

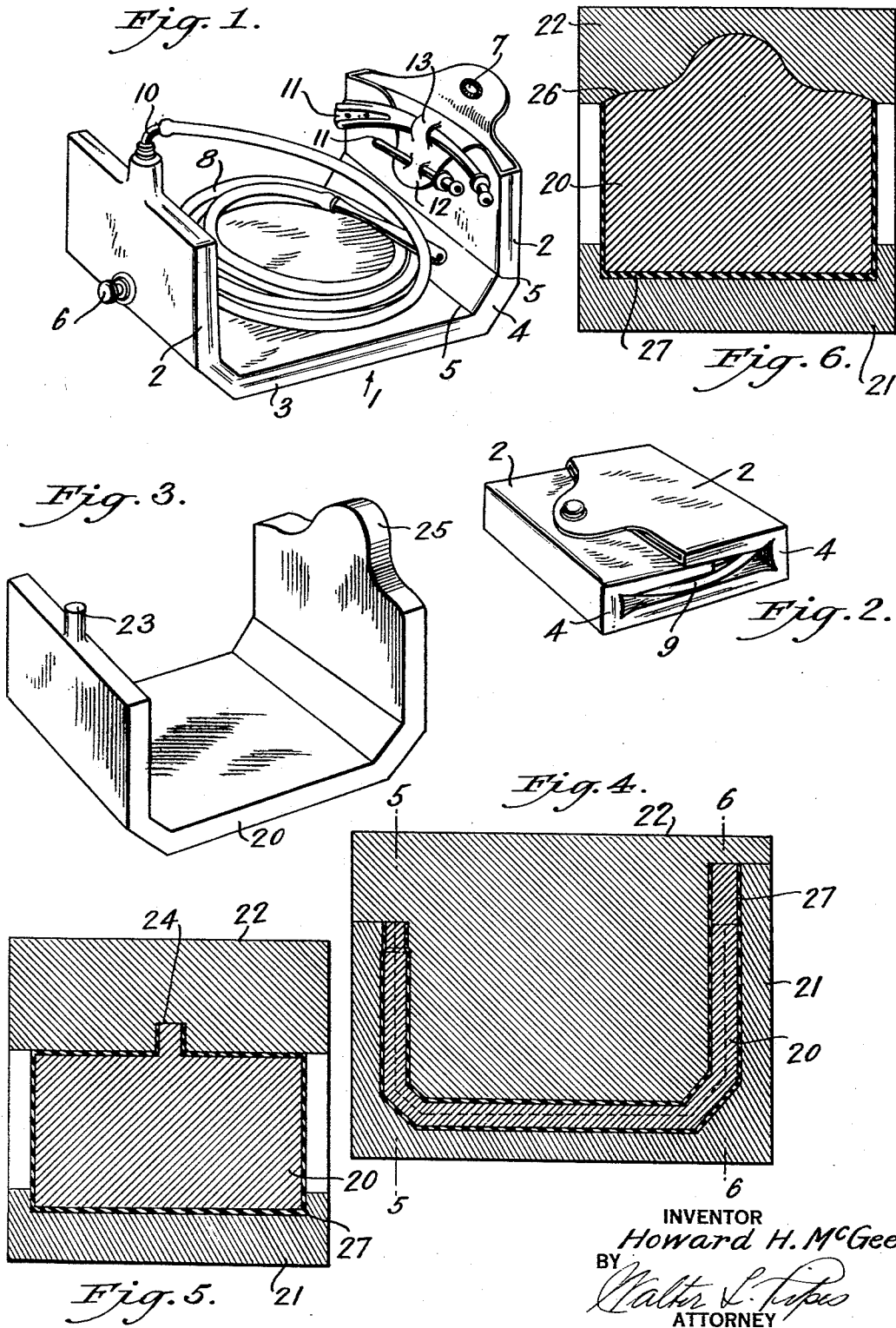
April 17, 1934.

H. H. McGEE

1,955,008

RUBBER BAG

Filed March 4, 1930



UNITED STATES PATENT OFFICE

1,955,008

RUBBER BAG

Howard H. McGee, New York, N. Y., assignor to
The Goodyear's India Rubber Glove Mfg. Com-
pany, Naugatuck, Conn., a corporation of Con-
necticut

Application March 4, 1930, Serial No. 432,994

4 Claims. (Cl. 150—1)

This invention relates to rubber articles and more particularly to rubber bags, such as water bottles and syringe bags.

Heretofore water bottles, syringe bags and similar articles have been made in the form of a flat bag which, when left in view, is unsightly and which cannot be readily packed or folded up into a convenient package for either storage or for convenience in packing the article for purposes of traveling or other reasons.

While the water bottles, syringe bags and like articles heretofore made have been foldable due to the flexibility of the material, such folding is done only at the expense of an excessive deformation of the rubber at the fold, which deformation tends to cause and does cause the bag to crack or break at that point, thereby rendering it useless.

It is an object of this invention to provide a novel bag of the water bottle or syringe type which is so shaped that it may be readily folded into a compact convenient package of pleasing appearance without detrimental deformation in the rubber.

Further objects and advantages of the present invention will appear from the following detailed description taken in connection with the accompanying drawing, in which

Figure 1 is a perspective view of a bag embodying the principles of my invention;

Fig. 2 is a perspective view of the bag of Fig. 1 shown in folded condition;

Fig. 3 is a perspective view of a mold insert used in making the bag of my invention;

Fig. 4 is a cross sectional view through a mold for making the article of this invention;

Fig. 5 is a cross sectional view of the mold taken on the line 5—5 of Fig. 4; and

Fig. 6 is a cross sectional view of the mold taken on the line 6—6 of Fig. 4.

According to my invention, the bag 1 is made of rubber or like material of the usual compound well known in the art. The bag 1 is so formed, shaped, or molded as to have a front face and a back face spaced apart from, and parallel to, each other, and such bag 1 has one or more portions 2 disposed in planes at an angle to the plane of a remaining portion 3. The portions 2 and 3 are parts of the bag 1 and are connected by a bend 4 which is also part of the bag. The front and back faces of the bag 1 are creased as at 5 at the joining point of the portions 2 and 3 with the bend 4, or if desired, the creases 5 may be replaced by a continuous curve which would thus join the portions 2 and 3 with the

bend 4. The creases 5 preferably extend transversely of the length of the faces of the bag 1. The bend 4 in the material of the bag provides a sufficiently preformed curvature in the bag at that point, so that upon bending the portions 2—2 into the positions shown in Fig. 2, the material of the bag at the bends 4 is not detrimentally deformed.

The extent and the arrangement of the bends 4 in their preformed condition is such that when the bag is in folded condition, as shown in Fig. 2, the rubber or other material of the bag is only slightly deformed. Suitable means for securing the bag in its folded position are provided which may conveniently take the form of the button 6 and eyelet 7. The button 6 may be secured to the body of the bag in any suitable manner as by adhesives, and the buttonhole 7 may be formed in the bag either during the molding or by shaping of the bag afterward. Any other desired means for securing the bag in folded condition may be employed.

Where the bag is of the water bottle or syringe type, the hose connections 8 customarily supplied therewith may be conveniently coiled within the folds of the bag as shown at 9, as in Fig. 2.

Where the hose is attached to the bag, a curved connection 10 may be provided so as to render unnecessary any sharp bends in the hose in arranging it within the confines of the folded bag. Other appurtenances of the bag, such as the nozzles 11 may be secured in place on the tab 12 insertion through slits 13 formed in the tab 12, which appurtenances are conveniently hidden from view when the bag is in folded position as shown in Fig. 2.

From the above description it is seen that a construction of a bag of the water bottle or syringe type has been provided which may be folded into a convenient package of pleasing appearance and of a size and shape readily adapted for convenience in handling, and which also serves as a container and cover for the various appurtenances usually supplied with such an article.

While the article of this invention may be formed in any desired way, such as by cutting out the parts and assembling the parts in bag shape by uniting the parts adhesively, it is preferred to form the bag by molding in a mold such as shown in Figs. 3, 4, 5 and 6.

The mold is provided with an insert 20 of metal or other suitable material shaped to conform to the cavity of the mold and around which the rubber or other material of the article extends when in the mold. The mold proper is

formed of lower and upper parts 21 and 22, respectively, which interfit along a line extending medially of the side face of the article so that the flash is formed along the side or edge of the article or bag. The mold shown in the drawing is specifically designed for forming a bag of the syringe type, such as shown in Fig. 1, and accordingly the insert 20 is provided with a projection 23 fitting into recess 24 of mold member 22 so as to form the opening in the bottom of the bag. In addition the insert 20 is provided with the rounded end surface 25 which fits snugly against a corresponding surface 26 of mold member 22, thereby forming the opening in the top of the bag. The rubber or like material 27 of which the article is formed surrounds the insert 20 in the cavity formed by the mold members 21 and 22 as shown at 27 in the drawing. Where the material of which the bag is vulcanizable or otherwise curable, it may be so treated by the application of heat and pressure for a suitable length of time according to the nature of the material.

While a specific form of the invention has been herein disclosed by way of illustration, it is not intended so to limit the invention, inasmuch as any variations from the details thereof may be made without departing from the spirit and scope of the invention which is defined in the following claims.

Having thus described my invention, what I claim and desire to protect by Letters Patent is:

1. A rubber bag for containing liquids comprising a plurality of portions each of which comprises a pair of spaced sheets of rubber of material width and relatively narrow connecting side walls, one of said portions having material length to serve as a main body portion, shorter portions connected at the ends of the main portion in angular relation thereto, other portions connected in angular relation to the second named portions and having sufficient length to overlap, there being creases in the rubber at the joints between portions to facilitate folding, and cooperating securing means carried by the overlapping portions whereby the second and third named

portions may be folded about the main portion and secured for forming a compact package.

2. A rubber bag for containing liquids comprising a main body portion having connected fluid confining walls, a pair of fluid confining end portions connected thereto in angular relation, another fluid confining portion connected to each end portion in angular relation, the last named portions being of sufficient length to overlap, the several portions being of rubber material and having creases at their connections to facilitate folding, and cooperating securing means carried by the last named portions whereby the end and last named portions may be folded about the main portion and secured as a compact package.

3. A rubber bag for containing liquids comprising a main body portion having connected fluid confining walls, a pair of fluid confining end portions connected thereto in angular relation, another fluid confining portion connected to each end portion in angular relation, the last named portions being of sufficient length to overlap, the several portions being of rubber material and having creases at their connections to facilitate folding, appurtenance securing means carried by one of said portions, and cooperating securing means carried by the last named portions whereby the end and other portions may be folded about the main portion and secured as a compact package.

4. A rubber bag for containing liquids comprising a main body portion having connected fluid confining walls, a pair of fluid confining end portions connected thereto in angular relation and having well defined spaced creases, another fluid confining portion connected to each end portion in angular relation, the last named portions being of sufficient length to overlap, the several portions being of rubber material, and cooperating securing means carried by the last named portions whereby the end and other portions may be folded about the main portion and secured as a compact package.

HOWARD H. MCGEE.