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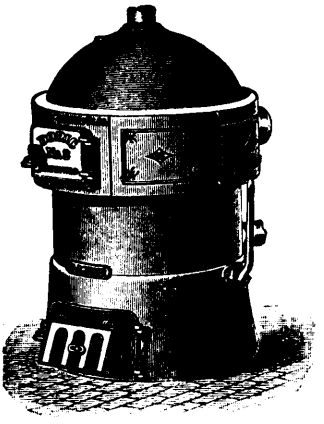

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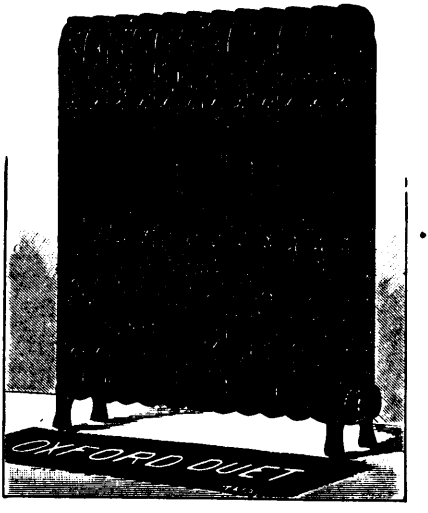

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AXILLARY LIPOMA.

BY D. W. M'PHERSON, M.B., TOR. UNIV.; M.D.C.M., TRIN. UNIV.

As lipomata are a common class of tumors, we seldom see reports of them in our journals, unless they present something out of the ordinary run.

The one I am bringing before you presents a few points different from what we usually see in this class of tumor.

Namely, I., The position of the tumor.
II., Its rapid growth.
III., Not being distinguishable as a tumor of that description on being so deeply situated.
IV., The relation of the axillary contents to the tumor.

The history of the case is as follows: Mrs. J., age 42, family history good; personal history good up till three years ago, when, on going down the cellar stairs one day they fell from under her, and she tumbled in a heap on the cellar floor. Was greatly shaken up with the fall, but nothing out of the way was noticed at that time.

About one year ago noticed that the right chest near the shoulder was slightly larger than the left; no pain or inconvenience.

Six months later dull aching pains would shoot across the right shoulder. They seemed to be most severe below the clavicle in the interval

between the deltoid and pectoralis major muscles. This region now appeared very much larger than the left side, pain became more frequent and often, also, sensation of numbness extended from the shoulder to the' fingers.

When I saw the case first, on April 14th, 1897, the condition was as follows:

On inspection appeared as if right shoulder was dislocated forward under the clavicle.

Measurement showed right shoulder two inches larger than left, and right arm, at insertion of the deltoid muscle one inch larger than left arm.

A general erythema extended over the shoulder and arm, the forearm being of a dull, congested color.

On palpation no definite tumor could be made out; point of greatest tenderness was over the space between the borders of the deltoid and pectoralis major muscles; under the region of the costo-coracoid membranes all movements of the arm were restricted, and if forced caused great suffering.

No point of fluctuation could be found, not even when fingers were pressed up in axilla; just an equal firmness all over the anterior shoulder region.

Counter irritants and anodyne liniments were tried for two weeks, but were of no avail.

Consent for an exploratory incision was now gained, and on consultation with Dr. Norman Allen, we decided to make an incision in the axilla, and through it to remove what we found, having the consent of the patient and friends to do what we thought best; a questionable diagnos of lipoma being made. On April 30th, 1897, with the kind assistance of Dr. Allen, I made an incision in the axilla, the arm being fully extended; after the skin was divided with a scalpel, the deepening of the incision was done by the handle of the scalpel, and very fortunately I did so, because the first structure to come in sight was the axillary vein, greatly congested, and immediately along its outer side the median nerve. Underneath these was found a large, firm lipoma with a distinct capsule, the capsule being firmly adherent to the axillary contents. The lipoma extended up under the pectoral muscle to the clavicle, and was of a cone shape. After considerable difficulty, having to separate the median nerve and axillary vein from the tumor, it was drawn out between them, when it was found adherent underneath to the axillary artery, from which it was carefully dissected and then successfully removed.

The lipoma was six inches long and four inches across at the bottom, flattened from before backward, resembling a cone flattened.

The internal appearance was of an ordinary lipoma.

The starting-point was undoubtedly under the costo-coracoid membrane, from that it spread downward, between the axillary vein and artery to the axillary space, thus accounting for the pressure symptoms. The incision was closed with silk-worm gut sutures, and firm pressure applied; healing took place kindly. Patient now uses the arm without the least discomfort, movement being free in all directions.

TREATMENT OF BEGINNING DEAFNESS.

MURRAY McFARLANE, M.D.,
Laryngologist St. Michael's Hosp., Tor.; Member British Assoc. Science.

Among the very worst afflictions of the flesh which man is called upon to bear, is deafness. Shut off to a greater or less extent from an appreciation of the beautiful sounds of nature, tormented in a great number of cases by that most distressing symptom, tinnitus aurium, becoming taciturn and suspicious, with the mental confusion and loss of memory that accompany so many cases of deafness, his lot is a sad one to contemplate; especially as medical science can do so little when the disease becomes advanced, and then it is, unfortunately, that the aurist is generally first consulted. It is in the earlier stages, when the disease is confined to the eustachian tube and pharynx, that treatment is so useful, relieving the catarrhal processes that tend to creep up to the middle ear. with consequent thickening of the mucous membrane, anchylosis of the small bones, and adhesions of an inflammatory nature.

On examining our patient we find a history of slight hissing or roaring in the ears, with a feeling of stuffiness, as if the external auditory meatus was full of wax or other foreign substance, while the patient cannot hear so well as formerly, especially in a noise or when many are speaking, and is subject to repeated "colds in the head." The pharyngeal opening of the eustachian tubes feel itchy, the nose probably secretes more than normal, while the pharynx is congested, with minute blood vessels coursing over it, terminating usually in small granulations, while the vault is seen to be in a decidedly catarrhal condition, and may present adnoid vegetations, especially in children.

Upon examining the membrana tympana, it is usually slightly sunken, and not so lustrous as usual, with a shortening of the triangular spot of light. This is due to the fact that there is not enough air in the middle ear to keep the drum in position, owing to the thickening of the mucous membrane of the eustachian tube preventing the entrance of a proper air supply from the throat, the result being that a partial vacuum is produced on the inner side of the membrana tympani, and the external atmospheric pressure causes the drum to become depressed, as we have seen.

In these cases, if we inflate the middle ear by catheter or Politzer bag the pressure is equalized, with restoration of hearing and cessation of the buzzing noise.

In order to illustrate the cause of diminished hearing, we may take an ordinary "kettle-drum," strike it with a stick, when a clear, resonant note is heard; but stuff the drum with cotton, or place a weight upon the upper membrane, and a dull, flat sound is the result. Remove the cotton or weight, and the clear note is once more heard. The same is the case with the human ear, and the indications are to remove any thickening or congestion in the middle ear, and restore the patency of the tube in order to equalize the air pressure in the tympanum. To do

this we must first of all remove all possible causes of the eustachian catarrh, namely, diseased conditions of the nose and throat, being particularly careful not to do more harm than good by indiscriminate use of the cautery or cutting instruments, which are potent for great evil in unskilled hands. It is not necessary to slice away at every slight deviation of the septum, or cauterize deeply inferior turbinate enlargements, which may be simply due to passive engorgement, without organic thickening.

When we have succeeded in removing these causes of eustachian inflammation, our next aim must be to keep the patient's general health in as good a condition as possible, and it is in these cases that we most frequently find the digestive system at fault, the patients being in many cases the victims of the so-called "uric acid diathesies." For such, an occasional calomel purge, with a mixture of nitromuriatic acid dilute and tr. nux vomica of each 10 drops three times a day for five days, followed by the salicylate of soda 15 grains and bicarbonate of potash 20 grains, in peppermint water, three times a day for two days, seems to act like a charm.

Plenty of vigorous exercise must be taken, and sponging the surface of the body with cold water, followed by a good rub down, has an excellent effect.

As to local treatment of the naso-pharynx, the writer uses a fine spray of nitrate of silver, varying in strength from 30 to 60 grains to the ounce of distilled water; this to be directed against the pharyngeal orifices of the eustachian tubes every second morning, together with the use of a local non-irritating alkaline spray through the nares, such as the "Plasma Nasal Solution" (Murray McFarlane), Parke, Davis & Co., every night and morning. This solution is made by the addition of one "Plasma Nasal Tablet" to two ounces of lukewarm water, forming a mixture identical in composition and specific gravity with the plasma of the blood. It will be found entirely non-irritating, and may be used for an indefinite period without exciting engorgement or irritation of the parts.

The London *Lancet* of August 7th speaks of it as follows: "Perhaps the most interesting preparation recently sent to us by this firm (P., D. & Co.) is the Plasma Nasal Tablet. It is designed so that when dissolved in two ounces of water a solution of the same density as blood serum is obtained. The calculated effect of this is to prevent diffusion of the solution through the mucous membrane, leading to engorgement and irritation. The tablets are composed of sodium chloride, sulphate and phosphate, with definite quantities of the same potassium salts (same as in the blood); to these is added a small quantity of menthal.

"The resulting solution would appear to be well adapted for washing out the nasal cavities."

The writer can assure the profession that if the above treatment is thoroughly carried out in catarrhal deafness where no organic changes have taken place, many cases may be saved that would otherwise progress to a condition of affairs not amenable to treatment. As to the use of the Politzer bag, or catheter for inflation purpose. It should be done

about twice a week, and the patient should not be allowed to inflate by Vansalva's method, which has a tendency to increase local congestion in the tympanum, and is usually done to excess, causing a relaxation of the drum membranes.

The intention of this paper has not been to enter into the pathology, symptoms and various methods of testing aural troubles, but simply to place before the general practitioner a simple and usually successful method of treating what may be termed tubal deafness, from extension of catarrhal processes commencing in the nose and throat.

TUBAL PREGNANCY DIAGNOSED BEFORE RUPTURE, CŒLIOTOMY AND RECOVERY.*

W. R. NICHOLS, M.D., BADEN, ONT.

When Mr. Lawson Tait, in 1883, had the courage of his convictions to remove a pregnant tube that had ruptured, it was not simply an abdomen that he opened, but a new and brilliant field, rescued by the beneficence of Surgery. As a consequence of his work and teaching, cases, at this day fairly numerous, have been reported from every civilized country, showing patients rescued at the brink of the grave, and restored to society as its most useful members.

It had long been supposed that the condition of ectopic pregnancy was exceedingly rare, but in a series of 3,500 general autopsies, made by Dr. Formad, Pathologist to the Philadelphia Hospitals, there were found not less than 35 cases of ectopic pregnancy, or *one* per cent.! surely frequent enough to put every thoughtful general physician on the alert. As a practical subject it can never become devoid of interest: the difficulties of diagnosis, even after rupture; the suddenness of the symptoms during apparent excellent health; the immediate and imminent danger to life, and the necessity for a capital operation in the great majority of cases, to give even a chance for life, all combine to render the subject of profound interest and importance to the general practitioner, as well as the gynæcologist and surgeon.

In regard to the diagnosis before rupture, the symptoms are generally so mild that the patient does not seek relief from her physician, and if she does these are not differentiated from those belonging to minor ailments. On this subject Mr. Tait says: "The strangest thing to me is that in the enormous experience I have now had in tubal pregnancy (39 cases at time of writing in 1889), I have never but once been called upon to make an examination until rupture occurred, and in that case there was neither history nor symptoms which enabled me to do more than determine there was tubal occlusion. Under these circumstances, I think I may be excused for maintaining a somewhat sceptical attitude towards those gentlemen who speak so confidently of making a certain diagnosis before rupture." And J. Bland Sutton, in his work on Surgical Diseases of Ov-

*Read before Toronto Pathological and Clinical Society.

aries and Fallopian Tubes, 1893, states that he is acquainted with but one instance of diagnosis before rupture, which was made by Dr. Herman, Senior Obstetric Physician to the London Hospital. Dr. Joseph Price, at the American Medical Association held at Atlanta, Ga., May, 1896, stated: "I have never recognized one before rupture; all before is conjecture rather than knowledge" (subsequently added from CANADA LANCET, page 399, April Number.)

As the following case has some interesting points apart from being diagnosed before rupture, I venture submitting the details of the patient's history and the findings that led up to the diagnosis, in the hope that the data may be of use in these rarely-met cases.

HISTORY—Mrs. T., aged 37, German, parents living and healthy. Had 9 brothers and sisters of whom 5 died in infancy from "teething;" those living are healthy. Menstruated first at fourteenth year, and thereafter regularly unless physiologically suppressed. Married at 21; has had 11 children and one miscarriage at 4½ mos.; two children died in infancy, remainder are healthy. After second confinement had an attack of "inflammation;" attending physician thought an abscess would form on left side, inguinal region, but it passed away, leaving, however, more or less tenderness. Five years ago, cough expectoration, hæmoptysis with loss of flesh occurred, was ill a year or two, but improvement set in, and now has been fairly free from pulmonary symptoms for 3 or 4 years. 1894, May 24th, was delivered of a strong, healthy child, everything normal, made a rapid recovery. 1895, June 2nd, had a miscarriage at 4½ mos., membranes enveloping child at birth, rapid recovery, no chill, headache, or fever. It was patient's habit to menstruate soon after delivery whether nursing or not; accordingly she was unwell on July 12th, again on August 11th, but no further show occurred until Sept. 15th, when, washing at a tub, she was taken with a sudden and severe pain in the lower part of the abdomen, on the left side, radiating through to the back and accompanied by a gush of clear fluid from the vagina, 1 to 2 oz. in quantity. Patient felt quite weak and faint for an hour or two, but was free from marked pain or discharge until the 20th, when another severe pain was experienced, followed immediately by a hæmorrhage simulating menstruation, continuing until the 26th, when it gradually disappeared. An examination made on the 15th September showed heart and skin and kidneys to be normal, upper lobe of right lung consolidated (arrested phthisis). Temp. and resp. normal, pulse 90. A bimanual examination of the pelvic organs revealed a uterus slightly enlarged, a cervix slightly softened, and a fulness rather than a distinct mass on left of uterus, no special tenderness, no collapse nor signs of internal hæmorrhage, no morning sickness. Two subsequent examinations between the 20th and 30th enabled me to localize a distinct tumor occupying the left Fallopian tube, circumscribed to the touch, no inflammatory tenderness in it, some pulsation, but no fluctuation appreciable. A distinct sulcus between it and the uterus could be made out, as well as the ovary posterior and external to it. In order to arrive at a satisfactory diagnosis it was necessary to exclude the following: Rupture of amnion in uterus (abortion), rupture of amnion in tube (tubal abortion),

hydrosalpinx, pyosalpinx, hæmatocele, hæmatoma, dermoid, ovarian and broad ligament cysts, etc. Due regard was paid to the fact that the tumor had appreciably enlarged; under observation the tube had been diseased, leaving it in a condition for such an accidental arrest of the ovule; it was not the patient's habit to have delayed menstruation. The diagnosis having been communicated, and the risks and treatment pointed out, I asked the family to satisfy themselves by calling any one they wished. Dr. Bingham, of Waterloo, responded, and fully agreed with the diagnosis given. As nine small children were in the house of limited room, I had her carefully removed to St. Joseph's Hospital, Guelph, where with the assistance of Drs. Robinson and Orton, I opened the abdomen in the middle line, passed the finger to the site of the tumor, which was found tense, almost to bursting, and bound by firm adhesions to pelvic wall and bowel. These adhesions were the legacy of the attack of inflammation of a dozen years previous. These were tied off and cut, with the usual difficulty, and the pedicle ligatured by transfixion. Considerable trouble was met with from hæmorrhage, the pedicle having to be brought out after being cut off, and ligatures reapplied. The abdomen was irrigated, sponged out and drained, and the walls were sutured *en masse*. The condition of the patient forbade any attention to the other tube. Recovery was uneventful, the patient returning to her home in 19 days.

The tumor had the appearance of a short, moderately-sized sausage, dark in color, due to fluid and clotted blood within, the clotted blood being in lamellæ, arising from successive intra-tubal hæmorrhages. A distinct membrane formation (chorion and amnion), and the stump of a cord, *in situ*, were demonstrated; but the fœtus was not found, being lost most probably in removal when the tube ruptured. The wall of the tube was much attenuated and stretched, so much so that it ruptured on removing it.

The case illustrates well the fact that we cannot determine beforehand the existence and nature of adhesions; and what may appear an inconsiderable operation may prove to be most formidable. That I have been able to restore this mother to her home and nine little children, and save them from a fate that befel me in early life, has been due in no small measure to the ability and painstaking care of Drs. Robinson and Orton, the former of whom conducted the after treatment for me, and to the efficient nursing of the devoted Sisters of St. Joseph.

P.S.—Note, December 2nd, 1896. The other tube performs its functions normally. Mrs. T. has been delivered of a fine, healthy child, thirteen months after removal of the left tube. All are doing well.

SURGERY.

IN CHARGE OF

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THE SURGERY OF EMPYEMA.

BY T. N. RAFFERTY, M.D., ROBINSON, ILL.

The fact that empyema was not only recognized but treated surgically in the remotest days of antiquity adds interest to the discussions of the present day as to the best surgical procedures for its relief. The surgical treatment of the disease is said to owe its origin to the mythological legend which tells us that Jason, seeking death in the midst of battle, received a spear wound in the chest, and was thus artificially relieved of an empyema. The same story, with a different hero, is related by Plinius in the seventh book of his "History of Nature." We also have the oft-quoted case of Kinesiros, whose pleura is said to have been opened by the actual cautery by Euryphon of Knidos. Traced, as it can be certainly, from Hippocrates down through this long series of years, the surgical relief of empyema has afforded a theme for animated discussion as to the proper indications for its performance. Hippocrates operated by incision with the knife, by actual cautery, and by perforation of the ribs; and operations of this sort seem to have been common enough in his day. Another striking fact is that Hippocrates taught and practised frequent washing of these patients before the operation, and thus really practised what is now known as aseptic surgery. From soon after the days of Hippocrates there is no further account of surgical treatment of empyema for more than two thousand years, when it was revived by Sedillot, but was not looked on with favor by other surgeons, and even Dupuytren said he would rather die of the disease than be killed by the doctors. Since the revival of the operation by Sedillot, however, it has never again been remanded into obscurity, but has gradually come to be considered, in some of its forms, indicated in all cases of empyema that threaten life and cannot be cured by other means. Up to 1850, however, there was no real certainty or agreement as to its use, except as a last resort. About this time Trousseau laid down the proposition that in pleuritic effusions, no matter what their character, we ought not to wait

till death is imminent, but operate with the view of warding off dangerous attacks of dyspœna, which may unexpectedly seize the patient and carry him off with great rapidity. The great Frenchman encountered opposition to his views from every side, notwithstanding his successful results; and the operation would perhaps again have fallen back to its former limited sphere had not Dr. Bowditch, of Boston, begun his brilliant advocacy of Trousseau's doctrine, which was soon aided by the invention by Dr. Wyman, another American, of his suction instrument, and aspiration made possible. Dr. Bowditch operated for empyema two hundred and fifty times, and published papers on the subject in the *American Journal of the Medical Sciences*, April, 1852; *The Medical Monthly*, January, 1853; *Boston Medical and Surgical Journal*, May, 1857; and read his last paper on the subject before the New York Academy of Medicine in 1870. Leaving out the treatment with drugs and counter-irritants, by which it is hoped to produce absorption of the pleural effusion, the lines of treatment now advocated are about as follows: 1st, simple aspiration; 2nd, aspiration followed by irrigation with antiseptic solutions; 3rd, aspiration followed by permanent drainage, Beulau's method: 4th, simple incision: 5th, resection of small portion of a rib to secure free drainage; 6th, resection of larger portions of ribs sufficient to secure drainage and produce retraction of chest wall, Estlander's operation; 7th, thoracoplasty, or removal of the chest wall, Schede's operation.

Dr. Carl Beck, who is a strong advocate of the resection of one or more ribs in the treatment of all operative cases of empyema, regards it as deplorable that there should be any difference of opinion in regard to the advisability of this method in preference to any and all others. His sarcastic assertion, that an explanation of this deplorable difference of opinion is only to be found in the fact that the "general practitioner" has had the effrontery to attempt the solution of surgical problems, certainly has no scientific weight in deciding the best method of treating a condition that varies so much in different cases as does pyothorax.

Many cases of empyema occur in children, and, for reasons which we shall see later on, it is quite probable they may do well with a less radical treatment than is required in adult cases. So the chronicity of cases, the condition of the lung, and the viscidity of the pus contained in the cavity are all factors that should be considered in deciding whether aspiration, incision, or resection of ribs will be best suited to any particular case. It has been suggested by Dr. Tiffany, of Baltimore, that much depends on the character of the pus found in these cases, not only as regards prognosis, but in deciding the character of the operation required. He advises the use of the hypodermatic needle for withdrawing a sufficient amount of the pus for bacteriological examination, and believes that if the patient has pyæmic cocci he will die under any form of treatment; while if there are only staphylococci, or pneumococci, removal only is necessary without irrigation; but if streptococci are found, resection and washing out are necessary. Cases due to simple infection by pneumococci or staphylococci are therefore to be regarded as benign; those caused by saprophytes, in which case the infection is putrid, as in the highest de-

gree unfavorable; while those arising from streptococcus infection occupy a middle ground as regards their danger to life. However, in many pleuritic effusions, both serous and purulent, no microbes can be found. It has been assumed that such cases are tuberculous, but there seems no sufficient reason for such conclusion. If the empyema is due to a mixed infection, the gravity of the case depends on the predominance of the more virulent bacteria present in the exudate. The very fact that surgeons still differ as to plans of treatment, and show equally good results from their favorite methods, is a striking proof that all cases should not be treated alike. Any effort to inculcate a different doctrine, for the gratification of personal pride in one's own particular method, savors of an egotism that is dogmatic and unscientific.

All operative measures in the treatment of empyema have for their chief end two objects; first, to evacuate the pus or other fluid contained in the cavity; and second, the obliteration of the cavity by bringing together its walls. The latter is best done by that method which closes the cavity by expansion of the lung and not by retraction of the bony thorax.

The first question to be decided in any case is whether any operation is necessary for its relief. This question was discussed in a paper by Dr. John Ashhurst, Jr., Philadelphia, read at the meeting of the American Surgical Association in 1894. He then said: "No operation is justifiable unless the presence of pus is certain; unless thorough treatment by medicinal agents, blisters, etc., has failed; or unless the dyspnœa and other symptoms are so urgent as to demand immediate relief." Since the presence of pus is never absolutely certain, it follows that we should not, in ordinary cases, operate unless the symptoms are urgent. If operation is decided on, a simple aspiration should be done unless it seems certain that this will not be sufficient. The aspiration should be done under strictest antiseptic precautions, and with the same care in this regard as though it were a major operation, because on our care in so doing depends the certainty almost of changing a serous effusion, if such is found, into a purulent one.

The point usually selected for aspiration is the sixth intercostal space, but the exact location is largely a matter of choice of the operator. It should be low enough to permit of the emptying of the cavity, and high enough to be out of the way of the diaphragm, which moves upward as the fluid flows out. If the fluid evacuated is serous, and thorough sepsis has been secured, the chances are favorable that nothing more will be required. Following this first aspiration irrigation with antiseptic should not be done. If the fluid is purulent, a reaccumulation is likely to occur, in which case either simple incision or puncture and permanent drainage (Beulau's method) should be practised. These methods favor the obliteration of the cavity by expansion of the lung, and if this takes place the patient is left in much better condition than when retraction of chest wall occurs. If from any cause sufficient drainage cannot be had by either of these methods, then a small portion of rib (an inch is ample) may be excised. If, however, the lung is bound down by adhesions so that expansion is impossible, then the operation of Estlander is certainly

indicated, in which case there must be sufficient excision of ribs that by collapse of the bony thorax the costal pleura will be brought in contact with the layers next the lung.

A good many writers on this subject seem to have confronted simple resection of a small portion of one rib, for the purpose of securing and maintaining better drainage than can be had by simple incision, with the operation known as Estlander's, which has for its object an entirely different purpose. The Estlander operation, as before stated, aims at retraction of the chest wall in cases in which the already crippled lung cannot expand, and consists in the removal of extensive sections of two or more ribs. In many cases, however, it has been demonstrated that the mechanism of the cure of empyema is not dependent upon the retraction of the chest walls, and hence a resort to the Estlander operation is not necessary in all cases, even of protracted and extensive pyothorax. Such at least was the report of the committee appointed by the Belgian Academy of Medicine, who, with M. Deroubaix as their chairman, made exhaustive study of the surgery of empyema. Their report, however, retains the Estlander operation in the list of legitimate surgical practice, and leaves the selection or rejection of this operation to the tact and judgment of the surgeon in each particular case. Verebélyi, of Vienna, thinks resection of ribs is generally unnecessary, and is only indicated when by approximation of the ribs a free exit of pus is hindered. Moullin favors a trial of aspiration, and states that in children it is often successful and in case of adults is always worth the attempt. If this is not successful he advises incision and the insertion of as large a drainage tube as the space between the ribs will permit. He resorts to resection only in extreme cases, when there is such an overlapping of ribs that drainage through a tube cannot be accomplished; and regards washing out the cavity with antiseptics as unnecessary and dangerous. Resection certainly increases the liability to pyæmia and produces deformity of the chest. Another and most serious objection to it is that its performance necessitates the use of anæsthetics, which not only are not well borne, but are absolutely dangerous in these cases. To operate without an anæsthetic is brutal in the extreme, and only the direst necessity should ever be a sufficient reason for its undertaking. Nothwithstanding these and other objections to an operation which is certainly not devoid of danger, it is the plan advocated by many eminent surgeons, among whom may be mentioned Koenig, Schede, Weir, Bull, McBurney and Beck. Dr. Achutz, in a paper on "The Treatment of Empyema in Children," read before a meeting of the Medical Society of Hamburg recently, emphasized the necessity of costal resection in all of these cases, and reports eighteen operations and sixteen recoveries. He deprecates all forms of expectant treatment and performs the radical operation as soon as the diagnosis is made that effusion exists.

As showing how favorable results are sometimes secured, under unfavorable circumstances and from methods of treatment that would not be considered good surgery by the extreme advocates of resection in all cases of empyema, the following report of two cases is offered. These cases are not reported as embodying all the writer's experience with empyema,

nor for the purpose of "deducing classical rules from the results and observation of two cases," but for the reasons above stated.

CASE I.—E. T——, eight-year-old girl, was seen ten years ago in consultation. There was a large effusion in the left pleural cavity, following an attack of pleuropneumonia. The heart was displaced, and its apex beat was to the right of the sternum. The symptoms were urgent, and the dyspnœa was extreme. With no antiseptic precaution, the fluid, which was sero-purulent, was aspirated—at least enough of it to relieve the urgent symptoms. The point of puncture was covered with adhesive plaster, which was pushed off very soon afterward by the escape of fluid. This discharge continued for about five months, gradually diminishing, finally ceased altogether, and the fistula closed. The child recovered her health permanently and perfectly, and is now a robust, red-faced young lady, with no chest deformity whatever.

CASE II.—J. R——, aged forty-eight years, has had chronic tuberculosis for years. In December, 1893, he became much worse and was confined to his bed for the next four months. With the advent of warm weather he rallied and seemed much better. At this time no effusion was discovered. Three or four months later he came to my office, and, on examination, a large effusion in the right pleural cavity was diagnosed. The next day, under antiseptic precautions, sixty ounces of pus were removed by aspiration, much to his relief. At this time more than a year and a half afterward, there has been no reaccumulation, the tuberculous process has been latent, or nearly so, and he has been in very fair condition.

A study of recent literature and observations made at a number of the largest clinics of this country, both east and west, have led me to question the propriety of the extensive resection of ribs in any but the most desperate cases. And while there are, no doubt, many cases in which the resection of a portion of a rib give better results than the simpler methods, there have been many cases thus operated more for the sake of doing the major operation than with the belief that it was necessary. Especially is this true of the operation of Estlander and the thoracoplasty of Schede. As for other novel procedures occasionally advocated, such as curetting the pleural cavity, etc., they need only to be mentioned to be condemned.

So, too, the indiscriminate use of antiseptic injections is to be strongly deprecated. Many fatal results are recorded as immediately following this practice; and in the operation for ordinary empyema it is an unnecessary and dangerous procedure. If done at all it should be at later periods and then the utmost caution should be observed. Surgeons should have "*Non nocere*" for their motto more often than they do, and not allow the *furor operandi* to drive it from their memory. Many, very many, cases of pleuritic effusion do well without any operation whatever, and when operation is necessary the simplest one that will cure the patient is the best.

In septic conditions the patient is often very uncomfortable by reason of dryness of the tongue. A bit of ordinary chewing-gum will usually start the oral secretions, and will in a very short time give relief.

FOREIGN BODIES IN THE AIR PASSAGES.

BY HAL C. WYMAN, M. SC., M.D., DETROIT, MICHIGAN.

The air passages may be defined as all that track of mucous membrane embraced in the nose, face, fauces, Eustachian tubes, glottis, larynx, trachea, bronchi, bronchioles and air cells. A foreign body lodged in any of these parts is material for this paper, but it is the writer's intention to use only a part of it.

Children, oftener than older persons, are sufferers by the lodgment of foreign bodies. All physicians have had experience with cases of little ones hiding a bean, button, or other articles in some of the apertures of the body, but it is not always that the case is a menace to life. Surgeons of military experience have recorded cases of lodgment of balls and other missiles in all of the air passages, and reading them is instructive to all practitioners of the healing art. It is the writer's intention to confine his remarks to cases of foreign bodies in the larynx, trachea and bronchi.

The symptoms presented by cases of this kind will vary according to the character of the foreign body and its location. The body may be either fluid or solid. The fluids may be water, blood, pus, or almost any other liquid, and on the character of the fluid much may depend. The coagulability of blood, when that fluid is poured into the bronchi, may yield a firm body which may plug the lung as effectually as a cork and cause speedy death by asphyxia. The body may be fixed or movable and by that feature the symptoms will be influenced. When the body slips from the narrow glottis or bronchi into the comparatively roomy trachea, the cough and suffocation may for the time disappear, to recur the moment the smaller air passages are again obstructed. Cases of movable foreign bodies in the air passages may go on in this manner for weeks, constantly annoying the patient, more or less, until the body is either coughed out, suddenly kills him, or becomes fixed in a bronchial tube, when it gradually exhausts him by pneumonia. On the size and shape of the body much depends. A small body may plug but one of the smaller bronchioles and cause but little serious disturbance. A slender body may rest in the glottis and cause a suffocating cough. A broad, flat body may effectually close the glottis like a valve. The writer has seen a child postmortem that died suddenly, the mother said while eating peanuts, one of which "went down the wrong way." The thin, red shell or pericarp of the kernel was found resting over the chink of the glottis, where it acted as a valve, permitting air to leave but not allowing it to enter the chest. A chunk of masticated meat has been found plugging the bronchi at their bifurcation. The historian, Pliny, is said to have died by choking on a grape seed. So much depends upon the character of the foreign body that it is difficult to fix a physiological basis for the symptoms and signs its presence in the air passages may occasion, but generally cough and dyspnea of greater or less degree may be expected. If these phenomena do not become so severe that the life of the patient is suddenly threatened by asphyxia, a more chronic course with inflamma-

tion and fever may be looked for. The right bronchus is the one most frequently receiving the foreign body, and when it is completely plugged, the left lung, it is said, will not perform the work of respiration necessary to maintain life for more than a few hours. In such a case, if a remedy is to be of use, it must be applied quickly.

The writer saw a patient at the Emergency Hospital who came there on foot, who was livid of face, who breathed with great difficulty, and was tugging at his throat with his hands. He could not speak. All his energy was devoted to getting air into his chest; his eyes stood out and he presented a general help-me-quick aspect. He was seized by two students, who mounted the operating table and quickly inverted him, and held him suspended by the feet while vigorous artificial respiration was practised by two other students. A dime fell from his mouth to the floor and he at once begged to be let down, that he was all right now, the dime was out, it had been lodged in his windpipe. In his case there was no time to make a laryngoscopic examination and ascertain in what part of the larynx, trachea or bronchi the dime was lodged.

In another case tracheotomy for croup had been performed. There was severe hemorrhage at the time. Introduction of the tube and relief of the dyspnea had apparently checked it. The next morning the writer was hastily summoned by the nurse. The patient was breathing with great difficulty. Recession of the abdomen, intercostal and supraclavicular spaces occurred with each inspiratory effort. Death by asphyxia was imminent. The tube was clear. Through the night much bloody froth and mucus had been coughed from it. A loop of silver wire was thrust through the tube into the trachea and onward into the bronchi. It brought out a plug of clotted blood about three inches long. All disturbing symptoms were immediately relieved. The nurse explained that the struggle for air had come on quite suddenly while she was changing the iodoform gauze which protected the entrance to the tube. Blood had doubtless flowed into the trachea during, or soon after, the operation. It had coagulated and stuck to the wall of the trachea, from which it was loosened by the necessary manipulations of the nurse and was sucked into the bronchi where it caused the dyspnea. To avoid a foreign body of this sort, great care should be taken to prevent blood flowing into the larynx and trachea during operations about these organs or about the nose or mouth. To this end it is well to place the patient with his head hanging down below the level of the lungs and to tampon about the tracheotomy tube. The ends of the tampon should be left hanging from the wound so that they cannot become foreign bodies in the air passages. Anesthesia probably favors the passage of blood or pus from wounds or abscesses about the nose or mouth.

Teeth and pieces of bone have been dropped during operations upon the jaws and bones of the nose and palate, into the larynx, trachea and bronchi. A man of previous fair general health, who had been operated upon in a New York clinic for an exostosis of one of the turbinated bones, came to the surgical clinic of the Emergency Hospital about two months ago, after treatment in New York. He had a hacking cough and great pain in his right side. He said the cough commenced while the

operation was being performed and that the doctors thought he had swallowed the wrong way some of the cocaine which had run through his nose. He was syphilitic; his right side was swollen; there was no vesicular murmur over the right lung; the lower right intercostal spaces protruded; he had fever, chills, no appetite and was much emaciated, but able to walk about. There was dyspnea when he tried to lie down. The chest was opened and a large quantity of pus discharged. Fever stopped, he ate and gained in strength, but his sleep was harrassed by more cough than he had before. One day he coughed up a piece of the turbinated bone with chisel marks upon it. He then improved more rapidly and left the hospital feeling quite well, with a drainage tube in his chest.

Solid bodies, both heavy and light, for example, metal and cork, may find lodgment in the air passages and give rise to great difficulties in their removal. A child two years old, while playing, suddenly ran to its mother exhibiting signs of embarrassed breathing. It made known that something had gone down its throat the wrong way. The mother put her finger in the child's throat but could feel nothing. The symptoms, however, improved. They recurred at night and it was thought the child had croup. Doctor Holmes was called. The alternate attacks of labored and normal breathing suggested to him the presence of a foreign body. Inquiry revealed that the attack came on while the child was playing with some brass rods an inch and a quarter in length and one-quarter of an inch in thickness, one of which is here shown. The symptoms continued off and on from Saturday until Monday, when the patient became much worse, with breathing and facial expression like that seen in laryngeal stenosis. In consultation with Doctor Holmes, Doctor Linn, and the writer, it was thought best to open the trachea and explore for the cause of threatened asphyxia. An incision was made and a long pair of slightly curved forceps inserted. A metallic substance was felt, but it was so firmly embraced by the right bronchus that it could not be grasped by the forceps. The patient was now quickly inverted, a few vigorous strokes of artificial respiration, with a few sudden jerks upward of the little one's body, were given. The metal plug was loosened and dropped into the larynx and adjacent trachea where it was caught with forceps and removed through the wound. A part of the brass cylinder you will observe is blackened by action of the fluids and gasses to which it was exposed.

Living things other than tubercle bacilli occasionally become foreign bodies in the respiratory tract. A mulatto girl came to my office a few years ago with a distressing cough, fever, night sweats, emaciation, a picture of advanced pulmonary consumption. No vesicular murmur could be heard in the apex of her right lung. There was exaggerated vesicular murmur of the whole left lung. Her pulse was quick and irritable. She had two attacks of bloody, frothy expectoration, and was now coughing up a pint of thick, ropy sputum every day. I advised a diet of milk and cod-liver oil and urged the use of antiseptic inhalations for half an hour every three hours when awake. She consulted me once or twice a week for about two months. I examined her chest each time she came and soon noticed that the diseased area was not increasing. One day she

brought to me an irregular, round mass, some larger than a pea, which she said she had coughed up with blood and sputum that morning. It was a friable, earthy mass in which was found fragments of legs, wings, and body of a fly. She continued to improve and recovered. The existence of the fly in the lung was not suspected by the patient nor her friends, but its demonstration revealed to me by an old black woman, a tradition or myth of that superstitious race. Nearly all fatal illness among them is caused by accidental, intentional or wickedly planned swallowing of flies.—*The Physician and Surgeon.*

RELAPSELESS CURE OF INGROWING TOE-NAILS.

EVAN O'NEILL KANE, M.D., KANE, PA.

I am aware that this trifling ailment scarcely deserves a place among surgical affections, yet its obstinacy and the pain and discomfort it occasions are often most distracting to the patient and harassing to the physician.

By the usual operative methods, treatment of ingrowing toe-nail is anything but satisfactory. Prompt relief, it is true, follows the extraction, paring away or splitting and packing of the nail. But unless we completely destroy the matrix, the trouble will surely recur with the fresh outgrowth of the nail or the next tight pair of shoes. To cut or burn out the matrix is not only very painful but often very difficult to accomplish, and at best our patient must be permanently deprived of the nail. The little operation which I am accustomed to performing is practically painless, and does not admit of the possibility of relapse.

It is as follows: The toe having been made thoroughly aseptic, a rubber tube tourniquet is cast around it and its tissues rendered insensible with cocaine or cold normal salt solution. I next split down the outer border of the nail about a line from its edge and beyond the region covered by the overlapping inflamed tissue. This piece of nail I then pull out with the tweezers in the ordinary manner.

I now cut a V-shaped notch in the outer border of the toe extending the full length of the nail. This is made wide enough to include all the hypertrophied, ulcerated and overlapping tissue, and is proportionately deep (anywhere from an eighth to a fourth of an inch). The angles of the incision are now brought together, either by suture or strips of adhesive plaster, and an antiseptic dressing applied. If the patient will remain quiet, with the foot elevated for four or five days, the part will be completely healed within that period. No future trouble can be anticipated if a sufficiently large wedge of diseased tissue is removed, the new nail overlapping instead of being overlapped by the tender skin.

MEDICINE.

IN CHARGE OF

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HOW SHOULD A ROOM, IN WHICH A PATIENT WITH CONTAGIOUS DISEASE IS TO BE CONFINED, BE PREPARED.

As long as we can take some portion of the house and isolate it from the rest, the patient can ride quarantine safely, and other inmates, so long as they have no communication with the sick or the immediate attendants, can follow their ordinary avocations, without endangering the public health, but this can only be so where proper precautions are taken.

And first the room. As it is a well-known fact that fabrics which are of a soft texture, such as plush covers of furniture, heavy hangings, carpets, thick woollen dresses, and the like, absorb and retain contagion easier and longer than cotton or linen goods, the first procedure after the diagnosis is made is to strip the room. Up with the carpet, down with the hangings, out with upholstered furniture. Bare to the walls and boards. On the floor put some old carpet or pieces of carpeting, some old rugs or some such articles. These are of no value, and can be destroyed. If the light is too strong by reason of the removal of the stuff curtains, put up dark shades. They are non-absorbent, and if considered best to destroy them, are not expensive. Some cane-bottom chairs, and, if a sofa is needed, a cheap cot, with shuck mattress, makes a very convenient lounge. If there is a lounge which is not of value, it could remain, and be taken away afterwards, or if its covering is absorbent, the cover must be removed, after fumigation, and burned, and then the frame can be sent to the upholsterer for another.

Doors which communicate with other rooms not used by the sick should be caulked with cotton, or, what is better, have strips of paper pasted over all cracks. The door leading out into the hall, if only one room is used, should be protected by sheets hung on the outside, so arranged as to cover the door. These can be kept moistened with a disinfectant. If there is a passage-way into which the door opens, it is better to hang the sheet-screen a short distance from the doorway. This forms a sort of ante-chamber, and in it a table can be placed on which the food and all other necessaries may be placed, thus guarding from contact those serving from those nursing the patient. Where there is no passage-way, it is well, by light pieces of wood, to extend the sheet-screen from the door, so as to create a small space between it and the door, securing

in this way the ante-room, but this screen should reach from floor to ceiling.

The room has been prepared. Now for the nurses. Their dress, when in the sick-room, should always be some cotton or linen gown of a light color. Not only do these absorb less than woollen garments, but can be, by boiling, thoroughly disinfected and not injured. And if the case is a bad one, it is well to protect the nurses' hair by having caps worn that cover it. Common sense must come into play in handling these cases. You cannot shut up your nurses all the time, confining them to the sick-room, without rendering them more liable to take the disease. Therefore, some way to give them fresh air and exercise must be devised which will be without danger to those they happen to meet. They may, then, in another room, or in the improvised ante-chamber, some place which has not been directly exposed to the contagion, change their clothes, leaving off all clothing that has in any way been exposed, and putting on uncontaminated garments. The fresh clothing should be brought them at the time they wish to change, and be taken away again when they return to resume their labors. Thus prepared, the nurse can go out for air and exercise.

When the time has come, in the opinion of the attending physician, to once more allow the patient to mingle with other people, the health officer should be notified, that he may visit and decide whether pratique should not be given; and having, after examination, decided that all is well, the patient is dressed in fresh, clean clothing, after having had a disinfectant bath: the nurse and attendants change their gowns, leaving all infected articles in the sick-room; they vacate their recent quarters with their change, turning over to the representatives of the health board all the room contains for them to work their will upon, and this the officers do, putting into one pile or place all articles that will have to be removed for destruction, and in others those that either will be safe after the disinfection, or which may be sterilized by boiling. The fumigation is done, the room closed, and so left until next day, when the condemned articles are removed; the wrath-producing placard is taken down, and the stern grasp of the health board released from the house and its inmates "by due process of law."—Dr. Lewis Balch, *Albany Medical Annals*

Nitroglycerine.—It is an excellent stimulant in syncope, in threatening heart failure or collapse from various causes; in acute lobar pneumonia, used early enough and boldly enough, it may render venesections unnecessary, and its skilful use often aids recovery from apparently desperate conditions. It is useful in chronic interstitial nephritis, in conditions of arterial fibrosis and atheroma, in gout and rheumatoid arthritis, and sometimes in anemia, chlorosis, and the anemia of tuberculosis. In the management of cases of muscular and valvular disease of the heart it finds a wide field of usefulness; in dilatation it may be used with digitalis, in fatty heart it may be used without other drug; in cases of mitral lesion it may be conjoined with digitalis, strophanthus, sparteine, and the like; in cases of aortic lesion, atropine, strychnine, and caffeine may be used with it.—*Philadelphia Polyclinic.*

POST-MORTEM EXAMINATIONS.

The ordinary autopsy is a very coarse affair, and as a means of education in pathology may be greatly improved. Wherever it is worth while to make a section, the autopsy should be complete. Suppose the cause of death to be typhoid fever. There should be something more than an opening of the abdomen, a stripping of the ileum, ligature at given points and slitting of the gut with scissors, in order to see the ulceration of Peyer's and the solitary glands. While this process is all well, it does not go far enough. There should be an injection of the arteries by some method that would allow of a filling of the capillaries, perhaps by colors, and then sections made for illustration by the microscope.

It is now known that the typhoid bacillus is found in other parts of the body than the ileum. Cases have recently been reported where it was found in the brain meninges, which may account for the low muttering delirium observed in some cases and not in others. No doubt the bacillus can be found in the ulcers located on the vocal cords, present in some cases and not in others, thereby accounting for the hoarseness of voice observed in some instances. The bacillus may also be found perhaps in the Eustachian tube or internal ear, causing dullness of hearing. These lesions are not constant, but when they occur the cause should be sought for, and also those which may be found exemplified in other parts of the body. No doubt there are cases in which the peritoneum is invaded by the bacillus.

Pathology is not yet a complete science, but the discoveries which are to be made and demonstrated are to be done through an intelligent use of the microscope. In much of this work there is necessarily a good deal of threshing over of old straw, and unless one is familiar with the literature of medicine, discoveries will be announced from time to time which are not discoveries, although the later man may be perfectly honest in his statements. This was demonstrated at the late meeting of the American Medical Association, when Prof. Flint fairly showed in his address in medicine that recent reports made by two European investigators upon the glycogenic function of the liver had been published by him more than thirty years ago.

Many an observation has been made by those engaged in such work, and records being unpublished were allowed to pass, to be again discovered and written up for the glorification of an individual not the first in the field.

In all of this there is an important lesson. Investigators doing work original with themselves should carefully verify their work, then put it in print, and eventually it will find its proper place, just like water seeking its natural level. A good story is none the worse for being twice told. If all matter published were to be condensed to that which is strictly new there would be a wonderful winnowing of threshed-over material. And yet much of the threshed-over work is exceedingly valuable, valuable not only to the thresher but also to the great army of men who are unfamiliar with that which has gone before, through lapse of memory or other cause.—*Cincinnati Lancet-Clinic.*

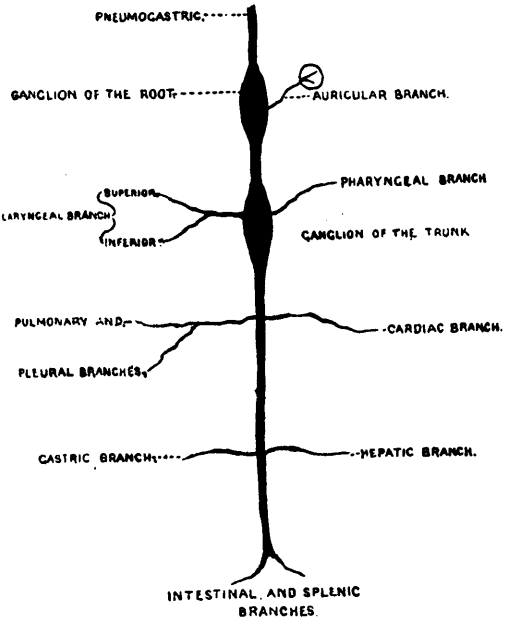
COUGH AND ITS TREATMENT.

Cough is a reflex movement. It depends on irritation of the sensory fibres of the pneumogastric nerves, the impulse from which, being transmitted to the ganglia, or to the root of the latter, is referred back to the lungs through the motor filaments of the same nerve, and there manifests itself in the complex phenomena of expusive contraction which we know as cough. In order to comprehend the varied and manifold conditions under which cough may arise, it is important to briefly study the origin, course and distribution of this nerve. It may be described as arising from two nuclei, one of which is situated in the lower half of the floor of the fourth ventricle, and the other in the oblongata near the olivary body. In the jugular foramen, through which it emerges from the skull, is the ganglion of the root of the pneumogastric, which in all probability is the homologue of the ganglion on the posterior root of the spinal nerves. From this ganglion is given off the *auricular* branch which supplies the external ear and the membrana tympani. Only a short distance below this point is another enlargement, about an inch long, which is known as the ganglion of the trunk. Here the pneumogastric anastomoses freely with the spinal accessory and receives filaments from the sympathetic and the hypoglossal, and from the upper part of this ganglion the *pharyngeal nerves* are given off. The *superior laryngeal* nerve, which supplies sensation to the mucous membrane of the *larynx, epiglottis,* and base of the tongue, also arises from this ganglion. The next branch which is given off is the *recurrent,* or *inferior laryngeal,* which is the motor nerve of all the intrinsic muscles of the larynx except the cricothyroid, which receives its innervation from the superior laryngeal nerve. Before the pneumogastrics enter the lungs, they form the *anterior* and *posterior pulmonary plexuses* in connection with the sympathetic, and thence their fibres run along the *bronchial tubes,* the pulmonary arteries, and throughout the lung tissue. On the outer surface of the bronchial tubes, as well as in the textures of the lung, are found a large number of small ganglia in connection with these nerve fibres, and in many instances the nerve filaments of these seem to terminate in the *mucous membrane of the bronchi.* The nerves of the *pleural coverings* are also derived from the pulmonary plexuses, and those fibres which are distributed to the pulmonary pleura also have ganglia attached to them. Additional branches of the pneumogastric nerves are distributed to the *heart, stomach, liver, intestines, spleen, kidneys,* and *suprarenal capsules.* From this it follows that irritation coming from the ear, larynx, trachea, bronchi, lungs, pleura, heart, pharynx, stomach, liver, intestines, or from any part of its trunk or origin, is liable to produce and excite cough.

Not all these regions are equally sensitive in this respect. Thus Kiernier, Koths and others have shown that in the respiratory tract the larynx possesses the greatest impressibility, while the trachea and bronchial bifurcation are less sensitive, the bronchial walls still less so, while the alveoli have very little sensibility. The pulmonary pleural lining is especially sensitive and very liable to cause cough.

I will now consider the different kinds of cough:

Ear Cough.—This cough is excited by an irritation of the auricular branch of the pneumogastric nerve. Arnold cites the case of a girl who had persistent cough and excessive expectoration, with extreme emaciation. It appeared that she had many months previously introduced a bean into the meatus of each ear, where they were discovered on examination. After the removal of these foreign bodies the cough ceased and the patient recovered her health. Accretion of cerumen in the ear is an occasional cause of cough, which will abate when the offending material is cleaned out. Aurists also know that the introduction of a speculum into the ear, or of a sound or probe into its cavity, frequently causes cough. A draught of cold air striking the meatus of the drum of the ear is followed by coughs and colds in some people independent of any cat-



arrhal affection of the middle ear. This has led to the custom of plugging the meatus with cotton or wool, which shields and protects the over-sensitive ear-surface of these people.

Laryngeal Cough.—Laryngeal cough depends on a supersensitive or inflamed larynx, and is accompanied by hoarseness, pricking or burning, and by a constant desire to clear the throat. The cough is dry and brassy, with very little expectoration, while on the other hand it may be moist with an abundant secretion. Its causes are principally a strain of the voice, especially in the open air; bad management of breathing in public speaking; the excessive use of alcohol and tobacco; the inhalation of dry hot air, dust, etc. In the treatment of this form of cough the exciting cause must be removed. The inhalation of watery vapor impregnated with the compound tincture of benzoin, or the inhalation of

the fumes of gum camphor, or of four or five drops of chloroform from a handkerchief, or the spraying of the larynx with a solution of cocaine hydrochlorate, thirty to forty grains to an ounce of water, are very useful methods for allaying the irritability of the larynx. Lozenges containing cocaine hydrochlorate, sugar, licorice powder and powdered acacia, and allowed to dissolve slowly in the mouth, also have a soothing effect. At the same time the general health must not be overlooked. Strychnine, quinine, iron, the hypophosphites and cod-liver oil are exceedingly beneficial in this respect.

Bronchial Cough.—This is the cough which comes from catarrh of the bronchial mucous membrane, and one of its immediate offending causes is a colleetion of catarrhal material on the surface of the bronchi. The explosive movement of the chest muscles, which we know as cough, seeks to remove this impediment. Most patients who suffer from this kind of cough locate its source in the upper sternal region directly over the seat of the large bifurcation. This is largely due to the fact that so long as the bronchial epithelium is intact, the movement of its cilia tends to transport all the catarrhal material from the smaller into the larger tubes and thus to finally deposit it in the region to which the feelings of the patients refer it. Many a patient of this sort, not understanding the mechanism of his trouble, frequently expresses his belief that if he only could get rid of the worry under his breast bone he would be entirely well. Cough of this kind is always accompanied by a copious yellow expectoration, which is generally most abundant in the morning on account of an accumulation of the latter during the previous night. There is, however, another bronchitis which is not associated with either a copious or a yellow expectoration, but with one that is tough, tenacious, grayish, and sparse. This is the bronchitis which has no direct connection with catarrh of the bronchial tubes, but depends on stasis or on hyperemia of the lungs due to cardiac disease, generally of a mitral nature, and is very liable to be accompanied by blood-spitting, a feature which is rarely present in the idiopathic form of bronchitis.

Pleuritic Cough.—Pleurisy, as is well known, gives rise to a persistent cough, with little or no expectoration ; and pleurisy being oftener due to rheumatism than not, it follows that the remedies which do good in the latter also prove efficient in the former affection ; hence the salicylate of soda mixture recommended in rheumatic or gouty bronchitis will also be found serviceable here.

Asthmatic Cough.—The cough of asthma is always accompanied by an abundant expectoration after the attack of asthma has ceased. During the attack the cough is dry, short, and hacking, and the patient suffering greatly for the want of breath. To shorten the asthmatic grip break a bead of amyl nitrite in a handkerchief and allow the patient to inhale it, or give two drops of a one-per-cent. solution of nitroglycerin in a teaspoonful of water, or administer hypodermically one-twentieth of a grain each of strychnine and morphine. One-twentieth of a grain of strychnine in a teaspoonful each of syrup of hypophosphites and hydriodic acid, four times a day, the strychnine being gradually increased, gives very good results. Asthma is very frequently mixed up with rheu-

matism, and hence the salicylates and lithates are useful in its treatment. Lithia tablets, such as are now manufactured by many druggists, dissolved in a glassful of water and taken three or four times a day are frequently helpful. When the attacks are prolonged or run into each other they become very depressing and exhausting, and then the patient must be placed in bed and kept there until the fury of the affection is abated and until the former strength is recovered.

Phthisical Cough.—The cough of phthisis varies with the stage of the disease. In its incipiency the cough may be very slight, and indeed be absent in some cases; but in others it is one of the earliest and most constant symptoms, although there may be very little or no expectoration. In the advanced stage of the disease cough is more or less persistent, and so long as the catarrhal element predominates it is accompanied by an abundant yellow expectoration. After the formation of cavities the expectoration is generally of a grayish color, and of tough, fibrous consistency.

We have already seen that cough is a reflex nervous movement, and hence it necessarily follows from a fundamental physiological law that the degree and amount of cough in any case correspond with the irritability or impressibility of the nerve-supply of the lungs. This applies more forcibly, perhaps, to the cough of phthisis than to that of any other form of lung disease, and explains why the cough of this affection not only varies very much in different individuals, but why it varies in the same individual under different bodily positions. In the very nervous phthisical individual the cough may be one of the most prominent and distressing symptoms from the beginning to the termination of the disease, while in the insane, for instance, in whom the sensibility of the nervous system is in a great measure subdued and obtunded, phthisis goes through its various stages without any cough, and often very little expectoration. Then again, as a rule, the cough is easier when such patients sit or stand than when they lie down. This is probably due to the fact that the lying position allows more blood to gravitate to the apices, which are oftenest involved, and the increased fulness of blood thus induces greater irritability in the nerve filaments of these parts. It is also well known that patients can lie much easier on the healthy side of the body than they can on the side which is affected. This is perhaps also explainable on the score of the principle just referred to. Sleep is an obtunder of nervous irritability, hence the cough of phthisical patients, after they have once fallen asleep, is comparatively quiet during the night, but is always worse in the morning on account of an accumulation of material in the bronchial tubes during the sleeping hours.

It is clear, therefore, that the cough of phthisis is largely a question of nerve irritability, and that this element must be kept prominently before our minds in the treatment of this symptom.

Cough may be excited by congestion or inflammation of the pharyngeal mucous membrane, and by elongation of the uvula to such a degree that it touches the base of the tongue. Astringent gargles of tannic acid, sugar of lead, or the spraying of the pharynx with Dobell's solution, or with a weak solution of cocaine, or removal of the uvula, are the local

measures which must be resorted to in such cases. At the same time it is also important to look after the general health of the patient. On the other hand, cough may come from dyspepsia, from intestinal indigestion, from constipation, from disease of the liver, from gall-stones, from worms in children, etc. In such cases attention must be directed to the organ whose functions are disordered.

Cough from Aneurism.—There exists in nearly all cases of aneurism of the aortic arch a cough which is dependent on pressure of the aneurismal tumor on the recurrent laryngeal or pneumogastric nerves. This is especially the case when the tumor involves the transverse or descending portion of the arch of the aorta, for the left recurrent laryngeal nerve winds around the arch from the front backwards, while the corresponding nerve on the right side does not.

Cough from Pressure on Vagus.—There is no doubt that cough may be induced by pressure on the vagus other than that which is exercised by aneurisms. A cough of this kind may follow measles, diphtheria, bronchitis, pleuritis, etc.; diseases which lead to secondary enlargement of the bronchial or cervical glands, and a consequent compression of the vagi by these; or to a thickening of the pleural membrane, which impinges on the vagus and embarrasses its function. Dr. James F. Goodhart relates the following very interesting case of this kind (*British Medical Journal*, 1879, vol. i., p. 542): "A child eight years old had a severe paroxysmal cough. Parents thought the disease asthma. The child would suddenly start up in bed; his face blue; his eyes staring; all the respiratory muscles in violent action—a picture so terrible that I shall never forget it. He would have five or six of these attacks in a day, and in the meantime some distress of breathing would continue. He became comatose and death supervened. The autopsy showed recent double pleurisy, and bronchopneumonia at both bases. No tubercle. In the right mediastinum there was one greatly enlarged bronchial gland, which had caseated and suppurated in its centre. It was adherent to but did not press on the trachea; the right vagus was firmly adherent to it, and surrounded by dense fibrous tissue to such an extent that it was impossible to isolate it even by cutting."

Cough from Fatigue.—There is a cough which may be called the "cough of fatigue." Many persons without being subject to any special disease of the respiratory apparatus, and especially those who possess a family tendency to phthisis, cough when they are tired out by physical or mental work, or when depressed by incidental diseases like colds, headaches, injuries, etc., or by loss of appetite, worry, or by excesses of any kind. Not only is this true of persons who are comparatively well, but those who suffer from respiratory diseases, particularly the phthisical, always cough more when they are fatigued or exhausted from any cause. A cough of this character is in all probability due to excessive waste of nerve force which is reflected on the lungs—the weakest and most vulnerable organs in the body in such individuals—and for its relief the most effective remedies are not physical exercise and outside air, but rest in bed, nutritious food, strychnine, hypophosphites, quinine, and cod-liver oil.—DR. THOS. H. MAYS *(Therap. Gaz.)*.

OBSTETRICS AND GYNAECOLOGY.

IN CHARGE OF

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ECTROPION OF THE CERVIX IN NULLIPARÆ RESEMBLING LACERATION OF THE CERVIX.

BY CHARLES P. NOBLE, M.D.

The diagnosis of laceration of the cervix carries with it the presumption of an antecedent pregnancy unless it can be definitely shown that the cervix has been torn by operative treatment; hence, it is of medico-legal importance to render the diagnosis of this condition as exact as possible, and at the same time to recognize all possible sources of error arising from other conditions which simulate a laceration. It is because of their medico-legal importance that the following cases are reported:

Miss X., aged thirty-five, consulted me in June, 1895, and presented a letter from her family physician describing her symptoms, which were largely nervous in character, and stating that he thought they were due to a small tumor growing in the anterior wall of the cervix and projecting into the external os uteri. On examination a patulous os uteri was felt, and to the touch there was apparently a moderate laceration of the cervix. On inspection it was found that a well-marked ectropion was present, simulating a laceration of the cervix, and that the mass attached to the anterior wall of the cervix, which projected into the os uteri, consisted in a much hypertrophied anterior column of the arbor vitæ. A careful examination satisfied me that the cervix was not lacerated, although the appearances were very suggestive, and a superficial examination might readily have led to an erroneous diagnosis. The uterus was dilated and curetted, and the cervix was amputated, care being taken to excise the redundant tissues of the anterior column. The parts were restored practically to their normal condition, and with great benefit to the health of the patient. This patient was interrogated as to the possibility of a previous conception and stated that she was a virgin, which statement I have no reason to question.

Miss Z., aged nineteen, consulted me in December, 1895, for the cure of obstinate dysmenorrhœa. Upon examination by touch a patulous external os uteri was found with apparently a bilateral laceration of the cervix. Upon inspection a well-marked ectropion of the cervix was seen to

exist, and the appearances were highly suggestive of a laceration of the cervix. No scar tissue, however, could be seen in the angles, and after a careful examination I became satisfied that the condition was one of ectropion and not of laceration. Both the anterior and posterior columns of the arbor vitæ were greatly hypertrophied, and projected into the external os uteri. Either column was large enough to fill up the external os, hence they were crowded alongside of each other, giving the external os an irregular outline, instead of the usual transverse slit, as shown in the accompanying illustration, which was obtained from photographs made for me by Dr. W. D. Robinson. The uterus was dilated and curetted and the cervix amputated, restoring the parts to approximately their normal condition. The operation was followed by relief of the dysmenorrhœa and restoration of the patient to health.

The tissues removed by amputation in this case were sent to Dr. Thomas S. Cullen, of the Johns Hopkins Hospital, who made the following report:

"The specimen consists of the lower portion of the cervix. The tissue is 3 × 2.5 cm, and averages 1 cm. in thickness.

"*Examination of the alcoholic specimen.*—The everted cervical mucosa, with its delicate folds, is everywhere visible. In the centre is the slit-like opening of the cervix, 1 cm. in breadth. Surrounding the margin of the specimen is a small zone of the vaginal portion of the cervix. Which is the anterior and which the posterior is impossible to say. The cervix is, however, divided into four segments, which are nearly uniform in size. This division is caused by four shallow clefts commencing in the cervical canal and extending outward nearly to the vaginal portion of the cervix. [Caused by the hypertrophied anterior and posterior columns.] It looks as if there were simple eversion of the cervical mucosa.

"*Histological examination.*—A section extending from the vaginal portion of the cervix on one side through to the vaginal portion of the opposite side shows that the squamous epithelium of the vaginal portion is intact. Whether the epithelium covering the everted cervical portion has been cylindrical or flat it is impossible to say, the alcohol having so contracted the superficial portions. The cervical glands are seen opening on the surface, and also are abundant in the depth of the stroma. On examining the stroma of the cervix no evidence of a scar can be made out. Sections made in various directions give like results.

"*Diagnosis.*—Eversion of the normal cervical mucosa."

It is unfortunate that the tissues removed by amputation in the first case were not examined also, as then microscopical as well as clinical evidence of the real nature of the condition would be at hand. Numerous cases of granular erosions of the cervix and not a small number of slight ectropion of the cervix in nulliparous patients have come under my observation, but the two cases reported above are the only ones in which the conditions were such as to make a diagnosis of laceration of the cervix a probable one. Dr. Cullen's report assists in substantiating the diagnosis of ectropion as against laceration, but unfortunately throws no light upon the cause of the ectropion, as the report indicates that the

tissues were practically normal. Clinically the conditions were far from normal, and resulted in breaking down the health of the patient, who was rendered unable to perform her usual duties. Further evidence of the abnormality of the condition consists in the fact that her health was restored when these tissues were removed by operation.

The question of possible pregnancy was investigated in this case also, and I am satisfied that this patient like the first was a nullipara.

Ectropion of the cervix has been recognized as a separate condition since Roser described it as "inflammatory ectropion," together with what he called "cicatricial ectropion," and which is now recognized as laceration of the cervix (*Archiv für Heilkunde, II. Jahrgang, Heft 76*, No. 298, Leipzig, O. Weigand). A moderately thorough search of the literature shows only two references, however, to the possibility of confounding the two conditions in diagnosis to be found in the literature. The two articles which have the most direct bearing on the subject are one by Fischel upon the morphology of the cervix uteri, quoted by Penrose (*Archiv f. Gynäkologie*, 1880, Bd. xvi., S. 192) and one by Penrose entitled "Congenital Erosion and Split of the Cervix Uteri" (*Amer. Jour. Med. Sciences*, May, 1896). Fischel calls attention to the fact that a congenital malformation of the cervix may resemble a laceration.

"I am now able," he says, "to show a photographic representation of the cervix of a new-born infant which presents an inferior degree of this condition. The separation of the lips does not extend all the way to the vaginal junction, but concerns only the two-fifths of the lateral corners. Nevertheless, the two lips, deprived of their commissures, gape open, the crest of one being 9 mm. from that of the other, exposing the cervical surface of both lips for a distance of $\frac{5}{8}$ mm. This case shows that a peripheral notching of the cervix is not always a sign of a previous labor, but may represent a condition of the cervix in pregnant women whom we were forced to consider primiparæ not only through their own statements, but also from the condition of the external genitalia. This case is of great forensic importance, in that the proof of a former labor can no longer be claimed for such a condition of the cervix."

This is a distinct recognition of the possibility of some other cause than a laceration in labor or by instrumental means giving rise to a condition simulating laceration of the cervix, and also of the forensic importance of this fact. Fischel, however, was dealing with congenital conditions found by examining the bodies of young infants.

Penrose reports the case of a virgin in which the cervix was mushroom-shaped, the face of it being round and about one and a half inches in diameter. The external os was transverse and one third of an inch broad. Upon the face of the cervix were several scattered patches of erosion. The cervix was amputated and examined microscopically, with the following result:

"The cervix was covered with squamous epithelium, except on the small patches of erosion, where cylindrical epithelium was present. Racemose glands (like the normal glands of the cervical canal) opened all over the face of the vaginal cervix, in front, behind, and to the sides of the external os. They were found as far as one half to three quarters of an

inch from the external os. These glands opened on the vaginal aspect of the cervix, where it was covered with squamous epithelium, and this epithelium extended to the ducts of the glands, which were lined with cylindrical epithelium. The vaginal cervix was, in fact, a glandular structure."

Penrose considers that this condition was congenital in origin and due to the development upon the vaginal aspect of the cervix of those structures which are normally confined to the cervical canal.

I have myself seen not a small number of cases similar to that described by Penrose and illustrated in his article, and have likened the shape of the cervix in such cases to that of a "pig's snout," the peculiar rim or border which runs around the vaginal cervix being quite similar to the shape of the snout of a pig, and of course somewhat similar to that of a mushroom. Cervices having this peculiar contour are usually found in patients having an imperfect development of the sexual organs, and, as a rule, instead of having a "split" of the cervix suggestive of a laceration, they have a very narrow os uteri—the so-called "pinhole" os. Erosions are quite common in such cases.

The etiology of the ectropion in the cases which I have reported is obscure. The condition may have been congenital in origin, but there is no evidence of this fact. In both cases there was well-marked pelvic congestion, and both patients had been over-worked, so that a possible explanation is that pelvic congestion caused a simple hypertrophy of the mucous membrane of the cervical canal, followed by ectropion. My object in reporting these cases, however, is not to theorize concerning the etiology of the condition of ectropion in nulliparæ, but to insist upon its medico-legal importance.

THE DESTINY OF VAGINAL HYSTERECTOMY FOR MALIGNANT DISEASES.

BY C. LESTER HALL, M.D., OF KANSAS CITY, MO.

So far as this occasion is concerned, it matters not whether we accept Cohnheim's theory that "the only cells capable of originating neoplasms are those sequestered during embryonic life," or, with Williams, believe that "neoplasms are of intrinsic origin, due to a modification of the formative process by abnormal forces generated within the body, rather than extrinsic, due to inflammation or the intrusion of micro-organisms," or favor the more recent idea of the bacterial origin of all malignant growths. The fact confronts us that of all organs none is more prone to take on malignant degenerative process than the uterus. Exposed as it is to so much irritation and injury incident to menstruation and mishaps in early girlhood, and those disturbing causes of mature womanhood—the marital relations and the traumatism resulting from childbirth, with constant irritating discharges setting up perverted cell action, it is not surprising that this nesting organ of all mankind should so often be the point of election for malignant degeneration.

The achievements of pelvic surgery by the vaginal route, with its immediate low mortality, has stimulated surgeons to extirpate the uterus for divers conditions, without, I fear, a just regard to ultimate results. Certainly in non-malignant conditions the removal by the vaginal route promises much in the way of completeness and lessened shock, for "benign tumors remain local, but the malignant types penetrate into the neighboring tissues and destroy them, and the tumor germs, being carried off in the blood and lymph, give rise to metastatic or secondary neoplasms in all parts of the system. Metastases have essentially the same structure as the primary tumors, and are found either in the vicinity of the latter, that is, in the region supplied by the lymph and blood which comes directly from the tumor, or in distant organs, after the tumor germs have passed through the heart. It is characteristic of tumor metastases, especially those from really malignant tumors, to go on growing indefinitely. Normal tissue germs do not have this peculiarity." (Tillman.)

Senn says: "Glandular carcinoma is followed at an early age by regional infection. The lymphatic glands nearest the organ affected in the direction of the lymph current are usually involved first, when, step by step, successive glands are implicated, until the entire chain of glands has become infected. Secondary tumors are subject to the same degenerative changes as the primary. The glandular tissue is completely removed in the lymphatic glands by the substitution of tumor issue." He further speaks of "a wide zone of infiltration," and says that Virchow pointed this out several years ago, and that Waldeyer described it as an inflammatory zone, because he found in the connective-tissue numerous small cells. "Infiltration tissue consists of leucocytes and young epithelial cells, which, like the leucocytes, wander by virtue of their ameboid movements into and along the connective-tissue spaces. Carcinoma of the alveolar type may develop within the cervical canal, and destroy the neck of the uterus before it is discovered, or in cancer of the body of the uterus the cervix may become constricted, causing retention of the secretions (hydrometra), or the body of the uterus may be well-nigh destroyed before the cervix is attacked." Lymphatic infection is found in the lumbar, retroperitoneal and inguinal glands. "Occasionally there may be found an isolated nodule of cancer higher up than the apparent edge of the disease. Whether this is due to lymphatic infection or to multiple cancer formation is an undecided question." (Warren.)

"Examination of the retroperitoneal lymphatic glands in suspected carcinoma of the uterus should never be neglected. In the great majority of cases the surgeon has to deal with carcinoma after regional infection has set in, and when the disease has advanced too far for a radical operation." (Senn.)

The last quoted authority also says: "The greatest progress in the treatment of carcinoma will have been made when we are placed in possession of an *infallible* means of early diagnosis." This was said in connection with carcinoma in general. Difficulties multiply when we consider carcinoma of the uterus, and there are no means of overcoming the obstacles presented. The hidden location of the organ, the secretive and

natural disinclination of women to communicate even to their nearest friends any suspicion entertained that all is not well, are barriers which will require the education of many generations to remove. The average woman is so ignorant of her own organism that she is incapable of differentiating between the normal and the abnormal. She begins early in her womanhood to expect the "the change of life." Allured by the dangerous and false teachings of the mother who tells her that irregular flow is not uncommon, and that she must not be alarmed at this, or even at an offensive discharge, she keeps her secret, in blissful ignorance of the progressive degeneration which has overtaken her. When at last forced by failing strength and pallid cheek to consult her physician, the discovery is made that the diseased process has destroyed the cervix, that the lymphatic pelvic glands have become infected and that the broad ligaments and peri-uterine tissues have been invaded, and little hope of relief remains, either by palliative or radical measures.

Despite statistics (which too often are deceptive) showing many apparently permanent cures, on high authority we are forced to the conclusion that most cases of uterine cancer presented are inoperable, at least, by the vaginal route. With these discouraging conditions confronting us, and bearing in mind the limited field of operation, the accepted infectiousness of cancer tissue, and the possibility of the transference of living tumor cells during an operation, coupled with the impossibility of removing in many cases *all* of the diseased structure, we are forced to admit that the removal of the uterus per vaginum for malignant disease is, in the majority of cases, a doubtful expedient. Complete cures are rare, even when the carcinomata are extirpated very early in their course. As a rule, one recurrence follows another until the patient succumbs to general exhaustion.

Gross long ago claimed that in cases of malignant disease of the mammary gland it was absolutely essential to remove with the gland all of the axilliary fat and lymphatics. In cancer of the uterus we have, in a degree, a parallel condition to deal with, but the narrow vagina and the danger of invading other important organs and structures precludes the possibility of completely removing by the vaginal route all probable diseased tissue. In view of the opinions of some of the leaders in medical thought, we are compelled to look further for other and better methods of procedure in dealing with malignant disease of the uterus. It is probable that any plan of complete extirpation will be found inadequate in a large percentage of cases, but that method which permits of the greatest opportunity for inspection of the diseased uterus, adnexa, and infected glands, and furnishes an opportunity for a more complete removal of all diseased structures, both primary and secondary, must ultimately become the operation of election.

The dexterity which has characterized American surgeons in abdominal section for the total removal of the uterus and appendages, leads to the belief that in the near future vaginal hysterectomy for malignant disease will be restricted to those rare cases in which women present themselves in the inception of the disease, and before secondary infection has taken place. It is the opinion of the writer that the more radical operation

known as the Clark method will supersede vaginal hysterectomy for cancer. By this abdominal method of total extirpation of the uterus and adnexa the posterior peritoneum and all glands at the bifurcation of the iliac vessels are brought into view and removed whether infected or not. We are thus enabled to go beyond the inflammatory zone and to remove diseased glands which are not within reach by the vaginal route. The bladder, the ureters, the rectum and all other important structures are brought directly into the field of vision. Thus directed, the hand of the operator does thorough work, and the poor sufferer has done for her the best that the science and the art of surgery can offer. The objection urged against this operation—that it is tedious, that too long exposure results, that prolonged anesthesia endangers the patient's life—will all be overcome by that practice which makes perfect.—*Medical News.*

THE CULTURE DIAGNOSIS AND SERUM TREATMENT OF PUERPERAL FEVER.

DR. F. W. N. HAULTAIN read a paper on the above subject. He gave detailed accounts of three cases. The first was a primipara where help was needed in the labor by the application of low forceps. The puerperium for the first ten days was normal, except that the strength was not regained with the usual rapidity. On the twelfth day she fainted on attempting to rise, and for a fortnight her pulse was quick and there was a rise of temperature to about 100°F. On the twenty-sixth day she first complained of severe pain and swelling in the right thigh; this rapidly passed off; four days afterwards pain occurred in the left thigh and calf, associated with considerable swelling and severe constitutional symptoms; vomiting, sweating, and faintness. Dr. Haultain then saw her. Pelvic examination revealed nothing abnormal except a subinvoluted uterus and a slight swelling in the left broad ligament. The lochia were a little offensive, and a culture was made of the discharge from the interior of the cervical canal; one was also made from the blood drawn from the finger. The former showed a typical pure culture of the Loffler bacillus; 10 c.c. of the diphtheritic antitoxin were injected with marked beneficial results. On two successive days a similar quantity of serum was injected as the temperature again slowly rose. After the third dose the temperature fell to normal and she had an uninterrupted recovery. No case of diphtheria was present in the neighborhood and the attending practitioner had not seen a case of diphtheria for some weeks previously, but the drains were found to be in an insanitary state. The second showed marked signs of fever forty-eight hours after the labor. The medical man had used intra-uterine douches, but without benefit. Dr. Haultain saw her on the fifth day. She then showed signs of marked septic infection, the face had a leaden appearance, and there were erythematous patches on the abdomen. A culture of the discharge, similarly taken, was again made, and examination showed a mixed growth of streptococcus and bacillus coli. Anti-streptococcic serum (10 c.c.) was

injected, followed by a similar quantity the next day, and 30 c.c. on the third day, but no beneficial effect resulted. The patient developed an intractable diarrhœa; her left knee-joint became extremely painful; pulmonary complications and parotitis set in, and she died on the tenth day. A culture was made from the blood of the finger twenty-four hours before death, and a pure growth of the bacillus coli was found, which from its reactions was found to be extremely active and virulent. The patient was a coachman's wife and was confined in a room immediately above the stable. The third case had been attended to by an unskilled woman, and showed signs of fever on the third day. Dr. Haultain saw her four days afterwards. The vaginal discharge was offensive. The culture showed many streptococci. Anti-streptococcic serum (10 c.c.) was injected; the uterus was washed out with a 1 in 40 carbolic lotion and packed with gauze soaked in the antitoxin. On the next day a further 10 c.c. were injected. The temperature fell on both occasions. No further rise of temperature occurred, though the cervical discharge showed many streptococci. The uterus was washed out on the two succeeding days, and further examination showed the discharge to be free from septic organisms. On reviewing the cases, the first one was evidently a case of intra-uterine diphtheria, and the diagnosis would have been impossible except for the bacteriological examination. The second case showed features of interest in presence of mixed infection in the culture from the cervix and in the pure culture of the bacillus coli from the blood. Clinically, the violent diarrhœa, the erythematous patches and the absolute inefficiency of the anti-streptococcic serum, were of value. The third case was one of those simple cases of toxin poisoning which usually yield to antiseptic intra-uterine douching, the focus of the disease being thus removed. Still, it must be noted that intra-uterine douching had almost no effect until combined with the serum treatment. In all cases of puerperal fever the culture method of diagnosis was much to be preferred to all others. The microscope alone was helpful, but no idea could be obtained of the vitality or virulence of the organism. In the prognosis, a mixture of germ infection in a case was of serious import, as there was then increased virulence. The treatment of these cases could only be scientifically met by previous culture diagnosis, to detect which toxin was the main cause of the disease. For preventive treatment Dr. Haultain strongly urged the necessity of using a douche after labor in every case, and recommended 1 in 40 carbolic lotion, which had been found more efficient in experimental research than sublimate lotion.

DR. HART, DR. MILNE MURRAY, DR. BARBOUR, DR. MCVAIL, DR. KEPPIE PATERSON, DR. JARDINE, and others took part in the discussion, and in reply as to the method in use of obtaining cultures, Dr. Haultain stated that he passed a Fergusson's speculum and exposed the cervix. A platinum wire, previously rendered aseptic by heating in a flame, was passed into the cervical canal and some discharge obtained on it. This was then dipped into the agar in a prepared test-tube, the tube at the time being held bottom upwards to prevent dust and germs from falling into it. A plug was inserted and the tube transmitted to the Laboratory of the Royal College of Physicians of Edinburgh.

NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF

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HYSTERIA IN EARLY LIFE.

BY AUGUSTA A. ESHNER, M.D.,

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CASE V.—L. S., a colored girl, fourteen years old, complained of pain and soreness in the region of the stomach, which proved to be sensitive to the touch. She was unable to skip and jump and play like other children on account of the resulting distress. She suffered from nausea occasionally, unattended, however, with vomiting. There was complaint of a good deal of headache, although correcting glasses were worn. There were also present tic-like movements of the eyelids. The appetite was good, the tongue coated, the bowels constipated. Menstruation had appeared for the first time some nine months previously, and, although a little irregular, was unattended with pain. During the preceding month there had been suppression of urine for three or four days on two or three occasions. The urine itself was said to be clear and yellow. For two years the girl was subject to what were described as faints, in which she did not fall, though she seemed to lose consciousness. In these she clenched her fists, and on one or two occasions she kicked, but she had no well-defined convulsion. The duration of the attacks was said to range from five to thirty minutes. At the conclusion of the attack the child seemed exhausted and she felt drowsy. There was at no time undue laughter or causeless weeping. The attacks recurred two or three times a week, at intervals of two or three weeks. There had been a free interval of as long as three months. No definite cause could be assigned for the attacks, though they were associated in the mind of the mother with the function of menstruation, to which, however, their frequency bore no apparent relation. Nothing also was known that seemed to be capable of inhibiting or aborting the attacks. The child did fairly well at school, although apparently without ambition. There was no history of similar disease, or of other form of nervous disorder, in the family. The child had never suffered from any serious illness. She was considered sensitive. The knee-jerks were preserved, the patient jumping when the patellar tendon was struck and also in anticipation of a blow that was threatened but not struck. There was no gross sensory derangement. The heart displayed no abnormality. Dr. C. Y. White, by

whom the patient was referred to Dr. Brinton's clinic at Howard Hospital, informed me that the patient was susceptible to hypnotism, but her failure to return prevented further study of the case.

Although I believe this case to be one of hysteria, it would appear to be the part of wisdom to withhold for the present a final diagnosis, in order that further study and perhaps personal observation of one of the attacks may yield evidence of such a character as will permit of an unequivocal and unreserved conclusion.

Case VI.—R. F., a schoolgirl, fourteen years old, applied at the Orthopedic Hospital and Infirmary for Nervous Diseases, in the clinical service of Dr. S. Weir Mitchell, on July 3, 1896, with a history of having been frightened some eight months before by masqueraders. She fell to the ground and was unconscious for three hours. Her jaws were locked and she breathed heavily. After consciousness returned she went to sleep and remained in bed for several days on account of weakness. Some two months later, following a recitation, the girl lay down and became unconscious, and exhibited occasional twitches of the muscles. This attack lasted for three or four hours, and again several days were spent in bed. A third attack occurred after an interval of three months, without known cause. In this also the girl lay down, appeared unconscious, with her eyes open, and became rigid, but she did not bite her tongue. This attack continued for four or five days, during which the patient regained consciousness at times for periods of fifteen minutes.

At other times she appeared as if dead, being unable to see or talk. She took a little food, both liquid and solid. At the time of application the attacks recurred almost weekly, lasting for three or four days at a time. The seizures were characterized by rigidity rather than active movement. After some of the earlier attacks there was inability to see, walk or talk. In some of the attacks the patient scratched herself, in some she pulled her hair, in some she kicked at those about her, and in some she made attempts to bite. In some she groaned a good deal, and in others the rectal and vesical contents were passed incontinently. Some of the attacks had occurred while the patient was alone, and some at night in bed. Between the attacks she was often dull, despondent and uneasy. At times, and especially following the attacks, she cried freely, and at times she laughed unduly. At times, further, she was unusually obstinate. Appetite, digestion and sleep were good, and the bowels were regular. The knee-jerks were preserved, and the pupils were full, equal, regular and reactive to light. There appeared to be general diminution of sensibility to pin-prick. Of the family history it need only be said that the mother, fifty-three years old, was a nervous invalid. The patient herself had had measles and whooping-cough in childhood, and from time to time suffered from bilious attacks. Menstruation appeared first at the age of thirteen and was irregular and painful. In the intermenstrual period pain and swelling over the left ovarian region were complained of. Prior to the present illness there had never been a convulsion.

The hysterical nature of this case appears so obvious that further comment seems uncalled for.

CASE VII.—M. M., schoolgirl, fourteen years old, applied at the Orthopedic Hospital and Infirmary for Nervous Diseases, on September 14, 1896, in the clinical service of Dr. Wharton Sinkler, on account of a coarse, rapid tremor of the right upper extremity, most pronounced in the hand, which had made its first appearance, without known cause, a month before, ceasing after a week and being resumed after an interval of three weeks. The movement was least marked during rest, and appeared to be increased on voluntary movement. It ceased during sleep. No derangement of sensibility and no limitation of the visual fields could be made out on superficial testing. The dynamometric was 6 on the right and 23 on the left. The knee-jerks were feeble. The mother of the child was distinctly neurotic. The little patient herself had four attacks of chorea, two involving the right side and two the left, the first at the age of six years, and the last at the age of nine.

Under date of June 21, 1897, it is noted that the tremor has disappeared and reappeared thrice since the previous record. Both the girl and her mother consider her well at present, although on investigation it is found that the right hand is tremulous when extended, and inquiry reveals the fact that the shaking appears on excitement or after muscular activity, but only, or at least only in marked degree, in the right hand. There was no impairment of painful sensibility.

This case illustrates one of the forms of motor disturbance that may attend hysteria. In addition to simple tremor there may be choreic, or tic-like movements, or spasm or convulsion, or paralysis or paresis.

CASE VIII.—In conclusion, I wish to refer briefly to a rather remarkable case, in a girl of sixteen and a half years, in whom hysterical manifestations had been present for three years or more. The patient's mother was distinctly neurotic and the father suffered probably from some organic disorder of the brain. At the age of thirteen, after some opposition, the girl fell to the ground and became rigid and blue, and so remained for perhaps half-an-hour. Subsequently she wept. In the following year she felt certain vague sensations, with perhaps some perversion of consciousness, after witnessing an accident in the laundry in which she was at the time employed. Some months later she was found wandering about at a distance of some six miles from home, and another month later at a distance of eighteen miles or more. Menstruation set in shortly after this last escapade and recurred irregularly with pain. At about this time the girl began to have staring attacks, which were attended with convulsive movements. In the following year she did fairly well, but at the end of this time she again walked away from home, a distance of eighteen miles. About a month afterward, in conjunction with some sort of seizure from which her father suffered, the girl slept for four days, taking only liquid, but no solid food. About four months later, she went irresponsively to Washington, D.C., and passed through a varied experience. Of the details of these several expeditions, the girl maintained she had little or no knowledge and only faint and ill-defined recollection. She was readily susceptible to hypnotism, and while somnolent numerous facts and incidents connected with the journey to Washington and her sojourn there for several days were elicited.

There was diminished sensibility to pin-prick upon face, hands and legs in irregular distribution. The pharyngeal reflex was preserved. From recent information, I learn that the girl was, a short time ago, found under suspicious circumstances in a not entirely reputable neighborhood, and she has been since sent to a reformatory institution. At the time the patient was under my observation I could not convince myself of the entire reliability of her statements, and I am yet unable to decide to what extent she endeavored to practice simulation or deception. I was, and am still, inclined to believe that many of the symptoms have an hysterical basis, and I would be loath to deny that the several escapades were manifestations of a form of modified consciousness. In addition to the nervous disease in her own immediate family the fact that an aunt is a mesmerist, and has exercised some influence over the patient, is not without interest.

I have, in this communication, endeavored by the report of cases to supplement what others have already done in directing general professional attention to the liability of children to suffer from hysteria, and I would further emphasize the importance of its early recognition and intelligent treatment.

My thanks are due Drs. Mitchell, Sinkler, Lewis and Brinton for their kindness in permitting me to make use of their cases.

HYSTERIC RAPID BREATHING (HYSTERIC TACHYPNEA) WITH THE REPORT OF TWO CASES IN CHILDREN.

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Disturbances of the respiratory function as manifestations of hysteria are not common, yet quite a large variety have been described, cough, hiccough, laryngeal spasm, and rapid breathing being the most important. Any one of these may constitute the dominant symptom, other signs of hysteria being either but slightly marked or, rarely, entirely absent. When the latter is the case, the determination of the true nature of the condition may be extremely difficult.

Abnormal slowness of respiration is not infrequent in hysteria, but is generally a subordinate phenomenon occurring in states of trance or catalepsy. I have also seen a case of very deep, sighing respiration in a girl of 12 years. The respirations were twenty to the minute, and became normal when her attention was diverted. She stated that her mother, whom I did not see, however, breathed in the same manner.

Regarding excessive rapidity of breathing, with which we are at present principally concerned, the first careful description of it was given by S. Weir Mitchell in 1883. In 1893 * he published two new cases and gave in abstract those recorded in literature up to that time. The condition is now well known and has found entrance into the text-books.

The breathing in a typical case is of the upper costal type and is unaccompanied by effort; the diaphragm moves scarcely at all; the respira-

* Mitchell, *Am. Jour. of the Med. Sc.*, March, 1893.

tion-rate varies from 70 to 100 per minute, or is even higher—in one of Mitchell's cases it was 150, and was said to have been 180. Emotion increases the frequency; in most cases the rate drops to normal during sleep. The pulse is usually not accelerated unless quickened under the influence of excitement.

That the rapid breathing is not a voluntary acceleration was shown by Mitchell by means of graphic records. When the respirations of a healthy person breathing very rapidly were recorded, the tracing was found to be irregular and quite unlike that of hysteric rapid breathing, which was rhythmic and regular.

My own cases were those of two children, one aged 9 years, who also had chorea minor, and one aged 13, in whom the respiratory disturbance was the only abnormality.

CASE I.—*Case of chorea minor with rapid breathing.*—M. F., a boy of 9 years, is one of seven children; the family history is negative; the other children are well. He had measles at 2, and his first attack of chorea at 4 years—it affected the right hand and lasted six weeks. The second attack occurred 16 months ago; the present one being two months previously in the right hand. The movements are slight, and cease entirely during sleep. The submaxillary and posterior cervical glands are enlarged. The heart is rapid and the apex beat diffuse; unfortunately, I have no record of the rate. There is no murmur. The respirations are 64 to the minute, noiseless, rhythmic, and unassociated with effort. The bowels are regular; there are two minute ulcers on the tip of the tongue.

CASE II.—*Rapid breathing rendered noisy by sucking inspiration; at intervals a movement of swallowing.*—F. S., a boy of 13 years, is the second of eight children, two of whom are dead. The family history is negative. He has had the diseases of childhood, including a mild attack of typhoid fever. For about two months he has worked in a market, often lifting heavy weights. One evening he came home complaining of a choking sensation; he was breathing rapidly, but was not cyanotic. Hot drinks were administered, and the trouble disappeared entirely. For two weeks he was well, and then the symptom returned, and has persisted up to the present time (March, 1896). An operation for phimosis relieved the condition slightly, but since being startled from sleep a few nights ago it has been worse than before. The breathing is perfectly rhythmic, but is interrupted once in every 14 or 15 respirations by an act of swallowing. There is slight sucking in of the supraclavicular spaces and the suprasternal notch. Auscultation reveals nothing save a harsh inspiratory murmur. During play, sleep, and work the respirations are natural.

The boy is very excitable, his face is pale, and his whole appearance speaks of want and neglect. On the right lower lid there is a stye.

Though hysteria is quite common in childhood, * hysteric rapid breathing is very rare, and Lloyd *(American Text-Book of Diseases of Children)*, in describing the symptom, only refers to the case of an adult.

* Clopatt's Statistics (quoted by Lloyd: *American Text-Book of Diseases of Children*) comprise 272 cases below the age of 15; of these, 97, or more than one-third, were under 10.

In the first boy chorea was also present, but the rapid breathing cannot be considered part of that disease—it had nothing of the irregular, jerky character of choreic movements. The second case was very clear; the cessation of the symptom during work, sleep, and play, leaves no doubt as to its nature.

How the rapid breathing is brought about is not easily explained—it is probably a vagus-neurosis, in a sense analogous to tachycardia. For this reason, and also because there is no difficulty in breathing, I have used the phrase "hysteric tachypnea," instead of the one generally employed, namely, hysteric dyspnea.

THE NERVOUS LESIONS ASSOCIATED WITH CHRONIC ALCOHOLISM.

After describing the lesions of the nerve-cells of the rabbit's brain, induced experimentally by chronic alcoholic poisoning, Berkley *(Johns Hopkins Hospital Reports*, vol. vi., 1897) dwells on the points of correspondence between the lesions and the symptoms. The sensory derangement, the exaggerated sensibility of the skin, the anesthetic troubles, the ocular and auditory disorders correspond to the beginning of the vascular disturbances, when the nerve-cells, irritated by an insufficient supply of proper nutriment and excited by the presence of a poisonous stimulus, overact for the time; and then, as nutrition is still withheld from them, altered metabolism results. The beginning swelling of the dentrites of the sensori-motor region is marked by paresthetic and anesthetic symptoms, those of the purer sensory region by visual and ocular troubles, and some amnesia, especially for recent events; in other words, the cells that have the function of evolving and transmitting thought cannot work properly, and defective memory results. Later, as the motor cells are more and more involved and nuclear changes begin, continuous tremor becomes apparent, and the muscles no longer co-ordinate perfectly, unless for a moment under the direct influence of the will. Still later, when a portion of the cell-structures have become highly degenerated, and the altered cells have become more numerous, the already tottering will-power becomes more and more deadened, and memory and judgment fail; and when the degenerative process is far advanced, incomplete dementia is the final result. The fact that only a portion of the cells of the cerebrum are involved in the degenerative process does not militate against the entire conception of the pathologic entity. The nerve-elements of the brain are intricately united, one with another, by means of their axons and collaterals, and are not able to functionate perfectly unless the normal relations to one another are preserved. A lesion in ene cell will induce disorders in the function of two or more cells not involved in any morbid change, the intricate system of collaterals issuing from one cell influencing directly the impressions and nervous impulses arising from many others, and in this way widespread disordered action of large numbers of the cerebral cells may be the result of disease in a comparatively few elements.

A. A. E.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

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THE AGGLUTINATION OF TYPHOID BACILLI BY CHEMICAL SUBSTANCES.

Malvoz (*Ann. de l'Institut Pasteur*, July 25th, 1897) has investigated the action of various chemicals upon typhoid bacilli. In the first place he finds that certain bodies such as formalin, corrosive sublimate, peroxide of hydrogen, and strong alcohol, coagulate the bacilli and produce a fairly typical agglutinative reaction, but only when used in concentrated solutions. The essential characteristic of the typhoid serum in this respect is, however, its power of acting when extremely dilute, and the author's next endeavor was to find some chemical substances which should have a comparable action. Chrysoidine, which is stated by Blachstein to agglutinate cholera vibrios, was found by Malvoz to have no action on typhoid bacilli, nor was any reaction obtained with induline and nigrosine; safranine and vesuvine, on the other hand, give the typical reaction even in very dilute solutions, and the agglutination was rendered more obvious by the slight coloring of the bacilli. Thus 3 drops of a 1 in 1,000 solution of these reagents added to a 1c. cm. of typhoid emulsion produced the characteristic reaction just as the blood of a typhoid patient would. Mineral acids, phenol, lactic acid, and chloroform have no agglutinating power, while salicylic acid and strong solutions of potassium permanganate give a reaction which is by no means characteristic. Caustic soda and ammonia do not agglutinate bacilli suspended in distilled water, but act on them if in tap water, a difference no doubt associated with the deposition of calcium carbonate. Salimbeni's experiments on the part played by oxygen in agglutination are not confirmed by Lambotte. Malvoz finds that an artificial "typhoid" serum can be made by adding 1 c.cm. of a 1 in 1,000 solution of safranine to 9 c.cm. of ox-serum. He suggests that as the urine of typhoid patients gives a marked diazo-reaction, the agglutinative power of their serum may be due to a nitrogenous compound allied to vesuvine or safranine. He has further applied his discoveries to the differential diagnosis of bacteria; thus, for instance, a concentrated solution of formalin agglutinates typhoid but not colon bacilli, the difference being visible to the naked eye. Again, 1 in 1,000 safranine serum prepared as above causes agglutination of typhoid bacilli, while the colon bacillus is not affected by a 1

in 100 serum. Some further experiments tend to show that the ciliated envelope of the bacillus is the seat of the chemical changes leading to agglutination. Finally Malvoz suggests that his results may be applied clinically with advantage.—*Brit. Med. Journal.*

A SIGNIFICANCE OF SUDDEN ACUTE ABDOMINAL PAIN.

The exploratory abdominal incision has taught us much about obscure points in the surgery of that region, and among other things has let in a flood of light upon the causes of the pain that is such a frequent and important feature of diseases of the abdominal viscera. If, at the present day, in the light of all this recently-acquired knowledge, discouragement comes sometime because of a mistaken diagnosis of an abdominal affection, what must have been the condition of things before the new era in surgery allowed the peritoneal cavity to be opened with impunity? The ignorance of that time seems almost like that of the dark ages; "inflammation of the bowels" was a sort of blanket diagnosis applied to a variety of affections very different in their character and indications for treatment, and diseases of the abdomen were considered entirely within the province of the physician, matters with which the surgeon had little or nothing to do.

The rapidly-acquired knowledge of this subject needs constant revision, and an excellent study of the significance of sudden acute abdominal pain has lately been made in an article by Dr. Byron Robinson, who, for the purpose of learning how best to interpret this symptom, investigates first its location. He says that there are three principal localities from which the pain arises, *viz.*, the pelvis, the region of the cæum and that of the gall bladder. As a rule, acute abdominal pain is referred by the patient to the region of the umbilicus, at least at first, and particularly when not associated with localized tenderness, and it is this that often makes the differential diagnosis difficult at the outset in an attack, for it is only when localized pain upon pressure begins to appear that a distinction can be made among several forms of disease attended with the general symptom of pain. In addition to the pain elicited upon pressure, another valuable localizing symptom is rigidity of the abdominal muscles, a general symptom in general peritonitis, but a local one where the affected surface is limited. This rigidity is a reflex phenomenon and serves the purpose of protecting and keeping at rest the organs in which the pathological process is going on. In some cases hyperæsthesia of the skin over the affected area is to be found in addition to the muscular rigidity, but this is not to be relied upon.

The disease most frequently met with in the ileo-cæcal region as the cause of sudden acute abdominal pain is, of course, appendicitis. In the regions of the gall-bladder the passage of gall-stones is the frequent cause, and in the pelvis the rupture of an ectopic gestation is most likely to give rise to the pain. Besides these, the affections that are common causes of the symptoms are intestinal obstruction, the passage of a renal calculus and movable kidney. The last named trouble should by no means be for-

gotten, although it is only lately that any significance has been attached to it as a cause of serious symptoms.

The character of acute abdominal pain is unfortunately seldom such as to aid in making a diagnosis of its origin. The difference noted is usually in the degree rather than in the nature of the pain, although in a general way a distinction is to be made between the paroxysmal and periodic pain of strangulation of the bowels, and the sudden, acute, lancinating and continuous pain of a perforation of the digestive tube, the pain in this case announcing the establishment of a general peritonitis.

The want of a guide from the character of the pain gives added value to other aids which must be called in to help in the diagnosis. Mention has already been made of the location of the pain by the sensations of the patient, by the touch, by the rigidity of the muscles and by the hyperæsthesia of the skin. An additional point may be gained by applying the doctrine of probabilities and taking into account the age, sex and previous history of the patient. For instance, sudden, acute abdominal pain in an infant or young child will probably be due to an invagination of the bowel. This will be all the more probable if the intermittent, colicky nature of the pain can be detected, and the appearance of blood in the stools will make the diagnosis certain. It is to be remembered that shock is quite conspicuous in these cases and that the evidence of acute pain may be masked by it after the onset of the attack. Abdominal tumor is often wanting in this affection.

In boys or young men, sudden, acute abdominal pain will probably be due to appendicitis. In women, during the childbearing age, the rupture of an ectopic gestation must be one of the possible causes for consideration. But, with all the aids he can bring to bear upon the diagnosis, the physician will too frequently find himself confronted by an attack of pain which he cannot explain. Fortunately, in these days he has one thing to fall back upon that seldom fails to clear up the case; that is, the exploratory abdominal incision. Given a case that is at once grave and obscure, and the exploratory incision is imperatively demanded, *provided it can be made by an expert.* Operation by the inexperienced man is little, if any, to be preferred to expectant medical treatment, for although the danger from the operation, *per se*, when made by a man of modern ability, is undoubtedly less than the danger from the disease, it must be remembered that the condition present is often one that can be detected only by an eye and touch that have had long training in the work, and that the necessary operation can be successful only in hands skilled by long practice.—*Northwestern Lancet.*

THE CURATIVE POWER OF FEVER.

A. Lowey and P. F. Richter *(Berliner klinische Wochenschrift*, March 1, 1897) energetically defend a view now held by a large number of clinicians that fever in acute infectious diseases is one of the weapons of defence possessed by the animal body. In proof of this they detail a series of experiments on rabbits, consisting in the production of high temperature

by the "heat-puncture," *i.e.*, by injury to the copus striatum and subsequent inoculation of the animals with the minimal lethal dose or its multiple of pneumococcus, hog-cholera (Schweinerothlauf), and diphtheria. The results showed that the animal in which fever had artificially been produced lived longer than the controls; some, indeed, survived the infection.

Although indicating the curative power of fever, the authors do not oppose the proper use of antipyretic measures, when these have favorable incidental effects (quieting the nervous system, etc.). But they add, it may be profitable to search for pyretic agents, *i.e.*, such that evoke an artificial rise of temperature.

V. Babes and V. Sion.—A case of pyosepticæmia consecutive to a gonorrhœal infection, (*Archiv. des Sciences Méd., 1896, No. 6.*) A young man giving a previous history of several attacks of gastro-intestinal trouble, associated with jaundice, became infected with gonorrhœa. After twenty days there was a cystitis and epididymitis, and later, fever, vomiting, jaundice, hæmorrhagic points in the skin, bloody diarrhœa, pain in the joints, with enlargement of the liver and spleen.

At the outset the temperature was from 38 to 38.5, rising after the second day and ranging from 38.7 to 39.7. There was a double—systolic and diastolic—murmur ts be heard in the aortic region which was transmitted over the entire cardiac area. Delirium, anurea and œdema also set in.

At autopsy was found maceration and beginning gangrene of the skin of the scrotum, penis, and lower part of the abdomen. The aortic valves showed an ulcerative endocarditis. There was atrophy of the liver with biliary degeneration, and hæmorrhagic infarcts in the kidneys going on to a condition of suppuration.

From the spleen and kidneys streptococci and staphylococci were cultivated, while in the ulcerated aortic valves gonococci were found, which, however, did not grow on ox-blood serum, agar, or gelatin.

The general infection was evidently the result of the invasion by streptococci and staphylococci, while the endocarditis is referable to the presence of the gonococci. It is thought that the former biliary attacks aided the generalization of the infective process.

NOSE AND THROAT.

IN CHARGE OF

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INFLUENCE OF ADENOID VEGETATIONS ON THE GROWTH AND CONFIGURATION OF THE UPPER MAXILLA AND THE NASAL SEPTUM.

BY J. W. GLEITSMANN, M.D.,
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The subject which I submit to your consideration this evening has, in my opinion, not received the attention it deserves, and although I am not able to present new or original ideas and facts, I bring this matter before the Section for two reasons: A due appreciation of these conditions and their consequences will in many cases influence our action, which otherwise may be tardy, and may be postponed to the detriment of our patients. Further, although the subject has been alluded to as early as 1876, by Continental writers (Michel), and 1885, by the late Jarvis, of this city, the dissemination of the knowledge of this anomaly seems to me to take an unusually slow course. The text-books of our specialty, with very few exceptions, mention the matter either not at all, or devote only a few lines to it. The most recent and elaborate handbook of Heymann contains in the article on "Deviations of the Septum," by V. Lange, only the statement that a high-pitched palate may exert a deleterious influence on the nasal septum. In contrast to this assertion is a statement made by one of our members, Dr. Delavan, in the transactions of the American Laryngological Association, 1887, viz., a diagnostic sign of a habitual mouth breather in a high-arched, narrow, hard palate, associated with deflection of the nasal septum.

In order to understand more fully the changes brought about by adenoid vegetations, it is advisable to analyze briefly a few other conditions which have been held responsible for producing abnormal growth of the palate and the superior maxilla. Jarvis, with his intuitive mind, very correctly recognized and associated a high-pitched and narrow palate with a deviated septum. Observing this condition in several members of families, which came under his notice, he inferred that it was a hereditary manifestation. Although the congenital influence on certain types of

noses, or on the formation of the face, cannot be denied, it certainly plays a minor part in the present subject; and, knowing how frequent obstructions of the post-nasal passages are found in children of one family, this factor cannot be left out of consideration. The higher degrees of abnormal growth also develop, as a rule, several years after birth. The same author, very properly, refutes the influence of scrofula and rachitis in this connection, which latter affection has even in a recent publication been held accountable for malformations of the upper maxilla. The lesions due to rachitis occur generally in early infancy, and manifest themselves more in the lower than in the upper maxilla. Finally, an affection which produces similar symptoms is occlusion of the choanæ; but also here we observe a difference in the shape of the maxilla, which will be pointed out later on.

The first time my attention was drawn to a high arch of the palate in conjunction with malposition of the teeth was in a child seven years of age, from whom adenoid vegetations had been removed by another physician with the curette two years before. The child had well-to-do parents, who were very solicitous of is welfare, and observed all symptoms most carefully. The previous operation improved the child at the time, restoring nasal respiration; but the benefit gained was soon lost, and about a year before I saw it the old trouble reappeared and grew worse, till the child was in the same condition as before the first operation. The removal of the growths was this time done under narcosis with the post-nasal forceps, was most thorough, and did not present any unusual features. But I saw at once, and also the parents had noticed it before, that the hard palate was elevated to the highest degree; further, that the upper jaw presented the form of a V-shaped maxilla, formed an angle in front instead of the usual curvature, and that the teeth were crowded so much out of position that, there being not enough space for them, two incisors were standing back instead of next to each other. At that time I was not cognizant of the investigations of Koerner, and thought in vain for an explanation of this anomaly in so young a child. These exquisite malformations I have seen only in a small number of children, whilst I found a high-pitched palate with deviated septum more frequently. It seems that such a condition of the maxilla and teeth is not as rare on the Continent as with us—possibly because we may not have bestowed as much attention to it heretofore—possibly because the people here are more inclined to bring their children with their so-called catarrh to one of our numerous dispensaries, in which the large number of rhinologists are ever ready to operate on adenoid vegetations. Their early removal may also account for the infrequency of the higher degree of malformations.

We will now analyze more fully the conditions dependent on the presence of adenoid vegetations. Koerner, and after him Waldow, whose statements I shall follow here chiefly, made very careful examinations on the dead and living subject, and the results of their investigations are as follows: Koerner was the first to point out that two degrees of configurations of the maxilla have to be distinguished, dependent upon the presence of adenoid vegetations, before or after the second dentition.

When nasal respiration is impeded in a growing child during a larger period by adenoid vegetations, the palate assumes a higher elevation in course of time, and appears in a section dome-shaped instead of a slight curvature. The alveolar process, which in the normal bone is a semi-circle, forms now an ellipse, and the lateral parts approach each other. Consequently the antero-posterior axis is elongated, the lateral one shortened, but nowhere an angle or bend can be observed anteriorly. The whole growth of the maxilla seems to be retarded, but the milk-teeth are in their normal position. Such are the conditions which the authors named found to take place when adenoid vegetations are present before the second dentition, and in cases of occlusion of the choanæ. They assert, and support their statement by observation on the living subject; but both are unable to give satisfactory reasons why the following more aggravated form does not occur in occlusion of the choanæ, persisting after dentition. The assumption advanced that adenoids produce a change in the bony substance, especially of the upper maxilla, appears to me nothing better than a hypothesis. I, myself, can remember only one case of choanal occlusion in children, and this at a time before my attention was directed to this subject.

By far more pronounced and of greater importance are the changes the maxilla undergoes after the second dentition, when the adenoids have not been removed previously. The alveolar processes approach each other still further, the palate becomes still more elevated, and in some cases, instead of being dome-shape, appears as a pointed arch. The anterior part of the alveolar process relinquishes its vertical position, becomes inclined forward, an angle forms at the median juncture, and the maxilla assumes the V-shaped form so well known to the dentists. This change in the shape of the upper maxilla has a far-reaching influence on the position of the teeth. The median incisors are turned in their axis, and the lingual surfaces stand opposite each other. The position of the other teeth depends greatly on the shape of the maxillar bone. If the nasal obstruction has taken place shortly before the second dentition, the maxilla retains its usual size, and all the teeth can find their natural position. But if the growth of the bone has been retarded, there is not enough space for the teeth and they are crowded out of their normal place. The lateral incisors are pushed inwardly, also often the bicuspids, whilst the molars turn generally outwardly. As the lower maxilla had not undergone any changes meanwhile, it often happens that the outer edges of the upper bicuspids strike against the inner ones of the bicuspids of the inferior maxilla.

A further consequence of the elongation of the antero-posterior axis of the upper maxilla, and of the oblique position of the incisors, is in some cases the impossibility of perfect approximation of the teeth of both maxillas anteriorily, the upper incisors protrude beyond the lower ones, and the upper and lower front teeth fall short of meeting each other. The V-shaped form of the upper maxilla, and the anomalous position of the teeth resulting from it, has been familiar to the dentists for many years past, and ingenious devices have been brought forward and adopted to correct the deformity. As this feature does not pertain to our work I

shall not enter into further details, but turn my attention to the influence these conditions have on the nasal septum.

The observation that a high-arched, narrow palate is associated with deflection of the nasal septum seems to be a condition so generally acknowledged now by scientists as to need no further argument. The septum is destined to serve as a prop, pushing apart the upper maxilla from the base of the skull, and when it is crowded upward by the hard palate until it can no longer resist the pressure brought to bear upon it, deflection results (Delavan). Now, it is a known fact that septal deviations are a rarity before the seventh year, and Koerner never saw one before the second dentition, while it was present in all his cases after this period. If the foregoing statements and the conclusions derived are accepted as correct, the assertion will not appear presumptuous that adenoid vegetations play an important role in the causation of septal deviations, and have to be considered an important etiological factor.

Before concluding it behooves me to answer the very natural inquiry for an explanation of the development of these morbid changes. Two reasons are advanced by the authors on this subject, both of which appear to me feasible and rational. When nasal respiration is impeded, the growth of the nose is retarded, which we see also in other organs whose functions are permanently interfered with. The nasal cavities remain smaller, and the palate becomes elevated. This condition has also been previously observed in enlargement of the faucial tonsils, necessitating mouth breathing, before the discovery of Wilhelm Meyer; but knowing the frequent concomitant occurrence of both affections, we may rightly consider the adenoid vegetations as the real etiological cause.

The second, and, in my opinion, by far the more important factor, is the lateral pressure which the cheeks exert against the maxilla when the mouth is kept open. Already before dentition this pressure produces in long-standing mouth breathers a narrowing and lengthening of the alveolar process. After the change of teeth its effect is still more pronounced. During this period the alveolar processes approach each other more closely, the maxilla becomes elongated in its longitudinal axis, suffers a bend at its anterior junction, in consequence of which the palate rises still higher, and the V-shape of the maxilla makes its appearance. Whilst these changes occur in the upper maxilla, the lower one retains its natural form. When the mouth is closed the tongue fills the buccal cavity and lies close against the teeth, the alveolar process and the palate. In this position it exerts a pressure against the lateral part of the maxilla, counteracting that of the cheeks. When the mouth is open the tongue lies in the lower maxilla, and no pressure is exerted against the upper maxilla. To explain the greater influence of the pressure of the cheeks against the upper maxilla during dentition, Koerner assumes that the maxilla loses its firmness through the loss of the milk-teeth, and becomes softer in consequence of the greater influx of blood during the growth of the permanent teeth. The rapid development of the major changes seems to be favored by the weakening of the junction of the maxilla bone anteriorly, which accounts for the V-shaped configuration of the upper maxilla.

Although I may not have been able to prove all the facts stated to your satisfaction, I think at least to have shown the necessity of an early removal of adenoid vegetations, if we wish to avoid the unpleasant consequences described. The subject is, in my opinion, certainly important enough to engage your attention and to merit further investigation.—*New York Polyclinic.*

TREATMENT OF ANOSMIA.

Bibard has recently taken up the study of this subject (*Thèse de Paris*, 1897). Among the causes of anosmia he refers to blows on the head, which are much more frequent than is generally supposed as a cause of loss of the sense of smell. They may or may not be accompanied by fracture, for according to the author's observations a severe blow on the back of the head, as from a fall, is quite capable of causing laceration of the Schneiderian membrane or tearing of the olfactory nerves in their passage through the lamina cribosa of the ethmoid. In cases of essential anosmia without nasal lesion the author has found the following treatment produce good results: Nasal irrigation every morning with warm water by means of Weber's syphon; to snuff three times the following powder: Sulphate of quinine, 10 cg.; subnitrate of bismuth, 10 g.; thirdly, electricity. In cases of hysterical anosmia the last is the most effective, and is employed in the form of faradisation to the root of the nose, and this must be employed so as to produce actual pain.—*Brit. Med. Jour.*, Sept. 11, 1897.

AN ADDITION TO THE TREATMENT OF NERVOUS PRURITUS.—Pruritus is so frequent a disorder, and is attended with so much suffering, both physical and psychical, that, although but a symptom, it often assumes the importance of a disease. It is, therefore, of interest to note that Dr. Wannemaeker, of Ghent (*Belgique Medicale, Col. and Clin. Record*), who has recently written an instructive article on the pathology and treatment of pruritus, has suggested a new remedy for obstinate cases of this affection. Starting out with the idea that carbolic acid taken internally seems to act directly upon the phenomena of pruritus, he has, in addition to the appropriate local and dietetic treatment, for some time made use of salophen, which is a combination of salicylic acid and acetylparamidophenol. Aside from a few failures, this drug has yielded some results which, in the author's opinion, are very encouraging, and some which are very suggestive. Whether the favorable influence of salophen is attributable to the anti-arthritic action of its salycilic component, or to a sedative effect upon the nerve terminals, or to that of an antitoxine, remains questionable. The cases cited as illustrations of its efficacy as an antipruritic comprise prurigo, psoriasis in a gouty subject, pruritus in diabetes, eczema in a gouty person, and chronic urticaria occurring in attacks. The dose was usually large, ranging from four to five grammes daily. In summing up his results the author concludes that in certain conditions, which cannot as yet be defined with precision, salophen offers a resource which should not be neglected by the physician who is anxious to relieve these unfortunates.

PAEDIATRICS.

IN CHARGE OF

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Mr. R. Clement Lucas in *British Medical Journal*, Jan. 30, '97, gave a memorandum that should be very useful in cases of extreme cellulitis and œdema following vaccination. He points out that with the present day method of direct calf-lymph vaccination this complication is more common than in the old arm-to-arm vaccination. He advises that if general symptoms are severe, and the pustules tend about the twelfth day to become confluent, the axillary glands to enlarge, and the œdema to be excessive, the pustules should be freely dusted with iodoform and a dry, sterile pad be placed over them to prevent friction and to keep the powder in place. This, he says, checks the process in twenty-four hours. It cannot be objected that the immunizing effect of the vaccination is thereby prevented, as it might be if the pustules were so dressed on say the sixth day. And the local effect must be much better than dressing with poultices or any moist dressing, even as healing under a scab is better than by an open sore.—J. T. F.

Condensed Milk in Infant Feeding.—The writer's experience would not lead him to attach much importance to this article of infant dietary, as in this country it is very little used. In the larger cities and among the poor, where ice and sweet milk are forbidden luxuries, the use of condensed milk is a necessity, and with proper safeguards intelligently laid down by the physician it becomes an inestimable boon. So that we see it rather largely discussed, especially in August and September issues, by most of the American Journals of Pædiatrics. At the June meeting of the American Medical Association, before the Section on Diseases of Children, C. G. Kerley, of New York, discussed the question in a very thorough, practical way. Briefly his positions and conclusions are these: The infant must be provided with a substitute as nearly like average mother's milk as possible, that is, it must contain $3\frac{1}{2}$ to 4 per cent. fats, 2 per cent. proteids, and 7 per cent. sugar. Now, condensed milk, when diluted, as it usually is and must be to ensure retention by the child, to one part in twelve or fourteen, has only one-eighth the fat and one-third the proteids of normal breast milk, and about one-half the sugar, cane sugar at that. It is, therefore, manifestly unfit for exclusive or continuous use. Few children can take it of the strength of one part in six without indigestion and colic. Up to the third month, indeed, many

children do well on it, as the carbohydrate matter is sufficient under the then existing conditions of the infant's life to produce heat enough, and very little proteid is enough. After that age, however, a tendency to rickets, marasmus, or scurvy appears so frequently as to leave no doubt as to the connection of the diet with the affection. Dr. Kerley well describes such children as "An ill-conditioned class of children, with their starved muscular and nervous systems, and catarrhal tendencies, who fall an easy prey to broncho-pneumonia in the winter, and to the gastro-intestinal diseases in the summer, and to the infectious diseases during the entire year."

In the recognition of the limitations of condensed milk lies the safeguard. It is very easy to add the necessary fat, either cream added to the one in twelve dilution, or cod-liver oil in quantities from ten drops to a drachm, according to age, three times a day after feeding. It must be thought of as a food, not as a medicine, and diminished or discontinued in hot weather or if intestinal dyspepsia appear. As to proteids, they may be readily supplied in ways that will suggest themselves. For instance, a weak beef tea may be used at times, in proportion of one part milk in nine, as the menstruum for the condensed milk. Or small quantities of red dish gravy may be given as the child approaches six months of age, and the valuable lean bone or tough strip of lean steak to suck.

In *Arch. of Pædiatrics*, Aug., 1897, a useful résumé of Kerby's article is to be found. It is a little amusing to find one commentator on the subject saying that the chief objection to condensed milk is that it "contains a deficiency of proteids," and further on, again speaking of an "excessive deficiency." "English as she is spoke," surely.—J. T. F.

BEDFORD BROWN, of Virginia, at the Philadelphia meeting of the American Medical Association in June last, read an interesting paper on the use of stimulants such as Strychnine, Atropine and Alcohol, in the resuscitation of still-born infants. Excerpts are as follows:

In all cases of still-born infants, whether the infant be dead or only still-born, the author's method is to insert in each arm by hypodermic syringe four or five drops of whiskey and a single drop of tincture of belladonna. If the infant is only still-born the nervous and circulatory system will respond quickly and promptly to the stimulant action. If the infant is dead beyond resuscitation there will be no response whatever. But if there is no response, or a very feeble response, he goes still further by injecting a drachm or two of warm, sterilized water under the skin, and about two drachms with a drop of aromatic spirits of ammonia into the intestine, and then awaits the result. In his experience, if these measures fail to produce reaction, it constitutes a fair test of the existence or absence of vitality. If the temperature continues to decline in the body of the infant while these measures are in progress, we may rest satisfied that the vital spark has taken its flight.

The first indication of a response to the action of the hypodermic remedies in these cases of profound asphyxiation is very soon present after the hypodermic. The muscles of the eyelids contract, and the eyes, previously closed, suddenly open; then the respiratory muscles are brought

into rapid action, the glottis is expanded, air is inhaled into the lungs and suddenly exhaled, forming the shrill cry of the new-born infant.

These phenomena illustrate to us the energetic action of the stimulants on the great nervous centres, the brain, medulla and spinal cord. Then follows the development of cardiac action and pulsation at the wrist, which were previously dormant. In these cases he has always observed the development of reflex action in the respiratory nerves before that of cardiac action. Invariably following restoration of respiration there was development of cardiac action; they followed each other as cause and effect.—*Arch. of Pœd.*

Danger of Insufflation of Powders in the Ear.—Grunert's warning against the careless insufflation of powdered boric acid in purulent middle ear disease should be carefully taken to heart by the general practitioner. According to him the danger in using powdered boric acid consists in the formation of crusts in cases where the discharge is *scant.* This is particularly often the case in the most dangerous variety of ear disease, thus sealing up a small perforation. It is better for such as are not proficient in the use of the head-mirror, and for that reason will not be able to recognize the contraindications for the use of powdered boric acid, to eschew this remedy altogether, as they might do more harm with it than good.—*Pediatrics.*

Night Terrors.—Braun, after critically discussing the existing theories on *favor nocturnus* in children, declares it to be a disease by itself, which is closely allied to the conception of neurasthenia, i.e., "an irritable weakness." Following this, a description of the characteristics of the attack and their demonstration is given. The sudden jumping up of the infant out of its sleep—symptomatic especially in cholic—has no relation to night terrors. The etiology as well as the treatment is that of neurasthenia, and the latter should be pointed in the direction of nutrition and education.—*Der Kinderarzt, 1897, Pediatrics.*

Chocolate Emulsion of Cod-Liver Oil.

Chondrus mucilage, N.F.	5 ozs.
Cod-liver oil	8 ozs.
Glycerin	2 ozs.
Cocoa, powdered	1 dr.
Vanilla tincture	3 drs.

Rub the cocoa with the mucilage, and heat until a uniform mixture is obtained. When cold, add the cod-liver oil and glycerin, and beat up with an egg-beater.—*W. A. McIntyre, Practical Druggist.* (*Pediatrics.*)

Headaches: Those of nasal origin (*Med. Summary*) are commonly present in the morning on awakening; those due to eye strain come on later in the day and after using the eyes.

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Editorial.

REMARKS ON SPINAL IRRITATION.

The following is an abstract of a paper in *Medicine* by Dr. Hugh T. Patterson :

The pain and tenderness along the spine commonly known by this name have nothing to do with the spinal cord or its membranes, or with the spinal column, except that these structures happen to lie beneath the dorsal surface. To explain that some organic diseases of the spinal cord and its membranes as well as lesions of the vertebræ are attended with pain and tenderness in the back were a work of supererogation. Few would group outspoken cases of this character under spinal irritation; but still there is a tendency to consider the pain and sensitiveness along the spine that are so exceedingly frequent in nervous people as a morbid entity, or at least a distinct unit in the group of conditions that constitute a case of neurasthenia, hysteria or hypochondria, or they are considered as an added element—a complication of the case.

My principal object in presenting the subject is to insist that so-called spinal irritation is *not* due to congestion or anemia of the spinal cord; to a state of altered nutrition in the cord; to a neurosis of the spinal arteries; to a thickening of the spinal membranes; to exhaustion of the gray matter of the cord; to an affection of the nerve roots or nerve trunks; to thickening or irritation of the vertebræ; to irritation of the spinal ganglia; or to any other permanent condition or process in the back whatsoever. In registering this protest against an impossible nosology and one that was always gratuitous, I shall support it by calling attention to only one trait of one symptom—namely, a rapid shifting of the tender points. These hyperesthetic spots are sufficiently familiar to every one. Some authors state that they are most frequent over the lower cervical spine, others find them oftener in the dorsal, and others again in the lumbar or lumbo-sacral region. As a matter of fact no point from the external occipital protuberance to the tip of the coccyx is exempt. Sometimes they are directly over the spinous processes, sometimes at the side of

them—it depends almost entirely on accident or the examiner. There may be sensitiveness along the entire spine; then there are places of maximum tenderness. The sore points are notoriously inconstant in degree of tenderness and in location, but it seems to be not generally known that the patient can locate them only about as accurately as a well person can locate a spot on his back previously touched. If a normal person be stripped and any given spot on the back be firmly pressed with the finger or the rubber tip of a pencil, after five or ten minutes he will ordinarily be unable to indicate exactly where the spot is; in other words, the healthy sensorium, or the normal function of reception and recognition of sensory impressions, is accurate only within certain limits.

Now to pass to the pathological condition under consideration. Having definitely determined—as gently as possible—that certain points are decidedly more sensitive than the surrounding area, they are lightly marked with a soft pencil and the examination is then directed elsewhere —chest, abdomen, extremities, etc.—for five or ten minutes. The same procedure of locating the painful places is then repeated, and it will ordinarily be found that the tenderness has moved up or down and the point formerly tender will now be no more sensitive to pressure than its surrounding area. The tenderness could not be due to anything abnormal at the place of "irritation" (*i. e.*, the tender spot), else pressure the second time on the same spot would be just as painful as the first time and, furthermore, we cannot possibly suppose a pathological condition to have developed within the short space of five or ten minutes at the place to which the hyperaglesia shifted—*i. e.*, the second painful point. The inference is inevitable that the pain on pressure is itself due to the perverted mechanism of sensory reception and registration in the brain, or, what is much more likely, to a perverted reaction of still higher centres —constituting a vicious consciousness. As a study of the particular psychic process involved would be trenching upon topics beyond the daily wants of the general practitioner, it shall not now concern us. The dicta, not entirely without exception, which I wish to enunciate are:

1. In so-called spinal irritation there are tender points along the spine.
2. These points can be definitely located.
3. It can be shown that they absolutely change position within five or ten minutes.
4. Such shifting demonstrates that the disease, so far as the tender points are concerned, is entirely functional and located no lower than the cerebral cortex.—*The Atlantic Medical Weekly.*

Hot-air Treatment of Gout and Rheumatism.—This was the subject of a paper presented by Dr. A. Graham Reed at a meeting of the Philadelphia County Medical Society, held on April 28th, (*N. Y. Med. Jour.*) Dr. Reed said he had had constructed a copper cylinder having many advantages over those seen in the London hospitals. With this American apparatus he was able to supply and easily regulate hot, dry air ranging as high as 320 degrees F. and even higher from forty to sixty minutes, that being the time allowed for a single treatment. The temperature of the body in some cases remained normal, or nearly so, and in

others varied up to 100 degrees. The pulse varied from 80 to 104, the latter the highest he had yet seen.

The first effect was upon the peripheral circulation and the terminal nerve filaments in the skin. Under the stimulus of the hot air, the cutaneous blood-vessels first contracted and then relaxed, thus causing profuse diaphoresis. The circulation was enormously increased and the color of the skin became a vivid red. Pain and stiffness were greatly diminished, and in time entirely relieved. The anodyne effect was very great at a temperature of 300 degrees and upward. Many preferred it at that height as being so comfortable.

When fibrous articular adhesions had formed speedier relief was found by breaking them up under chloroform and then applying the heat. He had not yet seen any injurious effects from this treatment, but he had seen cripples give up their crutches and useless hands become useful. Pain and effusions had disappeared, and even parts not directly treated had been in a measure relieved.

It was greatly a matter of patience and perseverance, and intelligent appreciation on the part of the patient, and of his or her proper management, attention to diet and daily habits by the physician. Miracles must not be expected; nature took time for her recuperative processes and the patient must be made to understand.

THOUGHTS OF LEADING MEDICAL LIGHTS.—The *Med. Summary* gives the following:

When a woman frequently aborts and no cause can be found, give her anti-syphilitic treatment.—Parvin.

Gynecology is as much surgical as medical practice, probably a great deal more so; and the modern gynecologist who may not handle a knife is very much like the modern soldier who is prohibited from using gunpowder.—W. S. Playfair.

Glycerin has decided power in preventing fermentation in the stomach. —Bartholow.

Chorea that cannot be controlled justifies the induction of abortion.—Lusk.

The increase of tapeworms is attributable to the increased amount of raw and very rare beef eaten.—Bartholow.

It is held that the discharge from jequiritic ophthalmia may infect healthy eyes.—Shoemaker.

One full dose of picrotoxine, 1-40 grain, at bedtime, is sufficient to control the night sweats of consumptives.—Caldwell.

The true use of a porous plaster is to retain the back in its proper position and let the pain crawl out the holes.—A Milwaukee Druggist.

Permanganate of potash as an excitant of the menstrual flow is, I think, the best emenagogue which has yet been discovered.—Thomas.

The obstetric forceps is probably the most life-saving instrument that surgery has ever invented; the only real improvement made in the obstetric forceps since the days of Smellie & Levret is that of Tarnier.—Thomas.

Cold Baths in D. T's.—Lettule (*"Centralbl. fur Ges. Ther.;" Med. News*) recommends as a sedative in delirium tremens a cold bath of 65 degrees F., the patient being immersed in the water to his shoulders, while water of the same temperature is poured over his head. In a severe case in which large doses of morphine subcutaneously and chloral by the mouth had failed to give sleep in two days, and death was expected, a bath of the temperature of 65 degrees F. increased in the first three minutes cyonosis and excitement. In six minutes the aspect of the patient completely changed. His excitement disappeared, he seemed to awake from a dream, asked where he was, drank eagerly two glasses of warm wine, and wanted to sleep. He was placed in bed and immediately fell asleep. The following day, on account of recurring excitement, it was necessary to repeat the bath four times. There was no further delirium and the patient recovered. In a second case it was necessary to leave the patient twelve minutes in the bath, when as suddenly as before there was quiet, thirst and a desire for sleep, followed by complete recovery in two or three weeks.

The Anticipation of Post-Partum Hemorrhage.—Atthill (*Br. Med. Jour.*) expresses the opinion, based upon a long experience, that ergot, given alone or in combination with strychnine, may be taken by pregnant women in the usual doses for a considerable time, with absolute safety to both mother and child. When taken continuously for not less than three weeks prior to labor, it tends to delay the setting in of uterine action. Its exhibition for some weeks prior to the commencement of labor arrests the tendency to post-partum hemorrhage and facilitates the involution of the uterus, thus also lessening the chance for the occurrence of subsequent uterine troubles, many of which depend upon imperfect involution. Employed in this manner, ergot will not bring on premature labor or induce abortion unless uterine action has been previously set going. In cases of threatened abortion such administration of ergot frequently seems to act as a uterine tonic, and in some cases tends to avert the danger of miscarriage, provided the ovum be not blighted. If, however, the ovum be blighted, and especially if it be detached, ergot usually hastens its expulsion.

The Code in Brief.—Says Dr. H. C. Wood, *Med. Age:*—"Consider every member of the profession as one of your own family, and having an inherent right to your medical services, but do not abuse this right: consider any discovery or invention you may make as belonging to the general profession; never in any way laud your own medical skill or attempt to supplant in public or private estimation one of your medical brethren; join as soon as may be the incorporated companies of your fellows for scientific and social intercourse, and for the cultivation of that professional conscience which often binds men more closely than their personal sense of right and wrong: through good and ill report, stand by members of your own profession, unless they be guilty of moral evil."

THE ACTION OF ERGOT ON PREGNANT WOMEN.—Dr. Atthill in the *Bri. Med. Jour.* refers to a number of cases in which he prescribed ergot combined with strychnine for patients in whom he feared post-partum hæmorrhage. It was given some days before labor set in.

It has been, he says, his invariable rule to employ this treatment in all cases in which there was reason to fear the occurrence of hæmorrhage, and the results have been most satisfactory. He states that he has never had occasion to regret its employment, and has never observed any injurious effects on either mother or child, although the ergot was taken regularly for five or six weeks before labor set in. These cases, he thinks, are sufficient to prove to his satisfaction, at least, that ergot, alone or in combination with strychnine, may be taken with absolute safety to both mother and child by pregnant women, in the usual dose, and for a considerable time. When it is taken continuously for not less than three weeks prior to labor, it tends to delay the setting in of uterine action, and does not bring on labor in a case in which uterine action has not already been excited. Its administration for some weeks prior to the beginning of labor arrests the tendency to post-partum hæmorrhage, and facilitates the involution of the uterus.

Dr. Atthill mentions also some cases of threatened abortion in which he used ergot, and states that he now invariably administers it to women threatened with abortion. In summing up the whole subject as to the action of ergot combined with strychnine, he gives the following conclusions as the result of his experience:

1. When administered previous to the termination of pregnancy in the case of women in whom a tendency to post-partum hæmorrhage is known to exist, it tends in a marked manner to prevent the occurrence of hæmorrhage.

2. When so administered in ordinary doses, it does not produce any injurious effects on either mother or child, and it seems to delay the beginning of labor in such cases.

3. It tends to make the involution of the uterus more perfect, and lessens the chance of the occurrence of subsequent uterine troubles, many of which depend for their cause on imperfect involution of that organ.

4. It will not bring on premature labor or induce abortion unless uterine action has previously been set going.

5. In cases of threatened abortion its administration frequently seems to act as a uterine tonic, and in some cases tends to avert the danger of a miscarriage, provided the ovum is not blighted.

6. If the ovum is blighted, and especially if it is detached, ergot usually hastens its expulsion.

OIL OF TURPENTINE IN THE TREATMENT OF ACNE ROSACEA.—O. Betz (*Journal des Praticiens; Medicine*) recommends inunctions of oil of turpentine in this troublesome affection. The value of the drug was discovered quite by accident, as it was given to a patient with bronchitis to rub on the chest. At the same time she was suffering from acne rosacea and rubbed the drug into the affected skin; this was followed by a disappearance of the disorder. Another case of acne rosacea that had persisted for seven years was relieved after a month's treatment.

For Croup: *The Practitioner* gives the following as a favorite mixture:

℞. Liquor morphine acetate.....3 drachms.
Dilute nitric acid.....1½ drachms.
Honey of squill.....4 drachms.
Mucilage gum Arabic.....2½ ounces.
Glycerin.....2 drachms.
Syrup red poppy.....2 drachms.
Cinnamon-and-rose-water to make.....6 ounces.

One or two teaspoonfuls five, six or seven times in the twenty-four hours. The coughing in pertussis may be similarly relieved.

Asthma: Dr. Murray in "Rough Notes on New Remedies" says the following has achieved the happiest results in spasmodic asthma:

℞. Tincture stramonium.....2 drachms.
Ammonium carbonate.....1 drachm.
Sodium bicarbonate.....3 drachms.
Magnesium carbonate.....1 drachm.
Powdered rhubarb.....20 grains.
Chloroform.....20 minims.
Peppermint water, to make.....8 ounces.

Half an ounce to be taken three times a day with an ounce of water.

Having thus secured a temporary lull in the complaint, the patient must be put on a course of arsenic, care being taken to give just as much as the stomach will bear. A good plan is to give Fowler's solution—five drops—with breakfast and dinner, and maintain the corrective dose with stramonium at night.

Menthol in Vomiting: The *Journal des Praticiens* recommends (*Therap. Gaz.*) the following treatment in incoercible vomiting:

℞. Menthol.....2 grains.
Hydrochlorate of cocaine.....4 grains.
Alcohol.....2 ounces.
Syrup.....1 ounce.

A small teaspoonful every half-hour until several doses are taken.

The following may also be used in case of the vomiting of tuberculosis:

℞. Menthol.....4 grains.
Syrup.....5 ounces.

Shake well before using and give two to three teaspoonfuls at short intervals after each meal.

This treatment is an excellent one to follow the use of chloroform-water or ice.

According to Ferrand, in some cases of spasmodic vomiting it is useful to apply the following solution to the pharyngeal wall by means of a cotton compress:

℞. Bromide of potassium.....75 grains.
Glycerin.....2 ounces.

Such an application should be made after each meal to diminish the sensibility of the pharynx.

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[Signed]

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CHARLES G. JENNINGS, M.D., 457 Jefferson Ave., Detroit.
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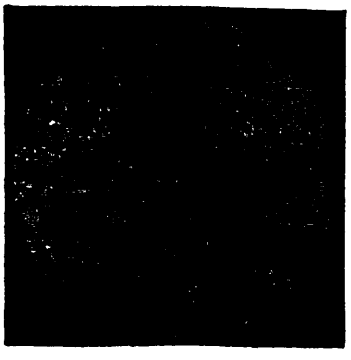

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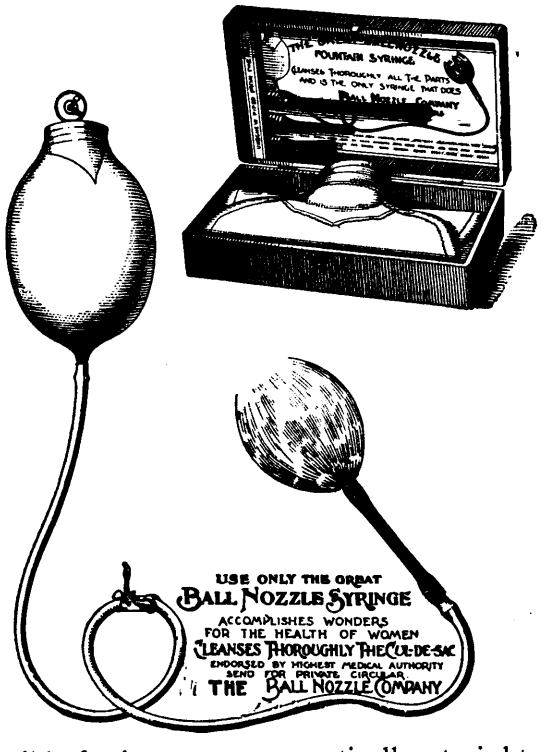

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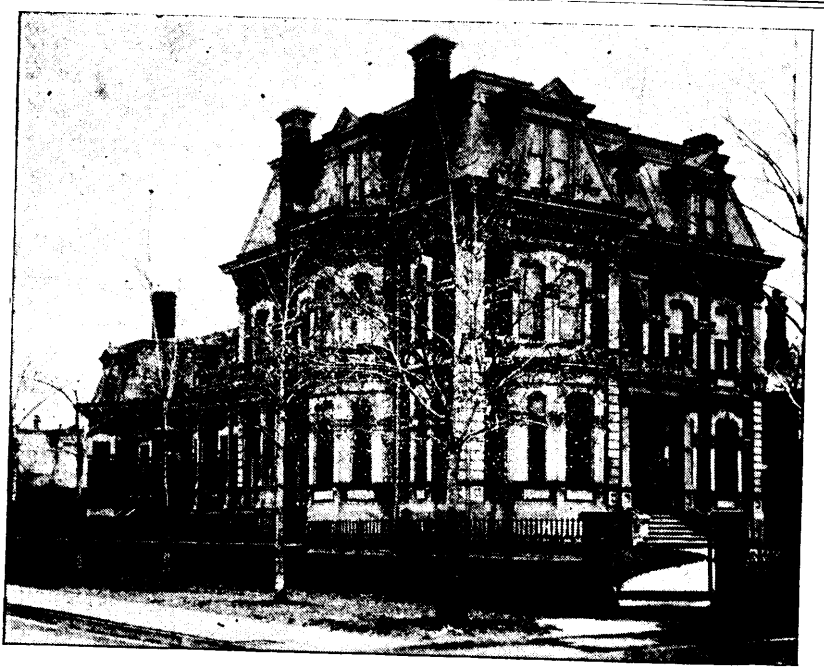

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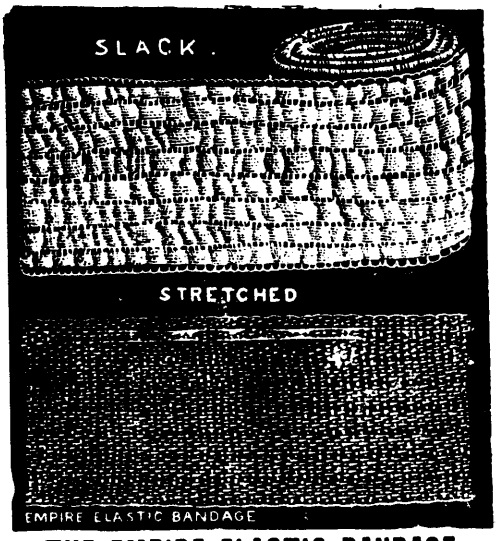

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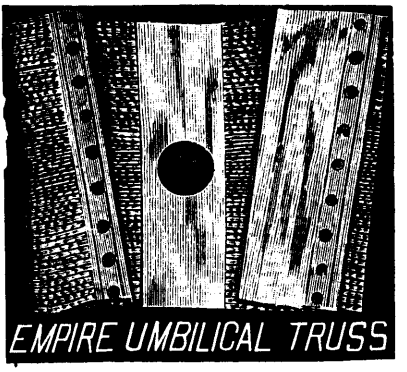

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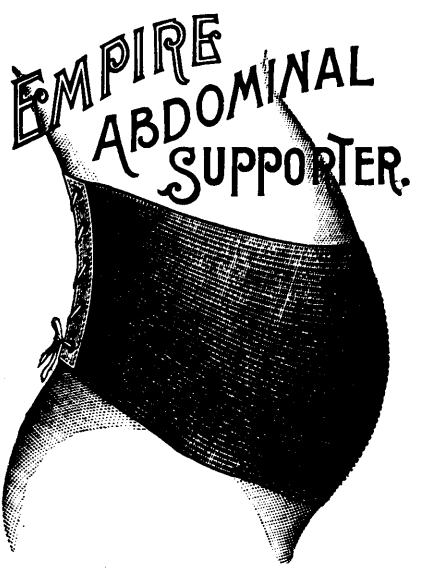

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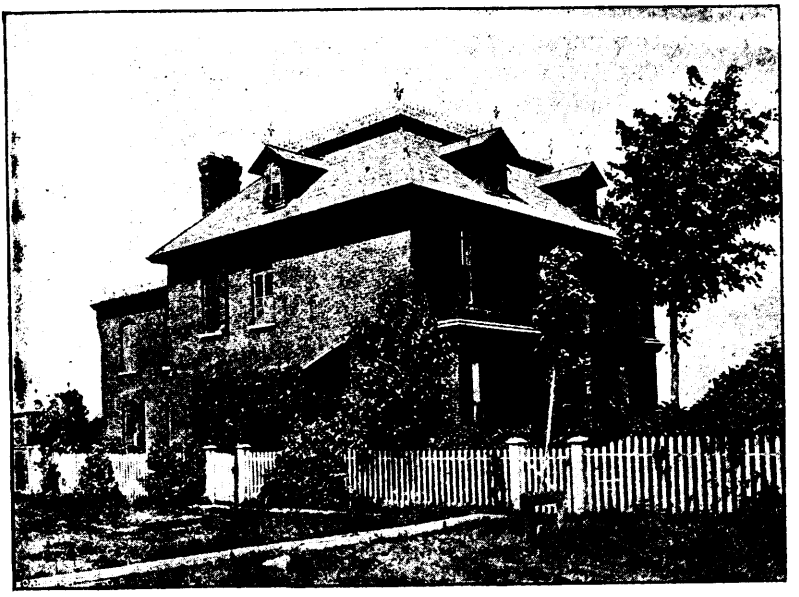

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