

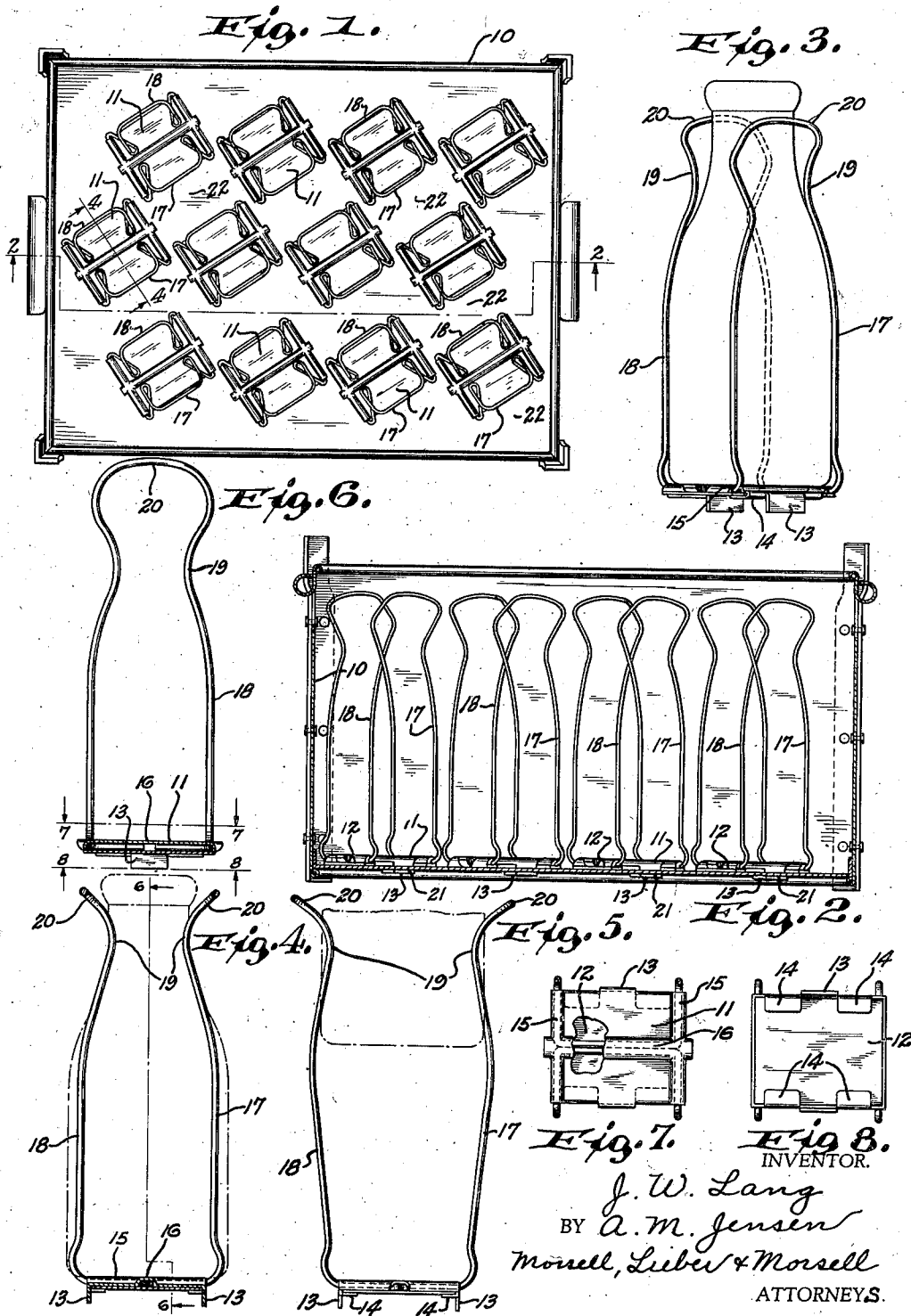
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J. W. LANG ET AL

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BOTTLE CONTAINER

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BOTTLE CONTAINER

John W. Lang and Alfred M. Jensen, Racine, Wis.

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6 Claims. (Cl. 220—21)

This invention relates to improvements in bottle containers.

Heretofore, milk bottle cases have, for the most part, been constructed with bottom partitions or crossed wires to form individual compartments within which the bottles are adapted to loosely fit. Due to the fact that these compartments do not hold the bottles rigidly, there is necessarily considerable rattling when the case is being carried; and this is disturbing to customers who are endeavoring to sleep while the early morning deliveries are being made. In addition, the present type of case does not prevent breakage, as the upper portions of the bottles can strike one another during transportation. Furthermore, if the case is accidentally tipped, there is nothing to prevent the bottles from slipping out.

It is, therefore, one of the objects of the present invention to obviate the above-mentioned objectionable features of the usual type of bottle container by providing means within the case for releasably and securely holding the individual bottles, said means preventing contact of the bottles with one another and holding the bottles within the case even if the latter is accidentally inverted.

A further object of the invention is to provide a bottle container as above described wherein the individual bottle-holding devices are of such a nature as to fit compactly within the case, so as to provide for the accommodation of the same number of bottles in a case of standard size as are now being carried.

Another object of the invention is to provide a milk bottle holder or carrier, which is readily accessible for cleaning and which may therefore be maintained in highly sanitary condition.

A more specific object of the invention is to provide a bottle container having a plurality of individual bottle-holding members so shaped as to substantially conform to the contour of the bottle when the bottle is in position while permitting the bottle to be readily withdrawn.

A further object of the invention is to provide a bottle holder as above described in which said yielding members are formed in an inexpensive manner from spring wire.

A further object of the invention is to provide in a bottle container, units embodying yielding means adapted to be spread to permit the reception and withdrawal of bottles, said units being positioned in a novel manner within the case to provide for maximum capacity while permitting sufficient space for spreading of said yielding means.

A further object of the invention is to provide a bottle container which, while particularly adapted for use in connection with milk bottles, may be readily adapted to receive bottles of any similar type, such as beer bottles and the like.

A further object of the invention is to provide a bottle container which is relatively simple in construction, inexpensive to manufacture, strong and durable, and well adapted for the purpose described.

With the above and other objects in view, the invention consists of the improved bottle container and all its parts and combinations as set forth in the claims and all equivalents thereof.

In the accompanying drawing illustrating one complete embodiment of the preferred form of the invention, in which the same reference numerals designate the same parts in all of the views:

Fig. 1 is a plan view of the improved container;

Fig. 2 is a vertical, sectional view taken longitudinally thru the container;

Fig. 3 is an enlarged perspective view of one of the bottle-holding units;

Fig. 4 is an enlarged sectional view taken on line 4—4 of Fig. 1, the dot-and-dash lines showing a milk bottle in position therein;

Fig. 5 is a similar view showing the yielding members in spread condition and the dot-and-dash lines indicating the lower portion of a bottle as the bottle is being withdrawn;

Fig. 6 is a sectional view taken along line 6—6 of Fig. 4;

Fig. 7 is a sectional view taken on line 7—7 of Fig. 6; and

Fig. 8 is a bottom view of the unit taken along the line 8—8 of Fig. 6.

Referring more particularly to the drawing, the numeral 10 designates a case of conventional size and shape. The case is shown as constructed of metal, but it may, of course, be formed of wood or other suitable material.

Each of the bottle-holding units shown in perspective in Fig. 3 has a base formed of an upper plate 11 and a lower plate 12 (see Figs. 7 and 8). The upper plate has each of two opposite edges formed with a central lug 13 and with lugs 14 on each side thereof. On the other two edges the upper plate is formed on its lower surface with grooves 15, said grooves forming a rib on the upper surface of the plate. Connecting the two grooves 15 is a substantially central groove 16.

Spring bottle-holding members 17 and 18 are each formed of a length of wire having consid-

erable rigidity bent into substantially inverted U-form, as shown in Fig. 3. The ends of each length of wire extend into the grooves 15 of the upper plate and are then bent into the central groove 16 in the manner shown in Fig. 7. When the two bottle-holding members are thus inserted, the lower plate 12 is put in position and the metal lugs 14 of the upper plate are bent over the lower plate to the position shown in Fig. 8 to thereby confine the ends of the bottle-holding members between the two plates.

Near their upper ends the bottle-holding members 17 and 18 are of restricted width, as at 19, and said portions of restricted width also normally extend inwardly toward one another, as shown in Fig. 4. The upper portion of each of the members 17 and 18 is of enlarged width and normally extends outwardly, as indicated by the numeral 20 in Figs. 3 and 4. It will thus be seen that the two bottle-holding members 17 and 18 are shaped to substantially conform to the contour of the bottle when the bottle is in position. The restricted, inwardly-bent portions 19 serve to tightly engage the narrowed neck portion of the bottle and thereby prevent loss of the bottle if the case is accidentally inverted. The outwardly-flaring upper portions 20 facilitate insertion and withdrawal of the bottles, as clearly shown in Fig. 5.

The bottom of the case is slotted at a plurality of points, as at 21, to receive the lugs 13 of the bottle-holding units, the said lugs extending thru the bottom of the case and then being bent over to firmly lock the units in position.

It is preferred to position the units angularly within the case in the manner shown in Fig. 1. With this arrangement the standard number of twelve milk bottles may be readily accommodated while still permitting spaces 22 between adjacent units which are large enough to provide for spreading of the bottle-holding members 17 and 18 when a bottle is being inserted or withdrawn.

As a result of the above, it may be seen that the bottles are tightly clamped in position by means permitting ready withdrawal and that when the bottles are in position, no rattling is possible and that the individual bottles cannot become dislodged from their holders. It will further be seen that the above is accomplished by means which does not consume extra space within the case inasmuch as the bottle holders conform very closely to the shape of the bottle and only increase their size by the diameter of the wire forming the holders.

By constructing the spring holding members 17 and 18 along narrower lines, the invention may be readily adapted for use in connection with beer bottles; and likewise the principles of the invention may be readily utilized in connection with any type of bottle having a narrowed neck portion.

Altho only one form of the invention has been shown and described, it is obvious that various changes and modifications may be made therein without departing from the spirit of the invention; and all of such changes are contemplated as may come within the scope of the claims.

What we claim as our invention is:

1. In a container having a bottom formed with slots, a plurality of individual bottle-holding units, each comprising a pair of spaced clip members normally yielding inwardly toward one another to tightly grip a bottle placed therebetween, a base, means on the base for securing the lower ends of the clip members thereto, and lugs depending from the base insertible thru the slots of the container bottom to secure the bottle-holding unit in position.

2. In a container, a plurality of individual bottle-holding units each comprising a pair of spaced clip members, each clip being formed of looped wire, and the two clip members of each unit normally yielding inwardly to tightly grip a bottle inserted therebetween, a base having grooves in its lower surface for receiving end portions of the wire forming the clip members, means for securing said end portions within said grooves, and means for securing said base to the bottom of the container.

3. In a container, a plurality of individual bottle-holding units each comprising a pair of spaced clip members, each clip being formed of looped wire, and the two clip members of each unit normally yielding inwardly to tightly grip a bottle inserted therebetween, a base having grooves in its lower surface for receiving end portions of the wire forming the clip members, a plate positioned below said base to secure the end portions of the wire within the grooves, means for securing said plate and base together, and means for securing the base to the bottom of the container.

4. In a container, a plurality of individual bottle-holding units, each comprising a pair of spaced clip members normally yielding inwardly toward one another to tightly grip a bottle placed therebetween, an individual base for each pair of clip members on which the bottom of each bottle is adapted to rest, means on the base for securing the lower ends of the clip members thereto, and means for individually securing each base directly to the bottom of the container.

5. In a container, a plurality of individual bottle-holding units each comprising a pair of spaced clip members, each clip member being formed of looped wire having angularly bent lower ends, and the two clip members of each unit normally yielding inwardly to tightly grip a bottle inserted therebetween, an individual base for each pair of clip members having means for receiving said angularly bent lower ends of the wire forming the clip members, and means for independently securing each base directly to the bottom of the container.

6. In a container, a plurality of individual bottle-holding units each comprising a pair of spaced clip members, each clip being formed of looped wire, and the two clip members of each unit normally yielding inwardly to tightly grip a bottle inserted therebetween, a base having grooves in its lower surface for receiving end portions of the wire forming the clip members, and means for securing said base to the bottom of the container.

JOHN W. LANG.
ALFRED M. JENSEN.