

Nov. 18, 1952

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SURGICAL DRAIN
Filed June 15, 1950

2,618,271

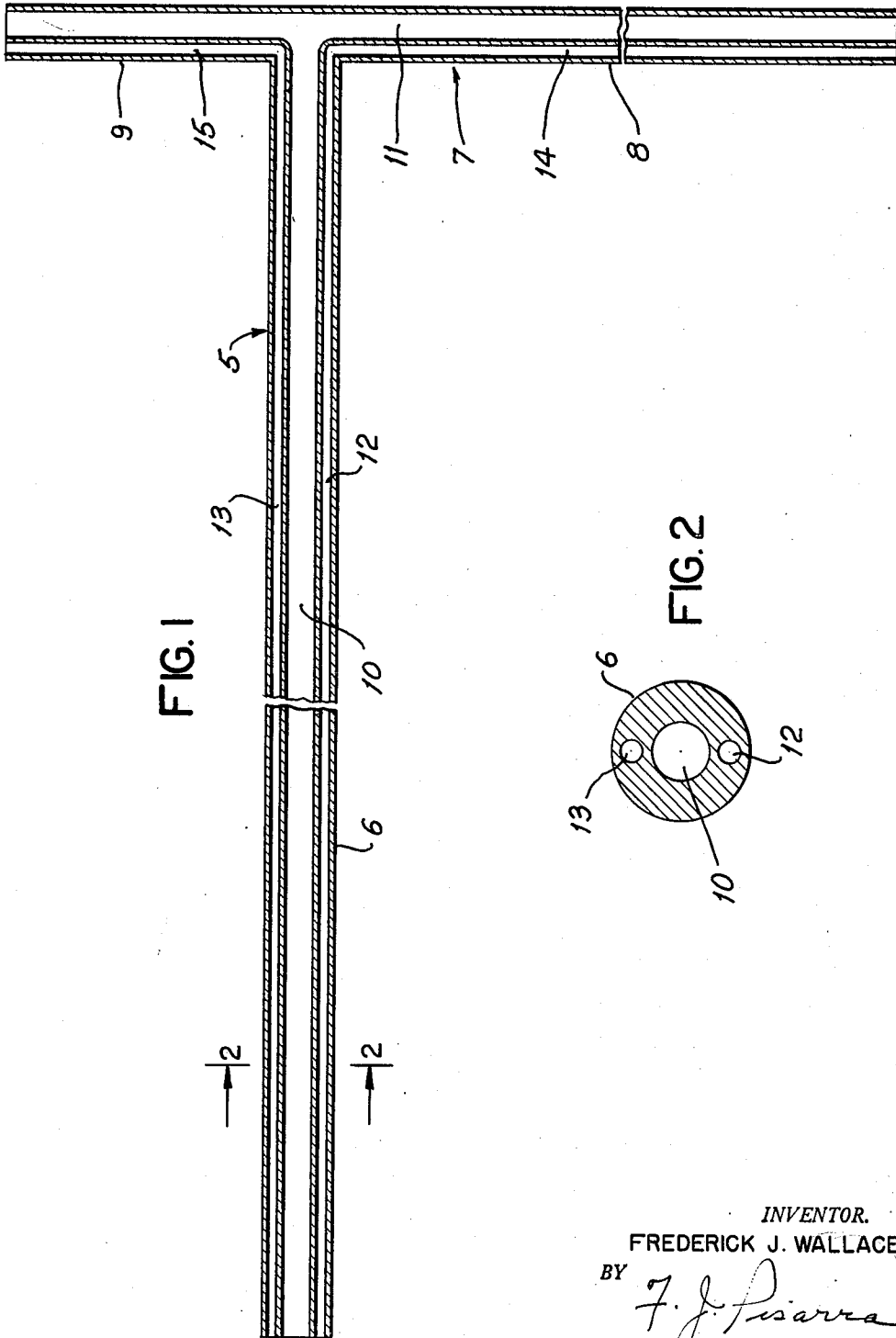


FIG. 1

FIG. 2

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2,618,271

SURGICAL DRAIN

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Application June 15, 1950, Serial No. 168,275

6 Claims. (Cl. 128—350)

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This invention relates to surgical drains and, in one of its more specific aspects, to a three-way T-drain capable of carrying out a plurality of procedures at one time.

It is an important object of the invention to provide a surgical drain for simultaneously draining body passages or internal organs communicating with the passages and transmitting a plurality of different therapeutic materials to such organs.

Another object of the invention is to provide an instrument of the character indicated for draining and treating a body organ and simultaneously supplying nutritive materials to the bowel, thereby eliminating the need for feeding the patient intravenously.

A further object of the invention is to provide a T-shaped surgical drain having a plurality of independent passages so arranged as to permit of simultaneous drainage, treatment, and feeding, as required.

The invention has for a further object the provision of a surgical drain capable of performing its intended functions in an effective and trouble-free manner.

To the end that the above objects may be attained, a surgical instrument constructed in accordance with the invention preferably comprises a flexible, generally T-shaped tube made of latex or other suitable material, and consisting of a stem having a central longitudinal through passage and a pair of secondary longitudinal passages formed in diametrically opposite sides of the wall of the stem; and a cross tube including a first part projecting to one side of the stem and a second part projecting to the opposite side of the stem. These parts are preferably of unequal length. The cross tube has a longitudinal through passage that communicates with the central passage in the stem. Each of the aforementioned parts of the cross tube is also provided with a longitudinal passage that establishes communication with a corresponding secondary passage in the stem. As will be apparent from the detailed description appearing further along herein, the through passages permit of ready drainage, while the secondary passages allow for the transmission of different therapeutic materials concurrent with the drainage procedure.

The drain of this invention may also be advantageously used for introducing nutritive materials into the body, thereby eliminating the necessity for intravenous feeding during certain procedures. This may be readily accomplished by placing one end of the cross tube in commu-

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nication with the bowel so that the nutritive materials may be supplied to the bowel by way of a secondary passage.

The enumerated objects, as well as other objects, together with the advantages of the invention, will be readily comprehended by persons skilled in the art upon reference to the following detailed description, taken in conjunction with the accompanying drawing, which respectively describe and illustrate a surgical drain embodying the invention.

In the drawing:

Figure 1 is a view in central longitudinal section through a surgical drain constructed in accordance with the invention; and

Figure 2 is a view in enlargement taken along line 2—2 of Figure 1.

Referring now to the drawing, wherein like reference numerals denote corresponding parts throughout the several views, a surgical drain tube generally indicated by numeral 5 is preferably T-shaped in configuration and is made of a suitable flexible material, such as latex. The drain tube consists of a pair of integrally formed tubes, namely, a first tube or stem 6 and a second or cross tube 7 positioned at one end of the first tube and normal thereto. The second tube includes a relatively long part 8 projecting to one side of the stem and a relatively short part 9 projecting to the other side of the stem.

The stem has a central longitudinal through passage 10 which communicates directly with a longitudinal through passage 11 in the cross tube. The stem is also provided with a pair of secondary longitudinal passages 12 and 13 formed in its wall and completely independent of passage 10. Passages 12 and 13 are, as shown in the drawing, disposed in diametrically opposite sides of stem 6. As illustrated in Figure 1, passage 12 communicates with longitudinal passage 14 in part 8 of the cross tube, while passage 13 communicates with a corresponding passage 15 in cross tube part 9. It will be observed that the instrument defines a plurality of independent lumens, namely, a first or main lumen consisting of passages 10 and 11, a second lumen consisting of passages 12 and 14, and a third lumen consisting of passages 13 and 15. The identified lumens permit of ready drainage and treatment of body organs, as well as supplying nutritive materials, as required.

Thus it will be seen that the construction herein shown and described is well adapted to accomplish the objects of the present invention. It will be understood, however, that the inven-

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tion may be embodied otherwise than here shown, and that in the form illustrated certain obvious changes in construction may be made. Therefore, I do not wish to be limited precisely to the construction herein shown except as may be required by the appended claims considered with reference to the prior art.

I claim:

1. In a surgical instrument of the character described, a flexible first tube having a first longitudinal passage, and a flexible second tube secured to one end of the first tube and having a second longitudinal passage communicating with the first passage, said second tube being angularly disposed with respect to the first tube and extending beyond diametrically opposite sides thereof, said tubes having communicating longitudinal passages for transmitting fluid material therethrough independent of the first and second passages.

2. In a surgical instrument of the character described, a flexible first tube having a central longitudinal through passage and a flexible second tube secured to one end of the first tube and having a longitudinal through passage communicating with the central passage, said second tube being angularly disposed with respect to the first tube and extending beyond diametrically opposite sides thereof, said tubes having communicating longitudinal passages formed in the walls thereof for transmitting fluid material therethrough independent of the through passages.

3. In a surgical instrument of the character described, a flexible first tube having a central longitudinal through passage and a flexible second tube secured to one end of the first tube and having a longitudinal through passage communicating with the central passage, said second tube being angularly disposed with respect to the first tube and including a first part projecting beyond one side of the first tube and a second part projecting beyond the opposite side of the first tube, said first tube having a pair of longitudinal passages independent of the central passage, each

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of said parts of the second tube having a longitudinal passage independent of the through passage therein and communicating with a corresponding one of the pair of passages in the first tube.

4. A surgical instrument in accordance with claim 3 wherein the pair of longitudinal passages is formed in diametrically opposite sides of the wall of the first tube.

5. A surgical instrument of the character described comprising a flexible generally T-shaped tube consisting of a stem having a first longitudinal through passage and a cross tube integral with one end of the first tube and having a second longitudinal through passage communicating intermediate its ends with the first passage, said cross tube including a first part projecting to one side of the stem and a second part projecting to the opposite side of the stem, said stem having a pair of spaced longitudinal passages formed in its wall independent of the through passage therein, each of the pair of passages communicating with a longitudinal passage formed in a corresponding part of the cross tube and independent of the second passage.

6. A surgical instrument in accordance with claim 5 wherein the first passage is located centrally within the stem and intermediate the pair of passages.

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