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CONTAINER.

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To all whom it may concern:

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Be it known that I, WILLIAM J. RAN-DOLPH, citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and use-

ful Improvement in Containers, of which the following is a specification.

This invention relates to containers of the kind made mainly of elastic or flexible mate-10 rial and which may be used to contain fluids of any kind. The container embodying this invention is particularly intended to be used as a hot water bottle, or if inflated with air, the container may be used as a life preserver,

15 but it is not intended to limit the container to these uses, since the container may be used for other purposes.

The objects of this invention are to produce a container of this kind in which the flexible portion is made of rubber tubing or 20 the like, in such a manner that if the tubing becomes worn it can be readily removed and replaced by another strip of tubing; also to provide a container of this kind in which

25, the rubber portion may be taken from a worn out inner tube of an automobile tire; also to provide a flexible container of this kind which will be strong and durable and which can be readily made of any desired

30 size or capacity; also to improve the con-struction of flexible containers in other respects hereinafter specified.

In the accompanying drawings:

Fig. 1 is a front elevation of a flexible 35 container embodying the invention.

Fig. 2 is a central vertical section thereof. Fig. 3 is a perspective view showing the lower end of the flexible tube of the container and the means for closing the lower 40 end thereof.

Fig. 4 is a transverse sectional plan of the lower end of the flexible tube and the closing means showing the parts in operative relations to each other.

Fig. 5 is a transverse sectional view thereof on line 5-5, Fig. 4. 45

Fig. 6 is a transverse sectional view thereof on line 6-6, Fig. 2.

Fig. 7 is a fragmentary elevation, partly 50 in section of the flexible tube and showing the inner member of the upper closing means in position to be inserted into the tube.

Fig. 8 is a fragmentary transverse sectional elevation on line 8-8, Fig. 2, showing 55 the upper end of the container.

Figs. 9 and 10 are top plan views of the inner and outer members respectively of the upper closing means.

Fig. 11 is a front elevation on a reduced 60 scale of a container of larger size and adapted to be inflated with air for use as a life preserver or the like.

Briefly stated, the flexible container comprises a body portion which preferably con- 65 sists of a piece of rubber tubing, such for example as a part of an inner tube of an automobile tire, a closure for the lower end of the container, which closure is preferably made so as to be readily applied to or re- 70 moved from the body portion, and an upper closure which is preferably removably secured to the upper end of the body portion, and is provided with means for introducing fluid into the container and discharging it 75 therefrom.

A represents the flexible body portion of the container which is preferably made of rubber tubing or the like and which may be made of a section of an inner tube of a tire. 80 The lower end of the tube may be closed in any suitable or desired manner, such as by vulcanizing the end of the tube to close the same, or if desired, a clamp may be provided for closing this end of the tube. In 85 the construction shown, this clamp consists of two clamping members B and B' which are arranged at opposite faces of the tube and which can be drawn toward each other by any suitable means, such as screws b, 90 whereby the end of the tube is pinched between the clamping members and closed thereby. The clamping member B is pref-erably provided with laterally extending arms or extensions between which the other 95 member B' may enter and which confine the tube against expanding laterally, due to the pressure exerted thereon by the clamping members. Before the lower clamping members are secured to the tube, the tube is 100 preferably turned inside out and after these members have been secured in place, the tube. is preferably again reversed, so that the clamping members will be arranged within the tube, as shown in Figs. 1, 2 and 6. Con- 105 sequently the clamping device will be en-

tirely concealed and none of the metal parts of this clamping device will be accessible. Any other means for clamping the ends of the tube for closing the same may be em-5 ployed if desired.

The other end of the tube may be closed by any suitable means which make it possible to fill and empty the container. In the construction shown, the upper end of the tube is 10 closed by a cap member C, which may be of any desired shape, that shown being somewhat elongated so that when the container is used as a hot water bottle it will have two substantially flat sides. The cap member C 15 cooperates with a base member D, which preferably is in the form of a frame provided with bridge portions d into which fastening devices such as screws E may enter to hold the cap and base members together. The frame or peripheral portion of the base member is preferably provided with an outwardly extending lip d' and an inwardly and upwardly inclined portion d^2 formed integral with the lip d'. This frame portion $\mathbf{20}$ 25 of the base member forms a seat for the end of the tube and the base member is preferably made slightly larger than the tube so that when the base portion is inserted into its operative position in the upper end of 30 the tube, this end of the tube is stretched so that it lies in close contact with the seat of the base member. The lower edge c of the cap member C is formed in such a manner as to cooperate with the lip d' and inclined por-35 tion d^2 to press the rubber into engagement with the seat of the base member. By means of this construction, when the cap and base members are pressed together, the upper end of the tube forms a gasket or seal with the 40 cap and base members.

The cap member may be pressed toward the base member by any suitable means, the screws E shown for this purpose passing through holes in the cap member and engag-45 ing in threaded holes in the bridge portions d of the base.

The cap member is preferably provided with suitable means for admitting fluid to and discharging it from the container. In 50 the construction shown for this purpose, a stopper or screw plug F is employed, which engages in a threaded hole in the cap member. If it is desired to use the container as a life preserver, as shown in Fig. 11, the 55 stopper F is replaced by a suitable check valve G which may be of any desired or well known type.

The cap member is preferably also provided with a handle or the like to facilitate carrying the container. For this purpose a 60 bail G' is preferably employed, which in the construction shown is made of spring wire, and the ends of which extend into lugs or projections g formed on the cap member.

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tages of being simple in construction, easily assembled and taken apart and the only part thereof which is subject to wear, namely the flexible body portion, can be readily replaced. The container described makes it 70 possible to use portions of old inner tubes, which otherwise are of very little value. The size of the container can be easily varied by using a longer or shorter piece of rubber 75 tubing.

I claim as my invention:

1. A container comprising a body portion consisting of a strip of rubber tubing having one end closed, and a rigid elongated closing device for the other end of said strip and in- 80 cluding a rim having elongated sides and rounded ends and having a bridge member connecting said elongated sides intermediate of the ends thereof, said tubing being stretched over said rim, a cap cooperating 85 with said rim for clamping said tubing between said rim and said cap, and clamping means connecting said bridge member and said cap.

2. A container comprising a body portion 90 consisting of a strip of rubber tubing having one end closed, and a rigid closing device in the other end thereof, said closing device including a base having a rim portion over which the end of the tubing is stretched and 95 parts extending inwardly from said rim, a cap clamped to said base and securing said end of the tubing between the rim portion of said base and said cap, said cap having an opening for filling and emptying said 100 container, and means for clamping said cap and said base together, said clamping means engaging said inwardly extending parts of said base.

3. A container comprising a body portion 105 consisting of a length of tubing of flexible material having one end closed, and a rigid closing device for the other end of said tube, said closing device including a base portion having an outwardly extending lip of great- 110 er periphery than the normal periphery of said tube and having an inclined portion extending inwardly from said lip at a distance from the edge of said lip, said base portion being adapted to be inserted into 115 the end of the tube whereby the tube is stretched to conform with said lip and said inclined portion, and a cap adapted to be secured to said base and having a part engaging the stretched end of said tube. 120

4. A container comprising a body portion consisting of a strip of rubber tubing having one end closed, and a rigid elongated closing device for the other end of said strip and including a rim having elongated sides and 125 rounded ends, said rim being of angle shaped cross section, said tube being stretched over said rim and entering into said angle shaped rim, a cap having an edge portion adapted to The container described has the advan- enter the angle shaped portion of the rim 130

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to press said tubing into said angle shaped securing the clamping members to grip said portion, and clamping means for securing said cap and rim together.

- 5. A container comprising a body consist-5 ing of a portion of rubber tubing having one end closed, and a closing device for the other end of said tube, said closing device consisting of two cooperating parts adapted to grip
- last-named part and the other cooperating 15 part of said closing device.

6. A container comprising a body consisting of a portion of rubber tubing having one end closed, and a closing device for the other end of said tube comprising a pair of 20 clamping members between which the end edge of the tube is held, means for releasably

edge of the tube, one of said clamping members being insertable in said tube and of greater periphery than said tube, whereby 25 the edge of said tube between said clamping members presents a smooth unfolded surface to be gripped by said clamping members.

7. A container comprising a body portion of rubber tubing, a relatively elongated 30 the end of the tube, one of said parts boing of greater periphery than the normal pe- clamping device for closing one end of said riphery of said tube, whereby the end of the tube, said clamping device maintaining the tube is stretched over said part, and the end edges of said tube together and parallel to detachable elongated closing device for the 35 other end of said tube, and an opening in said closing device for filling and emptying said container, whereby a resilient container is provided having two substantially flat sides.

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