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# UNITED STATES PATENT OFFICE. 

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REENFORCED FORM-FIT WATER BOTMLE.
Application filed July 27, 1923. Serial No. 654,151.

To all whom it may concern:
Be it known that I, Whliam F. Sesser, a citizen of the United States, residing at Alhambra, in the county of Los Angeles

- and State of California, have invented new and useful Improvements in Reenforced Form-Fit Water Bottles, of which the following is a specification.

This invention relates to hot water bothet is an improvement in the form of hot water bottles shown in my application Serial Number 572,977 , filed July 5, 1922.
The water bottle of the present invention is characterized by having a longitudinally ande andely concaved face on the other side, and preferably the water bottle is made of pliant material so that it will accurately and readily conform to the form and shape of any bottle.

Fig. 3 is a cross section of the bottle.
Fig. 4 is a perspective of the bottle.
The bottle of my invention herein described consists of a container which, in 50 broadside elevation, is substantially rectangular in form, and more particularly is of oblong form. One of the side faces of the bottle is concaved from end to end on an axis that is parallel to the axis of the ob-
long, or parallel to a broadside face from top to bottom, and this concaved face is indicated in section at 2. The opposite broadside face of the container or bottle is convexed as shown at 3 on an axis that is transverse to the length of the bottle B. 6 This permits the formation of two concave faces 2 and 3 of materially different radii.
The radius of the concave face 3 is preferably such as will more or less nearly conform to the curvature of a portion of the limbs, for instance, of the body, so that the same may be snugly covered by the applied bottle. The concave face 2 of greater radius provides for the snug covering of portions of the body, for instance, the hips, back and abdomen, having curvature of greater radius than the other portions of the body.
The bottle may be provided, preferably at the center of its upper end, with a filling mouth 5 and a stopper 6 therefor, the neck of the bottle being reenforced as at 7 .

An important feature of my present invention is the provision of means connecting the concaved opposite faces so as to prevent these from being distended from the desired concave form when the bottle is filled with a liquid. There is provided, therefore, within the body walls, transversely extending connecting means. This means is shown as consisting of a central stud 10, 80 which may be of rubber joined as by vulcanizing to the contiguous interior faces of the opposite walls 2 and 3 . Other connecting studs 11 are suitably disposed interiorly and extend transversely from wall to wall, 0 the parts being vulcanized or otherwise appropriately attached to the walls. By the tying or connecting means thus provided, the desired concave form of walls will be retained when the bottle is filled, and yet the bottle will be capable of bending transversely and longitudinally to conform to the figure or portion of the body to which it may be applied.
As shown in Figs. 1, 2 and 3, the studs 100 10 and 11 are of substantial construction and not only hold the bag in shape when it is filled with liquid, but prevent the surfaces 2 and 3 being crushed into contact when the bag is out of use and placed in 105 storage. Rubber hot water bottles deteriorate greatly when out of use and the interior contacting surfaces very often become at-
tached together and in warm climates somewhat cemented together. The studs prevent this.
It is especially desirable to have a bottle
5 that is flexible or pliant and yet which will be so reenforced and constructed that the concaved faces will not be bulged convexly and thus destroy the desired capacity of conforming to the curvatures of the body.

Especial attention is called to the fact that when the water bottle is straight up as in Fig. 2, the side 2 is curved relative to a horizontal axis, and the side 3 is curved relative to a vertical axis. In other words, 15 the axis of one curve is transverse to the axis of the other curve.

Further embodiments, modifications and variations may be resorted to within the principle of the invention.
What is claimed is:

1. A water bottle of flexible material substantially flat and oblong, opposite faces being curved upon axes crosswise of each other,
and flexible non-collapsible studs for connecting the curved faces to prevent undue 25 expansion and distortion.
2. A water bottle of flexible material substantially flat and oblong, opposite faces being curved upon axes crosswise of each other, the curvature of one face being greater 3 than the curvature of the other face, and flexible non-collapsible studs for connecting the curved faces to prevent undue expansion and distortion.
3. A water bottle of flexible material sub- 35 stantially flat and oblong, opposite faces being curved upon axes crosswise of each other, a central internal flexible non-collapsible stud connecting the two curved faces, and a plurality of other internal flexible non-collapsible studs connecting the two curved faces so as to prevent undue expansion and distortion.

In testimony whereor I have signed my name to this specification.
W. F. SESSER.

