

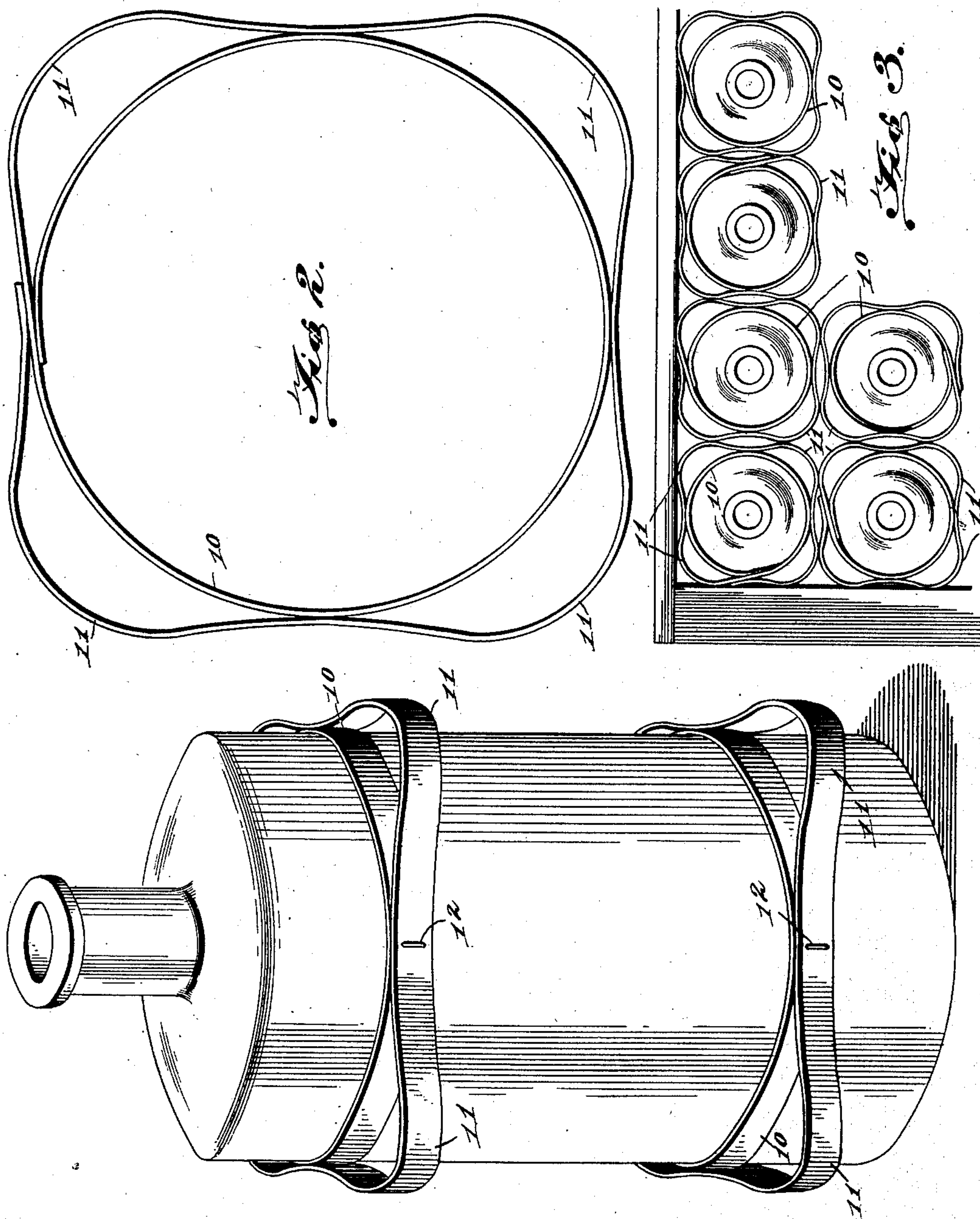
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J. W. STEEL.  
PROTECTOR FOR BOTTLES, JARS, OR THE LIKE.

APPLICATION FILED APR. 19, 1902.

NO MODEL.



Witnesses  
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Fig. 1.

John W. Steel Inventor

By

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# UNITED STATES PATENT OFFICE.

JOHN WILLIAM STEEL, OF PORTSMOUTH, VIRGINIA.

## PROTECTOR FOR BOTTLES, JARS, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 719,527, dated February 3, 1903.

Application filed April 19, 1902. Serial No. 103,805. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WILLIAM STEEL, a citizen of the United States, residing at Portsmouth, in the county of Norfolk and State of Virginia, have invented a new and useful Protector for Bottles, Jars, or the Like, of which the following is a specification.

This invention relates to protectors for bottles, jars, and similar frangible articles; and the object thereof is to provide an extremely simple device especially useful in the transportation of bottles and the like, that may be quickly applied to the same and will yieldingly maintain them in spaced relation to each other and to the walls of the box or receptacle in which they are placed.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of a bottle, showing the improved protectors applied thereto. Fig. 2 is a top plan view, on an enlarged scale, of one of the protectors. Fig. 3 is a top plan view of a portion of a box or receptacle, showing a plurality of bottles packed therein and more clearly illustrating the manner in which the protectors coact.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

In this preferred construction a bottle or other body-engaging element is provided preferably in the form of a body-embracing ring 10, that is of sufficient size to slip snugly over the body, as shown in Fig. 1. To the outer face of this body-embracing ring are attached a plurality of spaced curved buffer-loops 11, the terminals of which are attached to the body-embracing ring by means of staples 12, though other devices may be employed in lieu thereof, and even glue may be used, if desired, without departing from the spirit of the invention.

In the preferred construction for the sake of cheapness the entire device is formed of a single strip of veneer, though more than one piece may be used, if desired. In the illustrated structure one end of the strip is bent to form the inner body-embracing ring 10, the remainder of the strip surrounding the ring and being secured thereto at separated points, the portions between the points of attach-

ment being spaced from the ring and convexedly curved to constitute the yielding buffers. The terminals of the strip are arranged in overlapping relation, and a fastening device passes through the same to secure them together and to the intermediate portion of the blank passed between them, as clearly illustrated in Fig. 2. In use a pair of these protectors are preferably employed on each bottle, one being fitted upon the upper portion of the body, the other being slipped upon the lower portion, as shown in Fig. 1. Instead of this arrangement, by making the protectors wider only one need be employed. It will therefore be seen that when a plurality of the bottles provided with the protectors are packed in the receptacle, as shown in Fig. 3, the buffer-loops will be in contact, while the remaining portions will be spaced apart, and thus yielding separators are provided, which will "give" to a certain extent and yet prevent the bottles coming into contact should the receptacle in which they are placed receive any sudden jar or shock. This yielding feature is due to the curvature of the buffer-loops, which when placed together, as shown, contact with each other at separated points, the spaces between them allowing the necessary yielding movement, which could not be obtained were said buffers straight and angular. It will furthermore be noted that the outer or buffer portion of each protector is in the form of a quadratic figure, and thus said protector will better coact and more economically fit within a rectangular box than if the general shape of the buffer portions corresponded to the body-engaging ring, and more bearing-points are obtained. It will be apparent that the devices may be manufactured at extremely small cost, as they may be constructed of any material, whether metal or wood, the latter however, being preferable, especially those kinds which are light and yielding.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and details of construction may be resorted to without departing from the



spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a protector of the class described, the combination with a body-embracing element that surrounds the body and frictionally engages with the same to support the protector thereon, of a plurality of spaced curved buffers secured to the outer face of the body-embracing element and surrounding the same, said element and buffers being constructed of yielding wood veneer.
2. In a protector of the class described, the combination with a body-embracing element arranged to surround the body and frictionally engage the same to support the protector thereon, of a yielding wood-veneer buffer-strip surrounding the ring and secured to the outer face of the same at separated points, the intermediate portions of the strip being spaced from the element and curved to constitute yielding buffers.
3. In a protector of the class described, the combination with a body-embracing ring arranged to surround the body and frictionally engage the same to support the protector thereon, of a continuous wood-veneer buffer-strip surrounding the ring and secured to the outer face of the same at separated points, the intermediate portions of the strip being spaced from the ring and from each other, said portions being convexedly curved to constitute yielding buffers.
4. A protector of the class described, formed of a single strip of flexible material, and comprising an inner body-embracing ring and an outer buffer-section surrounding the ring and secured thereto at separated points, the portions between the points of attachment being spaced from the ring and from each other and being convexedly curved to constitute yielding buffers.
5. In a protector of the class described, the combination with the body-embracing element shaped to conform to the article to

which it is applied, and frictionally engage the same, said element being composed of a flat strip of material, of a plurality of spaced buffers or cushions formed of a flat wood-veneer strip surrounding and secured to the body-embracing element at separated points and projecting therefrom at other points.

6. A protector of the class described formed of a single strip of flexible wood veneer and comprising an inner body-embracing ring and an outer buffer-section surrounding the ring and secured thereto at separate points, the ends of the strip being arranged in overlapping relation and secured together, and the portions of the buffer-section between the points of attachment being spaced from each other to constitute buffers.

7. In a protector of the class described, the combination with a body-embracing element, of a plurality of buffers surrounding and secured to the outer face of the body-embracing element, said element and buffers being constructed of a single piece of material.

8. In a protector of the class described, the combination with a body-embracing element, of a plurality of looped yielding buffers surrounding and secured to the outer face of the body-embracing element, said element and buffers being constructed of a single piece of material.

9. In a protector of the class described, the combination with a body-embracing element, of a plurality of looped yielding buffers surrounding and secured to the outer face of the body-embracing element, said element and buffers being constructed of a single piece of material, the ends of which are arranged in overlapping relation, and means securing said ends together.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN WILLIAM STEEL.

Witnesses:

S. A. STEUART,  
EUGENE NOEL.