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THE

CANADA LANCET

A Monthly Journal of Medical and Surgical Science, Criticism and News.

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Vol. XXIX. No. 4. | TORONTO, DECEMBER, 1896. | Price, 30 Cents. $3 per Annum.

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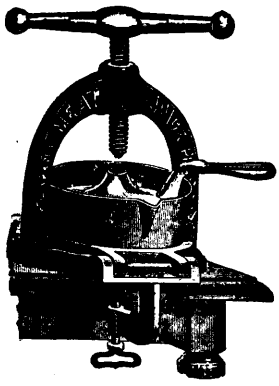
INDEX TO CONTENTS.



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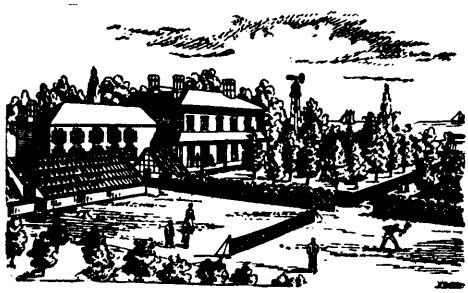

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(DR. LEUTAUD.)

R—Cascarin	¼ gr.	Stillingia	¼ gr.
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Pil: Phosphori cum Nuc. Vom. (Wm. R. Warner & Co.)

℞ Phosphori, 1-50 gr.; Ext. Nucis Vomicæ, ¼ gr.

DOSE.—One or two pills, three times a day, at meals.

THERAPEUTICS.—This pill is specially applicable in **Atonic Dyspepsia**, depression, and in exhaustion from overwork, or fatigue of the mind. **Phosphorus** and **Nux Vomica** are **Sexual Stimulants**, but their use requires circumspection as to the dose which should be given. As a general rule they should not be continued for more than two or three weeks at a time, one or two pills being taken three times a day.

Pil: Phosphori cum Ferri et Nuc. Vom. (Wm. R. Warner & Co.)

Phosphori, 1-100 gr.; Ferri Carb. 1 gr.; Ext. Nucis Vomicæ, ¼ gr.

DOSE.—One or two pills may be taken two or three times a day, at meals.

THERAPEUTICS.—This pill is applicable to conditions referred to in the previous paragraphs, as well as to anæmic conditions generally, to sexual weakness, neuralgia in dissipated patients, etc.

Pil: Phosphori cum Ferra et Quinia. (Wm. R. Warner & Co.)

℞ Phosphori, 1-100 gr.; Ferri Carb. 1 gr.; Quiniæ Sulph, 1 gr.

DOSE.—One pill, to be taken three times a day, at meals.

THERAPEUTICS.—Phosphorus increases the tonic action of the iron and quinine, in addition to its specific action on the nervous system. In general debility, cerebral anæmia, and spinal irritation, this combination is especially indicated.

Pil: Phosphori cum Ferro et Quinia et Nuc. Vom. (Wm. R. Warner & Co.)

℞ Phosphori, 1-100 gr.; Ferri Carb., 1 gr.; Ext. Nuc. Vom., ¼ gr.; Quin. Sulph., 1 gr.

DOSE.—One pill, to be taken three times a day, at meals.

THERAPEUTICS.—The therapeutic action of this combination of tonics, augmented by the specific effect of phosphorus on the nervous system, may readily be appreciated.

Pil: Phosphori cum Quinia et Digital. Co. (Wm. R. Warner & Co.)

℞ Phosph., 1-50 gr.; Quin. Sulph., ½ gr.; Pulv. Digitalis, ½ gr.; Pulv. Opii, ¼ gr.; Pulv. Ipepcac, ¼ gr.

DOSE.—One or two pills may be taken three or four times daily, at meals.

THERAPEUTICS.—This combination may be prescribad in cases of consumption, accompanied daily with periodical febrile symptoms, quinine and digitalis exerting a specific action in reducing animal heat. Patients should, however, be cautioned as to the use of digitalis, except under the advice of a physician.

Pil: Phosphori cum Digital. Co. (Wm. R. Warner & Co.)

℞ Phosphori 1-50 gr; Pulv. Digitalis, 1 gr; Ext. Hyoscyami, 1 gr.

DOSE.—One pill may be taken three or four times in twenty-four hours.

THERAPEUTICS.—The effects of digitalis as a cardiac tonic renders it particularly applicable, in combination with phosphorus, in cases of overwork attended with derangement of the heart's action. In excessive irritability of the nervous system, in palpitation of the heart, valvular disease, aneurism, etc., it may be employed beneficially, while the duretic action of digitalis renders it applicable to various forms of dropsy. The same caution in regard to the use of digitalis may be repeated here.

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Soluble Hypodermic Tablets	Bottle 100 Tab.	Tube 20 Tab.
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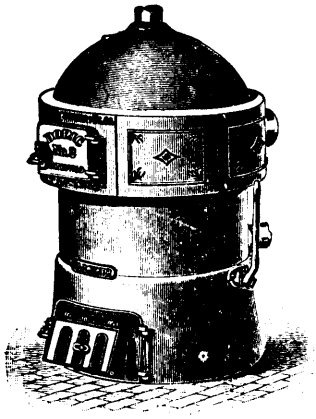
APOMORPHINE MURIATE, 1-20 gr.	60	16
APOMORPHINE MURIATE, 1-8 gr.	1.10	26
APOMORPHINE MURIATE, 1-12 gr.	85	19
ATROPHINE SULPH., 1-150 and 1-200 gr.	30	10
ATROPHINE SULPH., 1-120 gr.	35	11
COCAINE HYDROCHLOR., 1-8 gr.	50	14
CODEINE SULPHATE, 1-8 gr.	70	18
CONIINE HYDROBROMATE, 1-100 gr.	30	10
DIGITALINE, Pure, 1-100 gr.	30	10
DUBOISINE SULPHATE, 1-100 gr.	50	14
ERGOTIN, 1-6 gr.	60	18
ESERINE SULPHATE, 1-60 gr.	80	20
ESERINE SULPHATE, 1-100 gr.	45	13
HYOSCINE HYDROBROM., 1-100 gr.	75	19
HYOSCYAMINE SULPH., 1-100 gr.	40	12
MERCURY CORROSIVE CHLORODIN, 1-60, 1-150, 1-40 gr.	30	10
MORPHINE MURIATE, 1-8 gr.	35	11
MORPHINE MURIATE, 1-6 gr.	45	13
MORPHINE NITRATE, 1-6 gr.	70	18
MORPHINE NITRATE, 1-8 gr.	55	15
MORPHINE NITRATE, 1-12 gr.	50	14
MORPHINE SULPHATE, 1-8 gr.	80	10
MORPHINE SULPHATE, 1-6 gr.	35	11
MORPHINE SULPHATE, 1-3 gr.	60	14

Soluble Hypodermic Tablets	Bottle 100 Tab.	Tube 20 Tab.
MORPH. 1-8 & ATROP., 1-200 gr., No. 1,	$0.45	13
" 1-6 " 1-180 gr., No. 2,	45	13
" 1-4 " 1-150 gr., No. 3,	50	14
" 1-4 " 1-100 gr., No. 4,	60	16
" 1-8 " 1-150 gr., No. 5,	45	13
" 1-8 " 1-100 gr., No. 6,	50	14
" 1-6 " 1-150 gr., No 7,	50	14
" 1-6 " 1-120 gr., No. 8,	55	15
" 1-4 " 1-200 gr., No. 9,	50	14
" 1-4 " 1-120 gr., No. 10,	55	15
" 1-4 " 1-60 gr., No. 11,	60	16
" 1-8 " 1-120 gr., No. 12,	75	19
" 1-2 " 1-150 gr., No. 13,	75	19
" 1-2 " 1-120 gr., No. 14,	75	19
" 1-2 " 1-100 gr., No. 15,	75	19
" 1-2 " 1-240 gr., No. 16,	75	19
NITROGLY. 1-50, 1-100, 1-150, 1-200 gr.	40	12
SODIUM ARSENIATE, 1-30 gr.	30	10
STRYCHININE NITRATE, 1-150 gr.	50	14
STRYCHNINE NITRATE, 1-60 gr.	40	12
STRYCH. SUL., 1-120, 1-100, 1-60, 1-150 gr.	30	10
STRYCH. SUL., 1-50, 1-30 gr.	30	10
STRYCH. & ATROP., No. 1, 1-50, 1-150 gr.	50	14
STRYCH. & ATROP., No. 2, 1-30, 1-120 gr.	50	14
STRYCH. & ATROP., No. 3, 1-60, 1-150 gr.	50	14



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The BOILERS are low in price, economical in the use of fuel, and will burn longer without attention than any other heater.

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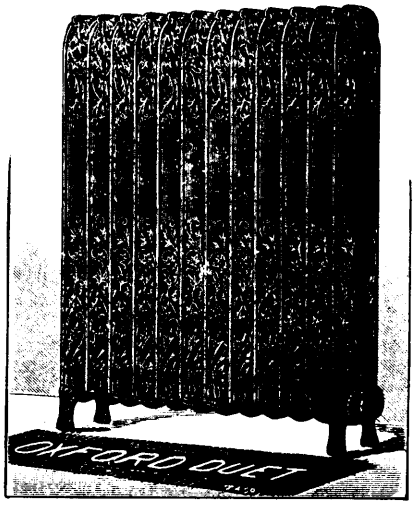

The Gurney Foundry Co., Ltd., Toronto.

The Canada Lancet.

VOL. XXIX.] TORONTO, DECEMBER, 1896. [No. 4.

CASE OF CEREBELLAR ATAXIA.

BY CAMPBELL MEYERS, M.D., M.R.C.S., ENG., L.R.C.P., LONDON.,

Neurologist to St. Michael's Hospital, Toronto.*

As cases of hereditary cerebellar ataxia are still very uncommon, I take much pleasure in presenting this patient to the Association. His history, taken from my case-book, is as follows:—"W. S. consulted me December 24, 1895; æt. 16. He is the only child. Has been attending school until the present. In regard to his family history, his paternal grandmother died at 75 from diabetes mellitus. His maternal grandmother died of consumption, and maternal grandfather from locomotor ataxia. His mother is of a nervous disposition, but is otherwise quite healthy. His father, who is present, enjoys good health, and there is no suspicion of any specific history. I can find no trace of any similar affection among his relatives.

In regard to his previous history, forceps were used at birth, but the labor was not prolonged, nor attended by any serious difficulty. He began to walk early, and no defect in his development or health was noticed until he was three years of age, when he began to suffer from diabetes insipidus, which continues at present. Five years ago sugar in considerable quantity was found in the urine, but disappeared after about three months' treatment. In regard to his present illness, his father says that he first noticed that his gait was affected three years ago, and it has grown steadily worse. His speech at this time was noticed as being peculiar. His general health has been fairly good, except that he suffers from obstinate constipation. The thirst has been extreme, the patient drinking about three quarts of water each night, and he passes about 150 ounces of urine in 24 hours.

PRESENT CONDITION:—Patient is a well-developed boy, and has no noticeable deformity of head or body, except that the arch of the palate is high. The knee jerks are decidedly increased, and there is a moderate ankle clonus on both sides. If either foot is forcibly flexed, and the tendo Achilles tapped with a percussion hammer, trepidation on the foot

*Read before the Canadian Medical Association, 1896.

The first description of this disease published in Canada appeared in the LANCET (January and February, 1894), being a translation of Marie's original article by the author of the present paper.

is set up, which continues as long as the upward pressure is maintained. The reflexes of the wrist and elbow are very active, and the same may be said of the superficial reflexes. Jaw jerk is absent. There is no disturbance of sensibility on any portion of the body. The gait is uncertain and staggering, the feet being placed widely apart. He is unable to start to do anything quickly. On attempting to walk he hesitates for a moment, then starts, walks with uncertainty, and turns around with difficulty. On being asked a question he hesitates an instant and then replies in a slow and scanning manner, the separate syllables all being pronounced. Movements of the muscles of the face are slow, which gives him an unusual expression. The innervation, however, seems equal on the two sides, and these muscles do not remain unduly contracted, nor is undue contracture found in any of the skeletal muscles. His movements generally are awkward. He says, at school boys would poke fun at him because, when laughing heartily, he could prevent himself from falling backwards only with difficulty. He has a certain amount of difficulty in bringing his finger-tips together, with eyes closed. There is some titubation on standing with his feet together, which becomes more marked when his eyes are closed. He cannot retain his balance when one foot is placed immediately before the other, with the eyes open, at once falling sidewise. (Dynam. R. 77, L. 60). No defect in smell, hearing, or taste. Discs normal. Conjunctivæ will bear touch quite well. He says they are tickled. Patient is fairly bright. Urine sp. gr. 1008, pale and clear, no sugar or albumen.

January 4.—Patient's gait is somewhat better. He does not hesitate so long in starting, or stagger so much. Knee jerks same, but ankle blonus less marked.

April 4th.—He jerks not so excessive; no ankle blonus. Tap on tendo Achilles, with foot flexed, does not induce lasting trepidation. Gait much the same. He has had night emissions about once a week recently.

July 20.—Knee jerks and reflexes of upper extremities still very active. Gait unsteady and staggering. Difficulty in standing with feet together still marked, with eyes open, and Romberg's sign is present. Patient has not been attending school since last December, and his general appearance is improved. I am indebted to my friend Dr. Ryerson for a chart of the fields of vision, in which it will be noticed that there is a bilateral contraction in the outer part of the field of vision for white, a more marked concentric contraction for red, and a decidedly contracted field for green. Central color sense is good. There is irregular contraction of pupils. No appreciable heteroproria with phorometer, though the right eye appears disposed to roll upwards. There is slight nystagmus if eyes are fixed in an upward position.

In regard to the pathological anatomy, the only autopsies I have been able to discover were those of Fraser and Noune. In both these the striking feature is atrophy of the cerebellum. In Fraser's case it weighed only 81 grammes, and in that of Noune 120 grammes, or a loss of more than quarter the normal weight, which is from 150 to 170 grammes. Fraser states that the only change is in the grey cortex of cerebellum,

which is much reduced in amount. The white matter is normal in quantity. The microscope shows alterations in the cells of Purkinje, and in many places their entire absence. In both cases above mentioned the cord showed no changes under the microscope. The diagnosis from Friedreich's disease is easily made if we follow the example recently given by Brissaud in a case resembling this disease, as he eliminated it at once on account of the exaggeration of the reflexes. In addition to this, however, we have bilateral contraction of the field of vision, on which Marie lays so much stress; further, an absence of cypho-scoliois and of talipes, both of which are very common in Friedreich's disease. Hence, I think this case must be placed with those described by Marie as forming a distinct group, which he has named hereditary cerebellar ataxia. The diminution in the excess of the reflexes is another point in favor of the purely cerebellar form of the case in question, since had the excessive reflexes been due to a sclerosis in the pyramidal tracts, for example, no diminution in their intensity would have taken place.

In regard to heredity, except for the fact that the maternal grandfather died of ataxia, there is nothing worthy of note, and any tendency for ataxia to have been transmitted in this case was through the mother, which, moreover, is the usual channel. As he is the only child, it is necessarily impossible to discover any familial traces of degeneration, and I cannot learn of any similar affection in any cousins.

The polyuria is an interesting feature of the case before us. Erb has recorded it in one of his cases of Friedreich's disease, but I am not aware that the autopsy on this case has been published. That the patient's paternal grandmother died of diabetes mellitus is worthy of note, especially in view of the recent contributions of Prof. Ebstein on diabetes and epilepsy.

A CRITICAL REVIEW OF THE MODERN METHODS OF OPERATION FOR THE CURE OF INGUINAL HERNIA.

BY J. COPLIN STINSON, M.D., C.M., SAN FRANCISCO.

During the past few years so much has been written on the operative treatment of hernia, that further discussion would seem superfluous. In the face of all this discussion, one sees this surgeon performing by a method of operation which is incomplete, that surgeon by a method which involves the principle of cicatricial tissues forming a barrier, another introducing extraneous substances, another displacing and disarranging the structures, and still another employing an operation which restores the structures durably to their normal positions, rélations and uses. In earlier papers I reported eighty-five cases of inguinal hernia in which radical operations were performed, gave an analysis of the cases, stated the methods employed and the results obtained. Reviewing the various methods, the question arises: Which is the best to adopt? We can only arrive at the best conclusions on this matter by reviewing these several methods, keeping in mind that the point to determine the choice is, which method restores

the structures most durably to their normal positions, physiological relations and uses.

I shall review the following methods:—Bassini's, Halsted's, Koeher's Macewen's, and the operation I have described and used successfully a number of times.

Bassini's and Halsted's methods are so nearly identical that they may be taken together. Both these operators displace the cord from its normal position, and form new rings and canal. Bassini transplants the cord to the upper angle of the dilated internal ring, near the anterior superior spine, the cord finding its way down beneath the aponeurosis of the external oblique, between the two layers of buried sutures. Halsted displaces the cord two centimetres nearer the anterior superior spine, between the edges of freshly cut muscles, the cord finding its way down beneath the skin between the layer of buried and the skin sutures. Halsted also excises in the canal what he designates as superfluous veins of the cord.

In both of these operations, the cord, on account of being displaced, is shortened and on the stretch; from its pathological relations it is subject to pressure, muscular contraction, and adhesion from the internal to the external ring. Thus the functions of the vessels, nerves, and cord proper may be interfered with by pressure on abnormal position of, or adhesion to, surrounding structures; and following these operations there may be swelling, tenderness, or inflammation, etc, of the cord, and swelling, tenderness, inflammation, sloughing, hypertrophy, or atrophy, etc., of the testicle. Thickening and swelling of the co d I have frequently seen follow Bassini's operation. The cord is put on such a stretch that it is subject to the continuous traction of the bladder, on the one hand, and the testicle on the other. There is no doubt with this traction, aided by gravitation, that eventually the cord will find its way back to its normal position, next to the pubic bone. Disturbances of the bladder, scrotum, and their contents, frequently follow these operations. No immediate, and very little remote, benefit is derived by excision of veins of the cord in the inguinal canal, as it does not materially reduce its bulk at the internal ring where the breach first occurs. The higher the cord and internal ring are displaced the nearer they are to parietal peritoneum, intestine, omentum, etc., and thus by contiguity relapse of the protrusion is favored.

The neck of the sac should not be twisted or ligated. The ligature is liable to slip off, and in tying the knots, a piece of intestine or omentum may be included, giving rise to obstruction, adhesion, etc.; it also leaves a pouch in the peritoneum and causes puckering of the serosa, which favors the formation of adhesions between the parietal and visceral layers.

A single layer of buried sutures, or two layers of such sutures with the cord interposed, is very objectionable. The edges of the different layers, not being brought accurately together, overlap, become irregularly matted and adherent to one another, and thus the union that results is weak and evanescent. Halsted has a greater number of relapses than Bassini. This is easily explained, as he transplants the cord higher; and while the latter uses two layers of buried sutures, the former uses one only. The deeper layer forms a wall, while the other layer is an additional barrier.

The following cases confirm the above statement:—

Halsted reports in the *John Hopkins' Reports*, May 15th, 1895, Atrophy of the testicle in three of his cases following his operation. I have notes of a case operated upon by Halsted's method. The patient, a male nurse, was admitted to the N. Y. Post-Graduate Hospital with a mild urethritis and painful testicle, while I was house-surgeon. Examination showed a marked recurrence of the hernia, and, on the same side, the cord thickened and tender, and the testicle enlarged and inflamed. The cord and testicle of the other side were normal, and did not subsequently become involved. Under treatment the urethritis got well, and the pain and tenderness in the testicle subsided. When he was discharged from the hospital, there was marked thickening of the cord and enlargement of the testicle.

W. B. Coley, in the *Am. Journal of the Medical Sciences*, May, 1895, reports a case of orchitis which terminated in suppuration and required incision, following a Bassini operation. Prof. W. B. De Garmo, in a clinical lecture at the N. Y. Post-Graduate School and Hospital (reported in the *N. Y. Post-Graduate Journal*, Sept., 1896), showed six patients operated on by Bassini's method, and, in giving their histories, etc., stated, that in the 1st case shown, "there were no adhesions in the sac; 48 hours after the operation the patient was passing but little urine, the bladder was much disturbed, a trochar was introduced, and with difficulty 36 oz. of urine were drawn off. Later, Dr. E. Fuller opened the bladder through the perineum, and introduced a tube which was kept in 10 days.

In the 2nd, "A double inguinal hernia, the patient had a marked œdema of the scrotum on the right side. I have shown the case to you because it is not fair to show all cases that are good, and not bad."

In the 3rd, "After the operation there was an enormous œdema of the scrotum and penis. There is still some enlargement of the testicle, and he will have to wear a suspensory on account of it."

In the 6th, "The testicle was at the external ring; the cord was made shorter by the Bassini operation, and the testicle sloughed off, and another operation had to be done for its removal."

G. M. Brewer, in the *Am. Med.-Surg. Bulletin*, Feb., 1896, "On a report of the condition of the parts found upon autopsy, six weeks after a Bassini's operation," stated that "A certain amount of induration was felt for some time over the course of the spermatic cord, extending to the testicle. This, however, was not specially tender to the touch. The portion of the peritoneum lining, the inguinal region, showed a slight puckering near the internal abdominal ring. The skin and subcutaneous tissue were found moderately adherent to the aponeurosis of the external oblique: the vas deferens, spermatic artery, and a number of veins, were traced upward, through the artificially-made internal ring, and downward into the scrotum, becoming more united and, apparently, bound together as they approached the testicle."

This is not an extended report from all the literature of the day, and I have not written any operators for reports of cases. I do not think it necessary, as the cases I have cited are sufficient in themselves to show that these methods, like that of McBurney, are illogical and unscientific, and should also be abandoned. The principles are false in theory, and

the number of relapses and deplorable symptoms which follow prove them to be no longer justifiable in practice. When relapse does occur, the complications are so severe that no truss can be worn with any degree of comfort.

A possibly cured hernia, a displaced, thickened, painful and adherent spermatic cord, and a hypertrophied or atrophied testicle are a most lamentable combination.

The methods of Koeher and Macewen are sometimes used, but both are open to so many objections that they are not used frequently at the present time. These operations are incomplete, as the canal, internal ring, and other deep structures are not exposed. Koeher himself states that his method can only be used when the sac is not too large or its walls too thick. The aponeurosis and the other structures are bruised during the manipulations of the sac. A great amount of damage is done working through the small slit in the aponeurosis of the external oblique. The sac should not be twisted, tied off, and anchored superficially to the external oblique, or at any other place, nor should it be infolded and anchored as a plug in the canal and internal ring. I have already stated the objections to tying off the sac. Twisting the sac has the same objections, and, in addition, as Koeher himself states, is liable to cause sloughing. Anchoring the sac fixes its neck, forms a cone in the peritoneum, into which bowel, omentum, etc., slip, and the cone, by the constant pressure of a protrusion from behind and within, is converted into a wedge, which by opening the rings and canal will be followed by a relapse of the protrusion. The infolding of the sac into a pad or truss which is placed in the canal and internal ring favors relapse; pathological material, which nature has thrown off, is returned to the abdomen. A pad or truss making pressure over the internal ring from the outside is very seldom curative, and is bad enough; but a pad or truss in the canal and internal ring is worse, as it serves to keep the internal ring and canal open, and, being acted upon by the pressure of the diaphragm transmitted through the intra-abdominal contents, serves to further reopen the canal and rings.

In fact, neither of these operations fulfils any of the indications for a radical cure; the suturing of the rings and canal is incomplete, and none of the structures are restored to their normal positions, relations and uses.

In the operation I have described and used successfully a number of times, the incision is made from the external ring to one-half an inch above the internal ring parallel with and about half an inch above Poupart's ligament. It divides the skin, subcutaneous tissues and the external oblique aponeurosis; the cut edges of the latter are lifted and freed from the structures beneath till the outer border of the rectus and the shelving edge of Poupart's ligament are clearly seen. The sac is isolated, and cleared of its contents, removing all altered omentum; next, the sac and the peritoneum continuous with it are removed as high as possible, and the cut edges of serosa closed with continuous suture (supra correction of the peritoneum at the internal ring). The rings and canal are cleared of all masses of fat, glands and adhesions, and all such masses which bulge into the internal ring from the subserous tissue are also re-

moved. Any markedly varicose veins of the cord are excised high up within the internal ring. The internal ring—an opening in the transversalis fascia—is sutured from above downward, leaving only sufficient room close to the pubic bone for the cord. Reinforce the internal ring, and close the canal by suturing the internal oblique and the transversalis and their conjoined tendon to the shelving edge of Poupart's ligament, leaving only room enough next to the pubic bone for the cord. The cut edges of aponeurosis are sutured. The skin closed without drainage.

STITCHES.—For uniting the different layers continuous stitches may be used. In my last five cases I have used with advantage a continuous stitch described by C. Ford. I used the first half of this stitch only for closing the peritoneum, the internal ring, the cut aponeurosis and the skin; but for reinforcing the internal ring and closing the canal I used it complete. In an earlier paper on the operative treatment of femoral hernia I described this stitch.

SUTURES.—Chromicized tendon is the most suitable material for a buried suture, as it is non-irritating, and not absorbed for two or three months.

DRESSINGS AND AFTER TREATMENT.—Bichloride of mercury gauze held firmly in place by long adhesive strips, then a layer of cotton and firm spica bandages.

Dress the wound on the seventh day, or earlier if there are indications. In removing strips pull the ends toward the wound, so as not to pull the skin edges asunder; apply gauze, etc., as before. Keep the patient in bed two weeks, or longer if possible. If primary union is not obtained, do not allow the patient out of bed till cicatrization is complete. The firm bandages are removed one month after the operation, when the patient is allowed to go without any pad or truss.

When the adhesions between the sac and cord are firm, open the sac first. This saves time, as the limitations can be more readily defined, and the adhesions more easily and quickly separated.

In removing the peritoneum continuous with the neck of the sac, usually about one and a half inches of the serosa can be readily drawn down and removed.

In removing omentum it is perfectly safe to tie the vessels only. This does away with numerous and mass ligatures, omental stumps, and lumps of fat constricted by ligatures. To insure them from slipping off, use the "fixation" ligature. The vessel to be tied is defined by spreading out the omentum, and a needle carrying the ligature is passed around the artery by piercing the tissues of the omentum surrounding the vessel. The catgut is tied, using a reef knot, and the vessel severed beyond the ligature.

The operation I have described I consider fulfils all the indications and overcomes the objections to the methods hitherto described.

The lifting and freeing of the aponeurosis of the external oblique exposes well the deeper structures, which later on by this free dissection are brought accurately together without tension, to close the gap in the abdominal wall. Supra correction of the peritoneum at the dilated internal ring causes total obliteration of the sac, strengthens the serosa by

converting its outer surface from a convex to a slightly concave surface, carries the former location of the sac high up within the abdomen, away from the internal ring and the spermatic cord, and leaves a smooth surface, which allows of the free movement of the intestines over its surface. It is better to over-correct, as the peritoneum is sure to relapse a little. Very seldom will it be necessary to excise veins of the cord. After the removal of the sac, etc., the veins in a short time resume their normal size. When there is a markedly varicose condition of these veins, their excision when performed high up within the internal ring is followed by good results, as it reduces the size of the cord above the internal ring and canal, on this account the ring and canal can be made a little smaller. The clearing out of the rings and canal, and removal of all masses which bulge into the internal ring from the subserous tissue, remove the material, which by keeping the rings and canal open would favor a return of the protrusion. Placing the spermatic cord at the lower angle of the dilated internal ring, close to the pubic bone, restores it to the normal position, where it is not subject to pressure or in any other manner interfered with. It hugs the pubic bone, whence it passes down to the base of the bladder. It is absolutely unnecessary to form a new internal ring. The suturing of the ring, as I have described, restores it durably to the normal size. The lower the internal ring and the spermatic cord are placed the further they are away from parietal peritoneum, intestine, omentum, etc., and thus not likely to favor a relapse. The closure of the internal ring is the most important step of the operation; most of the success depends upon the accurate suture of this opening in the transversalis fascia, as it is at this ring that the breach first occurs. This layer of sutures forms a firm wall, while the other layers closing the canal and external ring (leaving only sufficient room for the cord close to the pubic bone) reinforce it and form additional barriers against a relapse of the protrusion. Each of the layers is sutured separately, as it is by this means alone that the different layers can be accurately approximated, and thus firm and lasting union results.

CONCLUSIONS.—From a study of the cases I have reported and cited, and comparison of the methods used by various surgeons, I can only draw the following conclusions:—

1. That the operation I have described fulfils all the indications for a radical cure.
2. That it has all the advantages of the other recent methods, but none of their disadvantages.
3. That, as it has many additional advantages, it should be followed by the best results.

326 Kearny Street.

REMOVAL OF BLOOD STAINS.—The best way to remove blood stains, says the *Centralblatt f. Gyn.*, is to soak the towels, etc., in warm water to which a teaspoonful of tartaric acid has been added. No soap is needed.

SURGERY.

IN CHARGE OF

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BRAIN SURGERY AND OPERATIONS BASED ON CEREBRAL LOCALIZATION.

BY JOHN W. ROBERTSON, B.A., M.D.,

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CEREBRAL ABSCESS.—To diagnose an abscess of the brain is always difficult, and the focal symptoms are usually so slight that localization is impossible except when this condition is the result of an aural inflammation.

Yet one of the most common operations is to lay bare the brain and introduce aspirating needles for the purpose of locating the abscess. When the abscess is found and drained, even though death results, we yet feel that it was scientifically accomplished and worthy of report. A few successful cases have been recorded, but in the great majority the fatal termination is only hastened.

FRACTURES OF THE SKULL.—In recent fractures of the skull surgical interference is often desirable. The old fear of converting a simple into a compound fracture has, under aseptic precautions, disappeared. Injury to the tissues and a fracture of the bone already existing, no additional injury can, as a rule, be done by making an exploratory incision. This is especially true of penetrating fractures and those occupying a limited area, but when the injury is great, and especially when there is no reason to believe that there is a counter-fracture, with injury to the brain substance, interference is not advisable. Very often a blow upon the skull, though not sufficient to produce fracture, may rupture a blood-vessel, usually a branch of the middle meningeal, and, if the symptoms be sufficiently marked to render certain the diagnosis, trephining is always- indicated. If the fracture is of ancient date it should not, as a rule, be interfered with. Many insanities and epilepsies are traced to injuries received either in childhood or antedating by a length of time the development of the neurosis. If the symptoms were not so marked at the time of receiving the injury as to call for operative procedure, it is seldom good policy to disturb existing relations.

TUMOURS OF THE BRAIN.—The possibility of localizing brain tumours, and operative measures for their removal, have been more fully discussed

than has any other of the practical questions which have arisen in the discussion of cerebral localization. It is the common ground on which the surgeon and neurologist meet, and it has been made the crucial test of the truth or falseness of the theory. The surgeon demands directions so specific as to accurately place the trephine over the growth,—not accomplishing which, the operation will be a failure, at least from his standpoint. While the text-books assert the possibility of thus accurately defining the brain area, and the few cases where this has been accomplished have been so widely published as to engender faith in its possibility, we who attempt this and, after most careful consideration, either refuse to attempt localization or hedge our opinion with many reservations, know that at best localization is uncertain. Were tumours always encapsulated and situated on the cortex and in the Rolandic region, they would be much more easily localized and removed. But, as a matter of fact, it is difficult either to locate their position or to even name the kind of tumour that we will find.

As tubercles, they may simply irritate; as sarcoma they may attack connective tissue wherever found: or, as glioma, they may involve and become a part of the brain substance itself. Though a brain tumour may be present, it is not necessarily easy of diagnosis, and frequently the post-mortem gives us the first intimation of a condition which had been supposed to depend on a lesion in some other organ.

But granting their easy diagnosis and the fact that they could be unerringly located by the focal symptoms they produce; suppose even that the cathode ray, so long an electrical toy, should accomplish the wonders for the brain that it is said to have done for the bones,—it is still doubtful whether the surgeon would have any right to interfere with these morbid growths. Take tubercles, for instance, which compose a large percentage of the tumours found in the young: What benefit could result in the removal of one or two, when they may be diffused over the whole brain? The same can be said of gumma due to syphilis.

In both conditions the tumours are the result of a systematic disease, and it is the system, not the morbid product, which is to be treated.

Sarcomas and gliomas, by the very nature of their origin and surroundings, cannot be successfully removed.

Encapsulated tumours, situated on the cortex, are but rarely found and still more rarely diagnosed. Dana says that not five per cent. of tumours, are removable; and when it is remembered that these include gumma, tubercles, and sarcoma the practical results are *nil*. Thus it seems that little is to be expected from surgical interference based on any aid that cerebral localization may furnish.

Certainly in not one out of a hundred cases can anything like a scientific opinion be expressed. Speaking broadly, the only benefit which can arise is that oftentimes trephining on any portion of the brain does for a time relieve the pressure symptoms. To cut down on the brain simply because a tumour has been located is only to be recommended when it has for an object the relief of pressure. For this purpose it is not necessary to trephine absolutely over the morbid spot in order to give relief.

CRANIOTOMY.—In the year 1890, LANNELONGUE, a French surgeon, believing that congenital idiocy was due to the early closure of the fontanels, advocated a new operation to overcome this fault of nature. He advised the removal of two strips of bone on either side of the sagittal suture extending from the forehead to the occiput. His theory was that, by giving greater room for brain expansion, mental power would be notably increased. His theory was eagerly accepted, and the usual claims put forward through the medical journals. Many deaths have resulted, and little mental improvement has been noted in those who have survived the operation. As a matter of fact idiocy is not the result of, nor is it usually accompanied by, unduly early closing of the fontanels, the lesion producing this mental condition being so widespread that linear craniotomy could not materially influence this disease.

EPILEPSY.—Surgical claims for the cure of epilepsy are so persistently put forward and stoutly maintained, and appear in such devious and plausible guises, that it would seem that no case has been properly treated unless the eye muscles have been subjected to tenotomy, the turbinated bones of the nose excised, the ovaries removed, or the skull trephined. All kinds of operative procedures have been recommended for its cure. As a matter of fact, any operation that acts on the mind of the patient may for a certain length of time result in benefit. The pathology of the disease is not known, its ætiology is in nearly all cases heredity, and in the great majority no cure is possible. In both epilepsy and insanity the patient's condition is generally accounted for by a fall upon the head or some other trumatic injury to the brain. All heads are full of lumps and depressions, and, when these are subjected to a person of strong imagination, pathological changes are easily diagnosed. If an operation be based on this and the skull be trephined, a temporary benefit may result, whether or not the slightest change is found. But this improvement is only temporary, and the last condition of the patient is worse than the first. That epilepsy may follow a blow and be directly caused by the resulting pathological change is not denied.

When this causative relation can be clearly established, and the injury is recent, trephining is always indicated. But if years have elapsed, and the brain has been accustomed to its new surroundings, the meninges, as well as the brain, will have undergone such pathological change that no operation can benefit. Conservative surgeons no longer claim epilepsy, with general convulsions, as properly within their province. The so-called Jacksonian epilepsy, involving one of the extremities or group of muscles, which is supposed to be produced by a cortical lesion, may be considered from a surgical standpoint: yet we know little more of the pathology of this form than of *grand-mal*. Because the hand, leg, or arm is involved, it by no means proves that there is a tumour in the corresponding area of the cortex.

Beyond all question, we have rushed into the field of brain surgery to a far greater degree than can possibly be justified. Aseptics have rendered us reckless in this as well as in other fields, but the results are far more disastrous. Other organs can be opened, and an exploratory incision will, in time, heal, leaving the parts but little the worse for interference.

But in trephining the brain, permanent injury is often sustained. The surgeon, cutting down on the brain, opens the meninges and creates an artificial apoplexy and a temporary inflammation which may subside, but which always leaves a scar. Occasionally a hernia cerebri develops; but when neither this nor any other appreciable lesion results, yet the brain is so delicate an organ that it is often deleteriously affected. Surgeons tell us that the button of bone can be replaced and reossification established.

This may happen, but as a rule it does not happen, and the brain, in place of its bony covering, has simply a fibrous membrane for its protection. Epilepsy, as well as other disturbances of the nervous system, not infrequently results.

CONCLUSION.—Summarizing the whole subject, it can be positively asserted that, by the very nature of the investigation, cerebral localization can only in exceptional cases be of material assistance to the surgeon: that the trephine may be used to elevate a depressed fracture, check a traumatic hemorrhage, or remove the pressure symptoms of a tumour, and that great care should be exercised lest injury may result, which will counterbalance any hope for success.—*Am. Med.-Surg. Bulletin.*

REPORT OF CASES IN ABDOMINAL AND PELVIC SURGERY

BY A. H. CORDIER, M.D., KANSAS CITY, MO.

GASTRO-JEJUNOSTOMY WITH THE MURPHY BUTTON.—A man, aged sixty-six, some eight years ago had an attack of hepatic colic lasting several hours followed a few days later by a jaundice persisting three or four weeks. He soon regained his former good health, and remained so up to two years ago, when he had another colic attack, not so severe and not followed by jaundice. One year ago he began to have more or less pain in the region of the stomach; or rather, as he termed it, an uneasiness after eating. After two or three months of this uneasiness, he began losing flesh and had occasional vomiting spells. No blood was vomited at any time. At the time I first saw him, March 1, 1895, he had not been able to digest or retain much solid food for several months, and was greatly emaciated from his former weight, two hundred and forty pounds. He now weighs only one hundred and thirty pounds. His appetite was fairly good, and liquid nourishment was taken with relish and fairly assimilated. Solid food caused pain and nausea until relieved by vomiting. On examining him, I found that he was greatly emaciated, had a "swarthy" look, not exactly that of a malignant cachexia. Pulse and temperature were normal. Examination of the abdomen revealed a greatly dilated stomach, and its peristaltic action could be plainly seen through the parieties. It was painful on pressure only in the region of the pylorus; here an unnatural sense of resistance could be distinctly made out, covering an area about as large as the palm of the hand or smaller.

A test meal examined revealed an absence of hydrochloric acid. A diag-

nosis of a malignant stenosis of the pylorus was the most acceptable theory to me, yet a non-malignant stricture had been made out by a good diagnostician before I saw the case.

A tonic of strychnine and iron was given, and nutrient enemas were ordered four times in twenty-four hours. Under this regimen he gained eight pounds in a month.

A median incision four inches long was made, extending downward from one inch below the the xyphoid cartilage. A loop of jejunum was pulled into the incision. After pushing the omentum to the left, a "puckering-string" stitch was put in the convex surface, the gut was incised, and one-half of the Murphy button—the larger piece (one inch in diameter)—inserted. The stomach was pulled into the incision and a similar opening was made in its anterior wall about four inches from the pylorus, and the other half of the button placed in position and securely fastened by pushing the two halves together. The approximation was perfect. A running Lembert stitch was put in on one side to give additional security against any accident that might occur from vomiting; besides, the walls of the stomach were thickened from long and constant peristalsis. The patient left the table with a pulse of 90. He vomited for the first time, ten hours after the operation, a large quantity of bile being thrown up. Two days later he had a similar attack of vomiting. The bowels moved on the second day. There was no distension at any time.

On the twelfth day I could feel the button distinctly, near the tenth rib. It was freely movable and had evidently completed its work and left its moorings at that time. Eggs, milk, ice cream, soft toast, rare beef-steak (chewed and the juice swallowed) formed his dietary at the end of two weeks.

On March 1, 1896, the man had not found the button, but wrote me that he thought it had passed some time during his three weeks' stay at the hospital. He has continued to gain in weight and strength, is free from pain, vomiting, or other symptoms pointing to malignancy, and I trust that my probable diagnosis of malignancy may prove to be wrong. —*Med. Record.*

THE TREATMENT OF CARBUNCLES.

BY THOMAS PAGE GRANT, M.D., LOUISVILLE, KY.

On Thursday afternoon, Mr. L—— came to my place suffering with a carbuncle on his neck, which he said had been coming on for three days, and that he "waited for it to get ripe" before consulting me. Having suffered from this worst of all furunculous tumors, he was not a little anxious and somewhat depressed, as he had an important business trip arranged for the next week, and he was especially anxious for a speedy recovery. On removing the dressings from his neck I found an induration about two inches in diameter covered with pus; on cleaning it off there were brought to view six postules in a space about three-quarters of an inch in diameter; these postules were oozing a thick pus, and I was satisfied that my patient was in for a siege with one or more carbuncles,

as there was a number of other postules on his neck which looked bad, to say the least.

Taking a knife I made a free incision across the top of the carbuncle; after evacuating as well as I could I washed it out with a solution of carbolic acid, about three to five per cent After this, with a pair of dressing forceps I removed all the broken-down tissue I could, a plan which I have found to be of great service in many cases of carbuncles, as thereby whole colonies of micro-organisms are taken out that otherwise would increase and multiply until thrown off by suppuration. Having cleansed the wound thoroughly, I packed it with dry protonuclein special; after which I applied a poultice of flaxseed meal, on which was a teaspoonful of fluid extract of eucalyptus globulous.

As a tonic I ordered:

℞ Elix. Ferri, Quiniæ, et Strych. Phosphat., ℥ jv.

Sig. A teaspoonful three times a day.

The local treatment was repeated for two days when the poultice was left off and instead this ointment was used.

℞ Sebi ovis } aa ..... ℥ ij
Ol. oliv. }
Ceræ flava ..... ℥ ss
Zinc. oxid ..... ʒ iij
Ext. eucalypt. glob ..... ʒ j
Acid carbolic ..... grs. c

M. Fiat. unguent. Sig. Grant's Comp. Zinc Ointment.

I continued to wash the wound with the dilute carbolic acid and pack it with the protonuclein; this dressing was renewed twice daily. So rapid was the recovery that on the following Monday evening the wound was healed and the induration was almost entirely gone, and I dismissed the case with directions that he keep a dressing of the ointment on the seat of the carbuncle for several drys to protect the tender skin.

In an extensive and moderately successful experience—both personal and professional—with carbuncles, I have never seen a more threatening outlook for a serious carbuncle, nor one so quickly and satisfactorily cut short as in this case; and I am of the opinion that the results in this case are far ahead of the old-fashion treatment of poultices alone, or the more modern injection of methyl violet, or the treatment much extolled of late, of total extirpation and curetting, which leaves a great gaping wound to be filled up by granulations and skin grafts, or to become an open ulcer followed by ugly scars. I am free to say that I am convinced that the success in this case is largely due the use of protonuclein, as with the same general line of treatment, which has been the very best I could find, I was never able to cure a carbuncle under two weeks, whereas in this case it was cured as quickly as a simple wound would have been.—*The Int. Jour. of Sur.*

SURGICAL HINTS.

An exploratory operation is often of value, but it is very seldom that an operation of any kind is not more or less of the "exploratory" variety.

The cleverest diagnostician may err as to important particulars. It is our duty to make every effort to know the disease we are fighting; to discover the enemy's position and estimate his strength before advancing to the attack.

Iodoform is a very useful drug which nothing has been able to replace, but it must not be forgotten that it may be a local irritant and a systemic poison. Acute constitutional iodoform poisoning occurs much more easily by absorption from fresh wounds than by absorption from granulating surfaces. A quick small pulse, with dilated pupils and slight elevation of temperature, is a combination of symptoms which, occurring within thirty-six hours of an operation where iodoform has been used, should lead us to suspect the drug intoxication. Delirium, icterus, and a roseolar general eruption make the diagnosis almost certain. At the first symptoms all iodoform should be removed from the wound and the elimination of the poison by diuresis should be encouraged, at the same time nourishing and stimulating the patient. Fortunately this condition is rare, but when once seen can never be forgotten.

In cases of fracture at or near the elbow avail yourself of the X-ray, even when you believe your previous diagnosis absolutely correct. You will often see something which will disagreeably surprise you, and if the examination has not been put off till too late, you may correct a faulty position of bone fragments which has been concealed by the swelling of the soft parts.

The old-fashioned block tin catheter is too valuable an instrument to go into disuse. It may be bent to any desired curve, and will often pass a prostatic obstruction which disputes the right of way with all the soft instruments at our disposal. This catheter is far safer than the woven instrument with stylet, because it can be sterilized by boiling and its curve can be more accurately set.

Uncontrollable vomiting after an intra-abdominal surgical operation is usually a sign of interference in the circulation of a vital organ. Its presence is far more ominous than an abnormal pulse, respiration or temperature, and when it has persisted for more than twenty-four hours without any abatement, the idea of reopening the abdomen should be entertained with the hope of relieving some internal strangulation or tension.

Most cases of acute cystitis set up by the decomposition of residual urine—a very frequent cause of this complaint—may be cured in a surprisingly short time without washing the bladder and without internal medication, simply by drawing every drop of urine by catheter once every three hours. The catheterization must be done punctually day and night whether the patient urinates or not. Five minims of oil of winter-green twice daily, and the ingestion of a gallon of water every twenty-four hours, will contribute to the cure and will greatly hasten it.

Acute general sepsis in a robust young person may be favorably influenced by venesection, withdrawing about fifteen ounces of blood, and by following this with the infusion of about a quart and a pint of normal saline solution either into the vein or by high enema. This not only

withdraws a certain amount of poison from the system, but the infusion often causes the clogged kidneys to act and go on with their work of elimination. In feeble individuals the intravenous saline infusion without previous blood-letting is of value. Here we get the diuretic action of the fluid, and at the same time we dilute the whole bulk of the patient's poisoned blood, probably reducing its toxic effect upon the vital nerve centres.—*Int. Jour. of Surgery.*

FLOATING KIDNEY.—Dr. E. Walker (*Cinc. Lancet-Clin.*) reports a case of floating kidney containing three dermoid cysts and several agglutinated cysts, treated by laparotomy, with recovery. His conclusions are as follows:

1. A distinction ought to be made between the terms displaced, movable and floating kidney.
2. Floating kidney, although rare, does exist.
3. Floating kidney proper cannot be reached without opening the peritoneum. Movable kidney can generally be reached by an incision in the loin without opening the peritoneum.
4. As floating kidney is always congenital, if its secreting function is interfered with by any change in the kidney substance, the remaining kidney enlarging readily secretes the normal quantity of urine.
5. In floating kidney with a long meso-nephron, if nephrectomy is decided upon, the incision in the median line will be probably the easiest and safest operation.

CAPILLARY ABDOMINAL DRAINAGE.—According to Dr. Van Hook (*Am. Gynec. Jour.*) the following propositions are warranted:

1. Since the quantity of fluid to be removed per hour can not be more than approximately estimated, the amount of drainage material employed must be well equal to maximum requirements.
2. Capillary (gauze) drainage has the advantage over tubular drainage that a minimum amount of damage is inflicted upon the peritoneum.
3. Capillary drainage acts independently of gravity and suction apparatus, and delivers a constant current of fluid.
4. By its appropriate disposition among the peritoneum-clad viscera it not only aids coagulation in ruptured capillaries, but carries away fluids secreted at some distance (ten centimetres) from the limits of the gauze, since capillary action takes place between the closely approximated peritoneal surfaces.
5. The amount of plastic reaction depends more upon the infection present than upon the action of the gauze.
6. The utmost attention should be paid in septic cases to the accurate application of gauze over the uninfected surfaces of the peritoneum near the focus of infection, and this gauze should not be disturbed or replaced during or at the end of the operation.
7. The strips of drainage gauze should be left long, in order that, hanging over the side of the abdomen, the fluid from the peritoneum may be delivered with great freedom and rapidity into the dressings.

MEDICINE.

IN CHARGE OF

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THE BRONCHITIS-TENT, THE HOT PACK, AND THE HOT FOOT-BATH.*

BY H. A. HARE, M.D.,

Professor of Therapeutics in the Jefferson Medical College of Philadelphia.

GENTLEMEN,—I propose to devote the hour to-day to the consideration and demonstration of the employment of several remedial measures other than medicines; and I would ask your careful attention, because one of the most important things which you can learn as medical students is the necessity of giving as little medicine as possible for the production of the cure you are seeking to bring about. I have often told you that medicine should be used by physicians as ammunition is used by soldiers, namely, only when necessity requires, and then with a very definite idea of exactly what is to be accomplished.

The first remedial agent to which I wish to call your attention is the so-called bronchitis-tent, an apparatus which can be readily improvised in any household, and which will give your patient great comfort in many conditions in which the respiratory passages are dry or in an irritated condition. It will prove useful in the treatment of ordinary spasmodic croup dependent upon a catarrhal condition of the child's larynx, which may be exacerbated by the fact that the child sleeps in a room heated by means of a furnace, the hot air of which is not only abnormally dry, but often laden with dust. It will prove of value in the treatment of persons who have been exposed to irritating fumes or gases, and who, as the result, are suffering from inflammation of the respiratory passages. In the early stages of bronchitis in children and adults it will do much towards modifying the severity of the cough and the inflammation in the bronchial tubes, and in catarrhal and croupous pneumonia and whooping-cough it will in many instances prove an invaluable aid to the other measures which you will naturally institute.

The bronchitis-tent can be hurriedly improvised by tying to each corner of the child's cot an ordinary broomstick, the broom end resting upon the floor, and drawing over this frame one large sheet, or two small ones basted together, in such a way that the canopy falls over the broomsticks and down at the sides of the bed almost to the floor. In this way the

* Clinical lecture delivered at the Hospital of the Jefferson Medical College.

child lies in a little tent, the top of which is elevated two or three feet above its head, thereby giving it plenty of air-space. At the foot of the bed you now place an ordinary Arnold steam sterilizer, an apparatus with which many of you are familiar, and which I now show you. This can be used, as you well know, not only for the sterilization of milk for infant-feeding, but also for the sterilization of your instruments; and by having a small hole made in the lid to which is soldered a pipe running off at an angle of 45 degrees, you are provided with an apparatus by which you can also develop and distribute steam in any place and in any direction you desire. A very small alcohol-lamp serves to disengage a large amount of steam from this apparatus, because only a small amount of water has to be heated at a time, the large pan which is superimposed upon the copper bottom containing the boiling water acting as a reservoir which continually provides a fresh supply of water, so fresh water need only be poured into the apparatus at intervals of several hours. The end of the pipe attached to this sterilizer is now made to project under the sheet forming the tent, and in a very short time the child is surrounded by an atmosphere which, on the one hand, is not so heavily laden with steam as to alarm it, and yet, on the other hand, is so warm and moist and balmy as to very quickly soothe its irritated mucous membranes. The child can sometimes be kept in this tent for a number of days with great advantage, and if well enough can be allowed to have its toys, and even its little friends may visit it. By the use of a little ingenuity in the way of substituting flags for sheets, you can very frequently not only succeed in making your patient happy in his confinement in the tent, but the envy of all the other children in the family.

This same steam-producing apparatus can be employed for the breaking up of forming diseases, particularly those due to cold, as it practically provides a home-made Russian bath. The patient, sitting upon an ordinary wooden chair, is stripped, and then covered with a heavy blanket, which is tightly pinned about his throat. The sterilizer and alcohol-lamp are then placed at a little distance to one side, and the tip of the tube from the sterilizer is so arranged that it discharges its steam underneath the blanket surrounding the patient. In a very short time the patient will break out into a profuse perspiration, which will often be sufficient to relieve him of his forming cold by overcoming internal congestion. This relief may be emphasized if at the time the séance is begun a little sweet spirit of nitre be given in a hot lemonade.

This method is also useful for the purpose of stimulating the glands of the skin by relieving the kidneys in cases of chronic renal diseases in which it is feared that uremic symptoms may develop, or in which mild uremic symptoms have already commenced. Care should be taken in all cases, however, that the patient breaks out into a sweat, for if he does not do so he will be very apt to suffer from heat-stroke or be much oppressed by the heat. If the heart has undergone marked degenerative changes as the result of the renal disease, increased caution should be exercised, lest the exposure to the hot bath produce cardiac failure. If for any reason the patient is unable to sit upon a chair, he may lie in bed, and by means of a few barrel-hoops cut in two the covers may be

slightly elevated above his bed, sufficiently to permit the entrance of the steam, but not high enough to cause him to become chilled by the entrance of the air of the room. In this way the patient gets almost as satisfactory a sweat as in a chair. Similar measures may also be resorted to for overcoming the fall of bodily temperature which is associated with the collapse occurring at the crisis of acute infectious diseases or following surgical operations or injuries.

You see, therefore, that by means of comparatively simple measures and one single piece of apparatus which can be used for other useful purposes, you have provided for your patients a number of efficient therapeutic measures.

The hot pack is used for practically the same purposes as is the hot steam bath that I have just named, namely, for increasing the action of the skin and producing a sweat. But it is also of value in another condition, in which the results of its use are often extraordinary. I refer to the control, and even the cure, of chorea minor. As you are well aware, we commonly rely upon arsenic as a remedy above all others in this condition, but in those cases of severe chorea which persist during the night as well as the day the child is rapidly exhausted, not only by the movements but by the loss of sleep, and under these circumstances a fatal result is not rare. It is in these cases that the hot pack affords us the best results,for even while the child is still in the pack it will frequently fall into a restful and refreshing sleep which marks the turning-point in its disease. Perhaps the hot pack not only does good by quieting reflex irritation, but also by aiding in elimination of poisonous materials from the body, if, as is thought by some clinicians, chorea is dependent upon an infection. The method of using it is as follows: First, a moderately heavy blanket is dropped into a tub of very hot water. While it is becoming thoroughly soaked, a rubber sheet is placed upon the bed and covered by a dry blanket. The child is now stripped and laid upon this blanket, and the blanket which has been soaking in the tub is then wrung out as dry as possible and wrapped around the child up to its neck, its arms being folded across its chest. This must be done with caution, for two reasons: on the one hand, the application of too hot a blanket will scald the child, while on the other hand if the water has not been hot enough or the blanket is much exposed to the air while being wrung out, it will become cooled to such an extent as to lose all its efficiency. Care should be taken that the child's temperature does not rise above 100° while in this hot pack, and such a rise may be prevented in part by allowing it to sip a little cold water from time to time, an act which will also reflexly increase the excretion from the skin by the presence of cold in the stomach. After the pack has been used from twenty minutes to an hour, or as long as the blanket remains hot, the child is quickly taken out of it, rubbed dry, laid in dry blankets, and allowed to go to sleep.

The hot foot-bath is familiar to you all, particularly when to the water has been added some mustard to increase its counter-irritant effect. You

have probably seen it employed very many times for the purpose of breaking up severe colds, the foot-bath being given the last thing before the patient actually gets into bed for the night, and in association with hot and stimulating drinks. I want to call your attention to one other use of this hot-bath, namely, its employment by nervous and overworked persons, who on going to bed suffer from insomnia and cold feet, the insomnia being due to the cerebral hyperemia following excessive use of the brain. In these cases it is far better to allow of sleep by the use of the hot foot-bath and mental rest than it is to run the danger of producing the morphine or chloral habit in your patient by prescribing either one of these drugs as a hypnotic.—*Therapeutic Gazette.*

FATAL SEPTICÆMIA DUE TO THE MICROCOCCUS TETRAGENUS.—Chauffard and Ramond (*Arch. de Méd. Ex.*, p. 309, 1896) point out that the virulence of this micrococcus, which has been found in the mouth of healthy persons, and was detected by Koch in tuberculous cavities, is proved by numerous recorded cases, in which it has caused suppurations, generally in the cervico-facial or cephalic regions. In the two following cases its effects were fatal: A girl of 15 died with typhoid symptoms about eight weeks after the commencement of a severe influenza; the necropsy showed multiple suppuration of the joints, acute purulent pericarditis, abscess of the myocardium, pulmonary infarcts, and abscesses of the liver and kidneys. All the abscesses had a typical appearance of fatty caseation, and the brown effusions in the pleura and pericardium had numerous oily drops on their surface. The tetragenus was present in all the lesions. A young man of 18 also died with symptoms of secondary infection, secondary to suppurative arthritis of the right knee, which, when aspirated, gave a pure culture of the M. tetragenus. The microbe was also found (with others) in the scrapings of an ulcer on the patient's tongue opposite a carious tooth. In both cases the cultivations of the micrococcus proved virulent to animals, and the pus in the consequent abscesses had the same characteristic appearance.

THE NEW NURSE.

Under the above caption, a recent editorial in the *Practitioner* contains the following well-timed criticism: "The first volume of Professor Clifford Albutt's monumental 'System of Medicine,' which has recently appeared, contains an article written by a nurse. This is a somewhat startling sign of the times. Doctors were formerly supposed to teach nurses; now, apparently, the nurses are to teach the doctors. The next thing will probably be courses of instruction in nursing for medical men, who must at least be taught their place in relation to the New Nurse. This knowledge is becoming more and more necessary to the practitioner, and the want of it is likely to get him into trouble. The New Nurse waxes every day fatter, figuratively speaking, and 'kicks' more vigorously. She is no longer, it would seem, contented with a certificate; she must have a degree. At least 'post-graduate' lectures are given by learned ladies, and reported in the *Nursing Record* for her edification. 'Exhibitions' are arranged where medical and surgical appliances of all

kinds are displayed, to the admiration of the public and the greater glory of the New Nurse. Her tastes are strongly surgical, and she has a scarcely concealed contempt for the general practitioner. Even the hospital physician is made to feel that his attempts to hide his ignorance do not impose on her. If his cases recover, the credit is hers; if they do not, the fault is his She is more tolerant of the student, for—to say nothing of his possibilities from a matrimonial point of view—he is more keenly conscious of his inferiority and more grateful for her patronage."—*Pacific Medical Journal.*

MEDICAL NOTES.

Asafetida is useful in uterine irritability, and is of an especial value in threatened abortion.

A hot-water bag over the cardiac region is an effective stimulant measure in threatened heart failure.

One of the best and most powerful intestinal antiseptics in the materia medica is sulpho-carbolate of zinc.

Guaiacol biniodide is a reddish brown powder and is recommended as an anti-tubercular remedy of great value.

To abort bed-sores, paint the skin as soon as it reddens with a solution of nitrate of silver, 20 grains to the ounce.

Antipyrine, either alone or in combination with the bromides, will often be found to yield good results in cases of epilepsy.

Ichthyol has been found to have a remarkably efficacious action upon recent burns, relieving the pain at once and facilitating healing.

For gonorrheal rheumatism give the fluid extract of jaborandi in one-half teaspoonful doses every half-hour until four doses are taken.

Thyroid extract has been used successfully in a number of cases of fibroids of the uterus. This treatment is said to diminish the menorrhagia.

Strychnine sulphate, one-sixtieth of a grain, thrice daily for six or eight weeks before parturition, is a serviceable prophylactic against uterine inertia during labor.

One per cent. of common baking soda put into the water in which instruments are boiled, in order to sterilize them, will, to a great extent, if not totally, prevent rusting.

Dr. Cantrell believes that, as a pus destroyer, no drug will take the place of ichthyol, therefore it is indicated in pustular acne as well as furuncles and carbuncles if seen early.

In the pain of urination caused by an excess of uric acid give five grains each of benzoic acid and borate of soda in an ounce of water every two hours. The third dose will give relief.—*Med. Sum.—The Medical Council.*

ICHTHYOL IN AFFECTIONS OF THE EYES.—Germani (*Gazzetta degli ospedali*) finds that lanolin mixed with from 10 to 15 per cent. of its weight of ichthyol is very efficacious in ciliary blepharitis, curing it

when the ordinary yellow ointment has failed. Collyria containing from 1 to 3 per cent of ichthyol are very useful in phlyctenular conjunctivitis and in simple catarrhal ophthalmia. Ichthyol is well borne,, soon eases the pain, and hastens the cure.—*British Med. Journal.*

THE ACTION OF HOT-AIR BATHS IN ALBUMINURIA.—The *Gazette hebdomadaire de medicine et de chirurgie* for August 27 publishes a report of a recent meeting of the Congrès Francaise de médicine, at which M. Carrieu presented a paper on this subject. The author stated that he preferred this treatment to the use of vapor baths and to that of hot baths, which did not produce sweating. The hot-air baths, he said, produced a sweating which relieved the kidneys by directing towards another tract a part of the substances which obstructed the kidneys and should be eliminated. Furthermore, the application of heat to the skin regulated the interchanges as all other excitants did, and patients with albuminuria were often subjects in whom combustion was deficient, or deviated from tbe normal type. The hot-air bath filled two principal indications: It relieved the kidney by the abundant sweating which it produced, and regulated the organic interchanges.

The immediate physiological effects of this treatment, said M. Carrieu, showed themselves by a sensation of heat, which was not at all disagreeable, and an abundant sweating, which was accompanied by an acceleration of the pulse and an elevation of temperature. Respiration was not at all affected. No symptom was produced, except some palpitation and headache during the first baths, which lasted about an hour; sweating was the only symptom that persisted for a greater length of time.

The therapeutic effects were manifested by the changes in the urine, the quantity of which diminished on the day after the bath, and a rather intense polyuria which supervened on the following day. The density of the urine was in inverse proportion to its quantity. The urea scarcely underwent any modification. The rate of albumin greatly diminished on the day after the bath, but it increased on the following days, although it did not return to the former quantity. Gradually, however, this diminution became persistent, and finally there was complete disappearance of the albuminuria.

Hot-air baths, said the author, were indicated in cases of subacute and chronic nephritis in epithelial forms; they were, however, contra indicated in the vasculo-connective forms, and when arteriosclerosis, a skin disease, or a nervous condition existed.—*New York Medical Journal.*

A NEW METHOD OF OPERATING FOR HYDROCELE.—The operation for the radical cure of hydrocele should be performed in the following manner: The sac is punctured in the usual way, and when about a third or one-half of the fluid has been withdrawn, two drams of a saturated solution of bichloride of mercury in glycerin are injected and mixed with that which remains, and allowed to rest in the sac for from a half-minute to a minute. The whole of the fluid is then drawn off to the last drop. Very little pain is experienced, and unless the patient is nervous and takes an anesthetic, he is able to move about immediately after the

operation. For the next few days he must, as a rule, lie about, but need not in any case be confined to bed, and in a week or less he is quite well. Provided the surgeon is careful that his hands and instruments are clean and free from micrococci when the puncture and injections are made, they produce a uniform result, i. e., sufficient aseptic inflammation to obliterate the sac and nothing more.—*International Medical Magazine.*

URETHRITIS.—Dr. Chetwood (*N. Y. Polyclinic*) employs the following internal medication in connection with the local treatment of urethritis in its various forms:

℞ Liq. potassæ ..... ℥ ii
Tr. hyoscyami ..... ℥ iv
Ol. santali or Ol. gaultheria ..... ℥ s
Muc. acaciæ, q. s. ad ..... ℥ iij
M. Sig.: A teaspoonful three times daily after meals.

DRY PHARYNGITIS.—Danet (*Progres' Medical*) recommends the following spray in dry pharyngitis:

℞ Ac. carbolici ..... gr. iv
Tr. iodi ..... m. v
Tr. aloes ..... m. viii
Tr. Opii ..... gtt. x
Glycerini ..... ℥ j
M. Sig.: Use as a spray four or five times daily.

CYCLING.—As preventive measures against the dangers of this fascinating sport may be mentioned: First, the use of a low gear; second, the upright position in riding; third, adequate food when riding and the avoidance of muscle poisons, such as beef tea; fourth, the avoidance of preparations of kola and coca, which numb the sense of weariness; and, fifth, on no account should the cyclist continue riding after he has commenced to feel short of breath, or when there is the slightest sense of weariness in the chest.—Dr. Herschell, in *Lancet.*

MEDICINAL TREATMENT OF IRRITABLE TEMPER.—In the September number of the *Glasgow Medical Journal* there is an abstract of an article from the July number of the *Practitioner* in which the writer says that Dr. Lauder Brunton has paid some attention to the subject of bad temper as an indication of diseased conditions, and to the method by which relief of a symptom so personally and socially distressing can be obtained. Some time ago he noted that unwonted irritability of temper was often the precursor of a headache, and described the beneficial action of bromide of potassium and salicylate of sodium in relieving the headache. He now recommends the same combination for irritability of temper occurring in connection with various diseases, and more especially in gout and heart disease. The beneficial effect of the bromide upon the irritable nerve centres is, of course, universally recognized, and Dr. Brunton considers that the researches of Dr. Alexander Haig justify the conclusion that the salicylate of sodium is of value by promoting the elimination of

uric acid. Referring to irritability of temper as a symptom of cardiac disease, Dr. Brunton remarks upon its frequency, and quotes the case of a child in whom it was the only symptom of mitral regurgitation, the physical evidence of the disease being observed almost by accident. He finds the above-mentioned remedies to be valuable adjuncts to the use of digitalis and other cardiac tonics. They improve the subjective condition of the patient, and thus facilitate his recognition of improvement.—*N. Y. Med. Journal.*

ABSOLUTE ALCOHOL AS A DISINFECTANT FOR INSTRUMENTS.—Dr. Robert L. Randolph has found that for the disinfection of delicate eye instruments nothing is better than absolute alcohol. The results of his experiments, as recorded in the *Johns Hopkins Medical Bulletin*, convince him—

1. That in a given number of eye instruments, by far the majority are infected by exposure to the air.

2. That absolute alcohol would seem a valuable disinfectant for instruments infected under the conditions which ordinarily surround us in every-day life. This conclusion seems warranted by the results obtained in the first and second series of experiments. Attention may be called to the fact, too, that in the second series the nails were all without a doubt infected, and it might be said that they had been exposed to conditions which, to say the least, were extraordinarily favorable for infection, so that this series is strongly suggestive that alcohol possesses disinfectant properties of no little value.

3. That the septic character of instruments infected with a pure culture of staphylococcus albus is not altered by exposure for twenty minutes to the action of absolute alcohol.—*Maryland Med. Jour.*

URTICARIA.—Dr. Gilchrist reports a case of urticaria pigmentosa, a very rare disease of the skin, in a child of 17 months. From experiments on excised wheals, both spontaneously and artificially produced, the following observations are recorded: (1) The wheals produced artificially in urticaria are certainly inflammatory. (2) Spontaneous wheals in other cases of urticaria have been found to show all the factors constituting inflammation. As to how the inflammation is produced when a finger-nail is drawn over the skin without injuring it, Dr. Welch suggests that there is a toxemic condition of the blood in patients suffering from urticaria, and when the skin is stimulated, some of the toxine is set free into the tissues of the skin, and thus sets up inflammation. (3) Mono-nuclear leucocytes are capable of leaving the blood-vessels quickly and in considerable numbers in certain affections of the skin. This fact is not generally admitted. Dr. Flexner remarks: "Pathologists have come more and more to regard the view that the polymorphonuclear cells alone leave the vessels in inflammation as insufficient; they have, however, regarded them as the earliest to escape in numbers."—*Johns Hopkins Hospital Bulletin.*

OBSTETRICS AND GYNAECOLOGY.

IN CHARGE OF

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CYSTS OF THE TUBES, UTERUS AND ADNEXA.

Josef Fabricus, Vienna (*Arch. f. Gyn.; Am. Med. Surg. Bull.*)—The following are the different kinds of cysts which occur about the female genitalia:

1. In the broad ligament, about the middle of the tube, is usually found a small cyst not larger than a peppercorn, which evidently belongs to the broad ligament, as it is not connected with the tube.

2. The hydatid of Morgagni, a cyst usually about the size of a cherry, which is attached to one of the fimbriæ of the tube. Embryologically this comes from the upper end of Mueller's duct.

3. Cysts in the broad ligament between the tube and Gaertner's canal. These cysts have the same character as those described under paragraph 1. They do not seem to have any connection with the epoöphoron.

4. Cysts from the tubes of the parovarium. These cysts always develop interligamentously, but may reach such a size that they press out the peritoneum, and may finally become pedunculated. They are usually not larger than a bean; they are lined on the inside with ciliated cylindrical epithelium, and contain a thin serous fluid. The cysts often reach a large size.

Kossmann has recently pointed out that the cysts of the broad ligament do not all come from the parovarium, but a great many of them originate from secondary tubes, which may be situated anywhere in the broad ligament. The cyst wall gives no indication as to the origin of the cyst, as muscular tissue occurs in the walls of both parovarian cysts and those from the secondary tubes. The fimbriæ of the secondary tubes become adherent and form little pedunculated cysts which Kossmann calls hydroparasalpinx

Cysts may also originate from the epoöphoron. The different tubes of this organ are often separated widely from one another by the development of the broad ligament, and cysts originating from them occupy different positions.

5. There are also cysts found in the broad ligaments, uterus, or vagina, which owe their origin to the Wolffian or Gaertner canals. The termination of these canals has not been definitely determined. Some claim they terminate at the uterus, others think they end at the cervix, while still others believe they extend down to the vagina.

6. Cysts are often found between the layers of the broad ligament,

which reach the size of a pigeon's egg. They are often symmetrical—that is, situated in both ligaments—and are situated near the larger vessels. They are lined with a simple layer of endothelial cells. The author believes them to be simply dilated lymph spaces, while Pozzi considers them cysts of the Wolffian ducts.

7. Charri has described some little cysts which he has seen about the uterine end of the tube. They are evidently diverticula of the mucous membrane of the tube, caused by a chronic catarrh which has destroyed the muscular coat of the tube.

8. Zedel has described a cyst the size of an apple, into which the right tube opened. The cyst was probably formed by growing together of the layers of peritoneum about the tube, forming a peritoneal sack into which the tube opens.

9. In addition to the above the author has found another kind of cyst situated under the serosa of the tube, always multiple, and placed along the whole length of the tube; two cases were observed. In both the cysts were about the size of an oat, and lined with cylindrical epithelium, which was often found undergoing degeneration.

The explanation of the occurrence of these cysts, the author thinks, is that they are formed by a folding in of the serous covering of the tube, due to inflammatory processes. The process is exactly similar to that which takes place in the ovary in the formation of Graafian follicles. The flat epithelium of the tube is changed to cylindrical epithelium under the influence of the inflammation. This change can readily take place, as declared by several observers. Thus Paltauf has seen a similar change take place in the pericardium after a pericarditis.

ON THE IMPORTANCE OF THE EXAMINATION OF THE ABDOMEN DURING THE PUERPERIUM, WITH SPECIAL REFERENCE TO THE INVOLUTION OF THE PUERPERAL UTERUS.

McCann says (*Brit. Med. Jour.*) the process of involution in the human uterus is of great interest to the physiologist, owing to the amount of the material absorbed in a short space of time. The exact causation has not as yet been definitely ascertained. To determine the period when the uterus has returned to such a size that the puerperal woman may without risk assume the erect posture, two methods of investigation have been used, namely, external and internal measurement.

1. External measurement—where the distance between the fundus uteri and symphysis pubis is measured, together with the breadth from side to side at the widest part.

2. Internal measurement—by means of the uterine sound to determine the length of the cavum uteri.

To the first method few objections can be raised, but to the second the dangers of infection must always retard such a procedure, more especially where a series of observations can be made, for example, in maternity

hospitals. Serdukoff employed external measurement, giving his reasons against the internal method as follows:

1. From the curvature of the sound being always the same, and from the fact that we have a varying axis of the uterus corresponding to the curvature of the sound, it follows that we do not by this method ascertain the natural length of the uterus as it lies anteflected or anteverted, but only an artificial length as it is straightened out.

2. The sound is not always easily introduced, and you can never be certain that at each observation the point touches the same part of the fundus.

3. This method is not unaccompanied with danger, however carefully it may be employed.

To these I would add a fourth:

4. The diminution of the uterine cavity is not proportionate to the diminution of the uterine tissue, being much more rapid. This I have proven by examination of puerperal uteri post-mortem.

It is clear, then, that the most accurate results would be obtained by combining the two methods. However, for all practical purposes the external measurement is sufficient, and on this account my observations will be confined to it.

METHOD.—In a series of patients the measurement of the distance between the upper border of the symphysis pubis and the center of the fundus uteri was taken by a tape measure drawn tight. These measurements were obtained daily at the same hour, due attention being paid to the condition of the bowels and bladder. Cases in which there was evidence of septic trouble were excluded.

Until the uterus has become a pelvic organ no patient should, after her confinement, be allowed to assume the erect position. This seems to me a scientific method of teaching, and stands in strong contrast to the teachings that a woman should get out of bed on a certain day, and should be permitted to walk on another fixed day. I would, therefore, insist on an abdominal examination being made in every case before a patient is allowed to assume the erect posture.

The evils attendant on the assumption of the erect posture too soon after labor or abortion must be impressed upon the mind of obstetric practitioners. How often do we meet with cases where constant bearing, down pains, discharge, and a train of symptoms which are associated with uterine disease can be traced to a confinement or a miscarriage, after which sufficient rest in bed had not been enjoined. Although the importance of rest has been urged by many writers, yet the frequent recurrence of cases of subinvolution shows that this advice has not been followed.

The causes which govern what we may conveniently term "normal involution" have not as yet been ascertained. As is well known, for a few hours after labor the uterus is contracted, expanding later, and followed from day to day by a gradual diminution in size. In this process there are two factors at work, namely, contraction and retraction, with the result that the uterus returns nearly to its pregestation size in six weeks. At the same time, the uterus of a woman who has borne a child is usually larger than the nulliparous uterus.

Although we do not yet understand the laws which govern the rate of involution in the puerperal uterus, there is abundant evidence of individual variation—for example, where women under the same condition are observed. It is known that certain factors do influence the rate of involution. Amongst these we have:

1. The effect of the prematurity of labor. Here, in all probability, the uterus is not prepared for the work which it is suddenly called upon to undertake, and therefore we expect to find a diminution in the rate of involution.

2. The length of the labor affects the rate of involution during the earlier days of the puerperium.

3. The rate of involution is greater during the first week of the puerperium.

4. The influence of lactation: It is universally accepted that the suckling of the child hastens the involution of the uterus by promoting uterine contractions.

In conclusion, let me again insist on the careful examination of the abdomen during the puerperium, to determine:

1. The position of the uterus.

2. The presence or absence of a uterine new growth, for example, a fibroid.

3. The condition of the Fallopian tubes, which are easily palpated during the first week of the puerperium.

4. The presence or absence of ovarian new growths.

5. The position and degree of distension of the bladder.

6. The condition of the intestines.

7. The presence or absence of any peritonitic or cellulitic inflammation.

THE INDICATIONS FOR VENTRAL FIXATION OF THE UTERUS.

The following indications for ventral fixation of the uterus are given by Dr. G. M. Edebohls in the *Medical News:*

1. Vaginal fixation of the uterus does not come within the sphere of legitimate operations in women liable to future pregnancies.

2. The indications for ventral fixation of the uterus should be limited to the utmost degree in women liable to subsequent pregnancy.

3. Ventral fixation is never indicated in uncomplicated retroversion of the uterus.

4. Inability of an operator to perform shortening of the round ligaments may be an indication for ventral fixation, but not in the case of one claiming to be a specialist in gynecology.

5. Ventral fixation is indicated, as an adjuvant, in the performance of combined operations for prolapsus uteri et vaginæ.

6. Ventral fixation is indicated as a closing step in all celiotomies in which the adnexa are removed and the uterus is left.

7. Ventral fixation may be indicated, under exceptional conditions, in

cases of adherent retroversion, with tubes and ovaries in good condition.

8. Ventral fixation may be indicated in the most aggravated cases of uncomplicated sharp retroflexion. The writer has not yet met such a case not amenable to successful treatment by shortening the round ligaments.

9. Ventral fixation is indicated under certain conditions, in cases of uterus unicornis.—*Med. Rev.*

SARCOMA, CARCINOMA, MYOMA, AND MUCOUS POLYPUS OF ONE UTERUS.

Niedergall (*Gazette Med. di Paris*) describes a singularly complicated case. A woman, aged 62, suffered for nine months from irregular uterine hemorrhages, with watery discharge in the intervals. There was much pain. The uterus was considerably enlarged, but quite movable. The fornices were free. The curette was used and tissue removed, which proved to be villous cancer. Two days later a tumor, as big as a goose egg, was found protruding from the os and easily removed. It was a true fibro-sarcoma. Three weeks after its expulsion hysterectomy was undertaken. The patient recovered, and was free from any sign of recurrence six months afterwards. The uterus bore, in the region of the right cornu, a deposit of the size of a walnut, which proved to be epithelial cancer, villous or papillomatous in form. This was the deposit which had been partially scraped away by the curette. Two very distinct mucous polypi grew from the uterine wall, under which projected a small characteristic myoma. The co-existence of four absolutely distinct forms of new growth is remarkable. Such coincidences explain puzzling clinical appearances, and should remind enthusiasts that the curette is not always a reliable agent in diagnosis.—*British Medical Journal.*

URETERITIS IN WOMEN.

E. P. Reynolds, M.D., in a paper read before the American Gynæcological Society, says: "In my experience the majority of cases of ureteritis have been dependent upon an altered condition of the urine associated with renal insufficiency. This paper is, therefore, confined to a consideration of this class of ureteritis The chronic and acute stages of the disease, although essentially the same affection, will be discussed separately on account of the marked difference in the symptoms which they represent. The characteristic symptomatology of the chronic ureteritis consists in an increased frequency of urination, which is increased by the erect posture, but not wholly relieved by recumbency; the necessity of rising during the night for the purpose of micturation being always present in my experience. With this frequency of urination is associated a bearing-down pain, which is especially aggravated by standing, and relieved by rest in bed. These two symptoms may be due to other pelvic lesions, but should always

excite a suspicion of ureteritis. The physical signs of the disease are limited to a complaint of tenderness and usually of a desire to urinate on compression over the affected end of the ureter or ureters. In addition to this, examination of the bladder usually shows alterations in the appearance of the ureteral orifice, and often in the neighboring mucous membrane of the bladder. In eight consecutive cases of unilateral ureteritis, catheterization of the ureter has shown a disease on the affected side. It seems probable that the urine, in cases of renal insufficiency, may contain an irritant substance which is the result of imperfect metabolism, and that in unilateral cases the one-sided ureteritis not improbably bears a resultant relation to the relatively increased renal insufficiency upon that side.

Treatment is divided into palliative and curative methods. The palliative methods are applicable only to cases in which painful micturition is dependent upon ulceration or localized inflammation of the vesical mucous membrane in the neighhorhood of the ureteral orifice. I would recommend a careful localized application of the solid silver nitrate to such inflammatory surfaces. It consists of the ingestion of a large amount of water, accompanied by an alkaline diuretic; a bland, nutritious and largely albuminous diet—restricting the use of most of the more highly flavored vegetables, and absolutely interdicting strawberries and asparagus. To these measures should be added massage, or light, gentle exercise. The only drugs I have found of value are the so-called alteratives (preferably small doses of mercury, potassium iodide, or mercury and iodide mixed) which act upon the ureteritis, presumably by improving the general metabolism of the body.

Acute ureteritis is a frequent, though not dangerous affection—probably often mistaken for severe intestinal colic, for renal stone, catarrhal appendicitis, or catarrhal salpingitis. It appears as a sudden attack of abdominal pain, which is usually marked upon one side and slight upon the other. It is distinguished from other affections mentioned by the fact that its tenderness moves steadily downward through the attack, beginning at the pelvis of the kidney and ending in the vesical portion of the ureter. The abdominal tenderness is often easily overlooked on account of its close localization to what I shall call the three cardinal points in acute ureteritis; the first of which, characteristic of the beginning of the attack, is situated over the kidneys and its pelvis; the second, characteristic of the middle portion of the attack, is identical with McBurney's point or its fellow on the other side, is situated half-way between the umbilicus and the anterior superior spine of the ileum; the third is situated about an inch above the middle of Poupart's ligament. Until the time when this last mentioned tenderness appears vaginal examination is negative, but at this time tenderness, and usually swelling of the vesical end of the ureter, can be detected by the finger. The urine is not always characteristic, but occasionally shows crystals of uric acid and calcic oxalate in an otherwise limpid urine.

The affection tends to a recovery without treatment. It probably ends in the chronic form of the disease, but with treatment similar to that of the chronic affection is usually completely thrown off.—*The Med. Stand.*

CÆSAREAN SECTION THRICE PERFORMED ON THE SAME PATIENT.

Van de Poll (*Centralblatt für Gynäkologie*, 1897, No. 21, p. 554) has reported the case of a woman whose first pregnancy terminated in the spontaneous delivery of a putrid fetus; the second in the instrumental delivery also of a putrid fetus. In the third labor, after the discharge of a considerable amount of amniotic fluid, the fetus was found to occupy a transverse position, an arm prolapsing. Decapitation was performed and the body of the child extracted. During the necessary manipulations it was found that the pelvic inlet was greatly contracted, but the head was expressed with some little effort. The head and the placenta were in process of putrefaction. Rigid antisepsis was observed, and the puerperium was uncomplicated. Subsequent measurement showed the pelvis to be of generally contracted, flat, rachitic type. The patient was instructed in the case of another pregnancy to present herself for Cæsarean section; and accordingly, about a year later, this operation was performed, the child living, and the only complication being a mild circumscribed peritonitis. Some 2½ years later the woman again became pregnant, and again was Cæsarean section performed, with the delivery of a living child. After an interval of seven years the woman became pregnant for the sixth time. After incision of abdominal wall and uterus a slightly asphyxiated child was delivered and resuscitated. On account of the firm adhesions between the anterior surface of the uterus and the abdominal wall it was decided to remove the uterus by the method of Porro, and a portion of the abdominal wall, which was the site of adhesions, was excised. Continuing hæmorrhage from the vagina, after closure of the abdominal wound, necessitated reopening, and a small bleeding vessel was ligated. Other than a slight diarrhœa the further progress of the case was uneventful.

THE DOCTOR'S BICYCLE.—Every city has municipal laws, says the N. Y. State *Med. Rep.*, which prohibit the riding of bicycles upon the side-walks, and demand that the rider proceed at a reasonable speed along the main thoroughfares. These laws, as a rule, are very exacting, and not infrequently physicians, in their haste to reach patients, are obliged to violate the common ordinance, and oftentimes are obliged to pay fines in common with the rider who is out for pleasure pure and simple. Such laws are wrong, for frequently, should the physician go at the speed and in a manner in accordance with the ordinance, a life would be endangered and possibly sacrificed. We believe that physicians are entitled to more than ordinary consideration in the matter of bicycle riding in the cities, and have no doubt that the authorities, if the subject was presented in a proper manner, would grant them the desired protection. In conclusion, we would like to insist that the matter be taken hold of generally by the profession, and wherever possible supported by both the medical and public press.

NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF
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ABSTRACTS AND EXTRACTS.

THE CONNECTION OF AUTO-TOXIS WITH INSANITY.—At a general meeting of the Medical Society of London, May 11th, Dr. Allan McLane Hamilton presented a contribution on this subject. He had conducted clinical observations and experiments on animals, to determine whether there was any specific or noso-toxicity of the urine of the insane, and, if so, its nature; next, to discover how important and general was the theory of uric-acid poisoning; and, again, whether mental disorders were produced and modified by an auto-toxæmia, whether the offending substances were the leucomaines or the intrinsic products of putrescence in the intestines. With regard to the existence of noso- toxosis, observations on six patients proved negative, and in rabbits the results were neither constant nor characteristic. The resulting effect seemed to depend upon the increased specific gravity of the urine, and on the evidences of intestinal disorders and malnutrition. The urine of the paretic was always exceedingly toxic, which property was possessed by that of the periodic patient, whose urine showed a large amount of indican, which in only one of the other cases of mania in which the specific gravity of the urine was high, was any result obtained by the injection. In regard to uric-acid poisoning, he was convinced that it had not so much to do with the genesis of mental disease as has been claimed for it. The experimental use of hypoxanthin on rabbits aud monkeys had been followed by effects in only one subject. His cases unquestionably bore out the assumption that disturbances of the gastro-intestinal tract were attended by bacterial necrosis, and the introduction into the general circulation of certain very virulent toxic agents, whose effects were expended mainly upon the nervous system. A sudden and rapid development of incoherence, with mal-assimilation, highly-colored urine, and delusions that were unsystematized, clearly suggested an inquiry into the condition of the organ of digestion, and the first step should be a complete examination of the urine and fæces. The presence of indican in the urine of the insane has great significance, for in all the cases that were not simply evolutional it had been discovered in excessive quantities, in connection with the development or as a feature of an exacerbation of an existing mental disorder. An excessive amount might be taken to mean any amount susceptible of detection by Jaffe's test. In melancholia the amount of indican depended upon whether the disease was of the stuporous or agitated variety, the quantity not being

nearly so great in the former. Variations in the hæmoglobin and red corpuscles were closely associated with the absorption of toxic substances, the extent of which was announced by the increase of the combined sulphates, while the physical appearances were those of malnutrition.

Undoubtedly many puerperal insanities, especially those of the maniacal variety, were due to fœcal accumulation. Alcoholic insanities, as well as other forms, whether acute or chronic variations prevailed, must be studied with regard to the condition of the intestines. The management of these cases not only included the provision of an absolutely suitable diet, but the use of antiseptics and mechanical means for cleansing the alimentary tract. It had been shown that the lower bowel was usually the seat of infection, hence the necessity of thoroughly washing out from as high a point as possible, using a long rectal tube. Salicylate of soda had been found the most reliable intestinal antiseptic. In replacing the diminished hæmoglobin and red corpuscles, best results had been obtained from a mixture of glycerite of the red marrow of small bones with bullock's blood.

The following conclusions were formulated:

1. Urines rich in indican contained very little or no pre-formed sulphuric acid and were toxic.

2. When the sulphate ratio is materially changed it probably indicates auto-toxis in connection with an increase in the amount of combined or ethereal sulphates.

3. Such indications were generally found with acute insanities on which rapidly developing symptoms occur.

4. Changing illusions and hallucinations, unsystematized delusions, confusion, and verbigeration, in connection with insomnia, pallor, intestinal indigestion, constipation, and rapid exhaustion, are due to auto toxis.

5. Paranoiac states, or those in which concepts are the features, chronic stuporous conditions, and certain forms of dementia, have little to do with the formation of intestinal products of putrefaction.

6. Various post-febrile, traumatic, alcoholic, or drug insanities are those in which auto-toxis is most constant.

7. Variations in the excretion of combined sulphates keep pace with the changes in the progress of an established insanity, epileptiform attacks being directly connected with putrefactive processes.

8. The most successful treatment consists in lavage, intestinal douches, gastric and intestinal antisepsis by means of hydrochloric acid, borax, salicylate of soda, charcoal, guaiacol, or naphthalin, in small and repeated doses, and the administration of a combination of the red marrow from the small bones, blood, and glycerin.—*American Journal of Insanity.*

Epilepsy of Cardiac Origin.—At the session of the Medical Society of Nancy, *Oaz. Hebd.*, June 4th, M. P. Parisot reported the case of a man aged eighty-seven, who had for eight years suffered from epileptic attacks, with change of character appearing twenty-four hours before, premonitory digestive disorders, or tremors, pallor of face, etc., with subsequent mental dullness, which usually appeared under the influence of an insufficient action of the heart. The patient is an arterial cardiopath, no albu-

men in the urine, and no syphilitic or paralytic antecedents. M. Parisot offered the following conclusions:—

1. Epileptic attacks engendered by a cardiopathy seem to have no special symptomatology.

2. When the cardiac origin of the attack is well demonstrated, cardiac medication and rest are indicated, so as to re-establish the cerebral circulation.

3. Bromide treatment ought not to be neglected, but it is necessary to use the potash salt with great caution, and to employ preferably the bromide of sodium.

In discussing the paper, M. Bernheim held that the disorder was due directly to gross organic changes in the brain, cortical lesions of old age, without which he had never observed epilepsy in the aged.

THERAPEUTIC EFFECTS OF CURRENTS OF HIGH FREQUENCY. — D'Arsonval, in giving very careful attention to the therapeutic action of currents of high frequency, has reached some very interesting results. He finds marked benefit from the use of this form of electricity in the class of diseases due to the lack of nutrition, such as diabetes, gout, rheumatism, obesity, etc. Two cases are recorded in detail, one of diabetes and one of gout. The apparatus used permitted the passing through the body currents of which the intensity was upward of 500,000 milliamperes. In its application, the currents, which came from a solenoid, were brought to the body by means of conductors with appropriate electrodes. One of the poles of the solenoid was connected with the water in a foot bath, in which the patient placed his feet. The second pole was connected with both hands by a two-part conductor, terminating in metallic handles. Under these conditions the current was distributed, and its intensity raised between 350 and 500,000 milliamperes. The duration of treatment, made daily, was at first six minutes, it was then lowered to five or three minutes, according to the sensations of the patient.

One would naturally suppose the current might be painful, and the beneficial effect arise partly from suggestion, but this is not the fact, for the current acts without the knowledge of the patient, yet it penetrates deeply into the organism, and operates notably on the vaso-motor centres.

The experiment was conducted with extreme care at every step, only the most careful and intelligent assistants being employed, who recorded with the utmost care every change in pulse, temperature and respiration. —*N.Y. Medical Times.*

FOLLOWING the experiments of Berger in combining certain antipyretic and analgesic agents for the relief of various forms of neuralgia, Dr. Veasey has found the following combination of great service in the treatment of *migraine*:

Phenazone	32 grains.
Phenacetin	24 grains.
Acetanilid	8 grains.

Divide into eight powders. Mix.

One of these powders is given as soon as the approach of the attack is discovered, and repeated twice at intervals of a half-hour if relief is not obtained before the expiration of this time.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

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THE SUPRARENAL BODIES.

MUHLMANN (*Deut. med. Woch.*, June 25th, 1896), discusses the functions of these organs. Extirpation of the suprarenals has been proved to produce severe and fatal circulatory and nervous symptoms in rabbits and guinea-pigs. The blood of guinea-pigs from whom the suprarenals have been removed has marked poisonous properties. A substance has been separated from the suprarenals which has been stated to be brenzcatechin. As yet, the question of the active agent of the suprarenals has not been definitively settled. The author has extracted some substances from the suprarenals in which no brenzcatechin was present. He believes that the active principle does not consist of a single substance. Some characteristic reactions of brenzcatechin, such as the ferric chloride reaction, etc., can be obtained in the fresh suprarenal, or in one which has been in alcohol for a short time. If a section is made, and a few drops of dilute ferric chloride added, the medullary substance is colored green, while the cortex remains unstained. Thus, the brenzcatechin is formed in the medullary portion of the organ. Our knowledge of the minute structure of the suprarenal is still deficient. The medulla is made up of nerves, epithelium, and connective tissue, including blood and lymph vessels. The epithelial element is small. It may be supposed that the material out of which brenzcatechin is to be formed is built up in the cortex. The chief substance concerned in the formation of this body is present in the blood itself, and is derived from vegetable foodstuffs—namely, from protocatechu acid. Brenzcatechin, like suprarenal extract, produces a rise of blood pressure. The formation of brenzcatechin in the suprarenals is of the greatest significance for pathology; it appears to throw some light upon the pigmentation of Addison's disease. Brenzcatechin, when exposed to light, or when in contact with tissue in alkaline solution, becomes brown. It is represented that in Addison's disease the brenzcatechin is not changed at once into some other harmless combination, but gains access into the blood. It is oxidised in the blood, and is changed into a brown product which discolors the skin. Its poisonous properties explain the severe symptoms of the disease. The author thinks that this hypothesis would also be in accordance with the disease of the cœliac ganglia in Addison's disease, as to these ganglia may be confided the functions of rendering brenzcatechin harmless. Gourfein (*Rev. Méd. de la Suisse Romande*) has found that destruction by cauteri-

sation in frogs, or removal of the glands on pigeons, leads to a rapidly fatal result. Destruction of one, whether the right or left, suprarenal body only is not followed by any bad result. If only a tenth part of the suprarenal tissue is left, the animals live from two to nine weeks, and then die from wasting. From this it follows that the suprarenal bodies exercise a marked influence on the general nutrition of the organism. If after the glands have been removed from an animal a graft of the suprarenal capsule from another animal of the same species is made, life is prolonged, and the symptoms modified, but a graft from an animal of a different species does not have this effect. Accessory suprarenal capsules may vitiate the effect of removal of the glands, and their presence explains the contradictory results obtained by some observers. Damage done during the operation plays no part in bringing about death in acapsulated animals. The suprarenal bodies have a chemical action in the organism, and probably neutralize one or more toxic bodies of unknown nature. The author's observations do not support the view of Abelous and Langlois, that acapsulated animals are in a condition of curarisation, since he found that the motor nerves and their intramuscular endings in acapsulated frogs retained their electrical excitability, and their action on muscles up to and even after death.—*Br. Med. Jour.*

URTICARIA OF THE RESPIRATORY PASSAGES.

Delbrel has collected (*Journ. de Méd.*, July 25th, 1896) a large number of cases and records of this condition, and from these he draws the following conclusions: There are two types of urticaria affecting the respiratory passages: (1) In certain cases the cutaneous eruption appears first, and is followed by respiratory trouble; (2) in others the respiratory symptoms first appear, to be followed later by the eruption, and it is in this latter that the greatest difficulties of diagnosis and the greatest danger to the patient may arise. In many instances the urticarial affection so closely resembles other respiratory disorders that in the absence of any cutaneous condition diagnosis may be almost impossible, and it may even happen that the only manifestation of the disease is that affecting the respiratory mucous membranes. Some cases simply resemble an attack of asthma; others manifest themselves by suffocative attacks with irritating, hacking cough, closely simulating œdema of the glottis, for which they may be mistaken. In such cases a laryngoscopic examination may be of great use, though, unfortunately, it may fail even in skilled hands, as it seems to cause increase in the symptoms. In the instances where it has been carried out, red raised erythematous patches have been found in the posterior pharynx, and, though it may be impossible to obtain a view of the eruption in the larynx or trachea, the existence of such patches in their neighbourhood may be of use. In the cases where the respiratory affection is severe, the symptoms may be most alarming. There is no regularity as to the time of their appearance after the ingestion of some article of diet, etc. The author states that severe cases not

infrequently end fatally; others may last for periods varying from a few hours to several days, and the appearance of cutaneous urticaria seems to be a favourable sign. He suggests that, in acute cases with severe pulmonary symptoms and no cutaneous eruption, brisk friction should be applied to the skin, in order to induce its appearance.

GONORRHŒA FROM A FORENSIC POINT OF VIEW.—A. Neisser, Breslau (*Cntrlbl. f. Gyn.*, No. 14, 1896, p. 379). The author dwells upon the great difficulty in making a diagnosis of gonorrhœa. Clinically, he thinks it is absolutely impossible as a secretion resembling in every respect that of gonorrhœa may contain no gonococci and may depend upon an entirely different cause. Moreover, it is not possible to tell, in women, at what time they received the infection; and if the disease is confined to the uterus without involving the urethra it may run its course entirely without symptoms. This is especially true with chronic gonorrhœa. The author, however, does not believe, like many observers, that a man with latent gonorrhœa can give the same to a woman, but that the virulence of the gonococci remains always the same, and gonorrhœa is always given as an acute gonorrhœa. For this reason a man may give his newly married wife an acute gonorrhœa, although he considers himself cured; and conversely many cases of acute gonorrhœa in men are acquired from women who show no signs of the disease and where, microscopically, but very few gonococci can be found in the secretions. In chronic gonorrhœa the microscopical examination is somewhat unsatisfactory as the cocci are not found in the cells as in the acute cases.

Wertheim's method of cultivating the gonococci on blood serum and agar-agar is unsatisfactory in chronic gonorrhœa, as the culture-medium soon becomes covered with growths of other bacteria which are present in large numbers and which grow more rapidly than the gonococci.

In conclusion he, like most other authors, believes that the diagnosis of gonorrhœa is exceedingly difficult, but that in certain cases it may be made by means of the microscope. In all forensic cases he recommends that microscopic preparations of the secretions be made, as they can be shown to a number of observers.

GLYCOSURIA IN FEBRILE CONDITIONS.—Poll (*Fortschr. der Medicin*, July, 1896) has investigated the occurrence of glycosuria in febrile conditions where sugar has been taken in the diet. The observations were made in 16 cases of febrile disease, including pneumonia, typhoid, quinsy, rheumatism and scarlet fever. The temperature varied from 99.6° to 105°, F. Glucose was administered in doses of 100 to 150 g., and the urine carefully watched afterwards. It was found that glycosuria occurred in 14 out of the 16 cases within a short time of the administration, and lasted two to thirteen hours. It seems that lobar pneumonia is specially liable to show this diet glycosuria. Poll considers that the special proneness to this form of glycosuria in febrile disease is due to the failure of storage of glycogen in the liver, as shown by experiments on animals, and hence the excretion by the kidneys, as sugar from the blood.

NOSE AND THROAT.

IN CHARGE OF

J. MURRAY McFARLANE, M.D.,

Laryngologist to St. Michael's Hospital. 32 Carlton Street.

SOME RECENT MODIFICATIONS IN THE SURGICAL TREATMENT OF DISEASES OF THE ATTIC AND MASTOID PROCESS.

BY ADOLPH BRONNER, M.D.,

Surgeon to Bradford Eye and Ear Hospital, Laryngologist to Bradford Infirmary.

The technique of operating on the mastoid process has of late years undergone such important and radical changes that I may perhaps be excused for bringing the subject before you to-day.

Diseases of the attic and mastoid process are very common, and if not operated on early and with great care, they are extremely fatal.

We all of us have seen many cases in which no operation was thought of or performed till the disease had spread to the brain, or in which the operative treatment had been restricted to Wild's incision, or to the use of the gimlet or gouge. Schwartze, of Halle, was one of the first to suggest a thorough surgical method of operating; he published a series of cases * in 1873. He opened up the mastoid antrum and cells from behind the ear, and established free drainage between these parts and the middle ear. The wound was kept open by plugging or by a lead nail. This method was universally adopted from 1873 to 1889. Experience, however, soon proved that Schwartze's method was very successful in acute cases, but that many chronic cases did not heal for several months, and that even then the disease frequently broke out again. In 1889, Kustner † recommended that, in all cases in which the middle ear was extensively diseased, we should not be content with Schwartze's operation, but should also remove the whole of the posterior wall of the osseous external meatus. A drainage tube was passed through the antrum and meatus. In the same year, Bergmann ‡ suggested that the posterior and also the upper wall of the external meatus be removed. Lucae § pulbished a similar method. Stacke, in 1892,¶ modified Schwartze's operation to a considerable extent His method is now adopted in all chronic cases. It marks an important advance in aural

* Arch. f. Ohrenheitkunde, vii. and ix.
† Deut. Med. Woch. x. and xiii.
‡ Die chirurgischr. Behandlung. der Gehirnkrankheiten.
§ Arch. f. Ohrenheitkunde, xxi.
¶ Berlin kein Woch. 44 and Arch. Ohrenheilkunde, xxxi.

surgery. A long incision is made behind the ear, the cutaneous external meatus is loosened and cut through, as low down as possible, and the whole ear then drawn forwards. The ossicles and remains of the membrana tympani are removed, a protector is passed into the attic, and the lower and outer wall removed by the chisel. The upper and outer wall of the external meatus and the outer wall of the mastoid antrum are then removed in a similar manner. A large cavity is thus formed, consisting of the middle ear, the attic, and the mastoid antrum. The ear is then replaced and the wound stitched up or left open, according to the extent and nature of the disease.

Macewen and Horsley prolong the incision round the top of the auricle, and then draw the whole of the ear downwards. I greatly prefer this method, as it gives you a much better view of the diseased parts. Macewen also uses a large burr, connected with a dental engine or electric motor, instead of the chisel. The great advantage of Stacke's method is that we are enabled to carefully examine the affected region, to remove thoroughly all diseased parts, and to readily watch and control the field of operation during the process of healing.

A subsequent retention of pus in the attic or middle ear thus becomes impossible. The operation is often rendered very difficult and complicated by the fact that the size and position of the mastoid antrum and cells, the floor of the middle cerebral fossa, the position of the lateral sinus, and of the facial canal vary to a considerable extent in nearly every case. There is often severe hæmorrhage from the bone, especially from a small branch of the stylo-mastoid artery in the posterior wall of the external meatus.

One of the drawbacks of Stacke's operation is the difficulty in keeping open the large cavity which has been formed and of covering it with epithelium. To accomplish this, the cutaneous external meatus is cut through horizontally in one or more places well into the auricle, and a flap or flaps are formed which are stitched to the edges of the external incision or to the periosteum. In many cases we remove part of the subcutaneous tissue of the flap.

Schwartze does not cut through the whole of the cutaneous external meatus, but only through the posterior part, and he leaves the anterior half in contact with the bone. In very bad cases, or in cases of cholesteatoma, a flap is formed from the skin behind the ear and inserted through the external wound into the cavity. A permanent opening is thus formed behind the ear. The cavity is well and carefully plugged with gauze, any granulation tissue removed by chromic or trichloracetic acid, and alumnol, aristol, or airol powder insufflations used. Iodoform often induces excessive growth of granulation tissue, and should only be used for the first few days, or longer if the granulations are unhealthy or scarce. The application of glycerine of carbolic acid or hydrarg. perchlor. (1 in 500) for a few days is useful if the discharge is offensive, as it so frequently is. I always dress the wound daily for a few days, and then every second or third day, according to the amount and the character of the discharge, and the temperature. It is a question of great importance whether we should keep the external wound open or not. In all

cases of cholesteatoma we try to keep a permanent opening by the transplantation of skin. In ordinary cases, I keep the wound open as long as there is any rise in temperature or much discharge. By making flaps out of the cutaneous external meatus, we secure a permanently large external meatus (large enough to admit the tip of the finger), and we can thus readily overlook the large cavity which we have formed, and prevent any accumulation of pus or growth of granulation tissue which would cover any diseased bone. A recurrence of the disease is thus rendered very improbable. It is of great importance that the walls of the cavity should be smooth, and that it be well and carefully plugged for the first few weeks.

The symptoms of disease of the attic and the mastoid process are often well marked and evident. Frequently, however (and these are the most dangerous cases), the symptoms are few and obscure; and it is most difficult to diagnose how far the disease has spread and to know if we should operate or not. If we are thoroughly acquainted with the local anatomy and the technique of the operation, the danger attending the operation is very slight. We make exploratory incisions in obscure abdominal cases, why not in obscure mastoid cases? Surgeons, as a rule—and certainly general practitioners,—seem to treat diseases of the mastoid process with something like contempt. They do not seem to realize the dangers of cerebral complications, and they often fail to recognize that early operative treatment would frequently save the patient's life.

In conclusion, it may perhaps not be out of place to enumerate briefly the indications for operative interference according to Schwartze. The mastoid should be operated on:

1. In acute primary or secondary inflammation of the mastoid process if under treatment the symptoms do not improve in a few days.
2. Chronic inflammation of the mastoid process, with recurrent attacks of swelling.
3. Fistula over or near the mastoid process.
4. Chronic inflammation of the middle ear without apparent affection of the mastoid process if there are any symptoms of retention of pus or of diseased bone (pain, fever, etc.), or if there is a cholesteatoma.
5. Persistent pains over the mastoid process.
6. Chronic ottorhœa without any symptoms of retention of pus or swelling of the mastoid process as soon as we have reason to think that the inflammation has spread beyond the middle ear.—*Br. Med. Jour.*

TRACHEOTOMY.—The necessity for performing tracheotomy may arise when the surgeon is unprovided with tracheotomy tubes. Disinfect a fairly large hairpin, and bend both ends at a rather acute angle at about the middle of their length. The ends of the branches may then be twisted into small hooks or rings, to which tapes may be attached. The blunt end of the hairpin is inserted in the trachea, and the branches tied by tapes fastened behind the neck. This will serve until proper tubes can be procured. Failing a hairpin, take a stitch on each side of the opening in the trachea with stout silk, and tie the ends behind the neck. Any piece of iron or copper wire, of suitable size, may serve as well or better than the hairpin.—*Ala. M. & S. Age, Med. Rec.*

PAEDIATRICS.

IN CHARGE OF

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Physician to St. Michael's Hospital; Physician to Out-door Department Toronto General Hospital; Physician to Out-door Department Hospital for Sick Children.

1. We are pleased to note that a few days ago the authorities of the Health Department of the city secured the summary conviction of a mother who persisted in attending church service, in spite of special warning to the contrary, while nursing a child ill with scarlatina. The perverseness and criminality of one who needed warning to prevent such action at all, much more who disobeyed the orders of the health inspector, are amazing,, and would have justified even more drastic treatment than it received from the police magistrate, who accompanied the fine of $10 and costs with severe remarks upon the conduct of the culprit.

It is a great pity that the personal element entering into the relations of the local health authorities and the public, in smaller and more rural communities, should prevent similar salutary strictness elsewhere. The example of Toronto in this should be followed.

ON THE CARE OF PREMATURELY BORN INFANTS.—A. Schmidt (*Jahrb für Kinderheilkunde.* 1896. Xlii, 301) says that the proper feeding of prematurely born infants is certainly a very important question; but even more so is the temperature in which such a child is kept. It is not sufficient to clothe them warmly, pack them in cotton, and place warm bottles around and about them, but it is equally important, in washing and dressing them, in carrying them from one room to another, in the opening of windows and doors, to be exceedingly circumspect that they never he subjected to draughts or to sudden change of temperature. It is not absolutely necessary to use an incubator. The same object may be attained without the use of this complicated apparatus, if the child, after being warmly dressed and surrounded with cotton and warm bottles, be placed in front of a hot stove. By weighing the child daily, it was demonstrated that hardly anything had such an influence on the steady increase of bodily weight as an even, high temperature. The temperature of the room should at first be kept, day and night, at 72½° to 75° F., and the very slightest deviation from this rule would have a bad effect on the weight of the child. Even a slight fall in temperature, or the washing and dressing of the infant too slowly, or too far away from the heat of the oven, would invariably produce dangerous symptoms of collapse. The use of two rooms, one of which could be ventilated and again heated before the infant is brought back into it, would be advisable. Prematurely born children should not be bathed at all during the first two months of their existence. They should be quickly washed with warm water, once a day, and only one part of the body at a time should be exposed. The tender skin must be carefully washed and

dried with cotton batting, and a powder of talcum and zinc oxide thoroughly dusted on the parts most prone to become excoriated. Abrasions must be touched with a little brandy before powdering. These children are to be taken out into the air only with the greatest caution. It was found that a child, who had gained a half-pound every week, showed great disturbance in its progress from the day it was taken out into the warm sunshine and perfectly still air of the garden. There was absolutely no other reason for the sudden and enormous retardation of its increase in weight. In some cases, however, it may be beneficial to give them an airing after a few weeks, but it should only be done during the hottest days of summer, when there is a total absence of wind. Never should these children be taken out of their pillows, or laid, on the ground. Their clothing should be the same as other babies', but should be thoroughly warmed before the fire until perfectly dry, then wrapped around a hot warming bottle and transferred directly on to the child's body. It is absolutely necessary that a little woollen shirt with sleeves should be slipped over the muslin one. Should the child vomit during sleep every other material will become soaked and wet; wool not taking up water so readily allows the greater part of the fluid to run off, and the skin of the child remains dry and warm. Very frequently children are protected only by one muslin diaper, without an additional flannel one over it. These children after urinating suffer from a cold and wet abdomen, and severe colds and disturbances of nutrition may result from this. A flannel diaper should always cover the cotton one. It should be of square shape during the first eight weeks, and fastened round the body and thighs from the outside, not like the triangular cloth passed between the thighs, because the presence of such a quantity of material is apt to press the thighs apart and produce sabre legs. After eight weeks a triangular flannel may be used to cover the cotton diaper.

It may be advisable at about the seventh to the ninth month, when the child by its lively movements continually displaces the diaper, to give it two pairs of small trousers, the outer being made of flannel.

Prematurely born children usually sleep day and night if they progress favorably; therefore it is necessary from the first to carry them about the room, warmly packed up, for ten minutes three to four times a day. While they are lying in bed, their position should be changed every two hours to prevent hypostatic congestion of the lungs.

RACHFORD, B. K.: THE CHILD IS NOT A LITTLE MAN. *(Cincinnati Lancet-Clinic.* 1896. Vol. XXXVI, No. 19.)

In an admirable address delivered before the Woman's Club of Cincinnati, the author points out the fallacy of the idea that a child is simply a miniature edition of a man. He notes the fact that many intelligent mothers seem to act toward their children as though they believed with Dryden, that "Men are but children of a larger growth:" but, as we shall see, in this poetic line Dryden was wrong, and the mothers who treat their children as little men and women are also wrong, and are pursuing a course which will not result in making the best possible men and women of them.

The man is not simply an enlarged edition of the child, the child is not uniformly and symmetrically enlarged to make the man, and in the development of the child into the man there is not a common ratio of change between the various organs of the body.

In some of his organs and functions the child is the superior of man, in others his equal, in others immensely his inferior. The child, in a biological sense, is a very incomplete structure, lacking in symmetry and uniformity. When man is finished, his organs have reached that stage of structural and functional development which they are destined to attain.

There are certain glands in the body, of which the thyroid is a type, whose function has to do with the animal chemistry upon which depends the rapid and satisfactory growth of the body during childhood. In the better functional development of these glands the child is the superior of the man. Again, in the structural and functional development of many of his organs the child is almost, if not quite, the equal of man. The heart and blood-vessels carry on the circulation of blood in as satisfactory a way during childhood as they do in adult life. The kidneys are as perfect in structure and in function at birth as they ever become. The lungs, the muscles, the bones, and the various glandular organs of the body perform their functions in almost as satisfactory a way during childhood as they do in adult life. In short, one may say that all the organs and tissues of the body, except those of the nervous and reproductive systems, reach a fair degree of structural and functional maturity during childhood. In so far, therefore, as the lungs, the heart, the muscles, the bones and the glands are concerned, Dryden was right when he said, "Men are but children of a larger growth;" but in so far as their nervous and reproductive systems were concerned he was wrong. And it is to these important exceptions that the author refers particularly. The most important fact, and the one which should be the most strongly impressed upon the mind, is that at birth the nervous system of the human infant has comparatively a very low degree of functional and structural development. Compared with the respiratory, circulatory and excretory organs, the nervous system not only has a poor start, but in the race for development lags far behind. A very peculiar fact in this connection is that in size and weight the nervous system develops more rapidly than does either of the other systems But in its functional development it is far behind. At the age of seven the brain has attained ninety per cent. of its maximum weight. Increase in bulk after fourteen is extremely slight. Yet all the higher emotional and intellectual qualities develop after fourteen.

In his nervous system, therefore, the child is not a little man. His nervous system is undergoing rapid structural development, but in function it is undeveloped, unstable, and weak, and may require assistance and protection at every stage of its development. The great mass of brain and nerve tissue, which is so rapidly developed in the young child, is, in its functional capacity, notoriously incompetent to stand the strain of sustained intellectual effort without perverting the energizing capacity which should be spent in the development of tissue and structure. Early

childhood should, therefore, be the play-time, and not the study-time, of life, and in late childhood also the nervous system should be protected against the baneful influence of sustained intellectual effort.

One should always remember that it requires a period of twenty or twenty-five years for the nervous and reproductive systems to reach functional maturity, and that during the greater portion of this time these are the only parts of the body which are functionally undeveloped. But if all goes well, the nervous and reproductive functions will mature, and then we may have a uniform and symmetrical individual of equal and satisfactory functional development in all of his organs. Such is the ideal development to which the normal child, under favorable conditions, may attain. Every child starts on his way in life with certain inherited possibilities of development, and it should be the object of every mother, guardian, and teacher to build upon this foundation the best possible superstructure that it will safely sustain.—*Arch. of Pediatrics*, Nov., 1896.

CHOREA.—Dr. E. De Renzi (*Gazetta degli Ospitali e delle Cliniche*, 1896, No. 29), has made use of eserine, antipyrin, salol, and ether spray along the vertebral column; but he places his confidence in only three remedies: (1) Absolute rest, the patient being placed in a dark room and avoiding all external excitation whatever. (2) The ascending electrical current along the spinal cord—the best result with a gentle current progressively increased. (3) Arsenic in large doses, commencing with twenty drops of Fowler's solution each day for children and double this amount for adults. The medicine should be continued after the chorea ceases, for the disease readily returns. The nutrition of the patient must be maintained, and good food and gymnastics are useful.—*Med. Record.*

THE CLINICAL SIGNIFICANCE OF THE CHILD'S FONTANELLE.—Dr. J. A. Abt said that in health the fontanelle does not sink below or rise above its bony frame. It has both respiratory and pulsatory movements. With increased intracranial pressure the normal bruit may quite disappear. An early ossification interferes with brain development and produces a brachy-cephalic skull. In rachitis the involution of the fontanelle is delayed. Marked bulging is caused by the collection of fluid within.

The abnormal retraction of the fontanelle always indicates a condition of inanition. It may be temporary; if chronic, it is a serious condition. A deeply-sunken fontanelle is always a danger-signal in any case. Ossification occurs normally at fifteen to eighteen months. Protuberance and tension indicate meningitis.—*Pediatrics*, Nov., 1896.

As Sunlight is to Darkness

is the condition of the woman who has been relieved from some functional disturbance to her state before relief. Don't you know, Doctor, that there are few cases that pay the physician so well as those of women—and the Doctor that relieves one woman, lays the foundation for many more such cases—all women talk and your patient will tell her friends ASPAROLINE COMPOUND gives relief in all cases of functional disturbance—Leucorrhœa, Dysmenorrhœa, etc., and in the cases it does not cure it gives relief. We will send you enough ASPAROLINE COMPOUND—free—to treat one case.

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Editorial.

THE EFFECT OF OÖPHORECTOMY ON WOMEN.

There is probably no question in gynæcology regarding which greater difference of opinion exists than that of the effect of "castration" on women.

Dr. Goodell agrees with Heger that the artificial menapause is often attended with more serious complications than are, not infrequently, attendant upon the natural change of life.

Then, again, mental disturbances, characterized by low spirits, melancholia, and even insanity, can clearly be traced to removal of the ovaries.

Keith states that 10 per cent. of his patients recovering from hysterectomy subsequently suffer from melancholia, or from other forms of mental trouble.

Formerly, Dr. Goodell maintained that oöphorectomy, after puberty, did not entirely unsex a woman; her capability of being impregnable was lost, but the sexual feeling remained much the same. But a riper experience taught him that with the majority of cases the sexual feeling gradually abated, much sooner than after the menopause of nature, and that in many cases it disappeared. In the special committee to investigate Imlach's cases of castration at the Woman's Hospital in Liverpool, they found "a distinct loss of sexual feeling" to such an extent as to cause serious domestic unhappiness in not a few instances. Dr. Goodell otherwise found no marked physical or psychical change.

The affections remain the same, the breasts do not waste or flatten, obesity does not ensue, and the tone and quality of the voice remain unchanged ; or, in other words, there is no tendency to the formation of a masculine type. In fact, if any change takes place it is in the direction of "old-maidhood." In consequence of this experience, he advises that an effort be made to restore a woman's health by resorting to other than operative measures.

If oöphorectomy is the *dernier ressort*, then, he says, never remove a healthy appendage unless the menopause is established, or there is good reason for hastening it. The latter may be the case for women with

excessive or morbid sexual appetite, dependent upon ovarian or uterine disease. In such the operation usually results in the extinction of the appetite.

Should the appendages be merely adherent, and not diseased to any extent, and should there be actual menstrual life, we may relieve the adhesions, and, perhaps, remove the more diseased of the two ovaries, but not both.

Even a small fragment of ovarian stroma that is left behind may prevent any menstrual or sexual change whatever occurring in the woman. The lesson to be learned is to be as conservative as possible, and never to operate needlessly.

J. M. McF.

SERUM DIAGNOSIS OF TYPHOID FEVER.

If future results justify present expectations, clinicians will owe a deep debt of gratitude to bacteriology in furnishing them with a simple and, apparently, certain method of diagnosing typhoid fever. The observations which have led up to this important discovery may be briefly stated as follows:

It was a fundamental principle expressed by Behring that the serum of an animal immunized to a certain disease has a *specific* action, and so can act upon or counteract the effects only of the *specific* organism producing the disease, and is impotent against all others. Pfeiffer, of Berlin, applied this principle in his researches to discover a means of diagnosing between true and false cholera vibrios. He rendered an animal immune against a certain cholera vibrio. He then injected a mixture of the serum obtained from the immunized animal and the suspected cholera organism into another animal, and, if the latter died, then the organism could not be the cholera vibrio, or its effects would have been neutralized by the anti-cholera serum. He next observed that if cholera vibrios were injected into the peritoneal cavity of an immunized guinea-pig, the organisms soon lost their characteristic appearance and became transformed into granular masses. This granular transformation is known as Pfeiffer's phenomenon, and is observed only with the specific organism of the disease. Bordet greatly simplified matters by discovering that the same phenomenon may be observed outside the animal body, when a little of the culture of the cholera vibrios and the anti-cholera serum are mixed on a glass slide and the process watched under the microscope. He found that organisms responded in the same manner to his method as to Pfeiffer's test. This method was afterwards applied to typhoid bacilli, and it was found that, when treated similarly to the cholera vibrios by Bordet's method, the organisms gradually lose their motility and become arranged into clumps. Widal and Sicard pointed out that the serum and blood of immunized animals *when dried* retain the power of producing this effect on the typhoid bacilli. The blood of patients suffering from the disease was also found to have a similar power of arresting the motility and producing aggregations of the typhoid bacilli. The credit for the practical application of these observations is due to a fellow-countryman, Dr. Wyatt Johnston, of Montreal.

He has shown that the fluid obtained by moistening a dried blood-drop, and mixing it with a drop of a bouillon culture of the typhoid bacillus, gives the reaction in a satisfactory manner.

The procedure is very simple and easy of application. A drop of blood from a suspected case is obtained upon a piece of clean paper or in a small tube sealed in an envelope and forwarded for examination. The dried blood-drop at the laboratory is moistened with distilled water and mixed on a cover-glass with a drop of a bouillon culture of the typhoid bacillus, and the mixture then examined under the microscope, as in a hanging-drop culture. If the blood be from a patient with typhoid fever, the bacilli, which are very active at first, after a varying time begin to lose their motility, and become aggregated into clumps, as in Pfeiffer's phenomenon. This reaction has not been obtained in blood from any source other than cases of typhoid fever, and it may be observed with blood *dried* for several days. The exact limits of time in the course of the disease at which the reaction may be obtained are not yet definitely fixed; but it is found comparatively early and lasts for some time after convalescence. Dr. Johnston's remarkably successful results with this method of serum diagnosis in typhoid have been fully confirmed in a series of cases reported to the Toronto Pathological Society, November 28th, 1896, by J. J. Mackenzie. There thus appears little reason to doubt the value of this discovery, important in itself, but more important in the field it appears to open up for future discoveries of methods for the bacteriological diagnosis of infective diseases.

H. B. A.

IMMORALITY IN CANADA.

"We have been distressed and shocked beyond measure to learn that large and increasing numbers of women in Canada are giving themselves up to the vilest form of immoral practices. The report that comes to us, indeed, is such that, were it credible, we should be led to despair of the future of the country, for, compared to Canada, or at least Toronto, Sodom and Gomorrah were as pure as Salvation Army shelters. It appears that cycling, which with us is adding so much to the health and the beauty and the charm of our women, is in Canada, or at least in Toronto, merely a means of gratifying unholy and bestial desire. We hesitate to believe such a report; but we have it on the authority of the editor of the *Dominion Medical Monthly*, and he is on the spot and speaks as one with absolute knowledge of the facts.

"After referring to the advantages claimed for the bicycle, which he refutes by the statement that the average woman gets about all the exercise she wants in looking after her home, our esteemed contemporary says that 'the consensus of opinion is increasing overwhelmingly day by day that bicycle riding produces in the female a distinct orgasm, . . . and even if an orgasm is not produced, the continued erethism is decidedly more injurious, and tends to the production of nervous diseases and the general breaking down of the system. The only contention that can be made is that the orgasm or erethism is not produced. This we

know to be absolutely untrue.' The writer adds more of the same kind, and pictures the mothers, wives and daughters of his neighbors as scorching through the country, stooping low over the handle-bars, and 'subjected to continued erethism as well as occasional orgasm.'

"There is but one of two conclusions to be drawn from this statement. Either the wheelwomen of Toronto are the vilest of their sex, or they are the victims of a contemptible slander. Unless our contemporary has a mass of facts sufficient to establish beyond doubt the sweeping generalization contained in the article from which we have quoted, he has smirched the fair name of his countrywomen in a reckless fashion that calls for the strongest condemnation. The question of the healthfulness of cycling, for men as well as for women, is one that still admits of discussion; but the man who can assert, or even suggest, that the thousands, perhaps millions, of women throughout the world who ride the wheel are giving themselves over to self-abuse, puts himself beyond the reach of argument."

[The above is a copy of an editorial in *The Medical Record*, one of the leading medical journals of the world. To say that the writer in the *Dominion Medical Monthly*, which we blush to say is a Canadian journal (sic), is talking the foulest slander of our women is mild. Could it be sure *who* wrote it, even devils might pity him. Was he disappointed in getting an *ad.* from some bicycle firm ?—ED.]

DIPHTHERIA ANTITOXIN.—In arriving at the value of antitoxin in the treatment of diphtheria, it has become manifest that the cases which do not respond to the treatment satisfactorily are those in which there is a mixed infection; in complicated or septic diphtheria the serum has in a measure failed. The following communication of Dr. Roux to the Medical Congress of Buda-Pesth illustrates this:

"The diphtheria associated with or complicated by the presence of other bacilli, *especially the streptococci*, are among the most severe to be seen. Most frequently the disease involves the lungs, which, at autopsy, show foci of broncho-pneumonia, wherein are found the diphtheria bacilli and the streptococci.

"The association of these two microbes produces in rabbits a diphtheria running a rapid course, as seen in very young children. The anatomo-pathological lesions are the same. In both cases there is broncho-pneumonia with abundant bronchial secretion.

"*In these cases of associated diphtheria the serum but rarely cures.* This is not because there is a formation of larger amounts of diphtheria toxins, or because the antitoxic actions are hindered, but because the cells stricken by poison of the streptococci no longer feel the stimulation of the antitoxin."

Dr. Roux further quotes his experience with various cases of diphtheria treated with serum at the Hospital des Enfants of Paris. He found that while in pure diphtheretic anginas (unmixed infection) the mortality was seven and a half per cent., it amounted to 34 and a half per cent. in children where the diphtheria bacillus was associated with streptococci. When diphtheria had invaded the larynx, and tracheotomy had been re-

sorted to, and when the diphtheria bacillus was not associated with streptococci, under the influence of the treatment, the mortality was reduced from 67 to 30 per cent., but in the diphtheretic laryngeal cases *in which the two bacteria were associated* the death-rate was 63 per cent., notwithstanding the average injection of antitoxin during the treatment amounted to 60 oom.

European scientists have experimented in the direction of preparing a serum having antitoxic properties against both the Loeffler bacillus and the streptococcus, by immunizing the same animal against both poisons. The Biological and Vaccinal Department of the New York Pasteur Institute, following Marmorek's method, and recognizing the importance of reaching practical results, has succeeded in producing a serum which is at the same time antitoxic against diphtheria and streptococcus infection immunizing diphtheria antitoxin horses against the streptococci virus. A period of one year is necessary to immunize a horse against streptococcus, an immunizing power of about 1:30,000 being reached.

THE AFTER-TREATMENT OF CELIOTOMY.—Reichel *Archiv. fur klinische Chirurgie; Univ. Med. Mag.*) considers the question as to whether it is advisable after the operation of celiotomy to stimulate or depress peristalsis, and, further, what influence treatment has upon intestinal paresis or ileus. He believes that, regardless of the fact that the operation may be aseptic, there may be a migration of bacteria, that these bacteria may be distributed over the entire peritoneum, and may possibly be quickly absorbed and destroyed, but that, on the other hand, diffuse or circumscribed purilent peritonitis may result. Also, that if this purulent peritonitis is isolated the prognosis is always better. Granted that this is true, he concludes that in cases of intestinal resection, and those celiotomies in which a portion of infected material is allowed to remain in the abdominal cavity, that the arrest of peristalsis is not advisable; that the administration of opium does harm. He advises that from the day of operation peristalsis should be slightly stimulated by the administration of slight doses of saline water, and the bowels should be opened on the second or third day. Should the symptoms of subacute intestinal paresis or ileus appear, probably due to intestinal adhesions, no food and only a small amount of water should be given; also, that the stomach should be repeatedly washed out and opium given in suppository. Saline cathartics are now contra-indicated. If the patient's conditiou improves, an enema of water containing glycerine should be administered. If, after twenty-four hours, or the latest forty-eight hours, the patient's condition has not improved, the abdomen should be re-opened. Where the trouble is thought to be due to mechanical occlusion of the intestine, as where there is advanced peritonitis, purgation is strongly contra-indicated. Reichel believes that simple mechanical occlusion is rare; that the greatest number of cases are due to paresis of the intestinal muscle wall, where the intestine is bent upon itself or looped; that this paresis and the stenosis is increased, and the bowel distended, when artificial peristalsis is induced. Therefore this condition is best treated by keeping the intestinal tract at rest. The abdomen should be re-opened where there is sepsis, and where the symptoms point towards mechanical obstruction.

ARSENIC IN GASTRALGIA.—Sawyer (*Lancet*) says, "Further observation in practice has confirmed my favorable opinion of the curative efficacy of arsenic in the various painful neuroses included under the name gastralgia. I have already laid before the profession my earlier experience in this subject. Romberg's well-known description of gastralgia is classical. He distinguished two forms of the malady—gastrodynia neuralgica, which he held to be hyperesthesia of the gastric branches of the pneumogastrio nerve, and neuralgia celiaca, which he attributed to hyperesthesia of the solar plexus. Clinical experience confirms the views of Niemeyer and of Henoch, that this distinction is difficult and of doubtful utility in practice. Gastralgic affections, severe and slight, are not rare in hospital practice, and frequent among private patients, especially among those of nervous temperament. I need scarcely observe that for obvious reasons the diagnosis of gastralgia is one which should neither be lightly made nor negligently maintained. But pain arising in the stomach when the organ is empty, and relieved by the ingestion of food, is almost diagnostic, as the late Dr. Wilson Fox taught, of its nervous nature and origin. With due regard to the casual concomitants and antecedents of gastralgia, arsenic cures the disease. It is best to give the drug in pilular form. I exhibit a twenty-fourth of a grain of arsenious acid made into a pill, with two or three grains of some tonic vegetable extract, such as gentian, three times daily, half-way between meals. Scarcely any other medicinal treatment is needed in cases of moderate severity, and the use of the remedy should be continued for some weeks. In severer cases I use counter-irritation to the epigastrium of duly proportional activity. I have usually found a full and varied dietary suit gastralgic patients far better than a restricted 'dyspeptic' regimen. It is in such cases that Trosseau's maxim is true—that we should know what a patient does eat before we advise him upon what he may feed."

THORACOPLASTY IN AMERICA (SCHEDE'S) AND VISCERAL PLEURECTOMY, WITH REPORT OF CASES.—Thoracoplasty as first done by Schede is an heroic measure for the otherwise hopeless cases of chronic empyema and consists of the removal of the chest-wall. Dr. Ferguson described his method of operating and stated that some cases are not cured in spite of any operation for their relief. In his opinion, the statement made by Schede that amyloid degeneration and tuberculosis do not contra-indicate this operation is only true within certain limits. The author first performed Schede's operation in July, '95, in which case a sinus resulted. Healing by first intention at the sides was secured and the patient was able to be out in a very short space of time. In spite of careful treatment for five months after the operation, owing to the fact that a long central sinus had not closed, the operation of visceral pleurectomy was performed, which resulted in the patient's complete restoration to health. This operation has been performed by one other man in America, Dr. George R. Fowler, who was the first to perform it in October, 1893. Visceral pleurectomy has only been done five times altogether, including Dr. Ferguson's case.

CAMPHOR IN STRYCHNIA POISONING.—Dr. A. K. P. Meserve reports, *Jour. Med. and Science*, the case of a child, 2½ years old, who was supposed to have taken $\frac{1}{60}$ grain of strychnia. Characteristic symptoms of the poisonous action of the drug soon appeared. In the absence of a physician, ten drops of tincture of camphor were given. The effect was almost instantaneous. The spasms relaxed, and when a physician arrived, nearly an hour later, the danger seemed to be over. Tannin and a large dose of camphor, gtt. xx, were administered, as a precautionary measure. The next day the child had fully recovered.

SALOL IN DIARRHŒA.—Fussel (*Therapeutic Gazette*) confirms the statements which he made upon the value of salol in diarrhœa, and which he published in the above journal, in 1892. The conclusions arrived at in the original paper were:

(1) Opium is rarely necessary where salol is used.
(2) Salol controls the abdominal pain equally as well as opium.
(3) It is perfectly safe having no bad after-effects.
(4) It is especially useful in the treatment of the diarrhœa of children.
(5) It is of no value in dysentery.
(6) It constantly corrects the fetor of the stools.

The following mixture is suggested as the best method of administering the drug: Salol, ℥i; bismuth subnitrate, ℥ii; misturæ cretæ, q.s. ad f℥iij.—M. Sig.—Two drachms every one or two hours until relieved.

To the above conclusions. the writer adds that in the diarrhœa of typhoid fever salol acts almost as a specific, and that it has also a favorable action on the annoying diarrhœa which accompanies tuberculosis, either with or without a tuberculosis enteritis. The sixth conclusion of the original paper is corrected. "The mixture will certainly *not* control the attacks of dysentery," says the author, "but the fetor of the stool and the general abdominal distress are greatly relieved by its administration, and I always use it in my cases in powder form, with bismuth in large doses."

No untoward effects were ever encountered, and although the urine was repeatedly examined, it did not contain casts or albumin in a single instance.

NEW TREATMENT FOR TAPEWORM.—Dr. Newington (*Med. Times and Hosp. Gaz.*) gave the following for another disorder and found that the patient passed a dead tapeworm eleven feet long, of whose presence he, as well as the physician, was ignorant:

℞ Potass. hydriodat,.....gr. xxxvi;
Iodi,.....gr. xij;
Aquæ.....℥i.

Ten drops in water three times daily.

The same combination was then tried in three cases in which the para site was known to be present, and in each case it acted equally well. In still another case, which had resisted all previous attempts, the patient passed a mass of dead tapeworm and for a year had no return.

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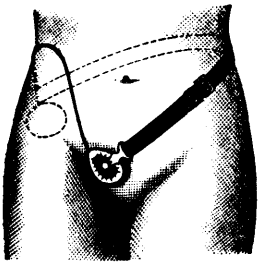

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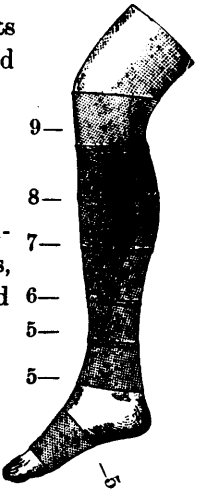

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"Without wishing to even question the possible advantages of antiseptic treatment in many cases of excessive intestinal fermentation, I am, however, inclined to lay special stress upon the influence of diet in such disorders. Everything else being equal, it is obvious that the more digestible the food-stuffs ingested, the less tendency there will be for intestinal fermentation. On the other hand, the accumulation of difficultly digestible material in the intestinal tract affords one of the best possible conditions favorable for putrefaction,"—CHITTENDEN, *"Intestinal Fermentation."*

Peptonised Milk, prepared with Fairchild's Peptonising Tubes, is a perfectly digestible and absorbable food. Its use precludes all accumulation of unassimilable matter in the intestinal tract.

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