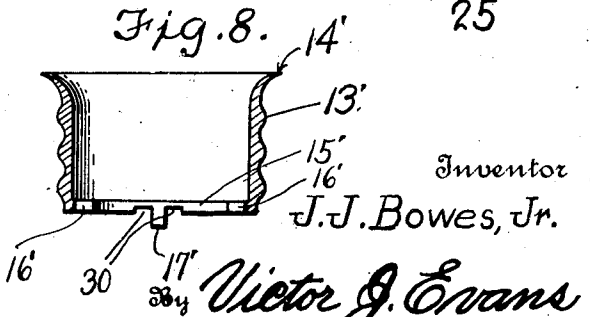
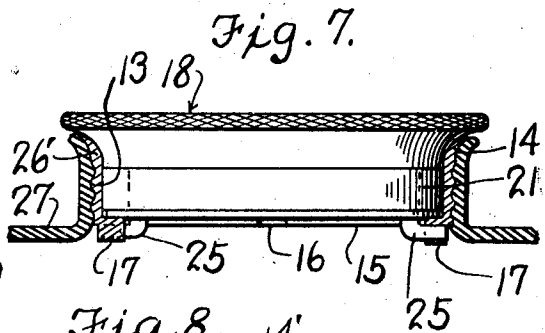
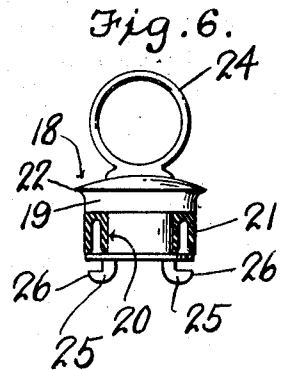
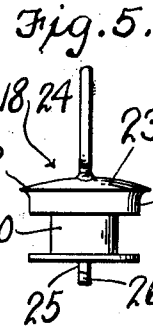
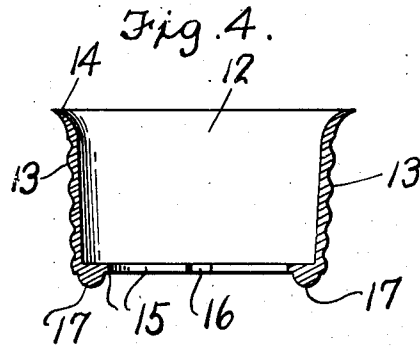
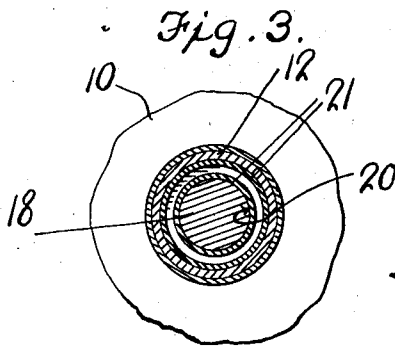
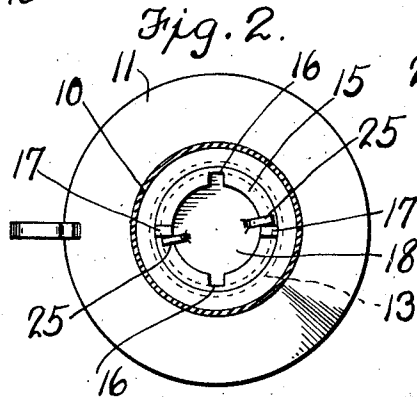
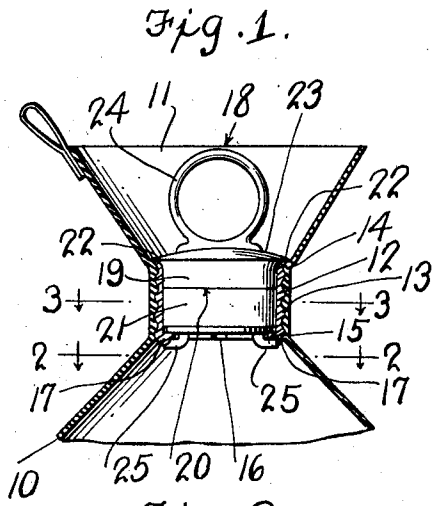


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CLOSURE.

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To all whom it may concern:

Be it known that I, JOHN J. BOWES, JR., a citizen of the United States, residing at Pensacola, in the county of Escambia and State of Florida, have invented new and useful Improvements in Closures, of which the following is a specification.

This invention has reference to improvements in means for sealing containers, and is particularly directed to a stopper for hot water bottles, ice bags and the like.

The object of the invention is to produce a simple means which may be readily arranged in the neck of a hot water bottle, ice bag, or the like, whereby to effect a water and air tight seal for the said neck.

Other objects and advantages will present themselves as the nature of the invention is better understood, reference being had to the accompanying drawings, in which:

Figure 1 is a sectional view through the neck of a water bottle closed in accordance with this invention.

Fig. 2 is a sectional view approximately on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view approximately on the line 3—3 of Fig. 1 and looking in the direction of the arrows.

Fig. 4 is an enlarged sectional view through the ring member providing the seat for the stopper.

Fig. 5 is an elevation of the stopper with the gasket removed.

Fig. 6 is a similar view looking to the opposite side of the stopper and showing the cross sectional U-shaped gasket in section.

Fig. 7 is an elevation partly in section illustrating the application of the improvement to an ice bag.

Fig. 8 is a sectional view through the seat for the stopper, illustrating a slight modification.

While my improvement is primarily designed for use in connection with water containing receptacles of a flexible nature, such as hot water bottles and ice bags, it is to be understood that the same is not to be restricted to these particular devices as the same may be employed with equal efficiency on other containers. It is therefore to be understood that the showing of the drawings is merely illustrative.

In the drawings I have illustrated the neck portion of a water bottle and have indi-

cated the same by the numeral 10. In the straight portion of the neck, at the juncture of the funnel member 11 which is connected to the said neck is arranged the seat member 12 of the improvement. The seat is preferably constructed of metal, and is in the nature of a ring shaped ferrule, the same having its outer periphery provided with a screw 13 that is preferably formed by cross sectionally round projections, or rather a continuously spiraled cross sectionally round projection and a round groove between the projections. The member 12 is screwed in the neck 10 of the water bottle, and the said member 12 has its outer end flared outwardly as at 14 to contact with the funnel member 11 at its juncture with the neck proper. The seat member 12, upon the inner end thereof is provided with an inturned continuous flange 15 which has diametrically opposed notches 16 entering from the edge thereof and which also has outturned lugs 17 arranged at right angles with respect to the notches 16. If desired, the seat member 12 may be flared from its inner to its outer end.

The stopper is broadly indicated by the numeral 18 and comprises a cross sectionally round body 19 that is provided, near its outer end with a continuous groove 20 that provides a seat for a washer or gasket 21. This gasket is U-shaped in cross section, and the stopper is of a size to be snugly received in the seat 12, and consequently the gasket will be compressed when the stopper is seated so that both a water and air joint is provided for the water bottle. The stopper 18 has its body flared outwardly, as at 22 to its head 23, and its said head is provided with an outstanding ring 24 that forms a handle member for the stopper.

The stopper, upon its under face is provided with two oppositely disposed hook-shaped projections 25 that are designed to pass through the notches 16 in the flange of the seat 12 and to have the offset or beak portions thereof engage with the lugs 17 when the stopper is turned on its seat. If desired, and preferably the beak portions of the hooks 25 may be arranged at a slight inclination so that when the same travel over the flange 15 the outer or lower portion of the stopper will be brought into tight engagement with the said flange.

In Fig. 7 of the drawing the construction is similar to that described and the details

of such construction are indicated by the numerals applied to the details of the construction described, the neck of the ice bag, however, being indicated by the numeral 26 and the back proper by the numeral 27. The head of the stopper may be peripherally milled and the ring-shaped handle member may be dispensed with, if desired.

It is thought, from the foregoing description, when taken in connection with the drawings, the simplicity of the construction and the advantages thereof will be readily apparent without further detailed description.

In Fig. 8 I have illustrated a slight modification of the seat for the stopper. In general this seat is similar to that previously described, the same comprising a tubular member having its outer edge flared outwardly as at 14', its outer periphery threaded as at 13', its bottom provided with a continuous flange 15', the latter having at diametrically opposite points notches 16' and depending lugs 17' arranged opposite each other and at right angles with respect to the notches. The flange 15', to the opposite side of the lugs 17' are provided with depressions 30. When the plug is arranged in the seat and rotated, as previously described,

the hooks thereof after contacting with the lugs 17' will enter the depressions 30, thus locking the plug on its seat.

Having thus described the invention, what is claimed as new, is:—

In a device for the purpose set forth, a stopper and a seat therefor, said seat comprising a member which is round in plan having its outer periphery threaded, its outer edge flared outwardly, and its lower edge formed with an inturned flange, said flange having diametrically opposed notches and diametrically opposed lugs arranged at a right angle with respect to the notches, the stopper comprising a body member of a size and shape to be snugly received in the seat, said body having a peripheral depression, a ring-shaped gasket which is U-shaped in cross section seated in said depression, said stopper, upon the lower portion thereof having oppositely disposed hook-shaped extensions, the beaks of which being arranged angularly, said hooks designed to pass through the notches in the flange of the seat and to contact with the lugs on the said flanges when the stopper is arranged in the seat and turned thereon.

In testimony whereof I affix my signature.
JOHN J. BOWES, JR.