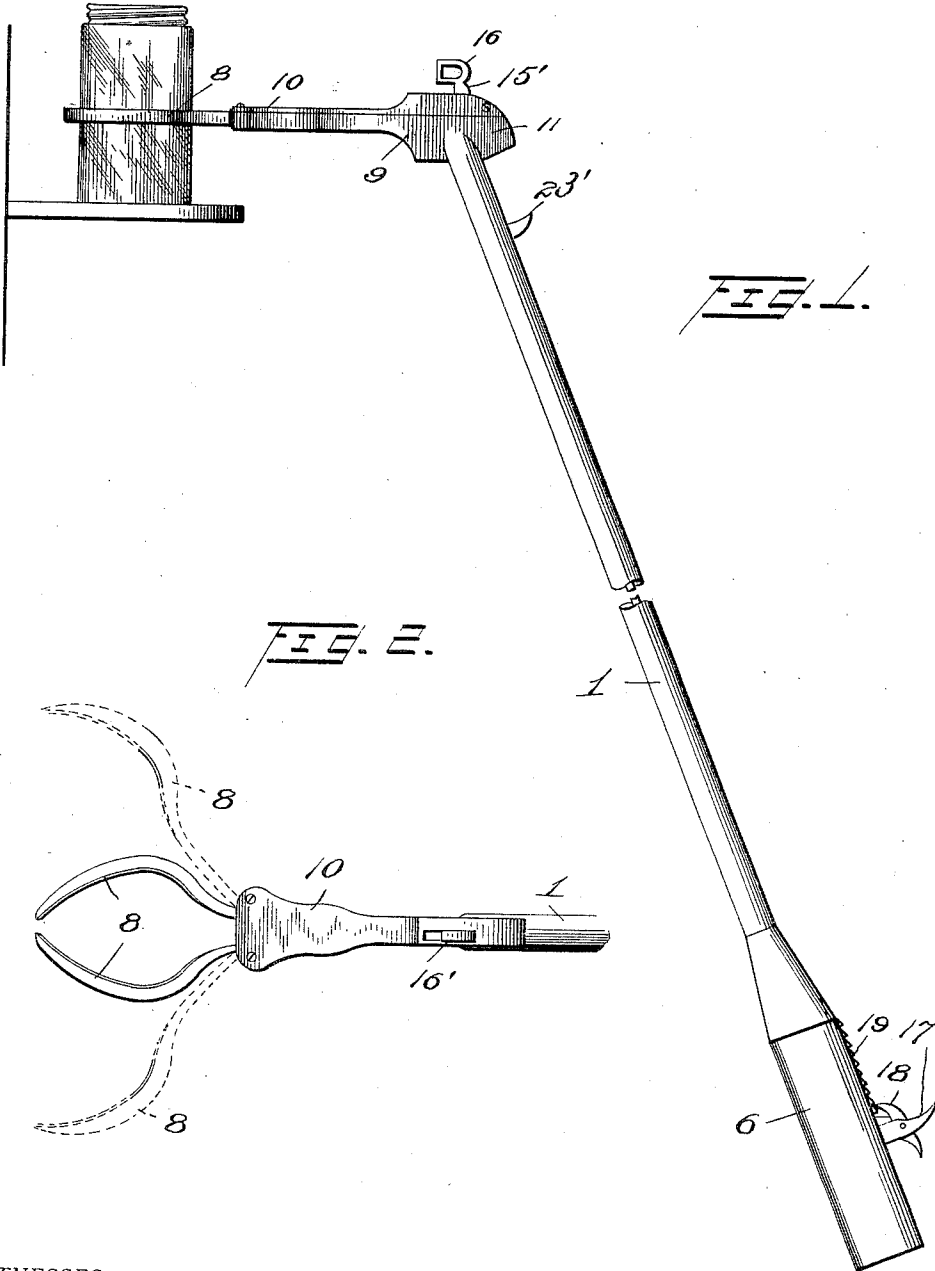


W. AGIN.
 PACKAGE AND BOTTLE LIFTER.
 APPLICATION FILED FEB. 20, 1912.

1,051,374.

Patented Jan. 21, 1913.
 2 SHEETS—SHEET 1.



WITNESSES

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INVENTOR

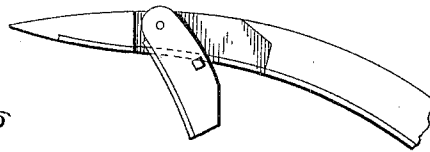
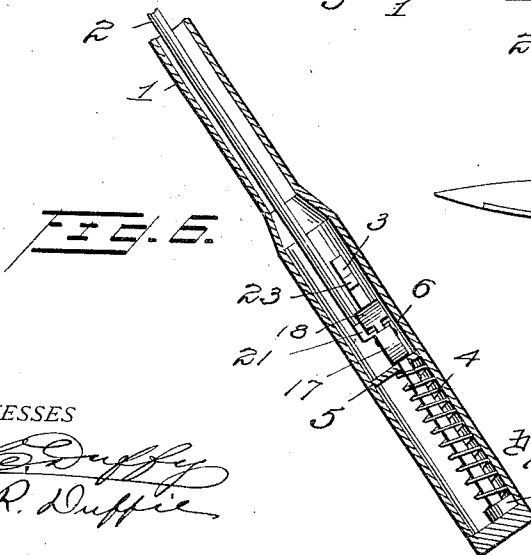
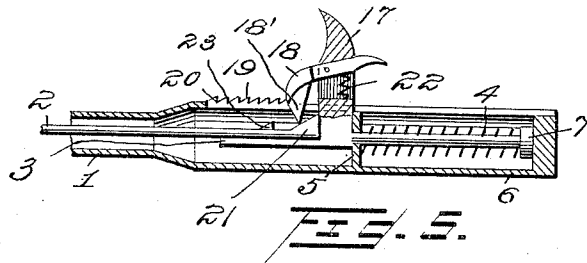
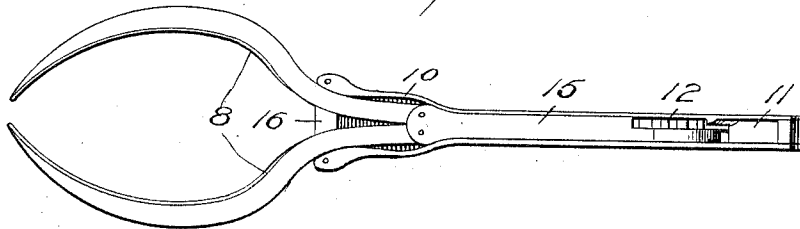
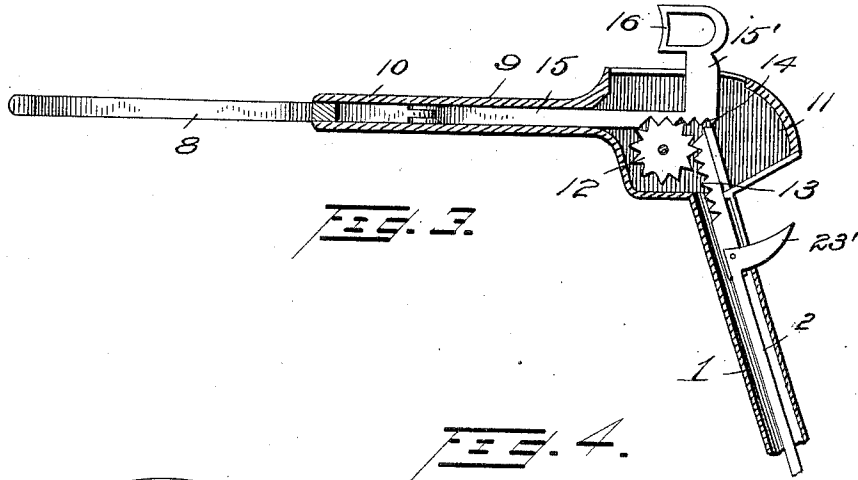
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2 SHEETS—SHEET 2.



WITNESSES

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PACKAGE AND BOTTLE LIFTER.

1,051,374.

Specification of Letters Patent.

Patented Jan. 21, 1913.

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To all whom it may concern:

Be it known that I, WINFRED AGIN, a citizen of the United States, residing at Chillicothe, in the county of Ross and State of Ohio, have invented certain new and useful Improvements in Package and Bottle Lifters, of which the following is a specification.

This invention has relation to new and useful improvements in package and bottle lifters and the main object thereof is to provide a device of this nature that will facilitate in speedily taking down from shelves and replacing thereupon, cans, bottles, packages, boxes or any other small articles without the use or aid of ladders or the necessity of climbing.

A further object of the invention is to provide a device that will be not only efficient in operation but one which may be manufactured at a comparatively small cost.

A further object of the invention is to provide means for operating the same either from the lower end or the upper end of the vertical shaft.

With the foregoing and other objects in view my invention consists of the novel features of construction, combination and arrangement of parts as are described in this specification, illustrated in the accompanying drawings forming a part thereof, and particularly pointed out in the appended claim.

Reference being had to the drawings: Figure 1 is a side elevational view of my invention as it appears when grabbing a jar in readiness for lifting it from the shelf upon which it rests, preparatory to lowering the jar therefrom. Fig. 2 is a top plan view of the lifter showing the clamps in clamped position and also indicating them in open or unclamped position by means of the dotted lines. Fig. 3 is a vertical, longitudinal, sectional view of the upper portion of said lifter. Fig. 4 is a top plan view of the lifter, the clamps being in clamped position, the top of said lifter being removed disclosing the inner parts thereof. Fig. 5 is a central, vertical, sectional view of part of the handle of the lifter, disclosing the construction of the mechanism therein. Fig. 6 is a horizontal, central, sectional view of part of the handle of the lifter, disclosing the construction of the inner mechanism, taken at right angles. Fig. 7 is a top fragmentary, plan view of a portion of a modified form

of clamp which may be utilized when handling small objects.

The lifter comprises a hollow staff 1, in which is movably mounted a rod 2. The staff 1 is provided with a handle 6 in which is movably mounted a rod 3. A partition 5 is located in the handle 6 and a coil spring 4 surrounds the rod 3 and bears at one end against the partition and at its other end bears against a stop 7. The spring 4 is under tension with a tendency to hold the stop 7 away from the partition 5. A head 9 is located at the upper end of the staff 1 and the said head includes a body 11, and an extension 10. Fingers 8 are located at the end of the extension 10 and are pivotally connected with a bar 15 which is slidably mounted in the extension 10. A gear wheel 12 is journaled in the body 11 and the bar 15 is provided with teeth 14 which mesh with the said gear wheel. The bar 15 is provided with an upstanding lug 15' which passes through a slot provided in the top of the body 11. A finger piece 16 is carried at the upper end of the lug 15'.

A finger piece 17 is fixed to the rod 3 and extends up through a slot 19 provided in the handle 6. A pawl 18 is pivoted to the finger piece 17 and is adapted to engage teeth 20 located adjacent the slot 19. The pawl 18 is provided with an extension 18' which projects down through the slot 19 into the handle 6. The rod 2 is provided at its lower end with a lug 21 which is provided with an inclined upper surface which lies under the extension 18' of the pawl 18. The lug 21 is located between the base of the finger piece 17 and a lug 23 mounted upon the rod 3. The lug 21 may have limited movement between the finger piece 17 and the lug 23 but the last mentioned parts lie in the path of movement of the said lug 21 for the reason that the said lug 21 projects slightly over the upper edge of the rod 3. A spring 22 is carried by the finger piece 17 and bears against the pawl 18 and is under tension with a tendency to hold the end of the pawl in engagement with the teeth 20. A finger piece 23' is provided at the upper end of the rod 2 and extends through a slot provided at the upper portion of the staff 1 as clearly shown in Fig. 3 of the drawing.

When it is desired to secure a package between the fingers 8 an operator may grasp the finger piece 16 and move the bar 15 so that the end of the said bar will approach

the end of the extension 10. The fingers 8 may then be spread as indicated in dotted lines in Fig. 2 and the package may be placed between them. When the bar 15 is moved as just indicated the teeth 14 rotate the gear wheel 12 which in turn moves the rack bar 13 and the rod 2 longitudinally. When the lug 21 comes in contact with the lug 23 the rod 3 is moved in the handle 6 so that the stop 7 is drawn toward the partition 5 and against the tension of the spring 4. When the lug 21 moves toward the lug 23 the inclined surface of the lug 21 engages the extension 18' of the pawl and lifts the pawl above and out of contact with the teeth 20. Therefore when the package is grasped between the fingers 8 the spring 4 through the intervening parts will hold the fingers 8 against the sides of the package. If the finger piece 16 cannot be readily reached, the operator may use the finger piece 23' for moving the rod 2 and the parts connected therewith. If the finger pieces 16 and 23' cannot be readily reached the operator may move the parts as above indicated by using the finger piece 17. If the tension of the spring 4 is not sufficient to grip the package the operator may use the finger piece 17 and move the rod 3 to a desired position and when this is done the pawl 18 is permitted to engage the teeth 20 whereby the parts are held in a locked position until the

rod 2 is moved longitudinally in the staff 1 as hereinbefore described.

Having described the invention what is claimed is:

A lifter comprising a hollow staff, a head fixed to the staff and having an extension, a gear wheel journaled in the head, a bar slidably mounted in the extension and having teeth which engage the gear wheel, fingers pivoted to the bar, a rod slidably mounted in the staff and having a rack bar which engages the gear wheel, said rod having at its lower end a lug provided with an inclined surface, a second rod slidably mounted in the staff, a spring for holding the last mentioned rod in a normal position, a finger piece carried by the last mentioned rod, a lug carried by the last mentioned rod, the lug upon the first mentioned rod being located between the finger piece and the lug located upon the last mentioned rod, teeth located upon the staff adjacent the finger piece, a pawl pivoted to the finger piece and having an extension adapted to be engaged by the lug upon the first mentioned rod.

In testimony whereof I affix my signature in presence of two witnesses.

WINFRED AGIN.

Witnesses:

JOHN COTTRILL,
DELANO W. BUTLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."