

able the inexperienced operator to decide which he wishes to employ. The clamp and cautery are entirely unsatisfactory, because you can not make a complete section of the diseased area, consequently it is but a few months, or years at best, until your patient returns to you suffering with hemorrhoids and the operation must be repeated. Some patients will submit to the ligature, but if for no other reason than that the ligature is unscientific, unsurgical, uncleanly and one of the greatest sources of infection possible in this class of work, we are not, nor have we ever been, justified in using; but the results for permanency (if the patient survives) are better than those of the clamp and cautery. The hypodermic injection is a vastly more satisfactory procedure; I have employed it hundreds of times, and in a certain class of cases I seldom fail to obtain the most gratifying results. A recent investigation of cases treated in this way by Dr. Dorland and myself, covering a period of eighteen years, demonstrates that of 1,800 cases treated by injection of a styptic, only about 15 per cent. have suffered any return of the trouble. As for the Whitehead and American operations, to mutilate unnecessarily any part of the human anatomy is something to be regretted, if not by the physician, at least by the patient. In dissecting off the pile-bearing inch together with the integument at the verge of the anus, laying bare the sphincter ani, dragging down the loosened bowel and stitching it to the integument, we bury all the delicate nerve fibers that impart sensation to the sphincter beneath the bowel, which, being out of its normal location, can not and will not replace the original tissues. Those having been submitted to these operations, have, I say without exception, a clumsy rectum, nearly devoid of sensation. In cases where union between bowel and skin is complete there is a band of cicatricial tissue, which feels to the touch like a wire ring, and which completely encircles the anus and sadly interferes with the functions of the sphincter. Again, we meet with cases where, having encroached too freely upon the integument, the operator has dragged the bowel down and out to repair the loss, to the end that the patient goes through life with his clothing rubbing against a portion of his anatomy which nature never designed to be so exposed. But I must repeat that the greatest and most serious objection to these operations is burying the terminal nerve fibers of the sphincter beneath a part of the bowel which is almost devoid of sensation. I am speaking from personal experience, having employed all of the methods mentioned, and I am not moved to these remarks by a personal motive alone, but hope that I have been able to recommend something better. What I should recommend as an ideal treatment for hemorrhoids is hypodermic injection, where the patient can not go to a hospital; but where hospital care is not out of the question, I would advise the operation described in the above-mentioned journal. I have made this operation no less than eighty-seven times, and in no case have I been disappointed in the result, either from stricture or loss of sensation, nor have I failed to obtain a complete restoration of the normal mucous membrane. In three of the cases I failed to get the posterior incision (which was original with Dr. Dorland) quite deep enough, the result of which was rather more contraction than I anticipated, but not sufficient to materially interfere with the normal function of the sphincter.

NEW INSTRUMENTS.

INSTRUMENT CASE, STERILIZER, SPONGE BASINS AND TRAYS COMBINED.

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The apparatus herein described is designed to lighten the burden and add to the safety of surgical work in private houses, especially in the country. From an experience of about two years in its use, the author offers it with confidence in place of the septic instrument bags, the unwieldy sterilizer and the cumbersome trays and sponge basins which make up the usual *impedimenta* of surgical practice outside of hospitals. The apparatus fulfills the requirements, first, of an aseptic instrument case; second, of a steam sterilizer; third, of instrument trays and sponge basins. It consists of two rectangular sterilizers made of copper, nickel plated, in which may be packed all instruments and other appliances requisite for an abdominal section, or for any other ordinary surgical operation. Its component parts may further be used separately as pans, sponge basins and trays. The whole outfit, inclosed in a washable canvas cover,

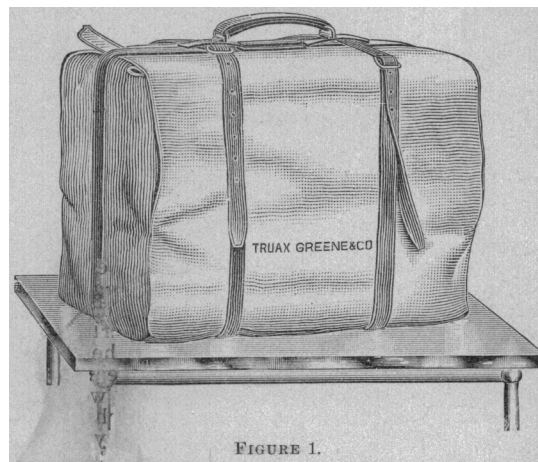


FIGURE 1.

is 16 inches long, 9 inches wide, 12 inches high, and when packed ready for an operation weighs about 25 pounds. (See Fig. 1.) This canvas-covered instrument case contains a complete set of instruments, towels, sponges, ligatures, sutures, dressings, aprons, nail-brushes, soap, ether, chloroform, alcohol, antiseptic drugs, rubber sheet, douche bag, etc. The equipment is adapted for work anywhere. It especially solves the problem of septic surgery outside of hospitals, whether at the house of the prince or of the pauper.

Fig. 2 represents the two rectangular copper boxes as they appear under steam when used as sterilizers. Observe that each sterilizer is supplied with four legs, which may be folded against the sides of the box when the box is not in use as a sterilizer. Each box contains two gauze-wire trays, as shown through the broken side of the sterilizer in the right hand cut of Fig. 2. The lower tray is one inch above the bottom of the sterilizer and contains instruments. The upper tray, resting upon the lower, contains towels, dressings, ligatures, etc. The space of one inch between the bottom of the lower tray and the bottom of the sterilizer that is below line A B, Fig. 2, is filled with sterilized water. The small trays D and G are

filled with burning alcohol. These trays are set upon saucers to prevent burning the table-top. The burning alcohol converts the water into steam, which sterilizes the contents of the wire-gauze trays. One of the two detachable handles resting on the table between the two trays may be used to put out the flame by lifting the small alcohol tray in contact with the bottom of the sterilizer. These detachable handles are also designed for use in separating the different parts of the sterilizers after the sterilization is complete.

towels, gauze sponges, dressings, etc., which have been sterilized in them. The two small, square, shallow cups which contained the alcohol now become trays for needles, ligatures and other small appliances. (See Fig. 3, H and G.) Observe that this sterilizer is quite as well adapted for sterilization by boiling water as by steam. After the apparatus has been under steam for thirty minutes, especially if this process has been repeated three times on consecutive days, not only its contents, but also its various parts which are to be used as sponge basins and trays are

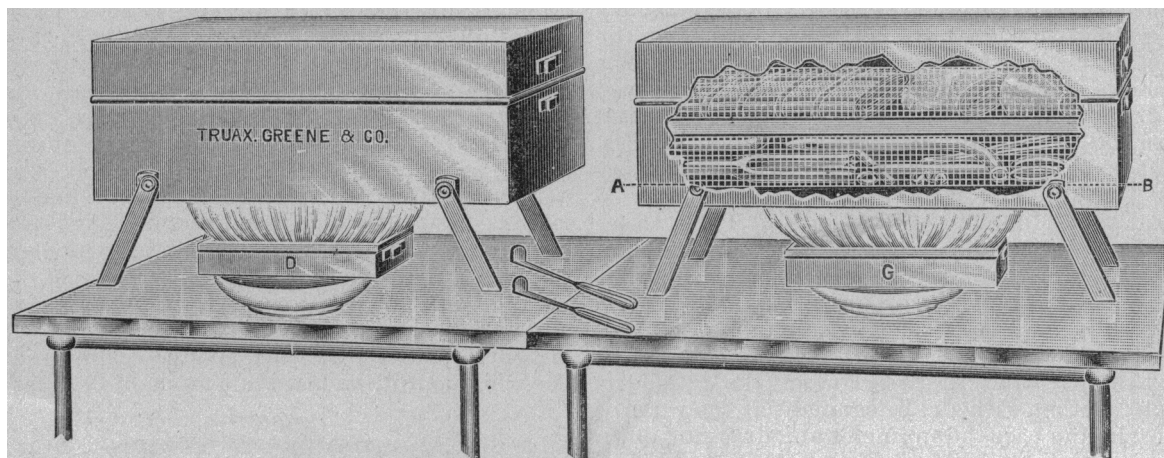


FIGURE 2.



FIGURE 3.

Finally, the several parts of this apparatus may be broken up into sponge basins, pans and trays. The two large copper boxes become sponge basins. The two top covers become trays, holding sterilized water, inside of which the two gauze-wire trays containing the instruments are placed. (See Fig. 3, F and E.)

These gauze trays may be lifted out and placed in the covers without handling the sterilized instruments before the operation. The other two gauze trays to the left of the sponge basin (Fig. 3) hold the

thoroughly sterilized. Each member of the apparatus is supplied with one or more slots or rings, into which fit the detachable metallic handles already mentioned. These handles are useful to separate the sterilizer into its several parts while hot, and to avoid unnecessary handling. After an operation, even upon a septic case, all the parts of the apparatus may be washed and then sterilized by boiling in a large washboiler. The boiling water should contain 2 per cent. of carbonate of soda.