

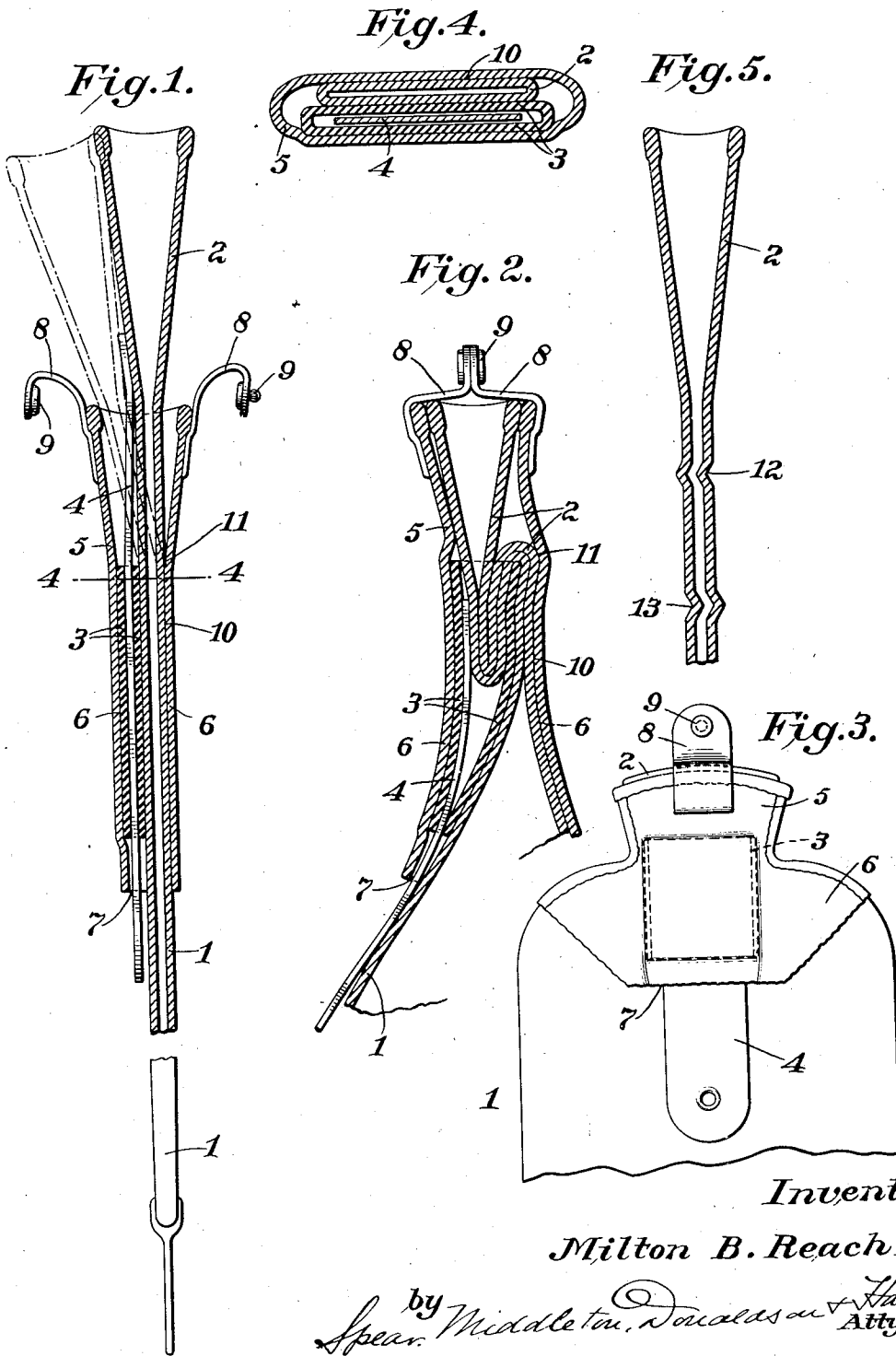
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CLOSURE FOR WATER BAGS

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## UNITED STATES PATENT OFFICE.

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## CLOSURE FOR WATER BAGS.

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This invention relates to a closure for a water bag which is effected by constricting the neck of the bag.

The constriction is provided by doubling the neck of the bag back upon itself and holding it in folded condition.

The invention consists in the features and the combination and arrangement of parts hereinafter described and particularly pointed out in the claims.

In the accompanying drawings:

Figure 1 is a vertical sectional view showing the bag in open position.

Fig. 2 is a view similar to that of Fig. 1 showing the bag in closed position with the elongated neck folded back upon itself to provide a tight closure.

Fig. 3 is a front view.

Fig. 4 is a sectional view on line 4—4 of Fig. 1.

Fig. 5 is a sectional detail view showing the elongated neck having predetermined folding places scored thereon.

Referring specifically to the drawings 1 designates the bag proper and 2 the elongated neck having a funnel shaped mouth. The numeral 3 indicates a relatively stiff tube or pocket member which is secured to the wall of the bag on the outside thereof by any suitable means such as vulcanization or cementation.

An operating member 4 is fastened at one end to the neck 2 at a point above the top of the tube 3, and extends downwardly through the tube 3 and beyond said tube sufficiently to provide for manually grasping and pulling the said member through the tube. A second or receiving neck 5 of greater width than the elongated neck and having flange portions 6 extending over and secured to the bag, surrounds the elongated neck and encloses the stiff tube 3. This receiving neck has a funnel shaped mouth. An opening 7 is provided between the flange portion 6 and the bag 1 to allow the operating member 4 to pass therethrough. The neck 5 serves to form a compact article by enclosing the stiff tube 3 and the elongated neck 2, especially when the neck is folded to close the bag as shown in Figs. 2 and 3.

The elongated neck is secured to the re-

ceiving neck at the side opposite to the operating member 4 as shown at 10, but is free therefrom above a point 11 on a line with the top of the tube 3.

As the member 4 is pulled downwardly the neck 2 will bend to the left in Fig. 1 over the adjacent wall of the comparatively stiff tube 3 and will be pulled into the tube 3 in such a way that the neck is doubled back upon itself to form a tight closure as shown in Fig. 2. As is clear from this figure this construction effects a double bend in the neck which makes it absolutely watertight. The double fold in the neck does not affect the directional disposition of the mouth of the neck which maintains its normal disposition facing away from the bag.

Ears 8 extend upwardly from opposite sides of the neck 5. Suitable securing means such as a snap fastener 9 is provided on the ears whereby they may be fastened together over the mouth of the bag when in closed position to prevent the neck 2 from slipping out of tube 3.

The receiving neck 5 also serves to guide the elongated neck into its folded or doubled condition therein. When the member 4 is initially pulled the elongated neck is bent over from the point 11 until it engages the mouth of the receiving neck 5 when on further pulling the member 4, the elongated neck begins to double back upon itself and to be pulled into the tube 3, or more generally speaking, into the space between the receiving neck wall and the wall of the bag. The comparatively stiff tube 3 serves to clamp and retain the elongated tube in folded position.

Other means within the scope of the invention for retaining the neck in folded condition could be employed besides the tube 3.

The tube 3 is of stiffer rubber than the rest of the bag, and is vulcanized to the neck 5 at one side and to the bag 1 at the other side. I do not limit myself to rubber as the material of the stiff tube.

In cases where the elongated neck is of extra width it has been found desirable to score the neck at its folding points, as shown at 12 and 13 in Fig. 5, to insure the neck

folding along these predetermined straight lines.

It will be observed that the water bag according to my invention, is devoid of any exposed metallic heat conducting part which will come in contact with the user. Thus accidental burning or discomfiture to the user is avoided.

I claim:

1. A water bag having an elongated flexible neck, a substantially flat relatively stiff tube, one wall of which is secured to the outside of the bag, manually operable means for folding the elongated neck over the adjacent wall of the stiff tube and doubling said neck back upon itself and for drawing said neck into said tube in folded condition to effect a tight closure of the bag.

2. A water bag having an elongated neck, a substantially flat relatively stiff tube, one wall of which is secured to the outside of the bag, an operating member, one end of which is secured to the neck and the other end of which extends through the tube whereby the said member may be manually pulled downwardly to fold the neck over the adjacent wall of the tube to double said neck back upon itself and to draw it into the tubular member to effect a tight closure of the bag.

3. A water bag comprising a body portion, an elongated neck extending from said body portion, a larger neck portion surrounding said elongated neck and providing a space between it and the bag, manually operable means for folding over the elongated neck and for drawing it into said space whereby it is retained in folded condition.

4. A water bag according to claim 3 in which a substantially stiff tube is interposed in the space between the bag and the larger neck portion to receive the folded elongated neck, and hold it in folded condition.

5. A water bag having an elongated neck and a receiving neck surrounding said elongated neck, said elongated neck being fastened to said receiving neck at a point below the mouth of the receiving neck, an operating member, one end of which is secured to the elongated neck at a point above the first mentioned point and on the opposite side of the elongated neck, said member being manually operable to double said elongated neck back upon itself and to draw it in doubled form into the receiving neck, whereby it is retained in doubled position to effect a closure.

6. A water bottle having a relatively stiff pocket receiving section in juxtaposition to the neck of the bottle, said pocket receiving section effecting a closure of the bottle when the neck is drawn therein.

7. A water bottle comprising a body portion, an elongated neck extending from said body portion, a larger neck portion surround-

ing said elongated neck portion and means for holding the elongated neck within said surrounding neck portion in a folded position.

8. A water bag having an elongated neck, means carried by the bag for holding the neck folded in doubled back Z shaped position to effect a closure for the bag, and manually operable means cooperating with said holding means to double back said neck and to draw it into engagement with the holding means to be retained thereby.

9. A water bag having an elongated neck, means carried by the bag for holding the neck folded in doubled back Z shaped position to effect a closure for the bag, and manually operable means cooperating with said holding means to double back said neck and to draw it into engagement with the holding means to be retained thereby, the filling opening of said neck being maintained directed normally while the neck is held in said doubled condition.

10. A water bag having an elongated neck and means to fold said neck in relation to itself in Z shape at a point intermediate of its length and to hold said neck in said folded position to effect a closure for the bag, the filling mouth of said neck being maintained directed normally.

11. A water bag having an elongated flattened flexible neck, capable of being folded back upon itself flatwise to effect a closure for the bag, means for folding said neck, said neck being provided transversely of its flat surfaces with predetermined folding lines.

12. A water bottle with an elongated neck adapted to be folded back upon itself to form a water tight closure for the bottle and means for holding it in its closed position.

13. A water bottle with an elongated neck adapted to be folded back upon itself to form a water tight closure for the bottle, manually operable means for effecting said fold, and means for holding the neck in its closed position.

14. A water bag having an elongated flattened neck, means carried by the bag for holding the neck in a doubled back condition to effect a closure for the bag, and manually operable means cooperating with said holding means to double back said neck in a Z shaped fold while maintaining its full and natural width and to draw it into engagement with the holding means to be retained thereby.

15. A water bag with an elongated neck, manually operable means for folding said neck over on itself in Z shape and tension means for holding said neck in folded position under compression to form a closure for the bag.

16. A liquid container having an elongated neck of rubber capable of being folded upon

itself and tension means for holding the folds of the neck under compression to make a liquid tight closure for the container, substantially as described.

- 5 17. A liquid container having an elongated elastic neck capable of being twice folded upon itself and tension means permanently

carried by the container for holding the folds of the neck under compression to make a liquid tight closure for the container, substantially as described. 10

In testimony whereof, I affix my signature.

MILTON B. REACH.