June 10, 1924. 1,497,535

R. J. BELL

COLLAPSIBLE CONTAINER

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Fig. 1.

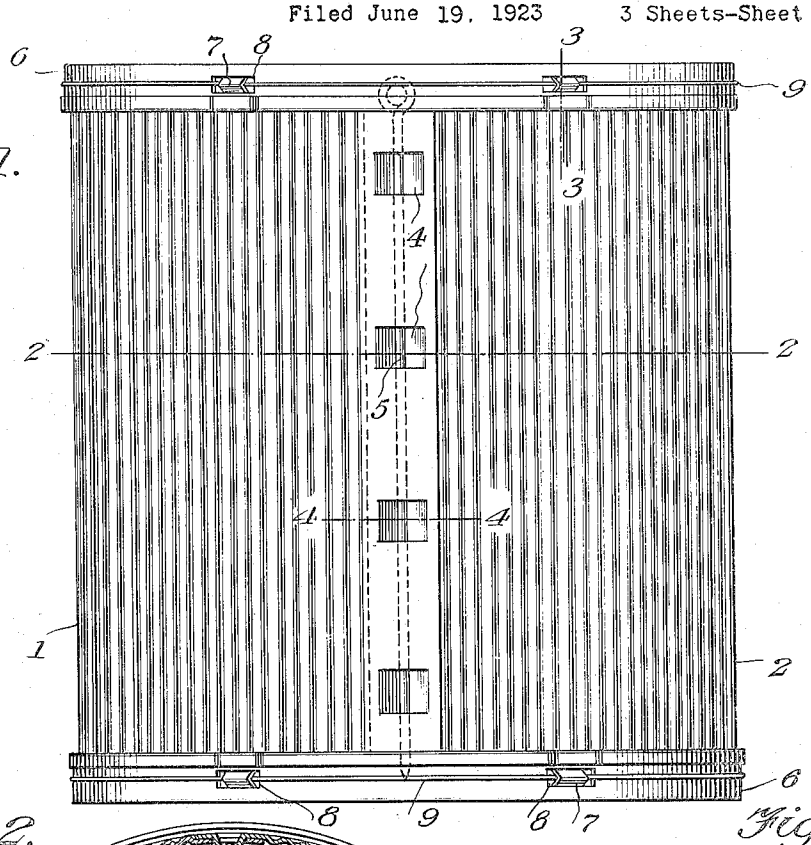


Fig. 2.

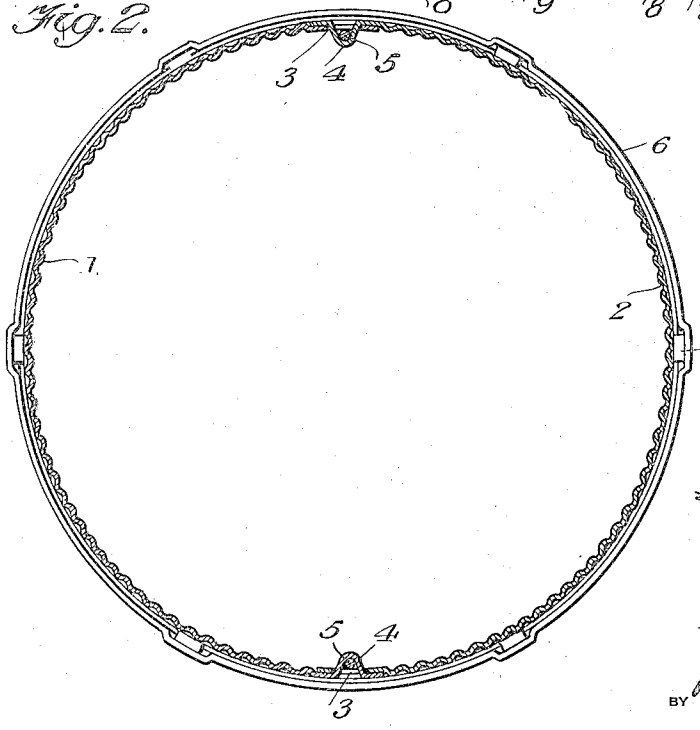


Fig. 3.

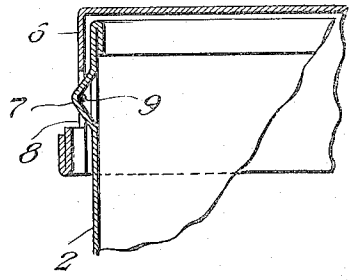
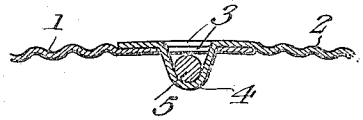


Fig. 4.



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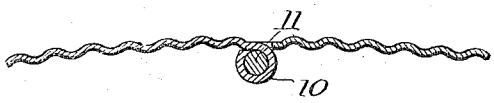


Fig.5.

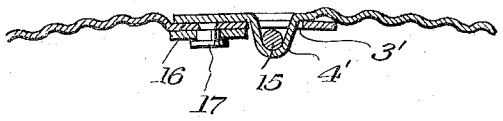


Fig.16.

Fig.6.

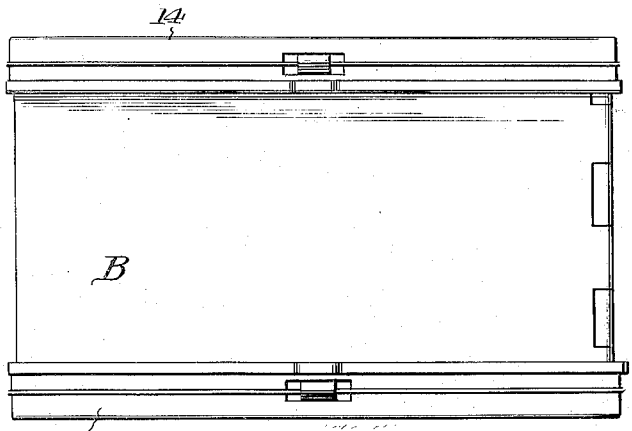


Fig.7.

Fig.10.

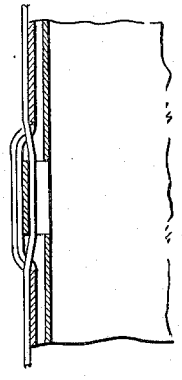
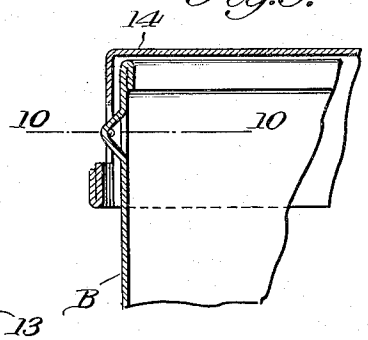


Fig.9.



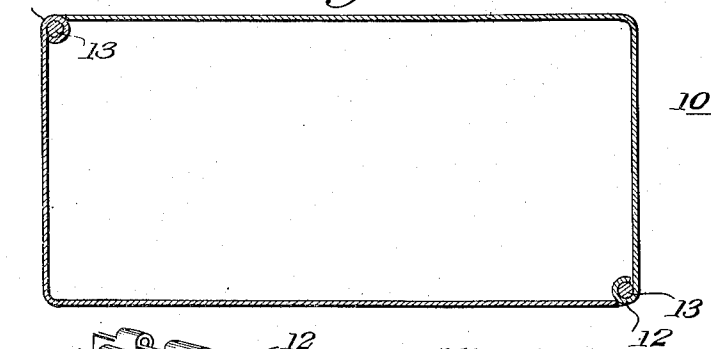
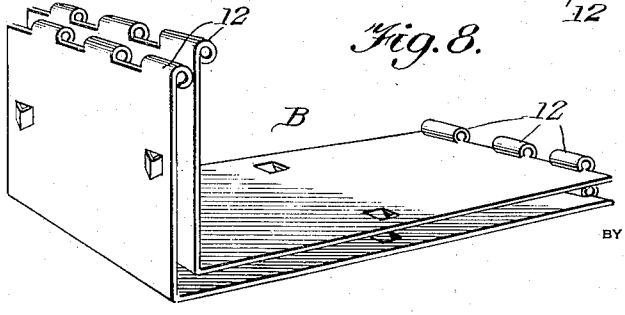


Fig.8.



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Fig. 11.

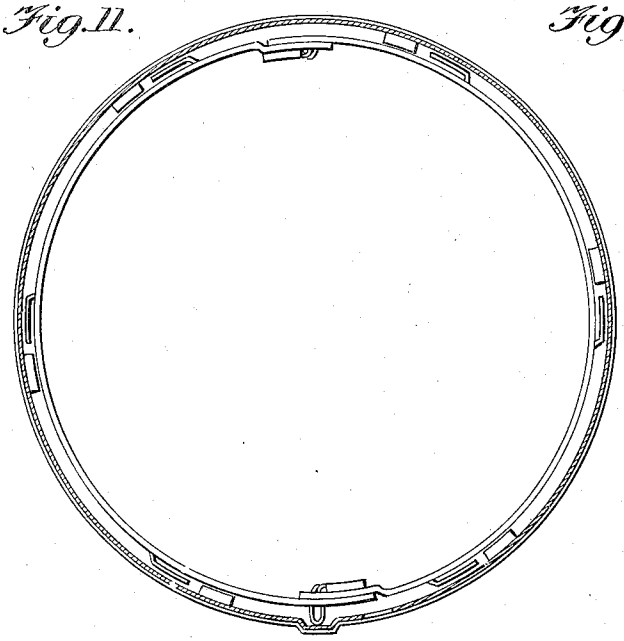


Fig. 13.

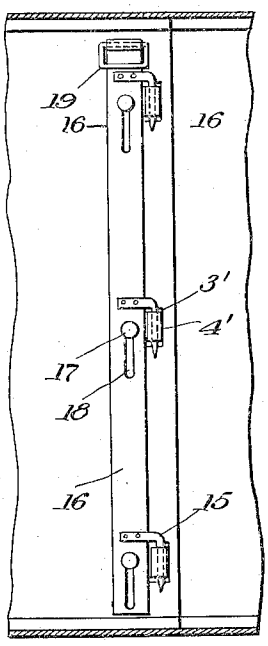


Fig. 12.

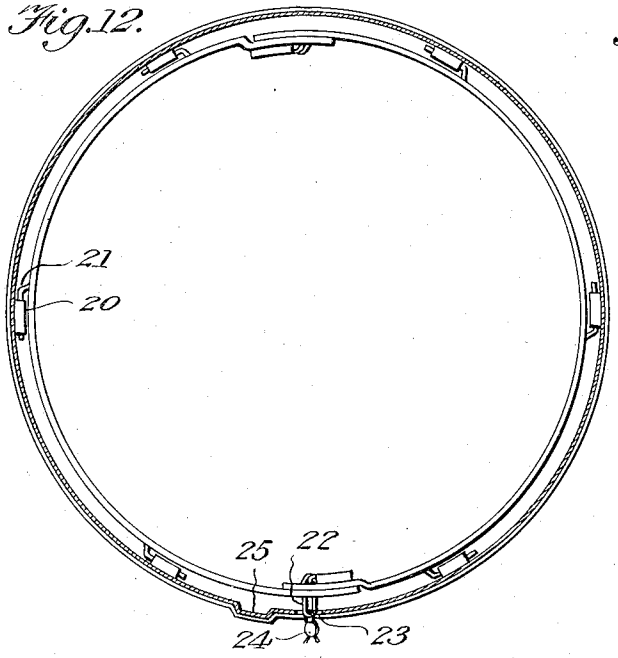


Fig. 14.

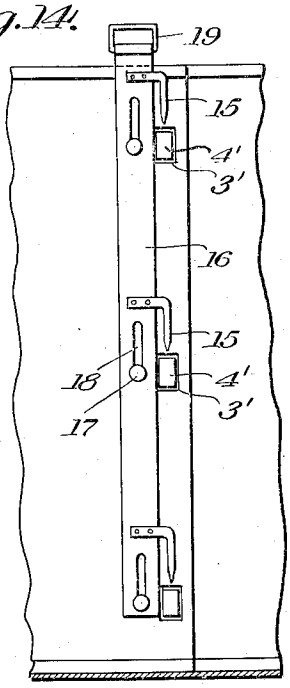
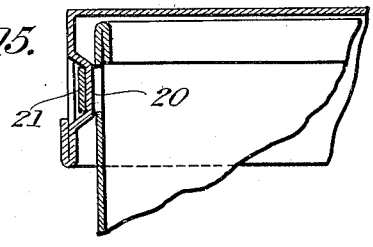


Fig. 15.



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Patented June 10, 1924. 1,497,535

UNITED STATES PATENT OFFICE.

ROBERT J. BELL, OF RICHMOND, VIRGINIA.

COLLAPSIBLE CONTAINER.

Application filed June 19, 1923. Serial No. 646,416.

To all whom it may concern:

Be it known that I, ROBERT J. BELL, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented new and useful Improvements in Collapsible Containers, of which the following is a specification.

This invention relates to a collapsible container which may be assembled very easily and quickly and when knocked down will occupy but little space so that a number of these knocked down containers can be placed together for shipment or storage.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a side elevation of a container made in the form of a barrel.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a section on line 3—3 of Figure 1.

Figure 4 is a section on line 4—4 of Figure 1.

Figure 5 is a similar section but showing a modification.

Figure 6 is an elevation showing the invention applied to a box.

Figure 7 is a horizontal sectional view through Figure 6.

Figure 8 is a view showing the sides of the box placed together.

Figure 9 is a vertical sectional view through the upper part of Figure 6.

Figure 10 is a section on line 10—10 of Figure 9.

Figure 11 is a sectional view taken through the top of a modified form of barrel.

Figure 12 is a similar view but showing the parts in a different position.

Figure 13 is a fragmentary view of the fastening means of the body of a barrel shown in Figures 11 and 12.

Figure 14 is a similar view but showing the parts in detached position.

Figure 15 is a fragmentary sectional view through the upper portion of the barrel shown in Figures 11 and 12.

Figure 16 is a transverse sectional view taken through Figure 13.

Referring to the first form of the invention the barrel or hogshead is formed of two sections 1 and 2 which are preferably made of corrugated iron or steel. Each section is provided with openings 3 adjacent one of its side edges and with projections 4 adjacent the other side edge, these projections being formed by making a pair of slits in the metal and forcing the metal between the slits outwardly. The projections on one section are adapted to engage the openings in the other section and then a pin 5 is passed through the projections so as to lock the same in the openings and thus securely fasten together the two sections. The top and bottom of the hogshead may be connected with the body in any suitable manner, though I prefer to make the top and bottom in the form of caps, as shown at 6, and to connect each cap with the body by the V-shaped projections 7 on the body passing through the openings 8 in the cap and threading a wire 9 or the like through the projections. This arrangement is similar to that described in my application Serial No. 622,361, filed May 2, 1923.

If desired I may hingedly connect the two sections together at one edge by forming tubular portions 10 at one edge of each section which are alternately arranged with similar portions on the other section and then passing a hinge pin 11 through the portions. Thus the two sections will be hingedly connected together at one edge and their other edges can be locked together by the projections and pin before described. This is shown in Figure 5.

In the modification shown in Figures 6 to 10, the receptacle B is made in the form of a rectangular box and one side and end are formed from one piece of material and the other side and end are formed from another piece. The abutting edges of these pieces are provided with tubular parts 12 through which pins 13 are adapted to pass to connect the two parts together. Top and bottom caps 14 may be connected with the body by the projections and wire as before

described. When the rectangular container is to be knocked down for shipment or storage one section is placed upon the other, as shown in Figure 8.

In the modification shown in Figures 11 to 15 the sections of the barrel are connected together by means of pointed members 15 engaging the projections 4′ which pass through the openings 3′. These pointed members are carried by a strip 16 which is slidably connected with each section by means of the pins 17 engaging the slots 18 in the strip. The top of the strip is provided with the handle 19 so that it can be raised and lowered to free the pointed members from the tubular projections or to place the pointed members in said projections. These pointed members take the place of the pins 5. In this modification the cap carries the tubular projections 20 which are engaged by the pointed members 21 on the body, the cap being partly rotated to place the projections in engagement with the pointed members or to free them from such members. The cap is held against rotary movement by means of the loop 22 which projects into an opening 23 in the cap and which is adapted to receive a seal 24. The cap is provided with a groove 25 for receiving the member 22 in placing the cap in position on the barrel or removing it from the barrel.

From the foregoing it will be seen that the container when made in the form of a box or barrel can be taken apart and the sections placed together so that a plurality of knocked down containers can be placed together without occupying much space. The sections are easily connected together by the pins.

By hingedly connecting together the sections, as shown in Figure 5, the barrel can be partly opened so that its contents can be inspected for the full length of the barrel. By using the sliding strip, as shown in Figures 11 to 15 there is no danger of misplacing the connecting means as there is when a pin is used as said strip is permanently attached to the section. The manner of connecting the cap to the barrel, as shown in these figures, eliminates the use of a wire so that the cap can be more easily and quickly placed in position than in the form where a wire must be threaded through the projections.

While the drawing shows the containers as made of metal it is to be understood that they can be made of other material.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A collapsible container comprising a body formed in sections, each section having openings adjacent one edge and hollow projections adjacent the other edge for engaging the openings of the other section, pins passing through the projections for holding them in the openings, a strip to which the pins are connected and means for slidably connecting each strip to its section.

2. A collapsible container comprising a body formed in sections, means for detachably connecting the sections together, a cap for the container and means for detachably connecting the cap to the container, such means consisting of eyes carried by one part and pointed members carried by the other part for engaging the eyes when one part is given a partial rotary movement in relation to the second part.

In testimony whereof I affix my signature.

ROBERT J. BELL.