Fifth. The ends of any ligature which has to be applied within the abdominal cavity must be cut off as short as possible; the ends cut off must be carefully removed. As material for ligation, strong, well-twisted silk may be used.

Sixth. After the cyst has been thoroughly separated it is drawn out through the abdominal opening. At this moment the assistants have to carefully prevent any protrusion of the intestines.

Seventh. If the pedicle of the cyst is long enough, is is well to fasten it outside of the abdominal cavity by a clamp after the model of Spencer Wells. After this the pedicle is cut through, and its stump is burnt by red hot iron down to the clamp to form an eschar. When, however, the pedicle is too short to allow an external fastening, I apply two or three strong ligatures, one end of each is cut off short to the knot, while the others are tight and twisted together, and brought outside in the lower corner of the abdominal wall. The pedicle is then separated near the ligatures and its stump also carefully as in the first case. I am decidedly against the use of the érraseur, because in the first place it prolongs the time of operation, and secondly, it is no sufficient safeguard against hemorrhage, of which I have seen instances myself.

Eighth. The abdominal cavity must be cleansed in the most careful manner. The operator and assistants once more wash their hands in carbolic acid water, and then examined once more thoroughly all folds and places, whether there is any stain of blood or fluid, which, when found, is to be removed by sponges saturated in a solution of one per cent. of carbolic acid.

Ninth. In cases where there were little or no adhesions, and where the pedicle can be fastened outside, I close the abdominal wound entirely by main sutures of one inch distance, inserted one and a half centimetres from the edge of the wound, and piercing through the abdominal wall and the peritoneum. The pedicle is fastened between two such main sutures. The interspaces between these main sutures are secured by skin-deep sutures of one centimetre distance. In cases, however, where there existed strong adhesions, where a great number of internal ligatures had to be applied, or when the pedicle had to remain inside, I allow one to one and a half inch of the lower part of the wound to remain open, and keep it open by inserting a piece of fine linen, saturated with a solution of carbolic acid (1: 99).

Tenth. Before the wound is perfectly closed, it is a matter of great importance that the patient, who at this time has regained

sufficient consciousness, is caused to cough a few times in order to drive the air out of the abdominal cavity.

Eleventh. The closed wound is covered by linen folded four to six times, and saturated with a carbolic acid solution. Upon it follows a layer of raw cotton all over the abdomen, which at last is tightly bandaged.

Twelfth. Now the patient is placed in bed, in a well ventilated warm (17° R.) room. If much exhausted, she receives a wineglassful of good champagne.

III.—Treatment after the Operation.

First. Calabar bean every three to four hours, at most, three drops a dose. If in the next hours after the operation there is a rise in the temperature of the patient, I administer Acon.² or 3d, alternately, with the tincture of calabar bean. If within the first sixteen to eighteen hours there is no rise in the temperature, I discontinue the calabar bean, and substitute Arnic. and Acon., alternately every two hours. Should there be the slightest pain, I at once give Morphium 0.03 in 90 of water every fifteen minutes, a teaspoonful until the pain is gone. Morphium is also the best remedy against constant nausea and vomiting. In such cases, the abdomen must be very tightly bandaged. Thirst is best allayed by ice pills. Tenesmus of the bladder must be relieved by the introduction of the catheter. After urination the parts ought to be washed with carbolic acid solution.

The diet consists at first in light soups; if she has good appetite, she may have some beef-broth, with farina or fine noodles and milk. I caution against the use of much wheat bread (Semmel). If the patient is very weak, she may take towards noon some red wine with water (1: 4). When after seventy-two hours there is no increase of temperature, I allow from the fourth day beef tea, chicken, pigeon or partridge, etc., and dried fruit. After the sixth day, if everything is going on normally, the patient may have roasted beef, chopped ham, sardelles, soft, boiled eggs, light farinaceous food, fruit. From the ninth, latest, from the twelfth day the patient may be considered out of danger.

Peritoritis, which sets in within the first twelve to eighteen hours, with a rise of temperature to 38° C. and higher, with frequent green vomiting and feeling of great anxiety, usually terminates fatally within two or three days.

From the fourth day I commenced with removing the main

sutures. In place of them, I put adhesive strips, one inch wide across and crosswise over the entire abdomen. The skin sutures can stay seven to ten days without causing suppuration. The clamp I prefer to remain until it falls off spontaneously. In case of suppuration, I apply a safety ligature before I remove the clamp. There is also a frequent cleansing of the part, with carbolic acid solution necessary. From the eighth day care should be taken that the bowels are moved. If injections are not sufficient, a weak rhubarb infusion should be administered. (A. Mayländer, A. H. Z., v. 86, p. 74.)

Ovariotomy. Patient, a widow, et. 53. S. R. Beckwith, after tapping (removed about thirty pounds of fluid from cyst), Arsen., Apis and Podoph. having been ineffectual in resolving the tumor, extracted a cystic tumor enclosing several fibrous masses. The adhesions were near the right ovary and walls of the abdomen; these were broken up with the fingers, the mass lifted out, the pedicle (about eight inches square) was tied and cut, and Atlee's clamp applied; the wound was closed by silver sutures and adhesive straps; a dressing of carbolic acid and oil was applied. The whole tumor weighed twenty-six pounds. Acon. and Arnic. were given in alternation. Recovery. (Reported by W. C. Dake, N. E. M. G., July, 1872, p. 240.)

Ovariotomy. Performed in a lady, æt. 42. Incision in median line eleven inches in length. The thoroughly emptied solid mass weighed eight pounds. Numerous cysts contained forty-six pints of fluid. Wells' clamp was applied, and silver sutures closed the abdominal opening. Clamp was removed on eighth day. Operation successful. (M. Macfarlan, A. J. H. M. M., v. 7, p. 260.)

Ovariotomy. Lady, et. 37. Cysto-sarcoma of right ovary. Operation by long abdominal median incision; fluid weighed forty-four pounds, solid mass twelve pounds. The broad clamp was applied and removed in a week. Operation successful. (M. Macfarlan, A. J. H. M. M., v. 6, p. 271.)

Uterine Fibroid Polypus. Erasement. (J. C. Morgan, A. J. H. M. M., v. 6, p. 343.)

Ovariotomy. Case first. The patient was a feeble young lady, at. 19. I was assisted in the operation by several competent surgeons of both schools, and all agreed that on account of the dissections necessary to removal, the patient would die from inflammation should she withstand the shock of the operation. I not only fully concurred in this opinion, but regretted that the operation had been performed, as I had never seen a case recover where

there were so great adhesions, and I could not conceive it possible that she could recover under any treatment that I had given after the operation of ovariotomy. At that time I had removed numerous ovarian tumors, with no more than the average success of other operators.

The recollection of violent peritonitis, with rapid prostration and death, that have so often followed the operation where I had given small doses of morphine until the acute pain was relieved, followed by low potencies of *Acon.*, *Arnic.* and *Bellad.*, was too vivid in my mind to expect a favorable result here.

After the completion of the operation and the patient was placed in bed, I prepared a dose of morphine to give the patient to relieve her severe suffering, when the attending physician forbade its use, with the remark: "I only employed you to operate, not to treat my patient. She shall have nothing but Acon.³⁰ and Arnic.³⁰ at present." I assured him that the pain would be so severe that it would be almost inhuman not to give some form of an anodyne. His only reply was: "It will endanger her life."

I am very free to confess that I left the patient with not a very high estimation of the good sense of "My High Dilutionist."

This case was reported daily by telegraph and letter, and each report stating, "patient doing well, no inflammation." The tenth day I was anxious to see a case of the kind described, and so I visited the patient, when I found the wound nearly healed, and the patient having a good appetite and rapidly convalescing. I was informed that no untoward symptoms had arisen. In a few weeks the patient, with an attending friend, entered my office. I was again assured by her and by the physician that he had given only Acon. and Arnic., both 30th.

Case Second. This was the removal of a multilocular ovarian tumor weighing twenty-four pounds, from a patient, et. 44. The tumor was partially encysted, and she had been tapped several times. After making the incision, it was found that the anterior saculated portion of the tumor was adhered to the peritoneum over a very large surface, requiring an extensive dissection to separate the sac. Numerous vessels required torsion. After the completion of the operation, I asked a competent surgeon (of the old school) what he would think of remedies that would prevent or control severe inflammation in the case. He replied: "God never made the remedies that would prevent acute peritonitis in

any case where the peritoneum had been injured as much as in the case of our patient."

I never before had made such extensive dissections in ovariotomy, and I was doubtful of the result. Tepid water was applied to the abdomen, Acon.30 and Arnic.30 given every three hours. This case was reported to me in the same manner as the former, by telegraph the first few days and then by letter, each report giving encouraging news from the patient. At the end of two weeks my friend of the old school adds his report to that of the attending physician in a few but expressive words: "God has made the remedies."

Four weeks after the operation I received a letter from the patient, in which she says: "After you left here I continued steadily to improve. I had no fever whatever during the whole time, and little pain."

Facts are stubborn things, and when observed and admitted by our opponents and the laity, in regard to cures by high potencies, what homeopathic physician dare deny? (S. R. Beckwith, M. A., p. 86.)

Ovariotomy. Report of a case. Drain tube used. Recovery.

(R. Ludlam, U. S. M. and S. J., v. 8, p. 353.)

Ovarian Tumor.—Galvano-puncture. Mrs. B., æt. 29. Ovarian cyst of the right side, size of a child's head. Patient being etherized and the abdominal walls rendered tense by an assistant, three gold needles were plunged into the most prominent part of the enlargement, fully three inches deep, and the positive (sponge) electrode of a twenty-four cell zinc and carbon battery charged with a solution of sulphuric acid and bichromate of potash, placed upon the left thigh, while the negative pole was in contact with the needles. The current was continued for half an hour. Patient was then put to bed. Severe abdominal pains with vomiting and great distress in the cardiac region were experienced on recovering from the anæsthesia. Two hours after the needles were removed tumor had entirely disappeared, the fluid contents having undoubtedly escaped into the abdominal cavity, which presented the usual appearance of ascites. She remained in the hospital seven days. Two months afterwards she reported herself as feeling quite well, with no pain or abdominal enlargement whatever. (W. Danforth, Surg. Clin. Hahn. Med. Coll. and Hosp.; U. S. M. and S. J., v. 8, p. 194.)

Hemorrhoids. Mr. B., et. 48, of sanguine-bilious temperament

has been troubled with piles for twenty years. Examination revealed an immense cluster of hemorrhoids almost or quite as large as a fist, completely encircling the anus. Patient being fully anæsthetized, an operation for their removal was commenced by forcibly dilating the sphincter. Sim's speculum was then introduced to retract the bowel, after which the tumors were seized (one at a time) with Dr. Nott's rectilinear ecraseur, and completely crushed through the base, thus entirely obliterating the vessel. To prevent possibility of hemorrhage a silk ligature was passed around the shred like remains at the root of each tumor. The after-treatment consisted of enemata of Calend. water, every four hours. One week after the operation the patient was dismissed, and has had no return of the trouble. (W. Danforth, Surg. Clin. Hahn. Med. Coll. and Hosp.; U. S. M. and S. J., v. 8, p. 340.)

Varicocele. Cure by Improved Method. (M. Macfarlan, H. M., July, 1873, p. 562.)

Lithotomy. John J. Detwiller performs lithotomy with a longhandled, probe-pointed knife, having a tapering blade with cutting edge, less than a quarter of an inch in width; with this knife he divides the membraneous portion of the urethra, passes the knife through the prostate gland and enters the bladder, making ample room. In this way large stones may be extracted with less danger than with the straight English bistoury. (Trans. A. I., 1872, p. 373.)

Varicocele and Hydrocele. Cured by cutting down upon the bundle of veins and ligating them above and behind. The tunica vaginalis was freely incised, the veins returned to their place and usual dressing applied. (M. Macfarlan, A. J. H. M. M., v. 6, p. 164.)

Lithotomy. Removal of a stone weighing one hundred and eighty-six grains, and measuring three and seven-eighths inches on its greatest circumference in a child of three years and nine months, by the left lateral method, with entire recovery in ten days. Speedy recovery believed to be due to non-interference by drugs and bougies. The bowels being allowed to move naturally, and no catheter being introduced. (M. Macfarlan, A. J. H. M. M., v. 6, p. 184.)

Hydrocele. The radical cure of. Patient being etherized, the operation was performed after the method of Dr. Hamilton, by making an incision through the scrotum anteriorily three or four inches in length. The sac being evacuated and the hemorrhage stopped, a piece of lint moistened with carbolized water was introduced between the lips of the wound, and the whole covered with a slippery elm poultice, to be renewed every four hours. Gave Acon.³, in alternation with Merc. sol.³.

On the fifth day the lint was removed, followed by the escape of half a teacupful of serum. Wound was then bathed daily with carbolized water, and the poultices continued until the twelfth day, after which calend. cerate was used.

On the fifteenth day he wore a supporter for the scrotum, and was able to go to his business. (C. N. Dorion, U. S. M. and S. J., v. 9, p. 109.)

Varicocele. Passed a double ligature between veins and vas deferens, brought it out through the scrotum behind; re-entering, the needle was brought out on the outer side of veins at the point of entrance. Tying it tightly the knot was slipped into the scrotum, leaving the ends out. Acts quicker and safer than the button, etc. (M. Macfarlan, Proc. H. M. S., Penna., 1873.)

External Perineal Urethrotomy. Mr. D., et. 54, had been under treatment for several months for urinary fistulæ, of which there were three on left side; the urine trickled through these and did not pass by the penis. Cause, gonorrhæa contracted thirty years ago. Had been treated by injections, and when stricture was developed, bougies, etc., used with force, ruptured the urethra, caused perineal abscess, extravasation of urine, etc. A small bougie reached no further than the bulb; the stricture was impervious, the urethral fever violent.

Chloroformed him; introduced a No. 12 sound down to the seat of stricture, anterior to the bulb, depressing the handle towards the abdomen to make its extremity prominent; made a straight incision of one and a quarter inches from the point of instrument towards the anus, dividing the skin and fascia; opened urethra just in front of the instrument, but could find no route to the bladder. With the left forefinger in the rectum touching the apex of the prostate, made an opening into the bladder, one inch long, on a line between the perineal incision and the point of my finger in the rectum. My finger now freely explored the bladder. Introduced a No. 18 metal sound via the penis, no catheter was retained. Incised fistulous tracks. Placed him in bed with legs flexed, wrapped in blankets. R. Arsen.20, in water. After reaction had violent chills and fever, which did not recur. For a week his urine was caught in a folded linen sheet, it dribbling through the cut. After third week introduced a large instrument to prevent urethra from closing near the cut. The fistulæ are healed. About onehalf urine passes by the penis. (M. Macfarlan, H. M., Nov., 1873, p. 158.)

Fifty Caces of Cancer. Statistics of treatment. (W. Tod Helmuth, N. Y. J. H., June, 1873, p. 145.)

New Surgical Apparatus. A new surgical device for the purpose of applying compression, heat or cold to joints, or other parts, consisting of a hollow cylindrical rubber bag, so arranged as to envelop the affected part and capable of being inflated with air, or hot or cold water, has been brought out by A. G. Beebe. (M. I., v. 10, p. 443.)

Hemorrhage. Operations on unsound tissue often cause serious hemorrhage. Cobweb is the remedy. (J. C. Morgan, M. I., v. 10, p. 295.)

Electrolysis for the removal of malignant tumors. It changes the protoplasma of the cells; and they lose thus their vital quality. Every malignant tumor before general infection takes place, may be radically destroyed, and the general infection prevented. The whole method consists in sticking needle-electrodes in different parts of the tumors, which may be done at different sittings; afterwards and for some time weak currents must be carried with flat electrodes through the tumor. (Neftel, N. A. J. H., v. 22, p. 273.)

Convenient Substitute for Gooch's Canula. Cut off the rounded tip of a silver catheter. Fasten the lower end with brasswire to the upper end of a shade cord tighten and solder fast. Double a clock cord and pass through the catheter leaving a loop at the upper end. Fasten one end to the screw knob leaving the other loose for application to the knob, after the growth had been caught in the nooze. Tighten the cord, and fasten, then by moving the screw-button down the growth is strangulated. (H. J. Sartain, quoted by B. W. James, H. M., Jan., 1873, p. 293.)

Skin Grafting. By W. Tod. Helmuth, Trans. N. Y. H. S., 1872, p. 165.)

Tuberculosis of the Sacrum. Report of a case of. With treatment and operation. (T. D. Stow, Dec., 1873, p. 207.)

Paracentesis Thoracis. Four cases recovered within two years after tapping; the air was allowed free access to the pleura through the tube. (W. B. Chamberlain, Hitchcock and Whittier, N. E. M. G., Feb., 1873, p. 66.)

Cancer. The medical and surgical treatment of. In the use of remedies, the old anti-psories, Sulphur and Calc. carb. are almost

SURGERY.

327

indispensably necessary. For the immediate symptoms, Arnic., Arsen., Bellad., Conium and Iodine perhaps hold the first rank. Hydr. can., Phytol., Trif. ast., Lycop., Acet. ac., Citr. ac Heu. amer., electricity, Xanthox. and Condur. have been used empirically with a certain degree of success.

Carbol. ac., Kreosot. and Acet. ac. have been employed anti-pathically in large and repeated doses, internally and externally, with good results in preventing the further growth of cancer cells.

Of the two surgical methods of treatment, excision and enucleation, the latter is much to be preferred, for the reason that it is slower, and gives the constitutional medication a better opportunity to act in concert with the local treatment.

For the local destruction of cancerous growths by enucleation and otherwise, the following variety of caustic and other destructive agents have been employed. The actual cautery, the galvanic cautery, freezing compression, ligation of the nutrient arteries, friction, chlorides of lime, zinc, gold and bromium, the sulphate of zinc, arsenious acid, strong nitric, sulphuric and muriatic acids, the acid nitrate of mercury, concentrated alkalies, Vienna paste, corrosive sublimate, iodine, the iodides of potassium, mercury, lead and arsenic, sanguinaria canadenis, leeches, blisters, setons and syphilization, acetic, citric and chromic acids, perchloride of iron, and the persulphate of iron.

Those which I have found most useful are the chlorides, bromides and iodides of the metallic bases. They operate slowly without irritation or any special aggravation of the morbid growth. They cause the death of the morbid mass up to the healthy tissues, when a wall of pus is thrown across the line of march, and the diseased mass falls out, leaving a healthy looking sore.

A very good vehicle for the enucleating substance is a paste composed of pulverized hydrastis and water of the consistency of thick cream. The active element can then be added to make it of any desired strength. With the chloride of zinc, this preparation will remain moist for months. (E. J. Fraser, U. S. M. and S. J., v. 8, p. 324.)

Carbuncle. Luther B., et. 47, has been troubled with a carbuncle on the nape of the neck for three weeks. It had been poulticed all the time, and yet showed no signs of suppuration.

As between the two methods of surgical treatment, the cartwheel incision and the caustic insertion, the latter was adopted because of its power to induce early active suppuration. An incision was made in the centre of the swelling, and a bit of caustic potash, the size of a large pea, was placed to the depth of an inch and a half, and a bread and milk poultice applied.

Arsen., 3d dec., was given every two hours. In twenty-four hours the carbuncle was suppurating freely, and it gradually collapsed, so that at the end of a week it was substantially removed. (W. Danforth, Surg. Clin. Hahn. Med. Coll. and Hosp.; U. S. M. and S. J., v. 8, p. 58.)

Notes on the Galvanic Cautery in Uterine Surgery. (J. Bryne, A. H. O., Feb., March, April and May, 1873, p. 67.)

Carbol. ac. in surgery does not prevent complications, nor constitutional disturbances, nor does it prevent coughing. It retards the process of healing and destroys granulations; wounds dressed with it leave unsightly scars. (Dr. F. Hiller. All this is true, if used too strong. Prof. Helmuth uses it in the proportion of one to one hundred, and finds it acting well. S. L.) (N. A. J. H., v. 22, p. 200.)

Kali caust. Of all the remedies recommended in surgical cases, after suppuration ensued, Caust. pot. takes the first rank. By its application the formation of pus is greatly diminished; it produces a healthy granulation, it cleanses the wound and favors the discharge of pus; it keeps the neighboring parts in a healthy condition. In more extensive traumatic injuries it prevents inflammation and swelling, and where it already exists it readily reduces it. As a dressing it suppresses foul odors and thus purifies the air. (F. Hiller, N. A. J. H. v. 22, p. 199.)

A New Instrument, to be used instead of the ordinary tracheotomy tube, consists of two wire retractors, covered similar to the
ordinary tracheatomy tube, sliding upon a wire bridge to the second at any desired distance apart by a binding screw in each retractor. Brought together for use, the retractors present a thin
rounded surface the thickness of two wires. When introduced
the wires are passed down till the bend of the wire (corresponding
to the shoulder of the common tube) comes in contact with the
skin. The wires are then separated and secured by the binding
screws. The instrument is kept in place by a tape around the
neck. (J. C. Minor, N. Y. J. H., July, 1873, p. 189.)