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C. O. TOWNE & J. H. WOODWARD.

STOPPER FOR WATER BAGS.

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Fig. 1.

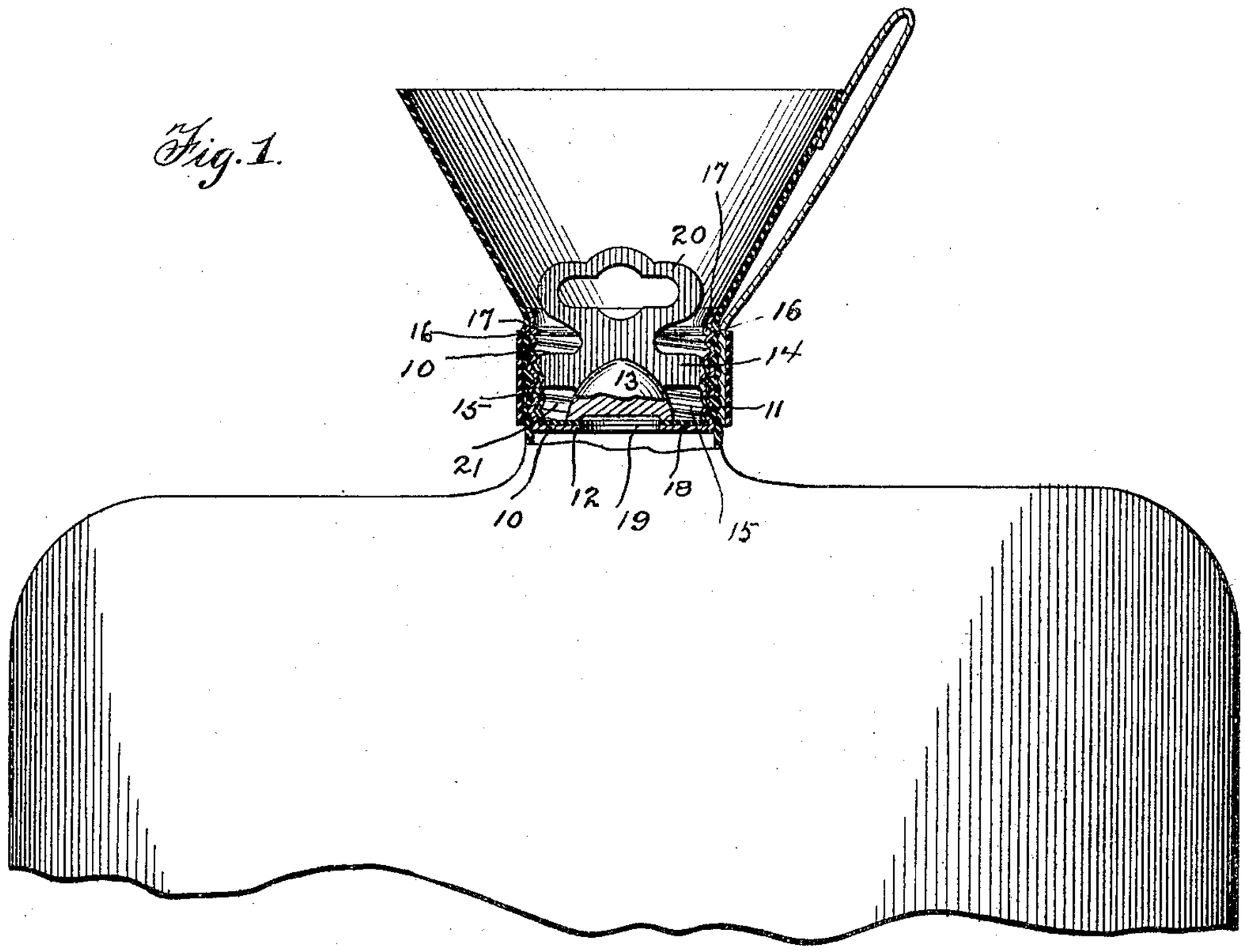


Fig. 2.

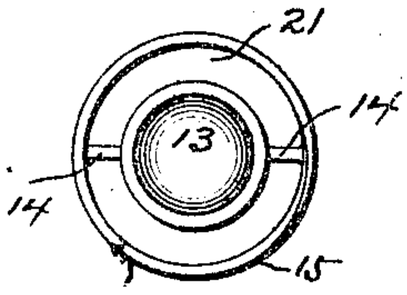


Fig. 3.

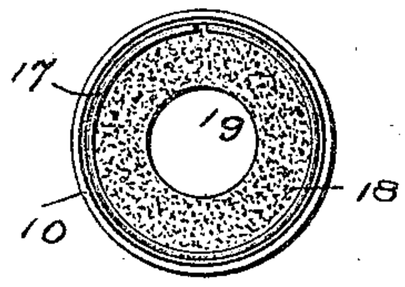


Fig. 4.

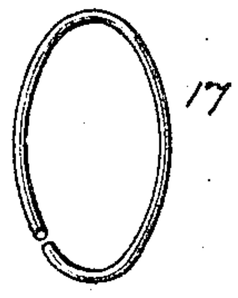


Fig. 5.

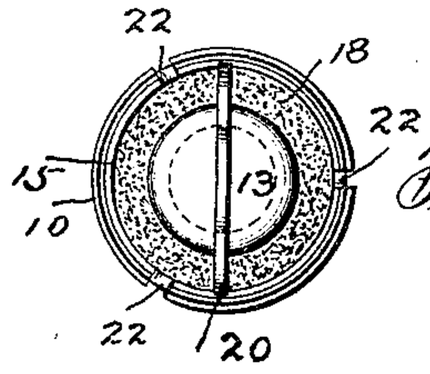
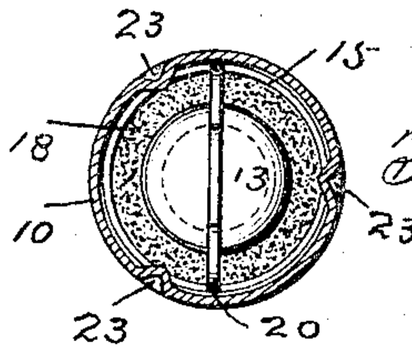


Fig. 6.



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STOPPER FOR WATER-BAGS.

No. 798,149. Specification of Letters Patent. Patented Aug. 29, 1905.

Application filed January 27, 1905. Serial No. 242,896.

To all whom it may concern:

Be it known that we, CHARLES O. TOWNE, residing at Torrington, county of Litchfield, and JOSEPH H. WOODWARD, residing at Waterbury, county of New Haven, State of Connecticut, citizens of the United States, have invented a new and useful Stopper for Water-Bags, of which the following is a specification.

Our invention has for its object to provide a non-detachable stopper for water-bags—that is, a stopper having a valve which may be rotated to open or close the bag, but without removal from the thimble.

It is of course well understood that the stoppers of water-bags as ordinarily constructed must be entirely removed from the neck in order to open the bag. This is a serious inconvenience, as the stoppers frequently get mislaid and cannot be found when wanted.

We are aware that it is common to provide detachable stoppers for water-bags with means for attaching them to the handle-loop, and other stoppers for water-bags have been attached to flaps or tabs. So far as we are aware, however, the constructions have been such that the stopper was necessarily removed from the neck in order to open the bag.

Our present invention does away with the objections to the various styles of water-bag stoppers now in use and provides a stopper that is not removed from the neck of the bag in opening, is very convenient in use, is easily and quickly operated to either open or close the bag, is certain in operation, effecting a perfectly tight closure of the bag, and is simple and inexpensive to make, so that it may be placed on the market without advance in price over the inferior devices for the same purpose now in general use.

In the accompanying drawings, forming a part of this specification, Figure 1 is a vertical section showing our novel stopper in place in the neck of a water-bag, the valve being in the closed position; Fig. 2, an inverted plan view of the valve detached; Fig. 3, a plan view of the thimble detached with the spring-ring in place; Fig. 4, a perspective of the spring-ring detached; Fig. 5, a plan view of a stopper complete and showing a variant mode of retaining the valve in the thimble; and Fig. 6 is a transverse section of a stopper complete, showing still another mode of retaining the valve in the thimble.

Our novel stopper comprises, essentially, a thimble 10, adapted for attachment in the neck of a water-bag in the usual or in any preferred manner, said thimble being provided with a central opening 19, an internal screw-thread 11, which may be rolled or cut, as preferred, and with a ledge or shoulder, which serves as a valve-seat and is indicated by 12, and a valve 13, which is connected by arms 14 to a threaded sleeve 15, which is adapted to engage the thread upon the thimble.

In Figs. 1 and 3 we have shown the thimble as provided near its upper end with an internal circumferential groove 16, which is adapted to be engaged by a spring-ring 17 to limit the upward movement of the sleeve and prevent its detachment from the thimble.

18 denotes a rubber washer, which is preferably placed upon the valve-seat and is provided with a central opening corresponding with opening 19 in the thimble. The valve is held centrally in the sleeve by means of the arms, which are shown as made integral with a handpiece 20, which is provided for convenience in operation. The open space between the valve and the sleeve is indicated by 21.

In assembling the form illustrated in Figs. 1 and 3 the threaded sleeve carrying the valve is turned into the thimble and is secured there by placing spring-ring 17 in the internal circular groove near the upper end of the thimble. To close a water-bag, the valve is simply turned down upon the valve-seat, the interposed rubber washer preventing the possibility of leakage. To open the bag, the valve is simply raised from the valve-seat by rotation of the sleeve by means of the handpiece, the upward movement of the sleeve being limited by its engagement with the spring-ring. When the valve is raised, the bag may be emptied of its contents by inverting it, the water passing through opening 19 in the valve-seat and out between the valve and the sleeve.

If preferred, instead of a circular groove and a spring-ring to retain the sleeve and valve in place they may be retained in the thimble by means of lugs 22, turned inward from the top of the thimble, as clearly shown in Fig. 5, or by means of bosses 23, struck

inward from the metal of the thimble, as clearly shown in Fig. 6.

Having thus described our invention, we claim--

1. A stopper for water-bags comprising a thimble adapted for attachment to the neck of a bag and provided with an internal screw-thread and a valve-seat having a central opening, a valve adapted to engage the seat and a sleeve, threaded to engage the thimble, to which the valve is connected, leaving an open space between the valve and the sleeve for the passage of water.

2. A stopper for water-bags comprising a thimble adapted for attachment to the neck of a bag and provided with an internal screw-thread and a valve-seat having a central opening, a valve adapted to engage the seat, a sleeve threaded to engage the thimble and a handpiece connected to the valve and to the sleeve, leaving an open space between them.

3. A stopper for water-bags comprising a thimble adapted for attachment to the neck of a bag and provided with an internal screw-thread and a valve-seat having a central opening, a rubber washer engaging the seat and having a corresponding opening, a valve, a sleeve threaded to engage the thimble and a handpiece connected to the valve and to the sleeve.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES O. TOWNE.
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Witnesses:
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