perfectly well. I will now illustrate the points which I have emphasized.

"A SHAWL PIN IN THE TRACHEA."

BY K. P. BATTLE, M. D., Raleigh, N. C.

ON March 11th, Miss S. H., 16 years of age, while holding in her mouth a sharp pointed steel shawl pin, said to be two inches in length, allowed it to slip down her throat. A bystander at once looking into her mouth caught sight of the pointed end of the object in the pharynx. Dr. G. A. Renn was called, but the pin had disappeared and he brought the patient to me. Examination with a throat mirror failed to reveal it, though it must be said that the trachea could be seen only for a short distance below the cords. There was no cough and the respiration was easy and unimpeded. There had been such an absence of strangling sensation that she thought she had swallowed it and we were disposed to agree with her. For some days the only symptoms were a very slight and infrequent cough, but after a pronounced spell of coughing and a show of blood stained sputum, Dr. Renn took the patient to Chapel Hill, in hope of locating the pin by the use of the Röntgen rays. Prof. Gore and Dr. Whitehead were very kind in their attention to the case, but the University's present powerful apparatus had not been put in service, and the only information obtained by the old machine was that there was no foreign body above the level of the sternum. So quiet was the breathing at this time that the opinion was again expressed that the body had probably been swallowed.

Several days passed without accident until the patient coughed the pin into the throat, as she expressed it, where she could feel it for several minutes, till it dropped back to its old position. I did not learn of this until the termination of the case.

A week later and 22 days after the accident she had a violent paroxysm of coughing, and when brought to me was still in considerable distress. I found the pin lodged in the larynx, with the head below the cords, and the point fixed in the epiglottis near its center. This cartilage, while not in the infantile position was less erect and over-hung the larynx to a greater extent than is commonly seen in the adult. After spraying with co-

*Read at the Annual Meeting of the North Carolina Medical Society, Charlotte, May 3, 1898.

caine I grasped the only available part of the pin, the shank, with Seiler's flexible tube throat forceps and made downward pressure in the hoping of freeing the point, preparatory to an attempt to get it to pass the epiglottis; but I could not afford afterwards to loosen the firm grip of the forceps in an effort to get a more favorable hold, for fear of the pin slipping down the trachea again. A steady pull was now made, but the pin did not seem to budge. The next inspection showed that it had pierced the epiglottis. The point could be seen protruding from the middle of its upper surface. I then caught hold of the point and pulled it through as far as the head. It was now surely out of the larynx and the greatest danger was over. The patient was by no means yet relieved of its presence, but I could safely pause and discuss the next step with Dr. Renn who was with me. The pin was too long to be turned, its upper part was in plain view in the fauces when the tongue was depressed, and we decided to cut it in two and remove the point half first. We were not provided, however, with an instrument that would cut such a stout steel wire in such a position. A strong pointed nosed wire cutter, acting on the scissor principle was borrowed from a jeweller, and proving too short, was lengthened temporarily by the insertion of the handles into two metal tubes of suitable size. With this instrument and an ordinary pair of forceps, the steel was easily snipped in two and the upper half taken out.

To extract the remaining half of the pin, I used the ideal instrument for the purpose, a Seiler tube forceps in which the nipper part consisted of two hemispherical steel cups. When the cups were passed behind the epiglottis and closed over the pin's head, slipping was an impossibility, and the shank, now short enough, was easily reversed and the whole removed without difficulty. The young lady certainly deserved the happiness of the relief, for she had endured the manipulations with rare fortitude. All irritation rapidly subsided and perfect health was soon restored.

When examined the pin proved to be one and three quarter inches in length, of steel, quite sharp, with a vulcanite head a quarter of an inch in diameter. Owing to its originally high polish it had rusted very little.

This case presents an interesting study in the matter of the

measure of success attained by the natural efforts of the organism to relieve itself. That the pin should have gotten into the throat at all was due, in part, to a failure of nature to afford the body protection, for though it is a dangerous practice to put such things into the mouth, it cannot be said, in view of the habit of babies in this respect, that it was unnatural. Yet if the involuntary reflex powers of the pharynx and larynx failed to stop its passage it may be urged in their behalf that they were not designed to deal with bodies of such a shape. Be this as it may the system made a remarkable effort to retrieve the mistake. The head of the pin evidently rested most of the time on the bifurcation of the trachea. Several fruitless attempts were made to eject the intruder but the point, directed upwards, would catch in the mucous membrane, as shown by the cough and the blood stained expectoration. Once a fair start was made and the larynx was reached, but failure again resulted and another effort must be made. Finally the object was again shot towards the outlet, the point, being doubtless guided by a portion of the blast of air escaping past the head, found the chink of the glottis, got beyond the cords, fastened itself in the over-hanging epiglottis, the nearest possible approach to complete victory was attained and extraction by the natural passages was made practicable.

The general statement may be made that when the body is contending against disease or the result of accident, and the issue is vital, the most important and frequently the most difficult question for the surgeon's decision is the selection of the time when trust in nature should be abandoned and active interference begun. The accumulated experience of the world as time goes on will help in the laying down of more and more definite rules for our guidance. In the present instance if we had sooner known with certainty, what the position of the object was, an awkward problem would have presented itself. The chance of a successful removal through a tracheal opening of a pin of this kind, situated head downward at the bottom of the trachea, seems so desperate that this case is reported to put on record how much is possible for unaided nature to accomplish.

DISCUSSION.

Dr. Galloway.—I know of one or two interesting cases somewhat on the same line. In the late meeting at Atlanta, I re

lated the case of a child, or rather a small boy, who was brought to my office one night, who had a sandspur in his throat. I examined the throat carefully, Mr. President, and found a sandspur lodged at the bottom of the vocal cord. I used a 4 per cent. solution of cocaine, and endeavored to extract it. I had no difficulty in getting to it with an ordinary laryngeal forceps, but every time I got down to it, there was such retching I had to stop. The boy previously had vomited and had a good deal of trouble. I at last succeeded in getting hold of the sandspur, and just at that moment the boy vomited, and up came the sandspur.

Dr. Payne.—I am much interested in Dr. Battle's paper, because it opens up a question which has been considered settled, as to how long after a foreign body has gotten into the trachea, it is safe to do tracheotomy for removal. According to recognized authorities, when a foreign body is retained for a number of days, it is safer to await nature's efforts than it is to do tracheotomy, but I am convinced that this chapter will have to be re-written. I had a case recently which leads me to believe that even in the last stages after actual catarrh or pneumonia has resulted, good results will follow tracheotomy. The patient was referred to me by Dr. Whitehead from Rocky Mount. The child had a grain of corn in the trachea. There were active catarrhal and pneumonic symptoms, the result, I thought, of the detention of this grain of corn in the trachea. It could be heard occasionally moving up and down. I looked up all the surgical authorities, and in spite of the fact that they all advised against the operation, I did tracheotomy, the grain was expelled, the child recovered. Dr. Senn, who happened to be in Norfolk at the time, thought the action I had taken was proper, and said that he was convinced that the whole teaching on the subject was wrong. Coming from such high authority as that, and owing to the fact that I did it, I would like to have the expression of the Society as to the propriety of operating in these cases.

Dr. Carr.—Reported a case in which he operated to remove a grain of corn the day after it got into the trachea. When the trachea was opened the corn was expelled. In another case he operated for a cocklebur which had been in the trachea over a month, and the patient died. He advised against operating unless there were bad symptoms.

Dr. Galloway.—Reported a second case which he saw in consultation. A two year old child had gotten a peanut in the trachea six days before. When he saw the child it did not seem to be in any distress, though the mother stated that it had been, though for the last day or two it seemed to be getting along very nicely. He advised against an operation from the simple fact that he was decidedly of the opinion that the peanut was low down, possibly beyond the bifurcation, and also on the

ground that the child was doing very well. If at any time it should get dangerous, then there would be sufficient opportunity to perform the operation. It went on very nicely for about three weeks, when after a coughing spell, it coughed up one half of the peanut.

Dr. Faison:—Reported a case in which a grain of corn was expelled from the trachea on the boy tripping and falling across a potato ridge.

Dr. Costener:—Exhibited a thimble which was removed from the trachea. It had lodged at the bifurcation of the trachea, and created a great deal of inflammation about the bronchi; also the child could not swallow, but had to be fed by a tube, and this was kept up for six weeks.

EXPERT MEDICAL WITNESSES: WHAT IS THE CAUSE
OF THE SEEMING DISREPUTE IN WHICH THEIR
TESTIMONY IS HELD IN CERTAIN RECENT
CASES IN THE COURTS? OBSERVA-
TIONS FROM THE STANDPOINT OF
THE COUNTRY DOCTOR.*

BY J. HOWELL WAY, M. D., Waynesville, N. C.

THE criticisms given by the daily press of the country on the expert testimony in the recent noted cases in the courts where medical gentlemen, prominent in the profession, occupying positions of great responsibility to the profession as teachers and as consultants, to the public in that from the position accorded them by the profession, they become men whose words weigh much with the laity, have evoked considerable attention from the writing part of the profession. Some of these articles, in common with all doctors who feel a lively interest in whatever pertains to the welfare of our honored guild, I have read with the greatest interest, feeling that out of the discussion would be evolved valuable suggestions.

For quite a number of years past the idea of an "Expert Commission," to be created by law, and to which all questions of a

*Read at the Annual Meeting of the North Carolina Medical Society, Charlotte, May 3, 1898.

medical nature arising in the courts would be referred for examination and solution, has been periodically sprung on a suffering profession. Recently it is noted that the same suggestion has been going the rounds of the medical press, and is seemingly the more favored solution of a *questio vexata*. For a Republican form of government, it is more than probable that there are already too many men in "commission" to do this or that particular thing, which the people could do for themselves, in their own time and their own way, and perhaps equally well. Yet this idea of a commission advisory to the court, seems to be the favored solution—the main remedy offered on various hands for the abatement of what is claimed as the source of great danger to the future character and influence of the profession. It is difficult to see, however, how the proposed scheme could, if it were practicable to carry it into effect, possibly prevent the troubles of which the doctors complain in regard to the operation of the present system. Take for illustration the Carlyle Harris case in New York a few years since, or the more recent Leutgert case in Chicago; in each case we have some of the most prominent medical gentlemen in their respective cities, going on the witness stand and flatly contradicting each other about scientific questions as to facts. Now if as generally understood, science knows no variation; that it consists of certain fixed laws, these gentlemen must have known what part of their testimony was scientific facts and what part was opinion, conjecture or possibility. Would medical men be more inclined to agree with one another before a commission than in the glare of the public's gaze in the open courts? Doubted. But it is assumed that the idea of a commission would involve the submission of medical points involved in medico-legal questions arising in the courts, to only men of special and profound knowledge. Just how this would make the matter better, except for the favored few who constituted the commission, cannot in the present light be shown. The very prominent experts are the ones who (and it is said in all kindness of these gentlemen for we all have the profoundest respect and admiration for those who succeed in making reputations for themselves in medicine) are constantly getting into the newspapers with the odium of the court house "wranglings of the doctors" and resultant criticisms attached

to them, and through them to the profession for which they are assumed to stand. It is my candid opinion that in the smaller cities of the country and the rural districts in general, where there are fewer or no "professors" of medicine, that the matter of expert testimony is developed in the courts with far less friction between the opposing sides and with a corresponding degree of credit to the doctors. This statement is made advisedly. In the past twelve years it has occasionally fallen to the lot of the writer to appear in the courts of his own and adjoining counties in the capacity of an expert medical witness, and he here records his court experiences as among the pleasures of his professional life. But certain rules have always been scrupulously followed: In the first place the witness has never bargained for or received a fee from either side prior to his appearance in the courtroom. His cases have been carefully studied before-hand, and after conferring with the other medical men who were to appear in the case and adjusting any grave differences which might on first view have existed between them, he has gone on the witness stand and told in the plainest, simplest language possible, what he knew of the case, strictly avoiding as he would an upas tree all professional technicalities. When my opinion is asked as to a question which I know is unsettled in the minds of the profession, or in controversy, I invariably after a word of explanation, confess my ignorance. And right here, I believe lies the trouble with so many of the modern metropolitan medical experts—they know too much! Too vast an amount of professorial, professional, or personal dignity at stake for the expert to say candidly, "I don't know." And the clever attorneys fully appreciating this fact play on the doctor's weakness, and when the proper time arrives the expert's testimony and his foibles are shrewdly dissected before the jury. And the lawyer only does what he ought to from the stand-point of his employer. I have no criticisms to make here of the attorneys. They can legitimately prey on any man who opens the way. My observation is, that as a rule, medical men are themselves responsible for the ridicule their evidence is occasionally subjected to in the court room.

On every hand the fact is appreciated that marked advances have been made along the lines of human activity in the past two or three decades; in none has there been a greater degree of ac-

tivity displayed, or greater results accomplished than in the field of scientific medicine. Much real advance has been made, many valuable discoveries fraught with blessings to humanity have been brought to the light of our knowledge through the restless energies of thousands of indefatigable workers in the field of modern medicine. Far be it from the intention of the writer to cast one iota of obloquy upon the good work of our honored profession in detracting from the splendid record of progress in recent years; but, the practical fact remains, that every new idea has not as some of our brothers would have us believe, been an improvement on the old or an advancement to the front. While the general tendency of our professional life in scientific work has been distinctly and emphatically, forward and upward to the eternal light which illumines all things, yet it is to be remembered, to borrow the figure of another, that in our evolution some of the branches of the tree of progress grow upward and to the light, some grow downward soon finding their terminal buds, some wither and die, and—yet it takes all to make the tree; so as honest men we must admit that while substantial advance is made every day, we are even now absolutely in the dark as regards the correct solution of countless problems in the mathematics of medicine.

A distinguished savant makes an experiment today which he hopes will lead to something; the next day the details of the experiment are heralded the earth over a most wonderful demonstration of established facts. The day following, the same scientist, or hundreds of co-workers in the fields of science, repeats the experiment and finds that a certain element of error, not calculated for in the original experiment, renders null and void the assumed conclusions of the first day. The general public are not informed of this however. Later they find out the facts and then their respect for scientific expounders and their science is proportionately lessened. Witness tuberculin: Call to mind the excited throngs, both of students and afflicted who flocked to Berlin during the few months following the announcement of Koch's discovery. To bring it nearer home, look at the history of vaginal injections during and after labor. Only a few years since it was gravely announced by those high in authority in the medical world, that no woman should be

permitted to bring forth off-spring without her genitals being rubbed, scrubbed, scraped and injected with strong solutions of toxic drugs a certain number of times (the details of the process almost suggested Hahnemann's directions in his "organon" for preparing a "potency!"), then a "pad" of the far-famed spices of the Orient was to be placed at the vaginal entrance to frighten timorous microbes away. Such was the dictum that with "professional" sanction went out over the country; notwithstanding this, there were intellectual "giants in those days," who dared to reason for themselves and questioning said, is not this a violent perversion of nature's methods? And while the many of the profession were for the time swayed by the injection idea (largely because it was "new" and "the latest,") there was a very large portion of the profession who rejected it as illogical treatment. On my desk today lies an ably written article recently published, from the pen of an acknowledged authority on obstetrical science inveighing against the practice of using vaginal injections in labor and criticising the monthly nurse for her disposition to use the douche, whether so advised by the attending physician or not. Yet this article does not give a hint as to where the afore-mentioned nurse was indoctrinated with the supreme necessity of vaginal injections in labor. One of the first things we are taught as students of medicine from the chair of therapeutics is to, if possible, ascertain and then remove the cause.

Nothing in my professional work has interested me more than to trace, and when possible ascertain, the origin of the oft-times (but not always), absurd or foolish ideas advanced by the laity as regards the nature of treatment of disease. I do not say the ignorant laity, for my observation has been that the chief difference between the ignorant and the intelligent laity is that the ignorant laity is just a generation or so behind the intelligent laity in—in what? In reflecting, with some modification perhaps, what was set forth at some time as gospel medical truth by the profession, or part of it. Hence the accomplished author above referred to would have done us all a kindness and performed a legitimate penance had he simply stated where the nurse imbibed her dreadful notions.

But this by the way: The idea of the writer is to direct attention to what he believes to be one of the, if not the chief,

causes of the threatened disrepute into which it is gravely asserted expert testimony is in danger of falling, and incidentally to note that the general, every-day practitioner of medicine cannot afford to endorse such ideas as tend to produce the belief that relief is to be found in putting "in commission" certain gentlemen who will attend to the elucidation of medico-legal questions for the profession and for the courts. The severest wrangling over medical cases in the courts today is when gentlemen of the class from which it is proposed that the commission be created, appear in the courts on opposing sides.

To get at the cause if possible, of the trouble is our first duty; then if possible, remove it. One of the dangers which an expert, and the more reputation he has to sustain the greater the danger, is likely to encounter, is that of knowing too much. If medical men were as ready to admit in the court room their real ignorance of many things as they are in the privacy of the consultation room, there would be far less wrangling of the experts, with the result that much more respect would be entertained for their evidence. Doctors are oft-times, rather than make a frank confession of ignorance, tempted to build up on one known fact in medicine, coupled with a half a dozen may-bes or conjunctures, a theory which to be honest with themselves they may believe, but do not and cannot know. This theory is then elaborated and given to the court as an exposition of the teachings of medical science. Now this is all wrong, but we do not need to invoke the aid of legislation to set such things to right, but rather the exercise of common horse sense. It is a family affair so to speak, and should be settled by those most interested. In every case where medical witnesses are summoned, if these same medical experts will get together and calmly and critically review the evidence of each man, throwing out what is only conjecture or rests on insufficient scientific foundation, leaving to be given out what is generally accepted by the profession as known facts; then later when on the witness stand, with an eye more to trueness to professional honor than to being the plaintiff's or defendant's "expert," tell what he knows and resist the allurements of keen-witted counsel to extract information which he does not possess, that man will retire from the stand conscious of having maintained his self-respect. He will also merit

and receive that of the court. A proper appreciation of this ought to make it possible to be put into operation by the masses of the profession who have regard for their professional honor. As to the professional experts it is hard to say what they would or will do. Apply the method herein suggested to the practice of medical jurisprudence in the courts and it is not likely that self-respecting medical men will, after carefully studying the case together, go into the court room and exhibit the spectacle presented in the recent Leutgert case where, given a small fragment of the upper extremity of a femur, one gentleman swore positively that in his opinion it was the femur of a human female; the other with equal positivity asserted it to be the femur of a hog. On the day following the astute attorney produced in court bones known to have been derived from a chimpanzee which bones were identified by the experts as human. Imagine the humiliating position of these gentlemen; amusing to the spectators, and disgusting to every plain, common sense doctor who followed the testimony. Both medical men should have testified that the bit of bone was the upper end of the thigh-bone of an animal which brought forth its young alive, i. e., a mammalian and mentioned some of the more common animals from which the bone might have come. They should have positively stated that with the very short fragment exhibited, it was impossible to say it was or was not a human bone. (After days of wrangling this is really what their con-joint testimony amountee to!) This course would have saved their credit and that of the profession in general which is always affected more or less by the actions of its members. It is true this would have been indefinite, but (as the sequel proved) it would have been the truth, and when told in a dignified professional way would have enabled the doctors to have retired from the stand with more honor than attached to the experts whose perhaps too ample *ego* led them to know too much. These gentlemen were acknowledged expert comparative anatomists. The blunder as to the chimpanzee bones, the positive divergence of opinion as to the source of the piece of the femur exhibited to them, presuming as we do that the experts told what they believed to be the truth, proves conclusively, that comparative anatomy is not yet a sufficiently exact science to enable one, from only a small part of a bone,

(unless it should be a part possessing some very special or pronounced process or foramina, etc., rendering its character unmistakable), to positively identify it as coming from the body of a certain animal. Now to candidly admit this fact need bring no discredit to our profession or to the individual doctor so testifying. We are not expected to know everything in the court house, whatever may be the demands made on us in the sick-room. A clear recognition of this fact on the part of the profession, coupled with a sincere regard for stating when on the witness stand only what are known to be established facts, and a disposition not to allow the erudite attorneys to lead him to become a partisan, will I think contribute very greatly to advance the esteem in which medical expert testimony is held by the courts and by the general public. These remarks, as elsewhere noted, are intended to apply more particularly to the general masses of the profession—the practical men who help nature save and prolong the lives of our fellow creatures.

As for the professional "experts," if they want the legislatures of the country to look after them with disciplinary eye, I really see no objection(?) to *their* being put "in commission," or elsewhere. Seriously, can not these gentlemen, so very clamorous for special legislation, read the "signs of the times" better than to not see that the very fact of their more or less valuable service being had by either side in any case, carries with it the death warrant of the call for professional experts in the courts of justice? The American people are a very practical type, and a few more exhibitions of medical experts, a *ala* Leutgert style, will make the masses feel that "these experts are all frauds"—exit the professional expert!!

But long after this *genus* shall have for remembrance only a "trace of mould" in the sociologic lawyers of the past, there will be more or less frequent calls for some plain, practical observations on medical questions coming before them, from the plain every-day, common-sense doctors who have opinions only about the things of which they know (and are not embarrassed at not knowing all things!), and not based on what might, could, would, should, or did not happen. Speed the day! But evolution, sociologic as material, is slow.

DISCUSSION.

Dr. Murphy:—I suppose I must say something after having had the paper read. I am very much gratified at the position the doctor took in his paper. There has been appointed in several States recently either by the Legislature or by the court, a commission to assist the court in all questions requiring expert testimony, whether physicians, mechanics, or whatever they might be. I have seen some severe criticisms on this course, and do not know how satisfactory it is but I do know that the suggestion the doctor makes, that the experts should hold a consultation, has been tried and worked admirably in one case. It was rather a celebrated case, I don't think now of the name of the defendant, but the man killed the cashier of a bank and escaped in broad open day time. The defence set up the plea of insanity. There was a large array of witnesses on both sides, some of the most distinguished men in New England. The experts for the defence had the defendant first. They seemed to have posted him; he knew a great deal about the science of insanity. The defence objected to the State's experts examining the defendant without their presence, and finally they decided that they should examine him together. The man was a very shrewd, sharp, sprightly fellow, and they had some difficulty in coming to a conclusion. The whole circumstance of the man's heredity and professional history to his implication in the crime was brought out, and finally led them to agree that he was not fully responsible for the act, and I think perhaps he was imprisoned for life. This seems to me to be the solution of the whole trouble—that experts should meet and come to some conclusion among themselves. I was summoned on a case that way, and I went to my brother doctor and said that I didn't want any court house scene, and if he had a different opinion about the case, I wanted to know, and we finally agreed what we would testify, and had no trouble about it. I do not know what help we could get from the law-makers on this line of expert testimony.

EXCISION OF GALL BLADDER FOR IMPACTED
GALL STONE.*

By W. SINCLAIR DAVIDSON, M.D., Triangle, N. C.

MRS. G., age 40 years. About the last of August, 1890, on pressure, she detected a small tumor in the right side and sent for her physician, Dr. D. McD. Yount, of Conover,

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N. C., who also detected it. I was asked to see her December, 1890. Shortly after detecting the tumor, the patient suffered with a burning sensation in the region of the stomach, and when out of recumbent position for a few minutes, intense nausea and vomiting ensued. As the tumor continued to increase in size, the patient lost all desire for nourishment, and when any was taken nausea and vomiting were immediately produced.

On February 5, 1891, I was called to see the patient again and found a very large tumor, the patient very much emaciated, and suffering great pain, together with incessant vomiting when not in a recumbent position. As the symptoms continued to grow worse, we decided to operate that evening at 1 o'clock. The abdomen having been well shaved and washed with a solution of bichloride of mercury, the patient was placed upon a table and thoroughly anesthetized with chloroform and an incision about seven or eight inches long was then made over the tumor, three inches to the right of the umbilicus. On exposing the tumor to view, I found it to be a distended gall bladder, filled with a fluid and gall stones, 63 in number. Eighteen ounces of the fluid was removed with an aspirator. On making an examination of the neck of the gall bladder, I found a large gall stone lodged, that could not be removed. After passing a cat gut ligature through the neck of the gall bladder above the gall-stone, it was then tied and the gall-bladder incised just below the ligature. It was then dissected from the liver, using very hot water to control the hemorrhage from the liver. After all hemorrhage was stopped the wound was closed with silk sutures and dressed with bichloride gauze and absorbent cotton. The sutures were removed nine days after the operation. The wound had united by first intention. The patient's recovery was uninterrupted with the exception of an attack of peritonitis, which occurred a short time after the sutures were removed. It has now been more than seven years since the gall bladder was removed, and at this time the patient is enjoying good health.

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Editorial.

LIQUID AIR.

At a recent meeting of the New York section of the Society of Chemical Industry, Mr. Charles E. Tripler presented a paper on "The Liquefaction of Air on a Commercial Basis" (The Pharmaceutical Era) accompanying his paper by numerous experiments which went to show the many practical purposes to which liquid air may be put. The temperature of liquid air is about 320° below zero, and Mr. Tripler brought upon the stage with him a large cask of the liquid from which he and his assistants scooped dipperfuls for the experiments. This was standing open like a cask of water, and some of it placed in a globular glass vessel

was beautifully transparent and had the appearance of water. In an open container the nitrogen of the air having a lower boiling point than the oxygen slowly evaporates, leaving a residue of pure liquid oxygen. Liquid air boils in the atmosphere at 312 to 320° F. but is quiet in a vacuum. A dipperful thrown upon the floor made the same splashing sound as would water, a volume of steam arose, but there was no evidence of moisture upon the floor, so instantaneous was the evaporation. There is no tendency to explosion unless the liquid is confined or unless heat be applied in which case its expansive force is as great as any known explosive. Among the experiments were the following: a whiskey cocktail was mixed and had the appearance of snow, and was so cold that it would blister the tongue worse than would the "chained lightning" from Wilkes; absolute alcohol was frozen and Mr. Tripler stated that he could freeze everything known in nature except hydrogen; a glassful of liquid air poured into a carafe of water, floated upon the surface of the water, but occasionally globules of the air would dive into the water and return again to the surface, the globules diving deeper and deeper until one reached the bottom of the vessel when the process ended; beef, vegetables and fruit were frozen so that they could be pulverized by pounding; tin by immersion in the liquid air was rendered as brittle and delicate as egg shell; mercury was frozen into the form of a hammer and with it a nail was driven through an inch board; a bar of mercury was made which supported a weight of 75 pounds for 15 minutes; there were also other experiments equally interesting. Mr. Tripler did not offer any suggestions as to the use that could be made of liquid air in chemistry, but brought his lecture to a close by referring briefly to the history of the manufacture of liquid air. The beginning of its history might be found in the experiments with gases performed by Faraday; in 1878 Pictet showed that air was not a stable gas and could be reduced to another form in minute quantities; the matter was taken up and studied by the Royal Institute, by Russian observers, and finally by Linde, of Germany.

Reviews and Book Notices.

Sexual Neurasthenia.—Its Hygiene, Causes, Symptoms and Treatment. With a chapter on Diet for the Nervous. By George M. Beard, A. M., M. D., formerly lecturer on Nervous Diseases in the University of the city of New York; etc., etc. Edited with Notes and Additions, by A. D. Rockwell, A. M., M. D., Formerly Professor of Electro-Therapeutics in the N. Y. Post-graduate Medical School and Hospital, etc., etc. Fifth Edition with Formulas. Cloth, octavo, pp. 308. E. B. Treat, New York, 1898.

The rapid exhaustion of the preceding editions of this work speaks for its popularity. The subject is one that appeals to every physician, and one on which nearly all feel they need enlightenment. With the various revisions the author considers that the work is now practically complete. He has dwelt at length upon the treatment of these cases, and offered a set of formulæ which will be found useful.

A Text-Book on Surgery.—General, Operative, and Mechanical. By John A. Wyeth, M. D., Professor of Surgery in and President of the Faculty of the New York Polyclinic Medical School and Hospital; State Surgeon to Mount Sinai Hospital and consulting Surgeon to St. Elizabeth's Hospital; Member of the New York Pathological Society; and of the New York Surgical Society; etc., etc. Third edition is revised and enlarged. Royal octavo, pp. 997. Price—cloth \$7.00, sheep \$8.00; by subscription. D. Appleton and Company, New York, 1898.

This is in fact a revised edition of this excellent treatise, for the advances in the art of surgery have been so marked since seven years ago, when the second edition was published, that the author has found it necessary to practically re-write this volume. While the features of the original work, which rendered it so useful to the general practitioner for ready reference, are retained, the author has added to this edition some elementary pages which will commend it to teachers for their undergraduate pupils.

The opening chapters are devoted to non-infective and infective inflammations and the process of repair in the tissues; specific and non-specific urethritis; surgical diseases, such as erysipelas, hospital gangrene, glanders, tetanus, etc. After this follows in order chapters on minor surgery, special attention being given to aseptic and antiseptic technique; amputations; surgery of the lymphatic vessels and arteries; fractures and surgical diseases

of bones; dislocations and diseases of joints. Chapters XVIII to XX are devoted to surgery of the head, eyes, nose, face, mouth, œsophagus and trachea. The next four chapters study diseases and surgery of the abdomen; chapter XXV. of the rectum and anus; chapters XXVI to XXIX of the genito-urinary organs of the male and female. The volume ends with a chapter on deformities and one on tumors.

Each department gives evidence of the author's extended experience and study. While the chapters on special lines of work, such as ophthalmology and gynecology are not as full as the specialist would desire, they give the general practitioner a clear and concise review of these subjects, and are more complete than they are usually found to be in works on general surgery.

The work is fully illustrated with cuts and colored plates which are excellent, and greatly aid the reader in a quick and correct comprehension of the text.

Notes and Items.

QUESTIONS SUBMITTED BY STATE BOARD OF MEDICAL EXAMINERS, AT CHARLOTTE, 1898.

Surgery.—DR. J. M. BAKER.

1. Define (a) septic infection, (b) septic intoxication, (c) erysipelas, (d) osteomyelitis and (a) aphasia. 2. What are the symptoms and treatment of fracture of neck of femur? 3. Give the symptoms of (a) cerebral concussion, (b) cerebral compression, (c) shock, (d) concealed hemorrhage, and (e) aneurism. 4. What is the pathology of (a) acute abscess, (b) phlebitis, and (c) lymphadenitis. 5. What is the treatment of (a) talipes equinus, (b) chronic abscess, (c) internal hemorrhoids, (d) peritonitis, and (e) ingrowing toe nail. 6. Give etiology of (a) inflammation, (b) gangrene, (c) anthrax, (d) caries, (e) synovitis. 7. Give the diagnosis of (b) conjunctivitis, (c) cystitis, (d) stricture of urethra and (e) cerebral embolism. 8. Discuss the clinical aspect of (a) appendicitis, and (b) penetrating wounds of abdomen with injury of viscera.

Chemistry.—DR. K. P. BATTLE, JR.

1. Give an example of a chemical equation and explain its meaning. 2. Give the physical properties of Chlorine, Potassium, Acetate of Lead and Sulphate of Copper. 3. Give the chemical proprieties of Nitric Acid, Hydrogen Dioxide (Peroxide) and Hydrogen. 4. Name the substances having the following formulæ: H_2S , AsH_3 , $MgSO_4$, $NaCl$, $CaCO_3$, and give the formulæ for Sulphide of Iron, Iodide of Potassium, Calomel, Glucose and Chloride of Zinc. 5. Give some of the peculiarities which distinguish the organic compounds from the inorganic. 6. What is an Alkaloid? Name as many of those used in medicine as you can. 7. Describe two methods of testing urine for Albumen. 8. From a chemical point of view what are the following: Ptomaines, Caustic Potash, Creosote. 9. How would you disinfect the bowel discharges of Typhoid Fever?

Materia Medica.—DR. D. T. TAYLOR.

1. What are the physiological effects of belladonna and its alkaloids? Their dose and preparations? 2. Salicin, salicylic acid and the salicylates—What are these substances, physiological action and medical uses? 3. What are the preparations and doses of arsenic, and what are the medical uses? 4. What are the preparations of aconite, their dose and medical uses? 5. Are the mercurial preparations ever used as diuretics? 6. How do the physiological actions of ether and chloroform compare? 7. What is the physiological action of opium, and what are the preparations and doses of opium and its alkaloids? 8. What are the symptoms and treatment of chloral poisoning? 9. Give the differential diagnosis between opium poisoning, cerebral apoplexy, alcoholic intoxication and uræmic coma. 10. Give doses of the following: Magnesium sulphate, potassium bi-tartrate, oleum Tigllii and elaterium. 11. What are the medical uses of ergot?

Physiology.—DR. T. E. ANDERSON.

1. Mention three properties of the cell, and explain its function in physical organization. 2. Give structural difference between arteries, veins and capillaries. 3. What digestive changes occur in the large intestine? 4. Relate 1st, The steps in the coagulation of blood; 2nd, What salt is necessary to its coagulation; 3rd, Why does it not coagulate in the living vessels. 5.

Name, locate and give the function of each of the varieties of epithelia. 6. Name the motor nerve of the tongue. 7. Give the physiology of the afferent fibers of the fifth nerve. 8. Define secretion, excretion, and give the function of three secretions, in the human economy. 9. What is the *corpus luteum*, and how is it significant of pregnancy? 10. Explain the peristaltic movement of the bowels, and what effect does the arrest of blood supply have on it?

Anatomy.—DR. J. HOWELL WAY.

1. Describe the femur. 2. Describe the occipital bone. 3. Give classification of joints. 4. Describe the shoulder joint. 5. Describe the pectoralis major muscle. 6. Name and describe the muscles of the posterior tibio-fibular region, superficial layer. 7. Give relations of external iliac artery. 8. Describe the external carotid artery and name its branches. 9. Name and describe the coverings of the brain. 10. Describe the glosso-pharyngeal nerve.

Obstetrics—Gynecology—Pediatrics.—DR. H. B. WEAVER.

I. Describe the Uterus, giving—(1) arrangements of its muscular fibers; (2) distribution of its blood vessels and nerves; (3) description of its external and its internal linings.

II. How is Extra-Uterine Pregnancy classified? (1) What are its effects on the womb? (2) What are the symptoms and diagnosis? (3) Give general and specific treatment.

III. What are the causes of Post-Partum Hemorrhages? What are the symptoms? What is the treatment, and *how* is it to be carried out?

IV. Define Puerperal Septicæmia: (1) Give its etiology: (a) Is it heterogenetic or autogenetic? (b) Do the retention and decomposition of the secundines produce the disease? (2) What are the symptoms and course of an attack? (3) Give in detail the treatment.

V. Pelvic Peritonitis: (1) What is pathology? (2) What are the varieties? (3) Give its etiology. (4) Describe the symptoms. (5) What is the treatment?

VI. Describe briefly the operation of Vaginal Hysterectomy.

VII. (1) How, and from what must you differentiate an Ovarian Cyst in the Abdominal Cavity? (2) Describe the principal points in the technique of a Laparotomy for the removal

of the Uterine Appendages or a Cyst? (3) How would you tie a Staffordshire Knot?

VIII. Chronic Endometritis—(1) Define and give the varieties. (2) What is the pathology? (3) What are the causes? (4) Give symptoms and physical signs. (5) Give the treatment.

IX. What is Noma? (1) What are the causes? (2) What are the symptoms? (3) What is the prognosis? (4) What is the treatment?

X. Define Entero-Colitis. (1) What are its causes? (2) Describe the anatomical lesions. (3) Give the symptoms. (4) What is the treatment?

Practice of Medicine.—DR. TAYLOR.

1. What are the pathological changes in chronic dysentery, and what are the symptoms of this disease? 2. What is acute poliomyelitis, symptoms, treatment and pathology? 3. Describe malarial cachexia, and give treatment. 4. What are the causes of gastric ulcer, and what are its symptoms? 5. What are the varieties of bronchitis? 6. What are the physical signs of acute pleurisy? 7. What is cardiac dilatation, and what are the causes of this affection? 8. How is thoracic aneurism recognized? 9. What is acute parenchymatous nephritis, and what are the symptoms? 10. How should erysipelas be treated?

Dr. Russell Bellamy, formerly of Wilmington, was married April 20th, to Miss Constance Trenholm, at St. Thomas' Church, New York. The bride is the daughter of —— Trenholm, Comptroller of the Treasury, under Mr. Cleveland's administration. The wedding was a conspicuous society event in New York.

Dr. William T. Woodley, of Charlotte, was married April 21st, to Miss Katharine Panill, of Claremount, Virginia.

Dr. A. J. Crowell removes from China Grove to Charlotte.

Dr. E. A. Cobleigh has resumed his duties as Dean of the Chattanooga Medical College, after a respite of a year from official cares on account of physical indisposition. We are pleased to note Dr. Cobleigh's restoration to health.

Dr. D. McL. Graham died April 28, 1898, at his home in

Wallace, N. C. He was about 65 years of age and had been in bad health for several years. He was a native of Fayetteville. He served as assistant surgeon in the 37th N. C. Regiment during the civil war.

CORRECTION.—By some error the excellent and interesting paper on "Some Reflections on Post-Graduate Instruction" in issue of May 5th, was credited to Dr. C. E. Moore. It was presented by Dr. E. G. Moore.

TO GUARD AGAINST YELLOW FEVER.—Upon request of the Secretary of the Treasury the Secretary of the Navy has issued to the commandant of the United States Naval Station at Key West and the Commander-in-chief of the North Atlantic Squadron instructions to keep a lookout for and apprehend any small vessels which it is believed intend to effect a surreptitious landing on the Florida coast.

Reading Notices.

THYROID THERAPY IN CRETINISM.

During the past few years much clinical testimony has been accumulated on the value of thyroid feeding in cretinism, a disease of children analagous to myxœdema in adults. In view of the fact that in cretins the thyroid glands are absent or imperfectly developed it is easy to understand the efficiency of thyroid medication in this disorder. To derive the best effects from this treatment some authorities regard it as preferable to employ in place of the fresh thyroid gland or of extracts of inconstant curative properties, its active principle iodothyrene. Experience has shown that unpleasant and even alarming symptoms are not rarely observed during administration of thyroid extracts, and these have been attributed to the presence of toxic decomposition products in these preparations. On the other hand, iodothyrene is entirely free from by-products, and represents the active constituents of the thyroid triturated with sugar of milk in a definite and uniform proportion, one part being equivalent in curative power to one part of fresh gland. Inasmuch as there is no means of determining the quantity of active ingredient in any thyroid extract, it is difficult to so regulate its dosage as to obtain the best and safest effect, while this disadvantage does not apply to iodothyrene, which permits of accuracy of dosage and reliability of effect.

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The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that **no two of them are identical**, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

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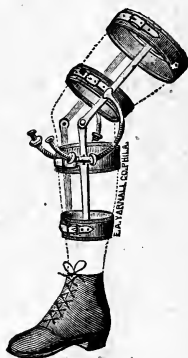
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NO. 12.

Original Communications.

EXTRA UTERINE PREGNANCY.*

BY MORDECAI PRICE, M. D., Philadelphia, Pa.

I APPRECIATE the courtesy of your invitation to participate in your proceedings, and I further appreciate the responsibility which attaches to addressing young men about to cross the threshold into the active duties of one of the most important, responsible and difficult of professions. There should be no uncertainty, nothing equivocal in the voice that would give wise and safe counsel; the lessons conveyed should be those of clinical or bedside experience.

However well taught, however carefully and judiciously you may cull and treasure up the lessons of text book and lecture, and those of your experiences as you go along, you will ever be having very much to unlearn. The literature of Extra Uterine Pregnancy is abundant, very much of it is theoretical, speculative, merely huddled conjectures. There are associated with the accident disputed problems.

Our advances in abdominal surgery and the revelations of the post-mortem have cleared away some of the pathological difficulties—as to others we yet only theorize, must work and wait for better light. For the sake of the truth we should not dogmatize.

Along all lines, medical and surgical, our views are modified by our experiences. However positive may be our views along any given line it is certainly well to take into consideration the

*Read before the John B. Deavor Medical Society of the University of Pennsylvania, April 15, 1898.

possibility of being mistaken. There is good counsel in a letter of Oliver Cromwell to the General Assembly of the Kirk of Scotland "I beseech you brethren, by the mercies of God, conceive that you may be mistaken."

As a rule these cases first come under the observation of the general physician and obstetrician and not that of the abdominal surgeon. To the general practitioner falls the task of making the first diagnosis. He should recognize that the condition is a perilous one, always urgent. Doubtless, even with the light of our present experiences, very many of these cases are not diagnosed and not treated surgically, the only way in which they can be treated successfully; they are left to die and many do die.

The condition is too frequently unrecognized or is called something else and the patient is permitted to perish after a little opium or palliative treatment. Some unquestionably do recover.

We must first diagnose pregnancy, and then whether the condition is normal or whether there is reasonable evidence or not of extra uterine pregnancy.

The abdominal surgeon rarely sees the patient before rupture takes place. Abdominal sensations, severe pelvic pain and hemorrhage from the uterus may not alarm the patient, and in many instances before the primary rupture occurs there is not even a suspicion of pregnancy. It is when rupture takes place that the patient, family and family physician recognize the peril of the situation.

In all these cases the mother's life is the one consideration; it should not be jeopardized for the sake of the fœtus.

I cannot better define this condition than that it is an impregnated ovum gone wrong. The question as to how it occurs and why is a disputed one. It is evidently caused by some disease or abnormal condition of the tube. It is the teaching of the best authorities on the subject that from some disease of the tube the impregnation takes place in the tube instead of the womb and as soon as impregnation takes place the ovum fastens on tissue necessary to preserve its life.

Mr. Tait advances the idea that extra uterine pregnancy is caused by whatever removed the ciliated epithelium from the Fallopian tubes. It has been claimed by numerous operators that it may adhere and develop anywhere in the abdomen, but from

my own experience I can say that I have never seen another than the tubal cases,—those beginning in the tube.

It is reasoned by some that the ordinary signs of pregnancy being present in addition to the pelvic distress and pain on one side should warn us that the pregnancy may be displaced. If with such symptoms there is a bloody discharge it indicates either an abortion or a ruptured tubal pregnancy. I believe that as soon as the rupture takes place the symptoms of hemorrhage follow, and all such cases should be most carefully examined for an extra uterine pregnancy. In my experience the hemorrhage does not occur before rupture.

In discussing the subject Mr. Tait says: "A tubal pregnancy is bound to rupture in the free part of the tube; it rarely delays beyond the twelfth week and may be as early as the fourth; in the interstitial part of the tube from the third to the twentieth week. This rupture takes two directions: into the peritoneum which is the fatal form, and into the cavity of the broad ligament. The latter or extra peritoneal, alone gives all the cases which go on to the period of viability, all the lithopædia, all the suppurating cysts discharging into the bladder, rectum, vagina, and abdomen, and also all cases, which by secondary rupture of the broad ligament into the peritoneal cavity, are called "Abdominal Pregnancy."

I quote from Mr. Tait because I have great respect for his teaching; in about all we do in abdominal surgery we all follow his teaching, very many without the credit due him; but as to the opinion I quote as credited to Mr. Tait, I must differ. My own experience in extra uterine pregnancy has led me to adopt an entirely different view from that expressed by Mr. Tait. I believe that instead of rupture into the broad ligament in nine hundred and ninety-nine out of a thousand cases the primary rupture is into the peritoneal cavity; and where the case goes to term, or the life of the child is prolonged beyond the period of rupture, the tube has ruptured only, and the product of conception has been forced through the rent in the tube encapsuled in its amniotic sac. No child in the early days of foetal life would be protected from the digestive influences of the peritoneum.

The only way an extra uterine pregnancy can go to term is encapsuled in the amniotic sac. The sac is a foreign body in

the peritoneum and adheres to everything coming in contact with it. The adherent viscera protect as well as nourish the displaced ovum. In my experience with those which have gone to term, or passed the second month, the amniotic sac could be demonstrated in every one of them. In over two hundred cases of extra uterine pregnancy one hundred and sixty four in the practice of my brother, Dr. Joseph Price, and sixty odd in my own, I have never seen a case develop in the broad ligament. The peritoneum would digest a fœtus at any age if not protected in some way from its influence. The cases reported that seem to prove that a child can live in the peritoneal cavity were not carefully examined.

The case of Jessop, of Leeds, is in point. In this case there is nothing to show that the child was not encapsuled in an amniotic sac up to a short time before the operation. Nature has definite methods for doing her work. She protects the fœtus in utero with an amniotic sac. There are all the conditions present in a displaced ovum for the protection and growth of the fœtus, so far as the product of conception is concerned. If a child can grow in the tube or in the peritoneum nature must provide the necessary paraphernalia.

If an amniotic sac exists in some it exists in all. It has been clearly demonstrated to exist in all the cases I have seen.

The possibility of the viability of a child depends not only upon the protection of the fœtus by the amniotic sac but also upon the life of the placenta. If in the rupture the placenta has been entirely detached death to the fœtus is certain to follow, but if it retains sufficient hold to preserve its own life and that of the child it will soon form new attachments to surrounding viscera and womb and the abdominal wall to insure the life and growth of the fœtus.

The symptoms are usually a period of sterility, a missed period, distressing pelvic pains, continuous bleeding, a soft velvety feel of the cervix as in pregnancy, straining at stool with no result, feeble pulse, intense palor, sick stomach with a boggy soft mass in the pelvis, on one side or both, usually on one side, faintness and collapse. With such symptoms we can feel safely sure that extra uterine pregnancy exists with rupture.

The mortality in these cases should not be high, less than five per cent.

In the early months of tubal pregnancy it is rare to find a well marked abdominal tumor. After the third month there is a well defined tumor. The blood becomes encapsuled by irritation of the peritoneum and adherent viscera, an inflammatory barrier thrown out to protect the general peritoneal cavity. If the case has been neglected this may undergo septic changes and form an abscess which may be followed by sepsis and death of the patient.

The cases that go to term are those not recognized. The question is how must we treat extra uterine pregnancy in its different stages? It is a rule to remove everything and do it at the earliest possible moment after the occurrence of the accident. In the early months, to the trained abdominal surgeon, there is no operation easier, none that affords more gratifying results.

As the period of the pregnancy advances the surgical questions and dangers increase, until the period of viacility is reached when the danger to both mother and child is very great indeed. Medical history gives only eight or nine recoveries of both mother and child. No woman should be allowed such desperate risks for so small a chance of a living child. The operation in the early months requires only a few moments to ligate and remove the diseased tube, placenta and sac, thoroughly irrigate the peritoneum with warm water, temperature 105° F. and use glass drainage.

As the months go on the magnitude of the operation increases, the placenta and sac have formed adhesions which are hard to break and are usually followed by profuse hemorrhage. Up to the sixth month we have always been able to remove both placenta and sac entire, but have not always been able to stop the profuse bleeding by ligature alone; gauze pack in some of them has been necessary and it answers the purpose admirably; though it complicates and delays the after treatment, necessity justifies its use. From the seventh month on, with a living child the question in the operation is how to deal with the placenta. Remove it if possible. It is not often possible. If not, then cut short the cord, clean the face of the placenta, clean perfectly the peritoneal cavity, dry the parts and close the abdomen, and trust to future developments for the removal of the placenta if required; it may become encapsuled or absorbed. Another

method is to leave the abdomen open and pack daily with gauze over the face of the placenta and wait for the placenta to loosen and come away. My case of extra uterine pregnancy in the tenth month with living mother and child was treated in this way.

You can judge this woman's danger when I tell you that her temperature ranged from 95 to 105 for 32 consecutive days, when she fell into spurious labor, part of the placenta protuded from the opening, the abdominal muscles over the placenta contracted very much as the womb contracted to force the placenta from its fastenings. I removed the placenta which was as large as my hat rim. The removal was followed by a frightful hemorrhage which was checked by packing the cavity with cheese cloth. From that time she made a rapid recovery. Now five years and four months after the delivery both mother and child are in perfect health.

The interstitial variety, or those cases partially covered with uterine tissue and tube, are the most dangerous variety, many of them perishing of hemorrhage before assistance can be procured. Every hour of delay in this condition is fraught with danger. It demands prompt, courageous and skillful operative treatment to save life.

There is no question but that this condition should be recognized before rupture takes place, but it is rarely done for the reason that the woman rarely suspects anything wrong so early in her pregnancy, and does not consult a physician until after rupture takes place.

SOME THOUGHTS ABOUT TYPHOID FEVER.*

BY R. H. MCGINNIS, M. D., Charlotte, N. C.

BEING an Embryo, so to speak, in the medical profession and my first appearance before your Honorable Body, it becomes me to say that my paper will, no doubt, be accepted with more or less hesitancy.

I will not attempt, in the time allotted me, to cover the whole

*Read at the Annual Meeting of the North Carolina Medical Society, Charlotte, May 3, 1898.

literature embraced in the therapy of cold water, neither will I burden you with a rehearsal of all that has been written on hydrotherapy in the management of typhoid fever, but will endeavor to place before you some simple thoughts and suggestions with the report of two cases which came under my direct observation in the Maryland University Hospital during the past year. The first case showing some of the many pathological conditions produced by the fever germ, the other the advantages offered by hydrotherapy in the management of a much complicated case.

Since the introduction of the antitoxine treatment of diphtheria by Behring, of Germany, and its wide spread acceptance by the profession in recent years, with such remarkable results, reducing the mortality from this most fatal of the diseases of children from 50 to 60 per cent to less than 20 per cent, the minds of the pathologists and bacteriologists have, and most naturally, turned to the investigation and experimentation, following similar lines as did Behring, Koch, Pastenr and others, to elucidate a serum which would be antagonistic to those toxins liberated in the system by the growth and development of the typhoid bacillus.

At the present time little or nothing is being published by those making such investigations, and the general profession as well as bacteriologists are largely and anxiously expecting such a discovery and we can not but think that the dawn of the 20th century will disclose this great agent.

Several investigators have employed an anti-typhoid serum in the treatment of typhoid fever, and their report of something over 100 cases has appeared and not with such discouraging results, most notably among them being Fræknel, Mauchet, Rumpf, Kraus, Buswell and Pfeiffer.

The first four observers report nearly 100 cases and their conclusions were that the course of the fever was slightly influenced, pyrexia occurs in a shorter time, with a general improvement of the feelings of the patient and disappearance of delirium. The last two observers noted no specific action, reporting a smaller number of cases.

When such an anti typhoid serum has been isolated and its employment embraces a large part of the profession I can not

believe that the mortality from this dreaded disease will be materially lower than by the use of cold water, when judiciously employed, which is less than 5 per cent in hospitals and in private practice very much less than this. Although hospitals as a general rule receive their patients in the 2nd and 3rd week of the disease, the mortality in the Maryland University Hospital for 1896 was only 2 per cent and for 1897 was only 3 per cent, about 100 cases being treated each year. During the fall and winter of 1896 and '97 fifty consecutive cases of typhoid fever were treated in the University Hospital and not a single death. All receiving the cold bath.

I would not lead you to think that I believe every case of typhoid fever required the cold bath. There are many cases, and especially if not treated before the 2nd and 3rd weeks, where the cold bath would be absolutely harmful, but these are the cases where the cold sponging and cold pack plays such an important role. On the other hand I have seen cases where the sponging would invariably produce collapse, with extreme cyanosis and feeble pulse and when put into a cold bath, beginning at 80° and gradually lowering it to 65° F., would almost immediately show signs of improvement. During the 2nd and 3rd weeks of disease the cold bath must be employed with the utmost care and diligence, every symptom carefully noted and if the patient's condition will not permit of this measure, the cold pack or sponging may be substituted, but if the bath be employed from the beginning there is little need for any substitute during the 3rd week, as I have noted during my residence at the hospital, having observed about 150 or 200 cases. When the bath is judiciously employed it greatly adds to the general comfort of the patient, not only by reducing his temperature but by accelerating the circulation, which is much below normal, arterial tension being extremely low, due to the hebetude and listlessness of the patient; stimulating reflexly through the skin and underlying tissues all the reflexes, especially those of respiration and of the heart, bringing about an equilibrium in the heat producing and heat radiating centers, as is shown by the natural sleep the patient often falls into after the bath; lessening of delirium and producing a gentle perspiration. By contracting the arterioles of the surface of the body more blood circulates through

the liver, that great barrier to autoinfection, stimulating it to greater activity, thereby eliminating from the blood much of the toxins of the typhoid germ. This action I believe to be an auto-serum action where the patient himself is made to produce a serum in his own tissues antagonistic to the infection.

It was found by Widal, Pfeiffer and others in their search of the action of the blood on various bacteria that blood from a typhoid fever patient would cause the immobility and clumping together of the active typhoid bacilli showing that the patient produced in his own tissues a substance antagonistic to the toxin produced by the germ.

This reaction met with merited favor, and in this country was clearly demonstrated, a diagnostic feature of the disease, by Johnstone before the American Congress of Physicians held in Buffalo, N. Y., in 1897 and later the same year at Philadelphia. He ordered blood sent him from patients suffering with various diseases and in every case of typhoid fever this agglutination reaction occurred.

A drop of blood is taken on a cover glass, under aseptic precautions, and diluted 10, 20 or 30 times, it is then turned over on a glass slide with a small excavation, into which the bacilli from a fresh culture about 36 hours old preferably, has been placed. By the use of the oil immersion lens, and better by artificial light, the germs are seen at first floating in the fluid and very active, then gradually become less and less active until finally they clump together in various size clumps and completely immobile. It generally requires from 1 to 2½ or 3 hours for a complete agglutination.

In many cases during the last few years where the diagnosis of typhoid had been confined to this reaction, post mortem examinations have shown various and extremely interesting lesions, some cases in which no evidence of the disease existed in the alimentary canal. While pure cultures from various other organs affected showed only the typhoid bacilli, no organ or tissue of the body is exempt from its invasion. Several cases of fatal meningitis, empyema, and pericarditis have been reported, and two cases where the bacilli were formed only in the gall bladder, and many cases of pneumonia, one occurring in the Maryland University Hospital this past winter which I will briefly call to your attention.

N. A. White, male, age 24, sailor, Greek by birth. Entered the hospital February 22nd 1898, in very emaciated feeble condition. Speaking modern Greek, no previous history could be obtained. Temperature $101\frac{3}{8}$, pulse 96, respirations 24 at time of admission and cold clammy condition of body. Stimulating him freely I made an examination after two or three hours, finding a pneumonia of lower right lobe, tympanitic and very tender abdomen. His pulse and respiration gradually increased and he died 72 hours after admittance.

Post mortem examination revealed a perforation of small intestine at site of Peyer's patches about 18 inches above the cæcum, and a general suppurative peritonitis. Culture taken from peritoneal cavity and pneumonic lung revealed the typhoid bacillus. His pneumonia preceded the perforation of the intestine, showing that it was not produced by extension from the peritoneum. Such a case is beyond the aid of the physician, but in those cases where no intestinal lesions exist and the disease is limited to the other organs it is not very obvious that internal administration of drugs, save those for stimulation and nutrition, will not benefit the patient, but on the other hand be very detrimental, especially those that cause frequent movement of the bowels. The disease is evidently one of general infection and not one of intestinal origin alone.

The other case I wish to report is that of a married woman, aged 20, the mother of two living children, German by birth, understanding very little English. Previous history negative, was taken with a severe chill on July 29th, no treatment until brought to hospital at 9 a. m. August 4th, 7 days after chill, with temperature of $105\frac{2}{8}$, pulse 132, respiration 52. Diagnosis of typhoid fever made and stimulants ordered, consisting of strychnia gr. $\frac{1}{30}$ every 4 hours, whiskey $\bar{5}$ ss every 2 hours. At 9 o'clock a. m., next day temperature $104\frac{2}{8}$, pulse 144, respiration 49. Tub bath given and ordered continued when temperature reached $103\frac{2}{8}$ or over, temperature being taken every 3 hours. Widal reaction confirmed diagnosis. A copy of her chart I have appended will show that she received in all 34 baths covering a period of 8 days. For 5 days she received a bath every 3 hours with four exceptions, two at 6 a. m. and two on the night of the 6th day, when she was delivered of a 5 months

child at midnight. Patient began to improve from very first bath and although delirious upon entrance it all disappeared after the 2nd bath. No tympanites after 2nd night. Constipation prevailed throughout the entire period of disease, mostly relieved by enemas. Milk diet and the strychnine and whiskey were all that were given internally. Temperature assumed its normal on the 14th day after admittance and remained within normal limits until discharged from hospital.

DISCUSSION.

Dr. Taylor:—I wish it were in my power to tell this Society something it does not already know about the surgery of typhoid fever. It is a comparatively new field, and you will probably hear a good deal more about it. In my limited experience I have had three cases which have been sufficiently impressive to teach me that there is a possibility of accomplishing good if the opportunity is taken at the right time. The first case that came under my observation was that of a young man who had had a mild attack of typhoid fever, and was practically convalescent. He probably then had no fever. I was sent for early one morning and was informed that that night he had had a chill, with violent pains in the abdomen. I recognized, not only from the increased temperature, but from the rapid pulse and the evidence of shock and the invasion of the peritoneal cavity that perforation had occurred. Prior to that time, this had been a mild case of typhoid fever, no hemorrhage and no evidence of ulceration. I telegraphed to his brother, who is a doctor, that this man had perforation, that the only hope of saving him was an immediate laparotomy, and asked his consent and his presence. He telegraphed back that if he had perforation, he was bound to die, and he didn't want to see him die. His friends opposed the operation and continued to oppose it for probably three days. At that time his distended abdomen, depressed condition, with all the evidences of septic peritonitis, made me fear with his friends that the end was very near. Then they importuned for operative interference. I probably should not have consented, because to operate upon a case in the last stage, perhaps would deter some others from having an operation performed, but it might give him a better chance for life. And this one instance did deter a subsequent patient from being operated upon. I did operate, and opened the abdomen. In spite of the prolonged time, I found that about one half of the abdomen contained an enormous abscess with fecal matter and purulent secretions. The intestines had become massed and matted together, and in spite of the terrific invasion, nature had built its barrier around the

invading foe and prevented a general peritonitis. The patient died. The next patient I saw lived next door to this young man. Curiously enough, she dreamed that she had perforation, and that the doctors wanted to operate upon her, several days before it occurred. She implored her husband not to let the doctors operate, and she afterwards developed symptoms of perforation. I told her husband that she had perforation, and I think told her. She did not want to have the operation performed, and her husband promised her she should not be operated upon, and he would not allow the operation. In 48 hours, as I expected, she developed septic peritonitis and died. The third case was allowed to go on from bad to worse for 3 or 4 days before operative interference was sought, and in that case I found suppurative septic peritonitis. There was a slight perforation in the ileum, not larger than a ten-cent piece. Two or three sutures if applied to the center of the perforation, or as soon as the diagnosis should have been made, would probably have saved the patient's life. This little experience of mine is worth very little unless simply as an introduction to the subject. Other surgeons have not been so unfortunate, and I think that as many as 20 per cent of these cases which have been operated upon have been successful. It is an open question, a question that is very open in my mind, as to whether or not it is possible for a patient to have perforation through the ileum, with constant discharge of fluid and fecal matter, and spontaneous recovery to occur. It is held that it is possible for a piece of the omentum to become plastically solid over the perforation and recovery to occur, but after the escape of fluid and fecal matter into the peritoneal cavity, we do not have plastic peritonitis; it is septic, and is really due to nature's making no effort to stop the perforations. Twenty per cent could be saved, and 20 per cent is the record of all who have been operated upon in all stages. What would be the result if these had been operated upon prior to the advent of septic peritonitis—prior to the disturbances of secretions of the peritoneal cavity? It does not seem such a desperate expedient. The perforation nearly always occurs within 12 or 18 inches of the ileo-cæcal valve. This operation does not differ from any other abdominal operation requiring suture of the intestine, and if done prior to the advent of suppurative peritonitis, it is almost classed as simple laparotomy surgically.

CLINICAL DEMONSTRATIONS IN OPERATIVE GYNECOLOGY.

BY AUGUSTIN H. GOELET, M. D., Professor of Gynecology in
the New York School of Clinical Medicine, etc.

ABDOMINAL MYOMECTOMY.

GENTLEMEN.--Both operations today are conservative operations upon the fibroid uterus. The first is an abdominal myomectomy, and the second is for ligating and dividing the uterine arteries through incisions in the vaginal roof for an interstitial fibroid growing in the right anterior wall of the uterus. A very short time ago the uterus would have been sacrificed in both these cases. I have myself done hysterectomy in cases very similar to these. But thanks to the indefatigable efforts of a few conscientious surgeons the possibility of conservative operations upon the fibroid uterus has been clearly demonstrated. These operations are the more commendable because, though conservative, in that they preserve the uterus and aim to restore its functioning power, they are radical, tumor being disposed of. In the one case it is enucleated from its bed in the uterine wall, and in the other it is made to shrink and disappear by being deprived of sufficient circulation to nourish it.

The first patient is now ready and I will proceed with the operation describing the different steps as we go along. The abdomen has been opened and you see the greatly enlarged uterus with its fibroids exposed in the incision. The patient is now placed in the Trendelenburg's posture so as to get the intestines away from the field of operation. The appendages are in good condition, therefore it is worth while to attempt to save the uterus. The first step will be to place a rubber dam about this uterus well down as near the cervix as possible in the same manner as a dentist places it about a tooth he is about to fill. By doing this we shut off the peritoneal cavity and work as if it were out side of it. This serves also to keep the intestines out of the way and avoids wounding them. At the same time I will place a rubber ligature about the cervix so as to control bleed-

ing should it occur, but I will not tighten it unless it becomes necessary.

The uterus is now drawn up as far as possible so as to facilitate the work. You see there are three small growths projecting from the surface of the uterus with broad bases for attachment, and one larger growth in the posterior part of the fundus which is situated deeply in the wall.

We will attack the latter first and see if it can be enucleated, for unless this can be done a conservative operation must be abandoned and the whole uterus must be removed. I split the wall of the uterus over the growth longitudinally and make the incision deep enough to lay open the capsule of the tumor. These tumors have really no distinct capsule, but a line of separation from the uterine wall can usually be found where detachment can be effected readily. The incision has opened into the tumor itself and you can see it as a distinct mass embedded in the uterine wall. Seizing the tumor with strong volsella forceps it is dragged upon, while with blunt curved scissors closed I begin to detach it all around. It is not an easy matter for the procedure consists in dragging the tumor literally out of its bed. The bleeding, as you see, has been insignificant and it has not been necessary to tighten the ligature about the cervix. Now the tumor has been gotten out and there has been left behind a considerable cavity which must be carefully closed, but before doing this we will remove the smaller growths and examine the uterine wall for others which may not be apparent upon the surface. All that can be detached, however small, must be removed. These smaller growths which project above the surface are best removed by seizing them at the top and making a flap on either side near the base by an incision through the peritoneum which is slipped down. The tumor is now enucleated and peritoneal flaps are brought together by Lembert sutures of fine cat gut, covering the surface from which the tumor has been detached. In one place here a small cavity has been left and this must be closed in the same manner as this larger one with buried cat-gut sutures.

Returning to the large cavity we will now proceed to close it. It is very necessary to secure perfect coaptation and avoid leaving even the smallest pocket or space where blood or serum

may collect and retard union. Using a fine cat-gut suture, and beginning at the bottom, a row of sutures are inserted from side to side, drawing together the base. When the suture is started no knot is tied but the end is left long and grasped with a pair of hæmostatic forceps and held tight. When the second tier of sutures is inserted above the first, burying it, the free end of the suture is cut off close. It is better not to leave a knot buried, as much longer time is required for its absorption. Tier after tier of these sutures are inserted until the cavity is completely closed, and it now remains for us only to unite the peritoneal margins over it. This is done by the Lembert suture which folds the edges in bringing the peritoneal surfaces of the margin of the incision into apposition. The rubber doue is now removed and the abdomen closed.

VAGINAL LIGATION AND DIVISION OF THE UTERINE ARTERIES FOR AN INTERSTITIAL FIBROID IN THE ANTERIOR UTERINE WALL.

The next operation is upon a patient 33 years old who has a fibroid the size of the fist in the anterior uterine wall which interferes seriously with the bladder. She has been married eight years but has had no children. The growth of the tumor has been slow, and she was even ignorant of its presence until she consulted a physician a short time since for the bladder trouble. I have advised the operation I am about to do in this case, because the age of the patient calls for preservation of the uterus if the appendages are in good condition, as my examination leads me to believe they are, and because my experience with this operation is that when the uterine arteries are positively obliterated by dividing them as well as ligating them, the nutrition of the tumor is seriously interfered with and complete and permanent atrophy results. This operation is considered appropriate in this case because the growth is small, interstitial, and so situated that its principal sources of blood supply is from the uterine arteries, I have decided therefore, to avoid for this patient the risk of an abdominal myomectomy which would be the next choice.

I have every reason to believe, from my past experience, that this tumor will undergo complete atrophy and the uterus, which now measures $4\frac{1}{2}$ inches, will return to its normal size. I lay particular stress upon the necessity for dividing the arteries

because simple ligation does not, with any degree of certainty, produce permanent obliteration of the vessels owing to the fact that some broad ligament tissue is unavoidably included in the ligature, hence the destruction of the vessels is not invariably secured, whereas if the vessel is divided the circulation is permanently arrested.

The patient has been prepared as carefully as for vaginal hysterectomy, and we will begin by curetting the uterus very carefully for in all these cases there is more or less disease of the endometrium. This done we will tampon the uterus loosely with iodoform gauze for drainage. In doing this the cervix is filled to the external os and the gauze cut off short so it will not project into the vagina and interfere with the work to be done there. We now insert a traction ligature through both lips of the cervix and drawing the uterus well down and to the right. We note the location of the cervico-vagina fold and make there a semi-circular incision about an inch and a quarter long through the vaginal wall. With the thumb nail, hugging the side of the uterus, the tissues are pulled up enlarging the opening and exposing the base of the broad ligament. With the two index fingers the bladder is pushed forward from the base broad ligament in front and the rectum is freed from it behind. Passing the left index finger now behind the right in front the base of the broad ligament is grasped between them and the pulsation of the uterine artery is detected. Returning to the left index finger in position as a guide the right is withdrawn and this ligature carrier, which has a curve especially adapted for this purpose, and carries a stout silk ligature, is inserted in front of the broad ligament and made to encircle the uterine artery. Catching the loop of the ligature at the eye of the ligature carrier it is drawn through, and the carrier is withdrawn, leaving the ligature encircling the base of the broad ligament, and including the artery. The ligature must be passed rather near the uterus so as to avoid the ureter which crosses the the artery here about a half an inch from the uterus. The ligature is now tied tightly, the ends being left long, temporarily as a guide. Drawing still more firmly upon the cervix with the traction ligature and slightly upon the ligature securing the artery the base of the broad ligament is put upon the stretch. With a pair

of stout scissors the tissue is divided between the ligature and the side of the uterus, and the severed uterine end of the artery, which as you see spurts freely, is picked up with pressure forceps. This is now tied with a stout cat gut ligature and the forceps are removed.

The operation is now completed on this side and it remains for us to close the incision. One end of the silk ligature around the artery is cut short and the other left long, and projecting down into the vagina for drainage, and to remove the ligature knot later, when it becomes detached. The incision in the vaginal wall is closed by a continuous suture of cat gut.

The cervix is now drawn over to the left and the same thing is repeated on the other side. The right uterine artery having been secured and divided also, and the vaginal incision on this side closed, the vagina is filled loosely with iodoform gauze as a dressing for the wounds.

The after management of this case will be simple. The gauze is left undisturbed for 48 hours, when it is removed together with that in the uterus. The uterine cavity is then irrigated and usually the gauze is not reinserted in the uterus, but the vagina is tamponed again for another 48 hours. This is repeated until about the sixth day, when the gauze is removed and after that daily vaginal douches of one per cent markosol are given until the ligatures come away. The patient is confined to bed for two weeks, and longer if the ligatures do not come away before that time.

NOTE.—The first patient made an uninterrupted recovery. The second case recovered from the operation without any drawbacks, and now six months after the uterus measures 3 inches and no evidence of the tumor can be detected by the most careful digital examination.

SMALL POX IN STATESVILLE.—Dr. Wertenbaker, of the United States Marine Hospital Service, who was ordered to Statesville to investigate the reported small pox cases, reports that there are eleven cases, all true small pox, among negroes in a suburb of the town. He pronounces the disease epidemic and all possible precautions will be taken to prevent its spread. Since his report four new cases have developed.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR

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Editorial.

HUSA.

A description of this plant with a report upon its therapeutic application has recently been made through the Texas Record by Dr. W. W. Winthrop, of Fort Worth. It is found in the Everglades of Florida, where it grows in clumps in moist, shady places, particularly on the hummocks at the root of the cabbage palm. The plant which is yet unclassified, is of dirty whitish green color, with a ball like white formation at its summit, where the flower should be, and slightly lobulated, being to all appearances like a small cauliflower. It is claimed by the natives that the plant is a perfect antidote for all snake bites and stings

of insects. As an evidence of the great reliance they place in it, a negro, in the presence of Dr. Winthrop, allowed himself to be bitten several times by moccasins—very venomous serpents—and after each bite chewed a little piece of the herb, which he said counteracted the poison. Certainly there was no bad effect following. Dr. Winthrop says that the plant is one of the strongest diffusible stimulants, acting immediately. He finds that it is not only a perfect antidote for all narcotic poisons, but an infallible cure for the opium habit. He says it takes the place of opium, sedative but not narcotic, produces slight elation but no somnolence. Dr. Winthrop reports that the drug was tested by several physicians in the opium habit and their invariable testimony was that it was a perfect success.

Should longer experimentation prove the constancy of Dr. Winthrop's results with this plant, it will be a most useful addition to the materia medica; but we are afraid that such will not be the case. There is too much tendency to allow our enthusiasm to run away with us, when we think we see an opportunity to present something new to the profession. We would not advise our readers to buy exclusive rights to use this new drug, with the idea of establishing sanatoria for the cure of the opium habit.

Reviews and Book Notices.

Elements of Latin.—For Students of Medicine and Pharmacy. By George D. Crothers, A. M., M. D., Teacher of Latin and Greek in the St. Joseph (Me.) High School; Formerly Professor of Latin and Greek in the University of Omaha; and Hiram H. Bice, A. M., Instructor in Latin and Greek in the Boy's High School of New York City. 5¼ x 7½ inches. Pages xii-242. Flexible Cloth, \$1.25 net. The F. A. Davis Co., Philadelphia, 1898.

There is a growing tendency among modern medical educators to require of matriculates a more thorough general education. All of the high grade colleges of the present day require a moderate knowledge of latin, but there was great laxity in regard to this preliminary education until within the past few years. The volume before us will be found useful to students as well as to general practitioners, who have not been taught latin, or

whose busy lives have allowed them to become rusty. It is not intended as an introduction to the latin language and literature, but as an aid in the acquirement of such knowledge of latin as will be necessary in the study of medicine and pharmacy.

Outlines of Rural Hygiene.—For Physicians, Students, and Sanitarians By Harvey B. Bashore, M. D., Inspector for the State Board of Health of Pennsylvania. With an Appendix on the Normal Distribution of Chlorine by Prof. Herbert E. Smith, of Yale University. Illustrated with Twenty (20) Engravings. $5\frac{1}{2} \times 8$ inches. Pages vi-84. Extra Cloth, 75 cents net. The F. A. Davis Co., Philadelphia, 1898.

This little volume of seventy-five pages if read by the class of people for whom it was intended, would do much to enlighten them in regard to the proper sanitation of their homes. It very properly starts out with a chapter on drinking water, showing the harmfulness of the ordinary well, and advocating the cistern. We do not endorse the author's idea of dividing the cistern and making one part of it the filter. It is much better and cheaper to have the filter outside, where it can be easily renewed or cleaned. While it may be very well in the section where the author lives to catch water for the cistern throughout the year, that is not a good plan for this section, but the cistern should be large enough to allow the supply to be cut off entirely through the summer months. Too much stress cannot be laid upon the importance of keeping clean the roof from which the water is collected, the filter, and the cistern itself.

The remaining chapters deal with the disposal of waste, the heating and ventilation of dwellings, the care of the soil and the disposal of the dead. The book would make a good one to place in the hands of the laity.

Treatise on the Diseases of Women.—For the Use of Students and Practitioners. By Alexander J. C. Skene, M. D., LL. D.; Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; formerly Professor of Gynecology in the New York Post Graduate Medical College; Gynecologist to the Long Island College Hospital; etc., etc. Third Edition, enlarged and revised. With 290 engravings and four plates in colors. One large handsome royal octave volume of 992 pages. Price by subscription, cloth \$5.00. D. Appleton & Co., New York, 1898.

A comparison of this edition with its predecessors will give a good idea of the advances that have been made in this branch

of medicine during the past decade. Many additions in the way of treatment have been made in preparing this last edition, and much has been omitted. Dr. Skene is not an extremist in either direction and his teaching may be accepted by the general practitioner as based upon practical experience. The plan adopted in the earlier editions of the work of appending to each chapter illustrative cases, showing the results obtained in the treatment of various conditions, has been retained in the present edition. Improved instruments take the place of obsolete ones, and new illustrations which give a better understanding of the text have been added. Among the more important additions, and the one which will attract, probably, the greatest share of attention, is the author's method of arresting hemorrhage by compression and electric heat. By this method "a portion of the end of a vessel, or mass of tissue containing bleeding vessels, is seized in a forceps or clamp and firmly compressed, and while under pressure heat is applied to the instrument to dessicate or dry the parts but not to char them. In this way the walls of the vessels become united and hemorrhage is certainly prevented." The author has had made a forceps one of the jaws of which is serrated as in the ordinary artery clamps, while the other is smooth and provided with a chamber. The electric current is carried through a copper wire along one handle of the forceps, and passes through a platinum wire which is zig-zagged across this chamber. The resistance offered by the platinum wire produces the necessary heat to dessicate the tissues held in the grasp of the forceps. Dr. Skene believes that this method should supersede the ligature in all surgical operations and says of it "the advantages which may be fairly claimed for this way of controlling bleeding in surgery are, that it is certain and reliable in closing isolated vessels or those imbedded in masses of tissue, like an ovarian tumor pedicle, for example, or the uterine and ovarian arteries in the broad ligament. At the same time that bleeding is arrested all lymphatics are sealed up, which prevents septic absorption. Nerves that accompany the vessels are immediately and completely devitalized, and hence there are less pain and irritation in the stump. The heat employed sterilizes the part involved, and therefore the operation is perfectly aseptic."

There is also a new and interesting chapter describing the use of the cystoscope and endoscope.

Correspondence.

FURTHER DISCUSSION OF DR. R. L. PAYNE'S PAPER ON ABORTION.

Editor N. C. Medical Journal:

Being compelled to leave for home before the the reading of Dr. Payne's paper on abortion, I had not the opportunity to discuss it in the meeting of the Society, but I hope the following few remarks may not be out of place at this late hour.

The paper of Dr. Payne is good. There are, however, some points upon which I do not agree with him. First as to medication with "large doses" of viburnum prunifolium. If his observation has been at all like mine, he knows that out of twenty women, there will be possibly one who can take more than the first dose of black haw, without nausea and vomiting, both of which favor hæmorrhage, and increase exhaustion. Some cases abort, others don't, medication amounts to little, save to quiet mental worry, or to keep moral control of the patient.

Abortion is a surgical accident, and may have for its cause either external or internal forces. His plea for care in the use of the curette, is most excellent, save, that in making his exception, he drops the keystone from the arch, and destroys the whole structure. He says, "while I believe there is a field for the use of the curette in abortion, I believe it is strictly limited to septic cases, and those in which the products of conception having escaped, hæmorrhage is kept up by retained placental fragments."

Now, picture the pathology of a septic uterus, with infiltrated, softened, and even friable walls, and you cannot fail to realize the danger of perforation or other trauma to these walls, from a feelingless, metal instrument, blindly at work in a dark cavity, whether such instrument be in either skilled or unskilled hands. Therefore, in these, of all cases, there is most danger from the

use of the curette. Remove the remaining placental tissue with the cushioned end of a clean finger, pressing the uterus down with the left hand above the pubis, irrigate the cavity of the uterus with half gallon of hot water, reduced to such temperature as the hand will bear with comfort, using a Davidson's bulb syringe, with the end of the nozzle presenting within the internal os, bathe the patient, and lift her into a dry clean bed, with fresh clothes, and give her a chance.

Salem, N. C.

H. S. LOTT, M. D.

Reviews of Current Literature.

GYNECOLOGY AND ABDOMINAL SURGERY.

IN CHARGE OF

H. S. LOTT, M. D.,

J. W. LONG, M. D.,

HUBERT A. ROYSTER, M. D.

A NEW OPERATION FOR REPAIR OF THE PERINÆUM AND POSTERIOR VAGINAL WALL.—Dr. Frank S. Andrews of Chicago, (in the American Gynaecological and Obstetrical Journal, March 1898,) describes in full a procedure which bids fair to reflect much credit upon its originator, and give much relief to suffering women. It is valuable because it is practical, and applicable to a large number of cases in which the need is to restore the supporting power of the perinæum and posterior wall.

It is to the courtesy of the Journal editor, Dr. J. D. Emmet that I am indebted for the illustrating cuts, the plates for which he loaned most willingly.

Dr. Andrews first pictures the anatomy of the parts, impressing the supporting office of the perinæum and posterior wall, and the need of support for the uterus; this support being often destroyed during labor and allowing a descent of this organ. Holding that the ideal operation, when found, will correct this trauma to the vaginal outlet, and with it the prolapse, retroversion, rectocele or cystocele.

His operation is as follows: The anæsthetized patient is put in the lithotomy position, the labia separated, and the sides of the vaginal orifice retracted with sharp hooks at or above the lower myrtiform caruncles. These hooks, when brought together, mark the upper external angle of the new perinæum. It is desirable that they be placed as high

as may be, consistently, with leaving a proper vaginal orifice, for by this means the anterior vaginal wall and the bladder will be best supported. The retracting hooks being held by an assistant, so that the

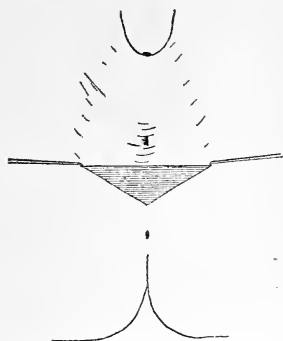


FIG. 1—Extended triangle denuded.

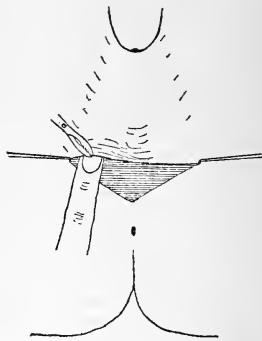


FIG. 2—Finger tip introduced under mucous membrane of posterior vaginal wall.

tissues between them are tense, make an incision through the membrane extending from hook to hook. With this incision as a baseline, denude an external triangle with its apex at a selected point anterior to the anus.

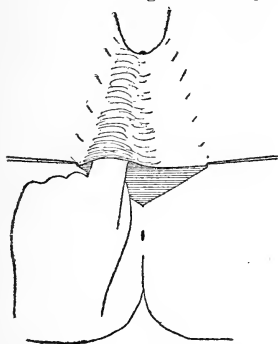


FIG. 3—Finger pushed up to cervix, making a tunnel under mucous membrane.

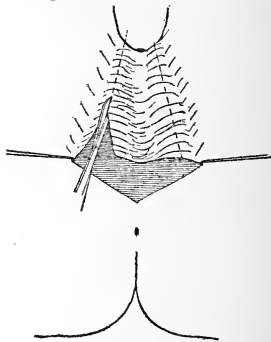


FIG. 4—Both tunnels formed. Incision of mucous membrane from vulva to cervix in dotted line.

This point is determined by the amount of perineal laceration.

Up to this stage the operation presents no new feature, but I think

that the next step, whatever its merit, at least by its novelty, justifies the title of this paper.

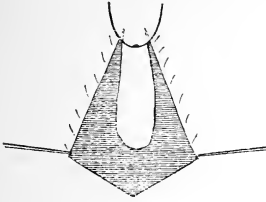


FIG. 5—Retraction of mucous membrane leaves denuded surface. Tongue of mucous membrane is attached by its centre line to the crest of the rectocele.

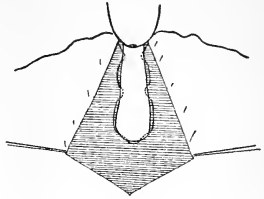


FIG. 6—Crown stitch passed around the mucous membrane tongue.

The cut edge of vaginal mucous membrane forming the base of the denuded triangle is now seized three quarters of an inch to the left of the raphe with forceps, and raised, so that the tip of the index finger

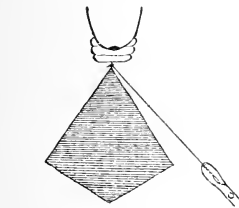


FIG. 7—Crown stitch tied. One thread from the knot left long, to be used as a guide in removing stitch.

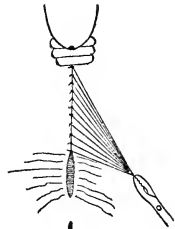


FIG. 8—Vaginal stitches all tied. Skin stitches passed but not tied.

can be introduced beneath it. To do this it is sometimes necessary to clip with scissors some bands of cicatricial submucous tissue at the edge of the membrane. The index finger is now easily pushed upward

beneath the mucous membrane of the posterior vaginal wall until the tip of the finger is beneath and behind the cervix uteri, and separated from it by mucous membrane.

It is desirable that the deep end of the tunnel thus formed should be narrow, but the external portion may be increased in calibre by a lateral movement of the finger, as much as desired.

Repeating this procedure on the opposite side of the median line, it will readily be seen that the vaginal mucous membrane has been lifted from the reco-vaginal septum, but has retained its attachment throughout the median line along the crest of the rectocele. Throughout this procedure it is imperative that the tip of the finger be kept close to the middle line. Neglect of this precaution will result in stripping mucous membrane from the lateral, or even from the anterior wall of the vagina.

Selecting a pair of straight scissors, cut the lifted mucous membrane of the posterior vaginal wall on the right side, from vulva to cervix. This is best done by using the finger in the artificial canal as a guide for the scissors, and cutting the mucous membrane throughout the entire length of the canal. There is considerable opportunity for discretion on the part of the operator in determining the exact line of incision, but in general it may be said that it will extend from a point near the lower myrtiform caruncle to a point a quarter or a third of an inch from the middle line, beneath and behind the cervix uteri. Repeat this operation on the left side.

A feature of the operation which doubtless has attracted your attention is the fact that these two incisions, so widely separated at the vulva, approach so near to one another under the cervix, and that the vaginal mucous membrane between the lines of incision is a triangle with its base at the vulva and its incomplete apex under the cervix. Remember, also, that this triangle is attached from base to apex along the median line of the vagina. The disposition to be made of this piece of mucous membrane, with its attachment to the rectocele is the principal feature of the operation.

Notice further, that although the area of mucous membrane between the lines to be incised is triangular, its shape changes instantly when the incisions have actually been made. This is due to the natural retraction which takes place in the membrane. Its appearance now is that of a tongue of mucous membrane upon the rectocele. The tissues at the side of the vagina also retracted. The shrinkage of the tissues leaves the floor of the vagina denuded in two triangles separated by the tongue of mucous membrane. The incisions cut a small branch of the vaginal artery on each side, about an inch and a quarter from the vulva. The slight bleeding is controlled by forceps applied for a few moments, without ligature.

The parts are now ready for the sewing. In the passage and tying of the first stitch will be found the essence of the operation.

The procedures just described were devised as the quickest and best way of preparing the parts for this crown stitch, which will be so passed as to surround the tongue of mucous membrane and draw it up under the cervix in folds, thus straightening the anterior rectal wall. It is done as follows:

Select a stout needle, short enough to be easily turned in the vagina. Cause it to enter the mucous membrane of the left side of the vaginal fornix, beside and behind the cervix, i. e., just beyond the inner end of the long incision on the left side, and beside the base of the mucous membrane tongue. Let the needle go deeply into the submucous tissue, and bring it out in the denuded surface, near the cervix. Now let the needle pass around the tongue, catching up the mucous membrane at several points so that the thread will surround it like a purse string. Bring the needle out on the right side at a point corresponding to the point of entry on the left.

Traction exerted on both ends of this stitch will cause the mucous membrane tongue to be folded up in a wrinkled mass under the cervix. Tie the stitch so that the knot lies in front of the mass. If the tension on the rectum is too great, a few fibers under the tip of the tongue may be clipped with scissors. The anterior rectal wall is now straight. The rectocele has disappeared, and is no longer a factor in the case. The remaining denuded surface now has the form of a triangle, and is to be closed in the usual way. As the closure is effected, stitch by stitch, the cervix is forced further and further upward and backward by the increased resiliency of the pelvic floor and the reduction in its projection, while the same factors support the anterior vaginal wall.

I am in the habit of tying each stitch as soon as passed, and of cutting off the left hand end close to the knot, leaving the right hand end long, as a guide to the knot to facilitate its removal.

In from two to three weeks I remove the stitches with my stitch cutter. The guiding strand of silkworm-gut is placed in the small hook near the jaws of the instrument. The instrument slides down upon the knot, cuts and removes it.

In placing the wrinkled mass of tissue under the cervix, it was not the intention that this should constitute the uterine support. Nevertheless, it does offer considerable temporary support to the cervix and to whatever extent it does this it is of value.

The real value of the operation is in the fact that by this method the denudation is made quickly, easily, and almost bloodlessly, and that then, with one stitch, the rectocele is obliterated, and the denuded surface brought into proper position for closure.

The support offered by the folded mass under the cervix is transient, the tissue shrinks or is absorbed, and at the end of three to four weeks it has lost three-quarters of its bulk and all of its wrinkles, so that its surface is a smooth dome. In another month or two it is not to be found. The vaginal mucous membrane is smooth and level over the

spot, as is also the rectal mucous membrane of its under surface.

As the prime feature in this operation is the obliteration of the rectocele, it is self-evident that it is not applicable to cases in which no rectocele exists, namely, slight lacerations of the perinæum on the one hand, and complete tears through the sphincter ani on the other.

The after-treatment is the same as follows any perinæal operation. The bladder and rectum should be kept empty and the wound kept sterile.

Immediately after the operation I use sterilized boric acid freely, placing about an ounce in the vagina and another ounce in the dressing over the vulva and perinæum.

The steps of the operation may be summed up as follows:

1. The labia are separated and sharp retracting hooks on the myrtiform caruncles expose the field of operation.
2. An external triangle is denuded on the skin surface, as in Emmet's operation.
3. Keeping to the left of the median line, the finger is then passed upward under the mucous membrane of the posterior vaginal wall to a point beneath the cervix.
4. Repeating this on the right side, we have two parallel sinuses extending the whole length of the recto-vaginal septum.
5. The mucous membrane is now cut with scissors, from vulva to cervix, over each new sinus. This leaves a tongue of mucous membrane attached to the middle line of the vagina.
6. Secure the small spurting artery in each incision with forceps.
7. The first stitch is so passed as to surround the tongue and draw it back under the cervix.
8. The remaining stitches are easily passed, as in the repair of a recent laceration.

The results have been thoroughly satisfactory. I have done this operation on more than fifty patients with uniformly good results, as far as I have been able to follow the cases. In some cases supplemental operations were made at the same time, as anterior colporrhaphy and suspensio uteri.

H. S. L.

Notes and Items.

YELLOW FEVER AT MCHENRY, MISS.—Yellow fever has already appeared at Mc Henry, Mississippi, and quarantine has been established against Harrison, Jackson and Hancock counties.

ACTING ASSISTANT SURGEON JOHN BLAIR GIBBS.—The medical corps of the Army has received its first fatality in the death

of Surgeon Gibbs, who was killed by a Spanish bullet during a night engagement between the United States Marines who were landed at Guantanamo June 9th, and Spanish guerillas and regulars. Dr. Gibbs was a graduate of the University of Virginia, and had been practicing in New York City several years. When the call for acting assistant surgeons was made he responded and was ordered to Key West. He was forty years of age and unmarried.

UNIVERSITY OF VIRGINIA.—The Final exercises at this institution were opened Sunday, June 12, by the dedication of the Y. M. C. A. hall in the new building which has replaced the one destroyed by fire a year ago.

The Doliber-Goodale Co., announce that the name of their company has been changed to "Mellins Food Company of North America." There has been no change in the organization of the Company nor in its management; the change is a change of name only.

BAYER'S PHARMACEUTICAL PREPERATIONS.—The agency for these preparations has been transferred from Mess. Schieffelin & Co., to Farbenfabriken of Elberfeld Co., 40 Stone St., New York, to whom all correspondence relating to these preparations should be addressed.

RESIGNATIONS FROM BELLEVUE HOSPITAL MEDICAL COLLEGE.—The following gentlemen have resigned from the faculty of the Bellevue Hospital Medical College: Drs. Austin Flint, professor of physiology; Frederic S. Dennis, professor of principles and practice of surgery; and Samuel Alexander, professor of genito-urinary surgery.—*Medical Record*.

SPAIN'S RESPONSIBILITY.—Dr. John B. Hamilton, in an address at the Physicians' Club, said that the danger to our troops from yellow fever in Cuba has been exaggerated. He blames Spain for its neglect in permitting Havana to be such a pest, and declares that if the British could drive the disease from

Kingston, Jamaica, the Spanish surely could, if they would, from Havana.—*American Medico-Surgical Bulletin*.

FAKE DOCTORS.—Two physicians, Drs. Simpson and Ghiselin, of the City Hospital of St. Louis, Mo., are stated by the papers of that city to be in consternation over a huge joke that is being played upon them by persons who resemble them in personal appearance. During their absence from the hospital their doubles are said to come in and give orders to nurses and attendants, examine patients, enter their rooms, and appropriate cigars and the like. An effort is being made to catch them, but so far without success.—*American Medico-Surgical Bulletin*.

NATHAN LEWIS HATFIELD PRIZE FOR ORIGINAL RESEARCH IN MEDICINE.—The College of Physicians in Philadelphia announces through its Committee that the sum of Five Hundred Dollars will be awarded to the author of the best essay in competition for the above prize.

SUBJECT: "A Pathological and Clinical Study of the Thymus Gland and its Relations."

Essays must be submitted on or before January 1st, 1900. Addrees, J. C. Wilson, M. D., Chairman, 219 South Thirteenth Street, Philadelphia, Pa.

THE ACTION OF TOBACCO ON THE SIGHT.—According to *Medicine modern* (Lyon medical, May 15th), not one out of a hundred and fifty employees in an American tobacco factory exhibited, on examination, normal vision. All of the employees either smoked or chewed. In forty-five cases the acuteness of vision was perceptibly lessened; in thirty, dyschromatopsy was very pronounced—to some, red appearing as brown or green; to others, green seeming to be blue or orange. The majority were incapable of distinguishing a white point in the centre of a black carton.—*New York Medical Journal*.

CITRIC ACID IN THE PROPAYLAXIS OF WHOOPING-COUGH.—According to the *Therapist* for May 14th, Moncorvo Filho, of Rio Janeiro, states that the special bacillus of pertussis is destroyed in its chosen home, the larynx, by swabbing the periglottic region with a ten-per-cent solution of citric acid with simple

syrup. It also constitutes an effective prophylaxis against infection. He succeeded in preventing the disease in many children living with others infected, by this means, or merely by the administration of small quantities of citric lemonade during the day. He considers resorcin and asaprol the most effective of other remedies.—*New York Medical Journal*.

CONCENTRATION OF DIPHTHERIA ANTITOXIN.—A practical disadvantage in the use of diphtheria antitoxin is the large amount of serum that has sometimes to be injected. Bujwid (*Deut. med. Woch.*, February 24th) has discovered a method of concentration by which 1,000 units can be injected with $1\frac{1}{2}$ to 3 Cc. of serum. The details of the preparation consists in, first, freezing the serum gradually, so that white crystals begin to form in the yellow fluid. Eventually the yellow fluid also freezes. The resulting solid mass is next allowed to thaw gradually. The yellow fluid is the first to appear, and consists of albumen and salts; the white crystals are the next to thaw. The two fluids now remain separate, the yellow being below and the white above. The immunizing quality is only contained in the yellow fluid, and it appears to be twice as strong as it was before being frozen.—*American Druggist*.

AMYLOLYTIC FERMENTS.—Wyatt Wingrave, M. R. C. S. Eng. after a crucial comparative examination of many malt extracts and of Taka diastase, the tests being conducted both chemically and clinically, summarizes briefly: 1. That Taka diastase is the most powerful of the starch or diastatic ferments and the most reliable since it is more rapid in its action—*i e.*, “it will convert a larger amount (of starch) in a given time than will any other amylolytic ferment.” 2. That it seems to be retarded in its digestive action by the presence of the organic acids (butyric, lactic, acetic), and also by tea, coffee and alcohol, than are saliva and the malt extracts. This is an important point in pyrosis. 3. That all mineral acids, hydrochloric, etc., quickly stop and permanently destroy all diastatic action if allowed sufficient time and if present in sufficient quantities. 4. That Taka diastase and malt diastase have, like ptyalin, no action upon cellulose (uncooked starch). All starch food should therefore be cooked to permit of the starch ferment assisting Nature in this function.

NECROLOGY

Dr. Frank W. Brown, aged 38 years, at Greenville, N. C., May 15. Dr. Brown was educated at the State University. He began studying medicine under Dr. C. J. O'Hagan in Greenville and later took a thorough course at Bellevue Medical College, New York. After graduating at Bellevue he returned to Greenville and formed a copartnership with Dr. O'Hagan for the practice of his profession. So thorough was his knowledge of medicine and surgery that in a short while he had taken rank among the leaders in his profession. All along he enjoyed a large and wide spread practice, and for several terms he held the position of County superintendent of Health.

In 1885 Dr. Brown married Miss Camille Latham, oldest daughter of the late Maj. L. C. Latham. He leaves a widow and four children.

He was a member of the North Carolina Medical Society since 1884.

Reading Notices.

INFANT FEEDING.—After years of experience in Infant Feeding, I am obliged to say that Mellin's Food and fresh cow's milk serve me best. Cow's milk contains a large amount of caseine (curd) which most infants can not digest; this causes curdy, lumpy diarrhoea and emaciation. Mellin's Food so acts on the caseine that it can be easily digested and thereby prepare the best artificial food I have ever used.

C. C. MORRISON, M. D.

in "*Annals of Gynecology and Paediatrics*."

SANMETTO IN CYSTITIS, PROSTATITIS AND IRRITABLE BLADDER.—I have been using Sanmetto in my practice for two or three years. I have used it in a good many cases of cystitis, prostatitis and in all cases of irritable bladder, with the most gratifying results.

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