E. C. BALDWIN.

TUMBLER CASE OR HOLDER.

APPLICATION FILED MAR. 23, 1909. RENEWED OCT. 7, 1910.

992,471. **Patented May 16, 1911.**

Fig. 7.

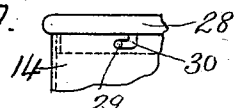


Fig. 1.

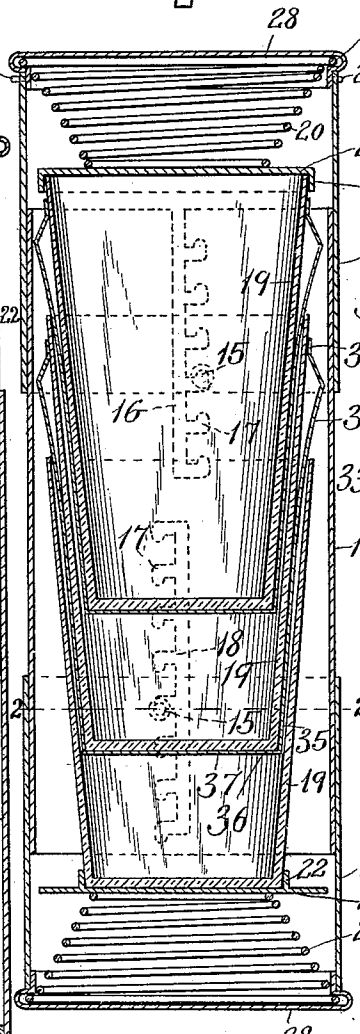


Fig. 8.

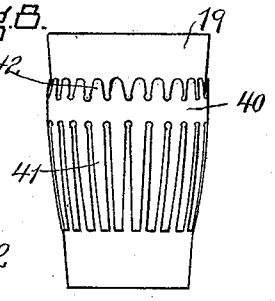


Fig. 3.

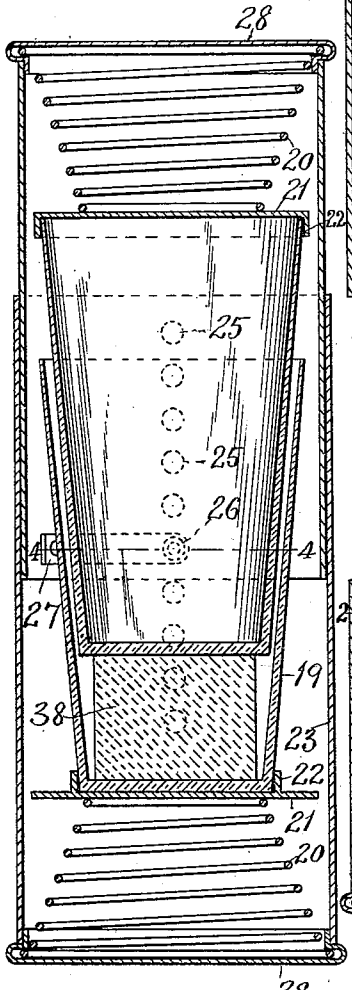


Fig. 5.

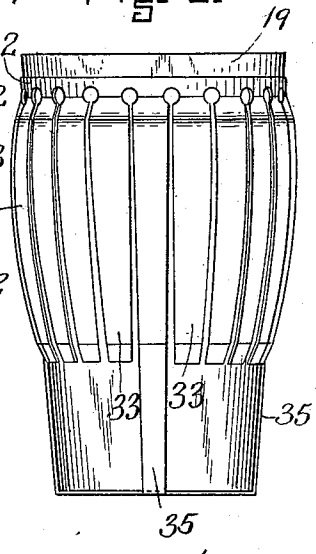


Fig. 6.

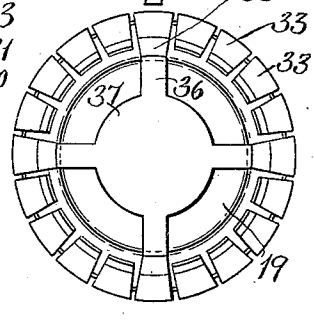


Fig. 4.

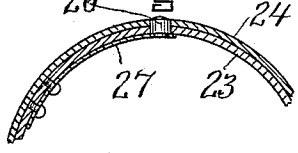
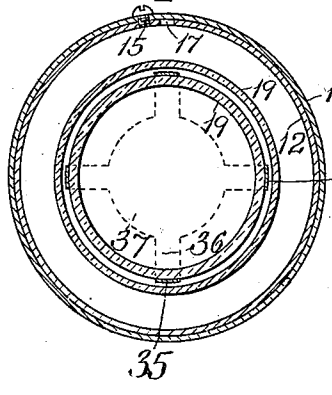


Fig. 2.



WITNESSES.

F. R. Ronketone.

E. Buchelder

INVENTOR.

E. C. Baldwin

by Wright Brown Quinby & May

Attys.

UNITED STATES PATENT OFFICE.

EDWARD C. BALDWIN, OF BOSTON, MASSACHUSETTS.

TUMBLER CASE OR HOLDER.

992,471. Specification of Letters Patent. Patented May 16, 1911.

Application filed March 23, 1909, Serial No. 485,334. Renewed October 7, 1910. Serial No. 585,890.

To all whom it may concern:

Be it known that I, EDWARD C. BALDWIN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Tumbler Cases or Holders, of which the following is a specification.

This invention has for its object to enable a column of nested glass tumblers, or other like receptacles, to be securely held with the minimum liability of breakage, and to provide a holder for each tumbler, adapted to act as an elastic washer when the tumblers are nested, and as a protection to the hands of a person holding a tumbler containing a hot liquid, the invention being intended to provide a tumbler holder adapted particularly for the use of picnic and automobile parties.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a longitudinal section of a tumbler holder embodying my invention. Fig. 2 represents a section on line 2—2 of Fig. 1. Fig. 3 represents a sectional view of another embodiment of the invention. Fig. 4 represents a section on line 4—4 of Fig. 3. Fig. 5 represents a side view of a tumbler inserted in one of the spring washers shown in Fig. 1. Fig. 6 represents a bottom end view of the tumbler and washer shown in Fig. 5. Fig. 7 represents a fragmentary side elevation showing portions of one end of the case, and of the cap engaged therewith. Fig. 8 represents a view similar to Fig. 5, showing another form of spring washer.

The same reference characters indicate the same parts in all the figures.

My invention as illustrated in Figs. 1 and 2, is embodied in a telescopic tubular case composed of a central section 12, and end sections 13 and 14, all the sections being tubular, and the end sections being slidable lengthwise upon the central section so that the length of the case may be varied. Means are provided for adjustably locking the sections at different adjustments, so that the length of the holder may conform to the number of tumblers to be transported. In Fig. 1, I have shown as the locking means, reciprocal coupling members formed on the sections, the coupling members on the central section consisting of inwardly projecting studs 15, while the coupling members on the intermediate section comprise longitudinal slots 16 and 18, each of which is provided at one edge with a series of recesses 17. The recesses 17 are formed to receive the studs 15, and to interlock with or engage said studs in such manner as to prevent movement of the end section 13 toward the ends of the central section 12. The recesses 17 are preferably of angular form, said recesses and the studs 17 forming a coupling or connection of the bayonet joint type. The slot 16 extends inwardly from the outer end of the section 12, the upper end of said slot being open, and its inner end closed. The slot 18 is preferably in alinement with the slot 16 and is closed at both ends. Spring buffers are located within the casing formed as above described, said buffers being seated on the outer flat ends or heads 28 of the end sections 13 and 14, and adapted to exert an inward yielding pressure on the ends of a column of nested tumblers 19. As here shown, each buffer includes a spiral spring 20 and a flat head 21, which is preferably provided with a flange 22, the flange 22 of one of the heads being of greater diameter than the other, so that one of the flanges is adapted to engage the mouth of a tumbler at one end of the column, while the other flange is adapted to engage the base of the tumbler at the other end of the column. This structure enables the greatest number of tumblers to be packed in the case, since the springs 21 are capable of being collapsed to flat or almost flat coils between the flat heads 21 and 28. The end section 14 is removable from the central section by reason of the fact that the slots 16 are open at the outer end of the central section. The section 14 being removed, a column of nested tumblers may be deposited on the buffer head at the bottom of the holder, after which the top section 14 is applied and adjusted until its buffer bears suitably upon the outer end of the column of tumblers, the section 13 being then interlocked with the central section 12 by the coupling members, above described. It will be seen that the spring buffers not only act to absorb shocks or jars and prevent the same from being communicated with injurious

effect to the column of tumblers, but also hold the studs 15 in yielding engagement with the inner ends of the recesses 17, the buffer springs having a tendency to press the end sections outwardly, and thus hold the studs 15 against the ends of the recesses. The flanges 22 on the buffer heads prevent sidewise displacement of the column of tumblers.

In Figs. 3 and 4, I show a simplified construction, the body of the case being composed of two telescopic sections 23 and 24. The section 24 is provided with a vertical row of orifices 25, and the section 23 with a pin 26 adapted to enter either of said orifices, the pin being mounted on a spring 27 attached to the section 23, and adapted to project the pin into either of the orifices 25, provision being thus made for adjustably interlocking the sections.

In each of the described constructions, the case is provided at its ends with heads 28 which form seats for the buffer springs 20, each head being preferably detachably secured by means such as a bayonet joint connection comprising studs 29 on the head, and angular slots 30 in the end portions of the case. The heads are preferably provided with annular recesses 31 which receive the outer convolutions of the springs 20, the springs therefore being permanently engaged with the heads. The springs 20 are spiral in form. And by this term, spiral, I mean that the convolutions are of gradually decreasing radii from one end to the other so that the coils cannot close against each other, but may be pressed down to a flat helix. The result of this form for the springs 20 is that the number of tumblers held in the case may be varied. For instance, as shown in Fig. 3, another tumbler might be inserted with the result of collapsing the two springs 20 to about one-half the height shown in that figure, without endangering in the least the security of the elastic buffing action.

To prevent a rigid bearing of the tumblers upon each other, I provide elastic washers which are so interposed between the tumblers that they prevent an injurious bearing of a tumbler upon the one in which it is inserted. The preferred construction whereby this result is obtained is shown in Figs. 1, 5, and 6, a sheet metal spring washer being employed, which comprises a ring or band 32 adapted to embrace and bear upon the upper end portion of the body of a tumbler 19, and curved resilient fingers 33 which are preferably integral with the band and project from one edge thereof along the body of the tumbler, the said fingers being curved so that only their lower ends come in contact with the body of the tumbler, their intermediate portions bulging outwardly and being adapted to bear yieldingly on the interior of another tumbler, as indicated in Fig. 1. The spring fingers collectively form a spring washer surrounding the tumbler to which they are applied, the portions of the fingers adjacent to the band 32 projecting above the tumbler in which they are inserted, and being formed so that they may bear yieldingly against the interior of the case, thus preventing the possibility of the sidewise displacement of the column of tumblers in contact with the interior of the case. The fingers 33 are separated by slots which permit a free circulation of air between the fingers and the body of the tumbler, so that the fingers are prevented from being heated by hot liquids in the tumbler, thus enabling the tumbler to be held in the hand without discomfort. Two or more, and preferably four of the fingers are provided with extensions 35, and have inwardly bent portions 36 which are connected by a web or plate 37, and form a seat for the bottom of the tumbler.

Fig. 8 shows a spring washer comprising a sheet metal band 40 of considerably larger diameter than the tumbler, and spring fingers 41 and 42 projecting in opposite directions from the band, and bearing at their ends on the tumbler, the band being out of contact with the tumbler.

In Fig. 3 I show a washer 38 adapted to be interposed between the bottoms of two adjacent tumblers, and composed of any suitable elastic material, such as cork or rubber. A metal spring of helical or other suitable form may be interposed between two adjacent bottoms in the same manner.

I claim:

1. A packing case for holding a variable number of articles comprising a plurality of relatively adjustable sections, means for interlocking said sections, end heads removably secured to said sections, and spring buffers including spring members secured to said removable heads, and removable therewith.

2. A packing case for holding a variable number of articles comprising a plurality of relatively adjustable sections, means for interlocking said sections, end heads removably secured to said sections, spiral springs secured to each head and removable therewith, and movable flat heads yieldingly supported by said springs.

3. A packing case formed of a plurality of relatively adjustable sections having end heads, and spiral buffer springs located in each end of said case, said end heads being provided with annular recesses to engage the base convolution of each spring.

4. A packing case formed of a plurality of relatively adjustable sections having end heads, movable heads located in said case, and spiral buffer springs interposed between each end head, and one of said movable

heads, each head being provided with an annular enlargement to engage the base convolution of one of said springs.

5. A tumbler holder comprising telescopic sections provided with means whereby they may be interlocked, and detachable heads provided with elastic buffers adapted to bear yieldingly on the ends of a column of tumblers, said buffers comprising heads adapted to engage the ends of the column of tumblers, and spiral springs behind said heads.

6. A tumbler holder comprising telescopic sections and detachable ends with means for interlocking the same, spring buffers located on the ends of the holder and adapted to bear yieldingly upon a column of tumblers, and washers or supports located within the tumblers comprising the column, and adapted to absorb shocks or jars directed toward the sides of the tumblers.

7. A tumbler holder comprising a band to surround the tumbler and having fingers, the ends of which are adapted to bear on the tumbler, intermediate portions of the fingers being bowed outward to present a larger circumference than either end of the holder.

8. A tumbler holder having a plurality of parallel fingers, the ends of which are adapted to bear on the tumbler, intermediate portions of the fingers being bowed outwardly to provide a free space between the inner surface of the holder and the outer wall of the tumbler, the holder engaging the tumbler at different points along the length thereof.

9. A tumbler holder comprising telescopic sections provided with means whereby they may be adjustably interlocked, to prevent the extension of the holder, and spring buffers adapted to bear yieldingly on the ends of a column of tumblers, each buffer including a flanged head adapted to engage and laterally confine a portion of a tumbler.

10. A tumbler spacing washer composed of a sheet metal band adapted to embrace the body of a tumbler, and provided with spring fingers bearing yieldingly at their outer ends on the embraced tumbler, and projecting outwardly between the band and their outer ends to bear yieldingly on another tumbler in which the first mentioned tumbler is inserted.

11. A tumbler spacing washer composed of a sheet metal band adapted to embrace the body of a tumbler, and provided with spring fingers bearing yieldingly at their outer ends on the embraced tumbler, and projecting outwardly between the band and their outer ends to bear yieldingly on another tumbler in which the first mentioned tumbler is inserted, portions of said fingers being formed to bear yieldingly on a case in which the tumblers are inserted.

12. A tumbler spacing washer composed of a sheet metal band adapted to embrace the body of a tumbler, and provided with spring fingers bearing yieldingly at their outer ends on the embraced tumbler, and projecting outwardly between the band and their outer ends to bear yieldingly on another tumbler in which the first mentioned tumbler is inserted, some of said fingers being extended and connected to form a seat for the bottom of the embraced tumbler.

In testimony whereof I have affixed my signature, in presence of two witnesses.

EDWARD C. BALDWIN.

Witnesses:
C. F. BROWN,
P. W. PEZZETTI.