(No Model.)

H. H. HIGHAM.

BOTTLE CASE.

No. 497,877. Patented May 23, 1893.

FIG. 1.

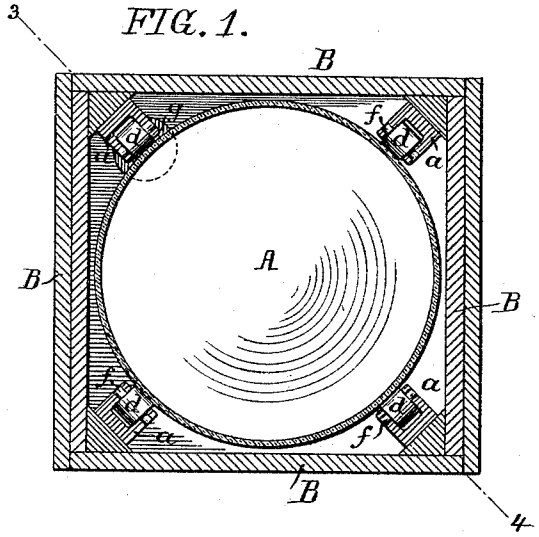
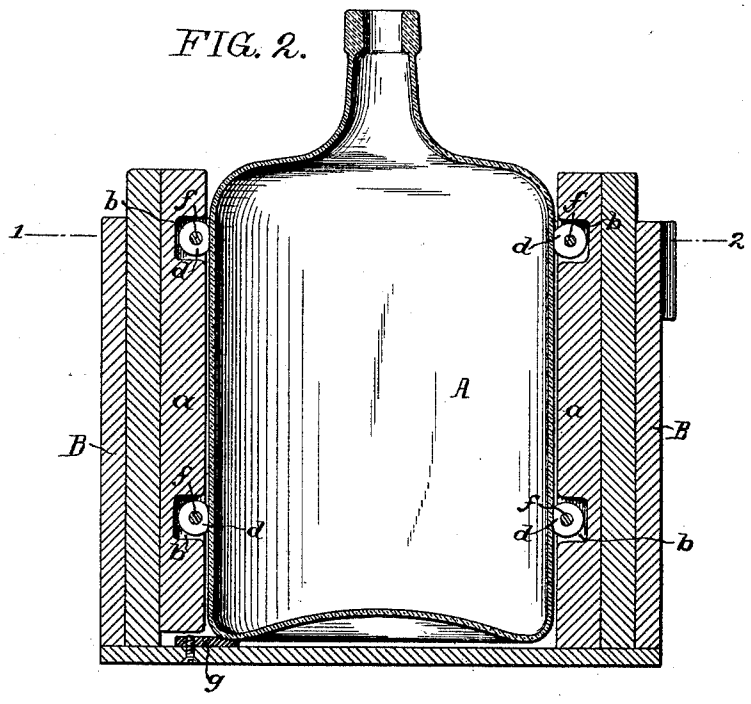


FIG. 2.



Witnesses:
F. D. Goodwin
W. A. Barr.

Inventor
Howard H Higham
By his Attorneys
Howson Howson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HOWARD H. HIGHAM, OF PHILADELPHIA, PENNSYLVANIA.

BOTTLE-CASE.

SPECIFICATION forming part of Letters Patent No. 497,877, dated May 23, 1893.

Application filed July 25, 1892. Serial No. 441,106. (No model.)

To all whom it may concern:

Be it known that I, HOWARD H. HIGHAM, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Bottle-Cases, of which the following is a specification.

The object of my invention is to so construct a case for bottles, demijohns, carboys, and other glass vessels, that while the latter can be readily introduced into or withdrawn from the case in a vertical direction, they will be securely retained against turning movement, and wholly supported by contact with elastic bearings, so that the breaking of the bottle or other vessel by contact with a rigid or unyielding portion of the case is prevented.

In the accompanying drawings:—Figure 1, is a plan view on the line 1—2, Fig. 2, of a bottle case constructed in accordance with my invention; and Fig. 2, is a transverse section on the line 3—4, Fig. 1.

The bottle A shown in the present instance is of cylindrical form and the case B is square or rectangular and in each corner of said case is a vertical strip or bar *a* having, in that side next the bottle, a series of recesses *b*, within each of which is located a roller *d* of rubber or other elastic material, this roller being free to turn upon a pin *f* carried by the bar *a* and extending across the recess *b*. The rollers *d* project beyond the inner faces of the bars *a* and, when the bottle is pushed downward into the case, these rollers bear upon the same at equi-distant points and retain the same in a central position in the case so as to prevent contact of any part of the bottle with the sides of the case, as shown in Fig. 1, the bottom of the bottle resting upon a rubber or other elastic disk *g* secured to the bottom of the case in any suitable position, by preference directly beneath one of the bars *a* which is cut away at the bottom for that purpose as shown in Fig. 2, a very slight projection of this disk beneath the bottle being sufficient to support it free from contact with the bottom of the case owing to the fact that the bottle cannot tilt in any direction because of the support afforded by the rollers *d*.

The rollers *d* permit the ready insertion of the bottle into or its removal from the case in a vertical direction, but said rollers are so arranged in respect to the bottle that when the latter is thrust into the case the rollers are slightly compressed, as shown in Fig. 2, and hence take such a firm hold upon the bottle that any twisting or turning of the latter in the case is effectually prevented.

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

1. A bottle case having rollers of elastic material disposed one above another at equi-distant points around the interior of the case so as to provide bearings for the bottle, substantially as specified.

2. A bottle case having, equi-distantly disposed around the interior of the same, vertical bars with recesses one above another, and rollers of elastic material mounted within said recesses and projecting beyond the inner faces of the bars, substantially as specified.

3. A bottle case having rollers disposed one above another at equi-distant points around the interior of the case, and having, at the bottom of the case, a cushion of elastic material so located as to project beneath the bottle at one side of the same, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HOWARD H. HIGHAM.

Witnesses:

H. F. REARDON,

HARRY SMITH.