W. H. HONISS.

LEVELER FOR JAR CAPS.

APPLICATION FILED DEC. 12, 1904.

956,529. Patented May 3, 1910.

Fig. 1

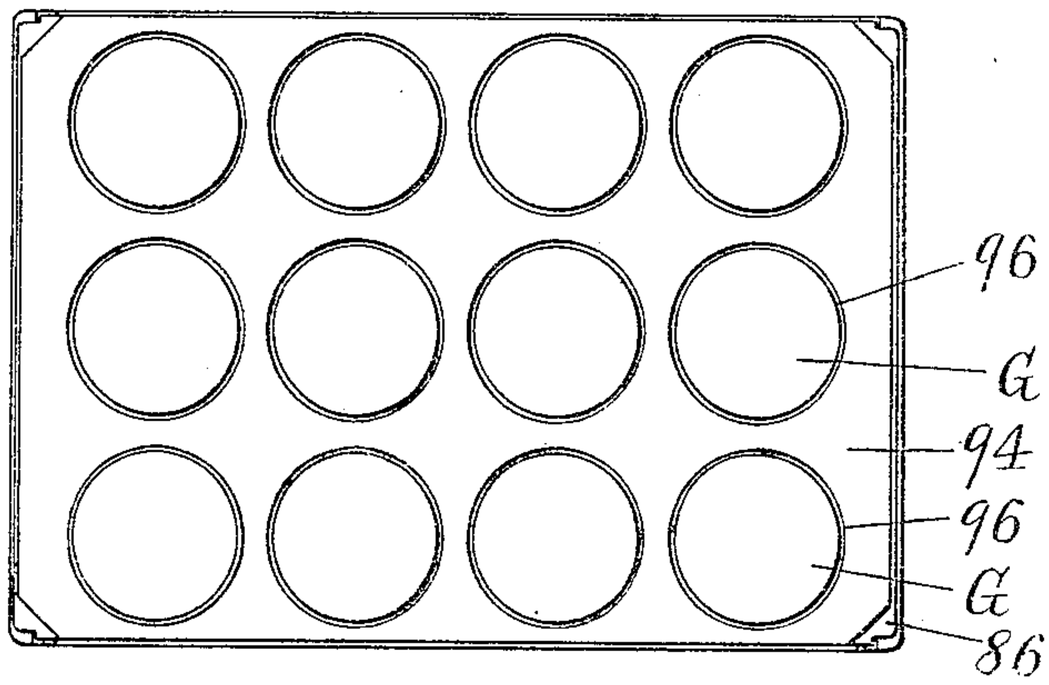


Fig. 3

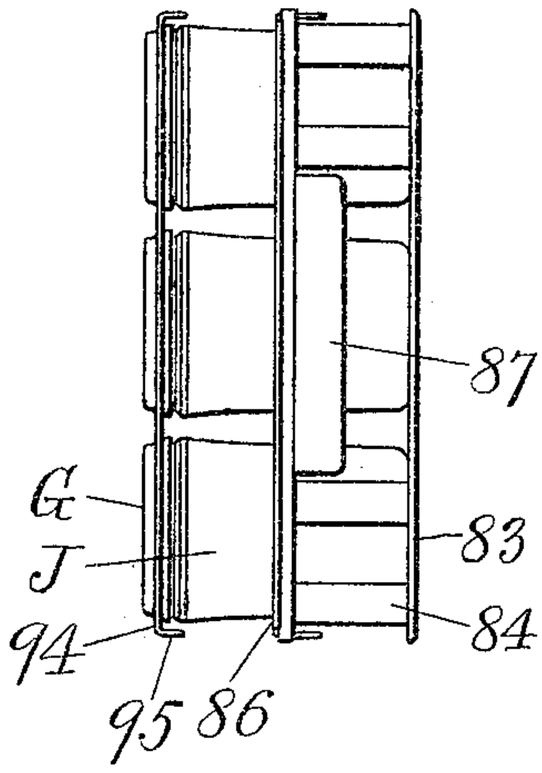


Fig. 2

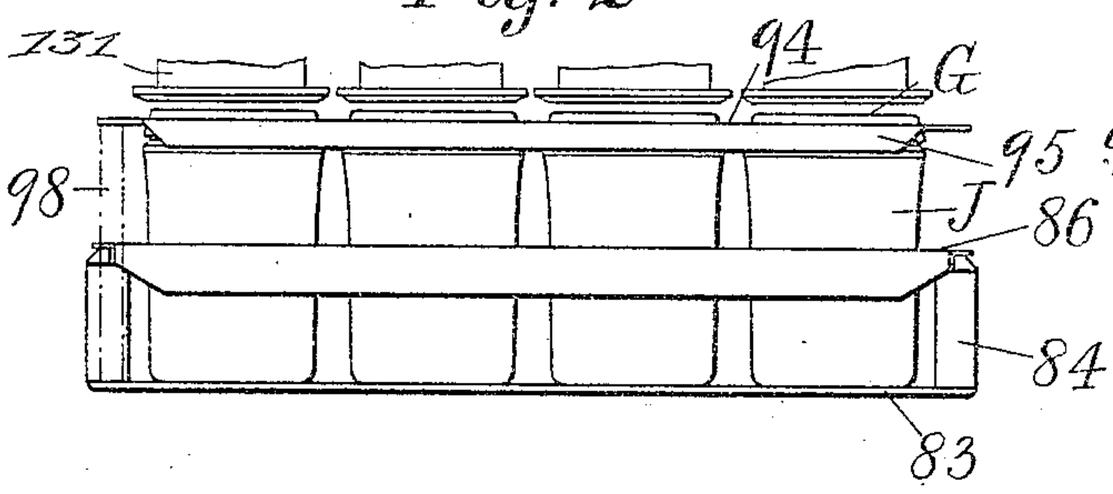


Fig. 6

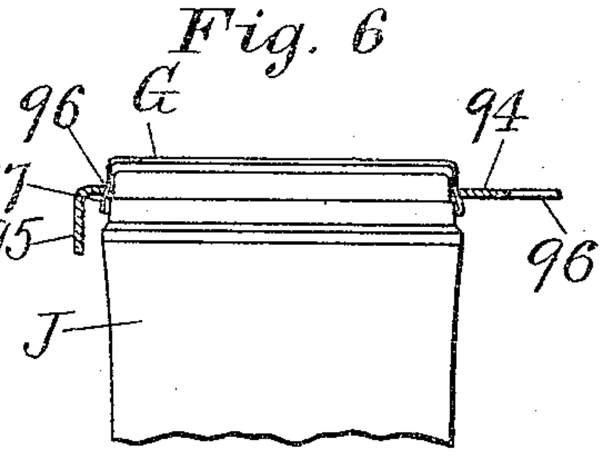


Fig. 4

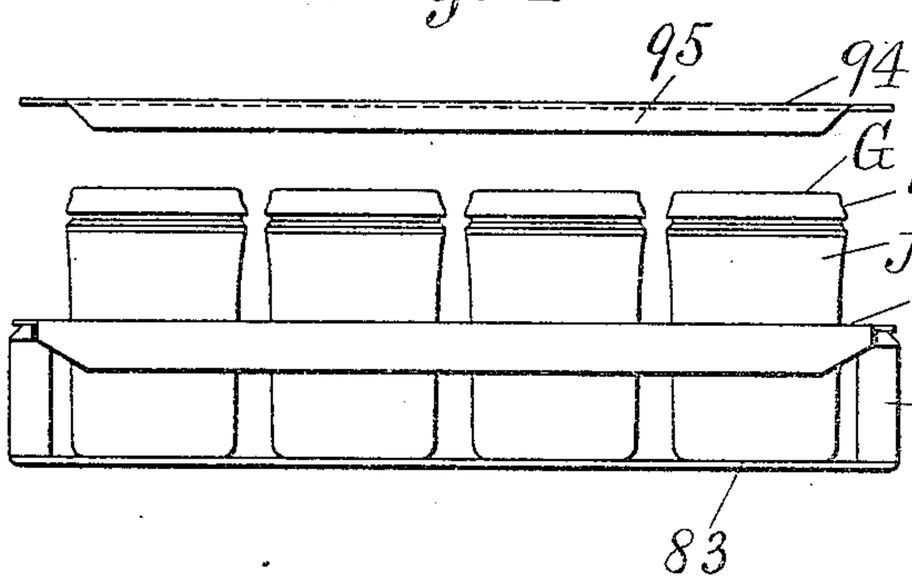
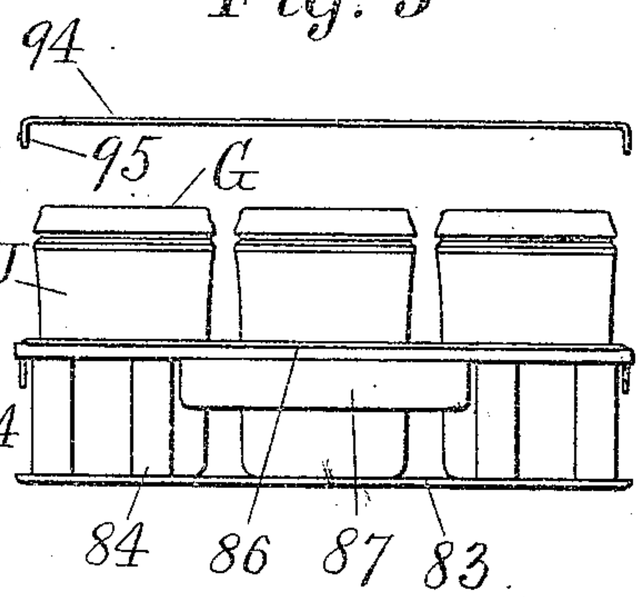


Fig. 5



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM H. HONISS, OF HARTFORD, CONNECTICUT, ASSIGNOR OF ONE-HALF TO BEECH-NUT PACKING COMPANY, OF CANAJOHARIE, NEW YORK, A CORPORATION OF NEW YORK, AND ONE-FOURTH TO WILLIAM A. LORENZ, OF HARTFORD, CONNECTICUT.

LEVELER FOR JAR-CAPS.

956,529. Specification of Letters Patent. Patented May 3, 1910.

Application filed December 12, 1904. Serial No. 236,476.

To all whom it may concern:

Be it known that I, WILLIAM H. HONISS, a citizen of the United States, and resident of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Levelers for Jar-Caps, of which the following is a full, clear, and exact specification.

This invention relates to apparatus for handling jars and receptacles having removable caps, and consists in an improved device for leveling the caps and retaining them in place upon their respective jars while the jars are being moved or operated upon.

Figures 1, 2 and 3 are plan, side, and end views respectively of a tray full of jars with the improved leveler applied thereto. Figs. 4 and 5 are side and end views similar to Figs. 2 and 3 and show the leveler raised above the jars. Fig. 6 is a sectional end view of a portion of the leveler and one of the jars.

In the handling and treatment of packed jars before the caps which close the jars are finally secured in place, the caps easily become tilted, or otherwise displaced, thus frequently allowing the rubber sealing gaskets to spring out of place. These displacements are the cause of much annoyance and loss of time, and, in the case of vacuum-sealed packages, frequently result in imperfect sealing as well as in the breaking of jars through the misplaced caps coming into contact with parts of the sealing apparatus when the trays are moved into the sealing apparatus. A method heretofore practiced was to lay a flat leveling plate upon the tops of the caps. The objection to this method, however, was that this leveling plate did not leave the individual caps free to be operated upon separately by the cap pressing and sealing mechanism. The present invention overcomes these difficulties by providing a device which keeps the caps, and therefore also the gaskets, level and straight while the trays are being handled and the jars operated upon, and also enables the individual caps to engage directly with the pressing down and sealing devices or mechanism of the sealing apparatus. This is particularly useful and important in the case of sealing apparatus in which the individual caps are separately engaged by individual pressers, like the apparatus shown in U. S. Patents #739,887 and #866,663.

The jars J, with their flaring or shouldered caps G in place thereon, rest on the tray bottom 83 and are confined against lateral movement by the frame 86 attached to the base 83 and provided with a number of holes within which the jars are set.

The leveler 94 is made preferably of sheet metal and may have its opposite edges turned over as at 95 to stiffen it. Openings 96 corresponding in number and position with the jars J on the tray 83, are formed in the leveler. Each opening 96 is a little larger than the top of the cap G and in the case of the ordinary flaring cap is a little smaller than the flaring portion 97 (Fig. 6) of the cap rim so that when the tops of the caps project through the openings 96 (Figs. 1, 2 and 3) the sides of the openings will engage and be supported by the flaring portions 97 of the caps. Thus, when the leveler is placed over the caps, any of them which have become tilted or otherwise slightly misplaced during the preliminary handling, are brought back into their proper positions by the action of the leveler. In case any of them are so much out of place through displacement of the gaskets or from any other cause that the leveler does not adjust them, the fact is at once detected as the leveler will not settle down level until the caps are all properly straightened. After this has been accomplished, the loaded tray with the leveler still on the caps may be moved about or the jars operated upon in a sealing apparatus or elsewhere without danger of further misplacement of the caps or gaskets. The tops of the caps project through and above the surface of the leveler far enough to be engaged by the pressers 131 shown in Fig. 2 or other devices used for pushing them down to seal them. As the caps settle down under the action of the pressers the leveler settles down with the caps, continuing its leveling operation until the lowermost cap is fully engaged and sealed by its presser. Thus the leveling and sealing functions are performed coincidently upon a trayful of jars, the leveler acting upon the

peripheral rims of the caps while the pressers act upon the tops of the caps. After the caps are finally secured in place upon their respective jars, the leveler needs only to be lifted to disengage it from the caps.

The leveler in its preferred form is made of sheet metal. Obviously, such construction is not essential as it may for instance be made of wire or of wood. In the latter case the openings may be formed approximately to the contour of the cap rims. It should also be noted that the scope of the invention is not limited to the special form of flaring cap shown in the drawings, but that it may be successfully used upon almost any form of shouldered cap. Also, the leveler may rest upon suitable supports, as indicated at 98 in Fig. 2, instead of resting on the caps. In that case the leveler should be so close to the cap that any displacing movement of the latter will be checked by the leveler.

I claim as my invention:—

1. A leveler for a plurality of flaring or shouldered jar caps, provided with a plurality of openings for engaging the cap rims whereby the leveler is supported.

2. A leveler for a plurality of flaring or shouldered jar caps, comprising a plate having a plurality of openings for engaging the cap rims whereby the leveler is supported, the plate being also provided with turned-over edges to stiffen the plate.

3. In jar handling devices, the combination of means for holding a plurality of jars in a particular position, and a leveler provided with a plurality of openings, located in approximate accordance with the said position of the jars for engaging with the rims of a plurality of jar caps to register them with their respective jars.

4. In jar handling devices the combination of a tray for holding a plurality of jars in a predetermined position relative to each other, and a leveler provided with a plurality of openings located in substantial accordance with the said relative position of the jars for engaging with the rims of a plurality of jar caps to register the said caps with their respective jars and to level them thereon.

5. In jar sealing apparatus, means for bringing the loose caps to an approximately general level, comprising a plate supported by the caps at a level below the general level of the tops of the caps, the plate being provided with apertures, through which the tops of the caps protrude.

6. In jar sealing apparatus, means for leveling and pressing down a plurality of caps, comprising cap pressing means, a plate supported by the rims of the caps and provided with apertures through which the tops of the caps project to a level above that of the general level of the plate for independent engagement with the cap pressing means.

7. In jar sealing apparatus, the combination with means for supporting a plurality of jars having their caps loosely placed thereon, of independent cap pressers, and means for leveling the caps, comprising a plate having a plurality of apertures through which the caps protrude for engagement with the pressers, the margins of the said apertures resting upon the rims of the respective caps.

8. In jar sealing apparatus, the combination of a plurality of cap pressers, a tray for supporting a plurality of jars with their caps in operative position relative to the pressers, and means for leveling the caps comprising a plate having a plurality of apertures through which the caps protrude for engagement with the pressers, the margins of the said apertures resting upon the rims of the respective caps whereby the weight of the leveler operates to bring tilted caps to an approximately level position.

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

W. H. HONISS.

Witnesses:
JAS. W. GREEN,
CAROLINE M. BRECKLE.