

tion in the eye would be followed by general hypersusceptibility, manifested by a reaction to the subcutaneous injection of tuberculin.

Physicians must be cautious not to condemn the tuberculin of one manufacturer, if it gives a negative result, though a second application of tuberculin of another make proves positive when instilled into the same eye. In fact, we were partly led to make these experiments from the remark of a clinician who blamed the first tuberculin he used, while tuberculin of a different make used two weeks later gave a sharp reaction. Of course, the diagnostic value of the reaction in an eye that has had a prior treatment some days before is entirely negative.

The power of tuberculin to sensitize the conjunctiva is a beautiful example of the usefulness of the state of anaphylaxis. The conjunctiva or any other tissue in such a condition of hypersusceptibility is armored against bacterial invasion. Thus, if a tubercle bacillus lodges on a tissue having the power to react at once, that tubercle bacillus would immediately be surrounded with the protecting humors and cells of the body. In other words, the natural immunizing agencies of the body would at once be concentrated on the spot where they are most needed.

AN APPARATUS FOR THE INTERMITTENT POSTOPERATIVE DRAINAGE OF THE BLADDER.

APPLICATION OF THE PRINCIPLE TO THE DRAINAGE OF
EMPHYEMATA, ETC.

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The satisfactory postoperative drainage of the bladder has always been a most perplexing problem. Satisfactory drainage after cystostomy, for instance, drainage that is effectual and allows the patient to be kept dry is manifestly a most important factor in the attainment of a speedy, comfortable convalescence. The trouble arising from plugged tubes and catheters, and the discomforts endured by a patient constantly soaked in urine are such that life becomes burdensome to the patient and bothersome to surgeons, house officers and attendants.

Intimate contact with a number of cases in which drainage was attempted with indifferent success led me to undertake experiments which finally resulted in devising the apparatus herein described. It has been used with satisfactory results in drainage of the bladder after both suprapubic and perineal cystostomy and in the postoperative drainage of emphyemata. Through the courtesy of Drs. Munro and Bottomley the suitable material in the surgical wards of the Carney Hospital was placed at my disposal.

DESCRIPTION OF THE APPARATUS.

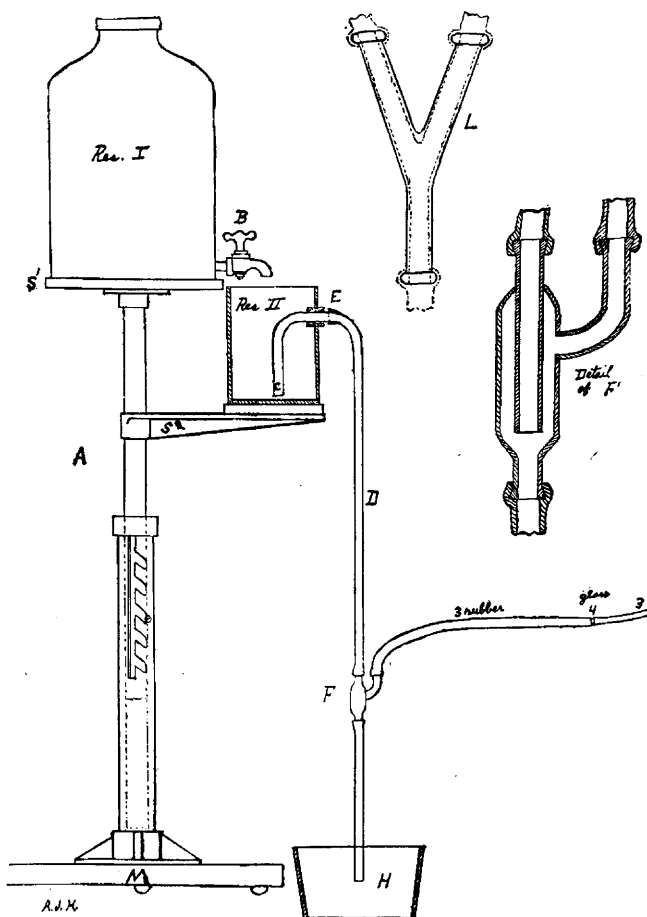
A glass reservoir (Res. I) with a capacity of about two gallons (i. e., a sufficient supply to last several hours) is placed on a horizontal shelf (S¹) supported by an adjustable standard (A) on a movable base (M). Projecting from the standard is a second shelf (S²) for the support of a second and smaller (capacity, one pint) reservoir (Res. II) into which the larger reservoir feeds at a rate which can be regulated by an adjustable cock (B). Through a perforated cork in an opening from 1½ to 2 inches from the top of Reservoir II passes a bent glass tube (C), one end of which should be close to the bottom of the reservoir, and which forms the short arm of a siphon, the long arm of which is the rubber tube (D) attached to the bent

glass tube at E; the lower end of the rubber tube (D) joins with a hydraulic pump (F) placed below the level of the cavity to be drained and connected with it by a rubber-glass connection (3, 4, 3). The pump empties into a receptacle (H) beneath the bed. The caliber of tube G should not be larger than that of tube D.

As a substitute for the hydraulic pump a glass Y-tube (L) may be used, but it does not work so satisfactorily.

THE WORKING OF THE APPARATUS.

Reservoir I is filled with water. The outflow into Reservoir II is regulated according to the quantity of discharge to be removed from the cavity which is to be drained. It is evident that the greater is the outflow from Reservoir I to Reservoir II, the sooner will the latter be filled to the level of the perforated cork which allows the water to run down the tube D into the hydraulic pump which is thus put in action and drains the cavity by virtue of a well-known principle of physics. In other words, the greater the outflow from Reservoir I to Reservoir II,



Res. I, glass reservoir with capacity of about 2 gallons; res. II, reservoir with capacity of about 1 pint; S¹, horizontal shelf; A, movable base; S², second shelf for support of reservoir II; B, adjustable stop-cock; C, bent glass tube; D, rubber tube forming long arm of siphon; E, junction of D, with bent glass tube; F, hydraulic pump; H, receptacle into which pump empties; L, glass Y-tube which may be used as a substitute for the hydraulic pump; G, connection of drainage tube to hydraulic pump.

the oftener will the latter be emptied by siphonage, the oftener will the pump work, and the oftener will the bladder or other cavity be drained. The frequency of the action of the pump is to be regulated according to the amount of urine or other secretion to be removed.

ADVANTAGES OF THE USE OF THE APPARATUS.

After either suprapubic or perineal prostatectomy the apparatus may be connected with the cavity either through the suprapubic or the perineal wound, as the case may be. A brief experience will soon teach one how

often it is necessary that the pump should work in order that the bladder may be emptied of urine and the dressings kept dry. After three or four days, when the urine is free from blood and pus, the tube may be removed from the operation wound, the apparatus connected with a catheter introduced into the bladder *per urethram* and the operation wounds allowed to heal. Thus the period of convalescence is not only made much more comfortable but is much shortened.

Patients who are convalescent after operations for empyema can be detached from the apparatus and move about the wards. They know the interval between successive emptyings of Reservoir II and at the proper time reattach themselves to the apparatus, have the cavity pumped out, detach themselves again, and again move about, if they so desire.

The apparatus is self-acting and needs but little attention. Reservoir I has to be filled twice in twenty-four hours; in other respects, the apparatus cares for itself. It is cheap, easily set up, movable, simple and satisfactory in its action. There is no reason why it can not be used in the drainage of any deep cavity in which an exudate accumulates.

VAGINAL HYSTERECTOMY FOR HYSTERO-VAGINO-ENTEROCELE.

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History.—Mrs. X. for twelve years had what she termed “falling of the womb.” For the past four years, especially when on her feet, there was complete eversion of the vagina and prolapse of the uterus and intestines, the whole mass being the size of a child’s head. The uterus was very much enlarged, being in a condition of hyperplasia. Various supports had been tried without relief, the condition being a source of great discomfort to her. A radical operation, as well as a choice of route, was obvious. Vaginal hysterectomy was the operation elected.

Operation.—In operating in such a condition of enormous prolapse, the one difficulty naturally met with is ascertaining the line of reflection of the bladder from the cervix. The operation as performed was as follows: A curved incision was made through the vaginal wall, taking care not to injure any intestine which was included in the projecting mass of tissue. The anterior fornix was next incised down to the uterus below the line of reflection of the bladder and prolonged laterally to meet the posterior incision. The bladder wall was then separated with the fingers and scissors, the separation being extended well to the sides of the uterus in order to be well away from the ureters. In the subsequent successive ligation of the uterine and ovarian vessels, and transfixion of the broad ligament, preliminary to complete division of the uterus and appendages, silk was used, the ends being left long to facilitate their removal. The broad ligament pedicles were then drawn partially into the angles of the vaginal opening and included in the partial suturing of the latter with chromicized catgut. The central edges of the vaginal wound and peritoneum were also well approximated by similar sutures, leaving a small opening on each side into which strips of iodoform gauze were inserted for drainage.

In my opinion, it is safer to provide for drainage than to close the vaginal vault primarily in vaginal hysterectomy. The subsequent history of the patient was uneventful, the result of complete extirpation being one of permanent relief, at least up to the present.

Oposonins.—R. Walker, in the *Jour. of Med. Research*, states that for species for which but little oposonin exists in the blood, as, for example, the typhoid bacillus, comparatively fewer germs are necessary and the serum need not be diluted.

New and Non-Official Remedies

THE FOLLOWING ARTICLES HAVE BEEN TENTATIVELY ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR INCLUSION IN THE PROPOSED ANNUAL, “NEW AND NON-OFFICIAL REMEDIES.” THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT, BUT TO SOME EXTENT ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS ARE ASKED FOR TO AID IN THE REVISION OF THE MATTER BEFORE FINAL ACCEPTANCE AND PUBLICATION IN BOOK FORM.

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT SO FAR AS KNOWN IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

(A list of all accepted articles is published on one of the advertising pages of *The Journal* in the first issue of each month.)

(Continued from page 879.)

LECITHOL.

An emulsion-like solution of lecithin containing 18 per cent. of absolute alcohol by volume, and .06 Gm. (1 grain) of lecithin per 4 Cc. (1 fluidram).

The lecithin is separated from hogs’ brains.

An opalescent yellow liquid of pleasant taste and odor.

Tests: From lecithol, 10 Cc. the alcohol is removed by evaporating on the water-bath; then water, 90 Cc., is added. Next concentrated hydrochloric acid, 2 Cc., is added, and then, with thorough shaking gradually 2 Cc. chloroform. The liquid precipitate which separates out, containing nearly all the lecithin, is collected and treated with strong sulphuric acid and fuming nitric acid. After all the organic matter is decomposed, the phosphorus is determined in the usual way. From this the percentage of lecithin is calculated.

Actions and Uses.—See Lecithin.

Dosage.—4 to 8 Cc. (1 to 2 fluidrams) immediately before or after meals.

Manufactured by Armour & Co., Chicago.

NEURO-LECITHIN—ABBOTT.

A preparation containing lecithin with small amounts of fats and cholesterin, the amount of lecithin being determined by assay.

Neuro-lecithin is said to be made from the brain and spinal cord of animals. The water and fat are separated by heat; the soluble portions are extracted from the residue with ether; this is precipitated with acetone.

For properties and tests see Lecithin. The amount of lecithin is determined by a quantitative estimation of phosphorus and nitrogen. The material is exhausted with ether-alcohol at the boiling point of the mixture, the solution evaporated, the residue fused with sodium carbonate and potassium nitrate and phosphorus determined in the fusion. The amount of phosphorus found multiplied by 26 (806/31) is taken to indicate the amount of lecithin.

Actions and Uses.—See Lecithin.

Dosage.—0.03 to .13 Gm. ($\frac{1}{2}$ to 2 grains) two or four times daily. Neuro-lecithin is put up in tablets and pills, each containing 0.03 Gm. ($\frac{1}{2}$ grain).

Manufactured by the Abbott Alkaloidal Co. U. S. trade-mark No. 63384.

SYRUP CANNABIS COMPOUND, P.-M. Co.

Each 30 Cc. (1 fluidounce) is said to be equal to cannabis indica .5 Gm. ($7\frac{1}{2}$ grains), heroin hydrochloride, .020 Gm. ($\frac{1}{4}$ grain), chloroform, .25 Cc. (4 min.), lobelia, .5 Gm. ($7\frac{1}{2}$ grains), antimony and potassium tartrate (tartar emetic), .008 Gm. ($\frac{1}{4}$ grain), with aromatics; alcohol, 10 per cent.

Dosage.—4 Cc. (1 fluidram) to 8 Cc. (2 fluidrams) every two or three hours.

Prepared by the Pitman-Myers Co., Indianapolis. Not copyrighted or patented.

(To be continued.)