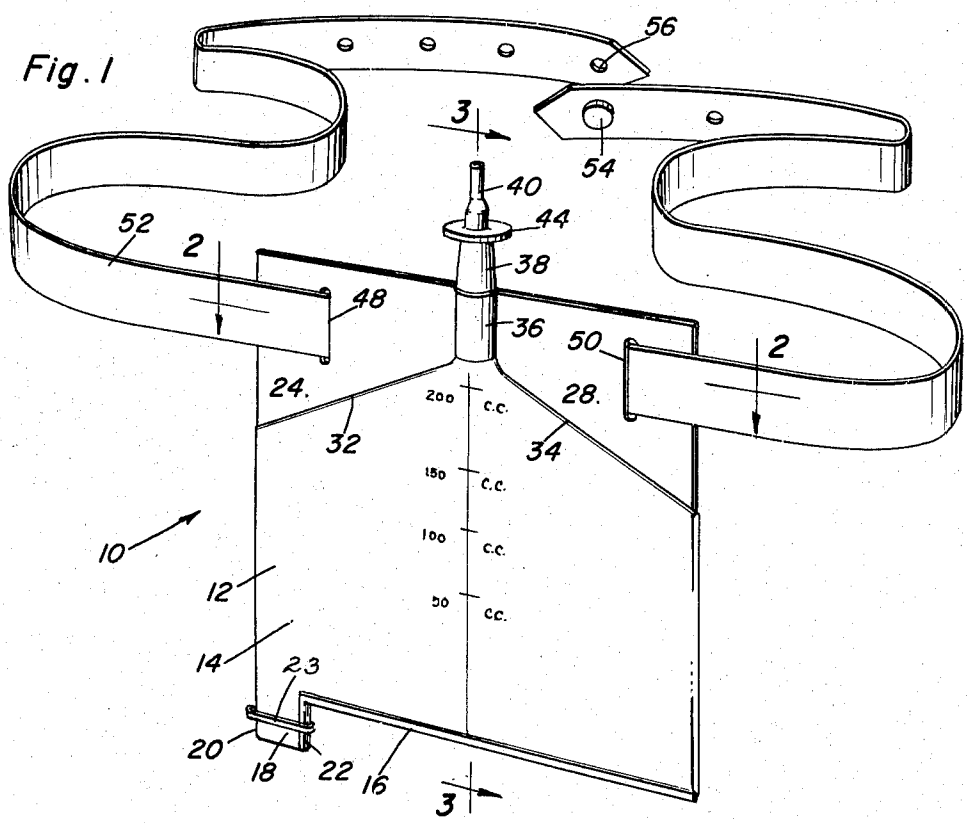
Aug. 25, 1959 J. L. BISHOP 2,900,979

BILE BAG

Filed Aug. 18, 1955

Fig. 1



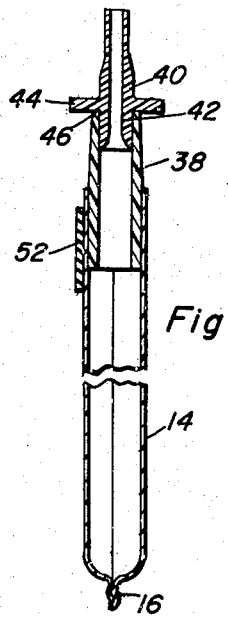
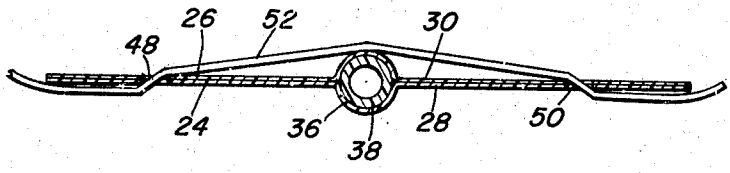


Fig. 3

Fig. 2



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2,900,979

BILE BAG

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4 Claims. (Cl. 128—283)

This invention relates to the class of surgical and therapeutic appliances, and more particularly to a novel bile bag for use by a patient requiring bile drainage.

The primary object of the present invention resides in the provision of a bile bag adapted to be utilized by a patient in the need of bile drainage and which may be readily detachably secured about the abdomen or chest of the patient in a convenient manner.

A further object of the present invention resides in the provision of a bile bag having a discharge outlet opening through which the contents of the bag may be allowed to pass, yet which discharge outlet may be closed in a convenient manner and which bile bag employs convenient means for attachment of the bile bag to the surgical tube inserted in the patient for drainage.

Still further objects and features of this invention reside in the provision of a bile bag that is simple in construction, which employs novel means for engagement with a belt for supporting the belt, and which is inexpensive to manufacture, thereby permitting wide distribution and utilization.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by this bile bag, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a perspective view of the bile bag comprising the present invention;

Figure 2 is an enlarged horizontal sectional view as taken along the plane of line 2—2 in Figure 1; and

Figure 3 is a vertical sectional detail view as taken along the plane of line 3—3 in Figure 1.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral 10 generally designates the bile bag comprising the present invention. This bile bag 10 includes a receptacle 12 formed of a generally tubular member 14 which is sealed as at 16 at the lower edge thereof, yet which is provided with an outlet tube 18 formed by the end wall 20 of the tubular member 14 and the sealed portions 22. This discharge or outlet tube 18 is adapted to be closed by a suitable clip 23 after the tube has been folded back upon itself to form a closure.

At the upper end of the cylindrical member 14, there are opposed pairs of trapezoidal-shaped sections 24, 26, 28 and 30 which are bonded to each other by heat bonding, or by any other suitable means, such as adhesive bonding or the like, with the lower edges, as at 32 and 34, of the trapezoidal-shaped sections defining the upper edge of the container portion of the receptacle 12. Further, the trapezoidal-shaped sections are arranged on either side of the inlet opening 36 to the receptacle 12, the inlet opening having a suitable fitting 38 forming an inlet pipe. Received in the upper end of the inlet pipe 38 is a connector stem 40 having an opening 42 therethrough and being provided with an annular collar 44 which is

adapted to form a stop against which the upper edge portion 46 of the inlet pipe abuts. Further, the stem 40 is adapted to receive the end of a T tube which is embedded in the common duct of the patient and acting as a drain for the bile of a patient. It is to be recognized that the bag may be readily detached from the T tube by simply disconnecting the stem 40 therefrom. Further, the end of the T tube is adapted to be pulled onto the stem 40 until it abuts against the collar 44, thus securely seating the T tube.

The aligned trapezoidal sections 24, 26 and 28, 30 are provided with slots 48 and 50 therethrough for reception of a belt 52 of any suitable and convenient material provided with fastening means, as at 54 and 56, at the free ends therefor for securing the bile bag about the abdomen or chest of the patient.

The bile bag can be formed of any suitable material, such as synthetic plastic resins and the like, and it is noted that the bonding of the trapezoidal sections and their provision with the slots 48 and 50 provides a reinforced and convenient means of attachment of the belt 52.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A bile bag comprising a receptacle formed of a tubular member having a lower end provided with a discharge opening, said lower end being sealed about said discharge opening, an inlet opening at the top of said tubular member, pairs of opposed trapezoidal sections of said tubular member being bonded to each other on either side of said inlet opening, an inlet pipe in said inlet opening, and a connector stem seated in said inlet pipe, slots in said trapezoidal sections, and a belt extending through said slots for supporting said bile bag.

2. A bile bag comprising a receptacle formed of a tubular member having a lower end provided with a discharge opening, said lower end being sealed about said discharge opening, an inlet opening at the top of said tubular member, pairs of opposed trapezoidal sections of said tubular member being bonded to each other on either side of said inlet opening, an inlet pipe in said inlet opening, and a connector stem seated in said inlet pipe, slots in said trapezoidal sections, and a belt extending through said slots for supporting said bile bag, said stem having a collar forming a limit stop.

3. A bile bag comprising a flattened tubular member of thin, flexible sheet material having its lower edge closed across substantially the entire width thereof and with a corner portion of such lower edge being open, means for selectively closing said open portion of the lower edge of the bag, the upper corners of said bag having substantial areas thereof physically joined together in flat face to face contact, each of said areas being of trapezoidal configuration and said areas extending from opposite sides of the bag toward the middle thereof and terminating in spaced relationship thereat to present an access opening into the bag, the lower side of each of said trapezoidal areas extending upwardly from its respective side edge of the bag toward said access opening to provide an inverted funnel-shaped portion immediately below said access opening, each of said areas having a vertical slot therein disposed substantially parallel to said side edges of the bag, and belt means for carrying said bag and engaging the same through said slot.

4. The assembly as defined in claim 3 wherein a rigid inlet pipe is fitted tightly within said access opening to ex-

tend substantially throughout the entire extent thereof, said belt means comprising a length of flat, flexible material projecting through one of said slots and behind said bag and into engagement therewith immediately behind the lower end portion of said inlet pipe and thence outwardly through the other slot so as to be passed about the body of a user.

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