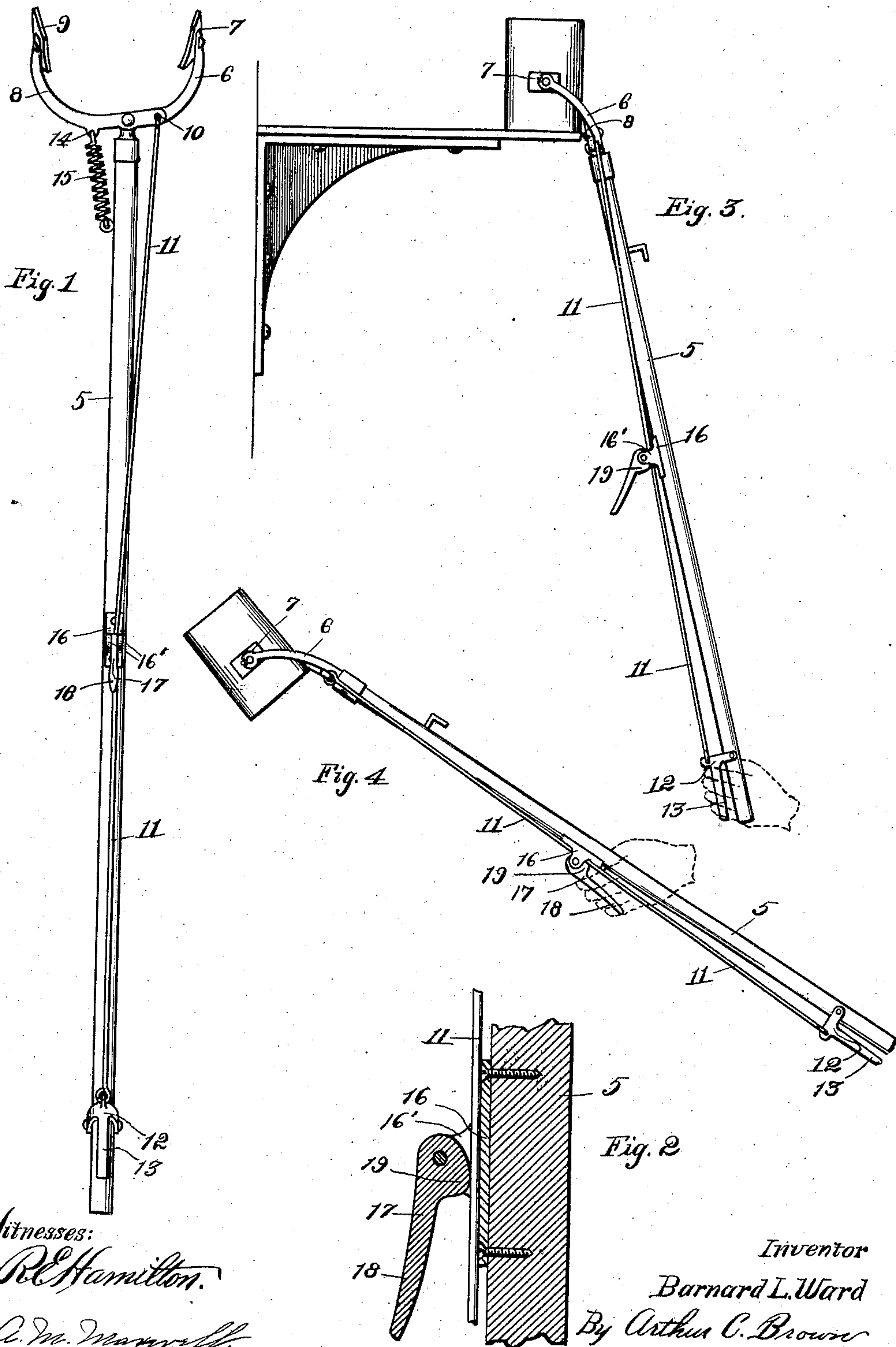


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B. L. WARD.
SHELF TONGS.

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Witnesses:

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BARNARD L. WARD, OF OTTUMWA, IOWA.

SHELF-TONGS.

No. 850,409.

Specification of Letters Patent.

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To all whom it may concern.

Be it known that I, BARNARD L. WARD, a citizen of the United States, residing at Ottumwa, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Shelf-Tongs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My present invention relates to tongs, and more particularly to a class known as "shelf-tongs," and is an improvement on the device shown and described in the Patent No. 703,163, issued October 15, 1901, to Edward W. Toler, now owned by me through assignment from said Toler.

The device is especially adapted for use in grocery-stores, where the wares are sometimes displayed on shelves which are high above the operator's head.

The object of the invention is to provide a device for removing cans, packages, &c., from such shelves, and comprises a pair of tongs pivoted on the end of a rod and operated by a wire which is secured to one end of a lever pivoted on the opposite end of the rod. With the original device when the rod was of some length it would be necessary for the can or other article to be deposited on the counter or like support when removed from the shelf before it could be reached, as when the handle was grasped at one end it would be impossible for the operator's other arm to reach to the article gripped in the other end between the prongs.

My improvement relates to means for gripping the pull-rod intermediate the tongs and the lever end, so that the handle in being lowered may be gripped in such a manner as to hold the article securely in the tongs while holding the rod at or near its middle.

I have illustrated the original device as well as my improvement, and both will be fully described, and pointed out in the claims, reference being had to the accompanying drawings, forming part of this specification, in which like reference-numerals refer to like parts throughout the several views, and in which—

Figure 1 is a detail view of the device.

Fig. 2 is a detail view of the auxiliary grip. Fig. 3 represents the device extended to grasp a package. Fig. 4 represents the device when lowered with the package, the operator carrying same by the auxiliary grip.

Referring more in detail to the parts, 5 represents the rod or arm, which may be of any suitable length and carries in its end a tong-arm 6, on the end of which is an ear 7. Pivoted to tong-arm 6 is a second arm 8, having an ear 9 on its outer end, while its inner end is perforated at 10 and has secured thereto a pull-rod 11, which extends almost to the opposite end of the rod 5 and is secured to the bell-crank hand-lever 12, which lever is pivoted to rod 5 and has for one of its arms the grip 13. On prong-arm 8 is a lug 14, in which is secured one end of a coil-spring 15, the other end of said spring being secured to rod 5 and tends to hold the prong-arms apart in a position to pass over and grip a package. The ears 7 and 9 may be provided, if desired, with a rubber or like pad in order to provide a solid grip on without marring the package handled.

The manner of operation is plain from an examination of the drawings. I have found from experience it is not always convenient for the package to be placed on a counter before taking it in hand, so have provided an auxiliary grip for holding the package firmly in the tongs with one hand while reaching for it with the other, such device consisting of a bracket 16, which is rigidly secured to rod 5 and is provided with the ears 16', between which the pull-rod 11 extends. Pivoted between said ears is a lever 17, having a grip 18 at its loose end and a cam-head 19, adapted to bind the pull-rod against rod 5 when the lever is rocked by depressing grip 18.

When the rod is held in the right hand and a package is held in the prongs, instead of resting the package on the counter before taking it in the hands the operator reaches up and grasps grip 18, which is preferably located about the middle of the rod, the pressure on said grip locking the pull-rod and holding the prongs tight against the package. The device may then be lowered and the package removed by the right hand in a manner readily apparent.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In a device of the class described, the

combination of a carrying-arm having gripping-fingers suitably mounted at one of its ends, a tightening-lever carried at the opposite end of said arm, a rod connecting said gripping-fingers and lever and adapted to close said fingers upon the depression of said lever, and a grip intermediate said lever and fingers whereby said fingers are retained in their holding position by the pressure of said grip on said rod.

2. In a device of the class described, the combination of a carrying-arm having gripping-fingers at one end, means for retaining said fingers in a normally open position, a pull-rod connected with said fingers and extending to a lever on the opposite end of said arm, a handle on said lever adapted to be grasped by one hand by the operator, a bracket on said carrying-rod intermediate said gripping-fingers and lever having ears straddling said pull-rod, a cam-head pivoted between said ears and adapted for engagement with said pull-rod, and a lever-handle on said cam-head adapted to be grasped by the free hand of the operator, substantially as and for the purpose set forth.

3. In can-tongs, the combination with a handle, of two jaws mounted on the handle one movable toward and from the other, a rod longitudinally movable on the handle, means by which, when said rod is reciprocated, the movable jaw is moved toward and from the other jaw, a cam-lever pivoted upon the handle, and means by which, when said lever is swung, the cam portion will be forced against and grip the operating-rod.

4. In can-tongs, the combination with a handle, of two jaws mounted thereon, one movable toward and from the other, a longitudinally-movable rod, means for moving one jaw toward and from the other when said rod is reciprocated, an operating-lever pivoted to the handle and connected to the rod, and releasable means intermediate the jaws and lever for gripping said rod.

5. In can-tongs, the combination with a handle, of two jaws mounted thereon, one movable toward and from the other, a longitudinally-movable rod, and clamping means for gripping said rod and holding it against lengthwise movement.

6. In can-tongs, the combination with a handle, of two jaws mounted thereon, one movable toward and from the other, a longitudinally-movable rod, means for moving one jaw toward and from the other when the rod is reciprocated, an operating-lever connected to the rod and pivoted to the handle, and a locking-lever pivoted to the handle and provided with means, when swung in the proper direction, for gripping and locking said rod against lengthwise movement.

7. In can-tongs, the combination with a handle, of two jaws mounted thereon, a longitudinally-movable rod, means for moving

one jaw toward and from the other when the rod is reciprocated, a lever pivoted to the handle and connected to the rod, a spring for swinging said lever in one direction, and releasable means intermediate the jaws and lever for locking said rod against lengthwise movement.

8. In can-tongs, the combination with a handle, of two jaws mounted thereon, a longitudinally-movable rod, means for moving one jaw toward and from the other when the rod is reciprocated, a lever pivoted to the handle and connected to the rod, a spring for swinging said lever in one direction, and a locking-lever intermediate the jaws and lever provided with means, when swung in the proper direction, for gripping said rod.

9. In can-tongs, the combination with a handle, of two jaws mounted thereon, one pivoted so as to swing toward and from the other, a longitudinally-movable rod pivotally connected to the pivoted jaw, spring-actuated means normally forcing said rod in one direction, and a cam-lever pivoted to the handle for clampingly engaging said rod.

10. In can-tongs, the combination with a handle, of two jaws mounted thereon, one pivoted so as to swing toward and from the other, a longitudinally-movable rod pivotally connected to the pivoted jaw, an operating-lever connected to the rod and pivoted to the handle, and releasable means intermediate the jaws and operating-lever for gripping said rod.

11. In can-tongs, the combination with a handle, of two jaws mounted thereon, one pivoted so as to swing toward and from the other, a longitudinally-movable rod pivotally connected to the pivoted jaw, an operating-lever connected to said rod and pivoted to the handle, and a locking-lever pivoted to the handle and provided with means intermediate the jaws and operating-lever, when properly swung, for gripping said rod.

12. In can-tongs, the combination with a handle, of two jaws mounted thereon, one pivoted so as to swing toward and from the other, a longitudinally-movable rod pivotally connected to the pivoted jaw, an operating-lever connected to the said rod and pivoted to the handle, a spring for swinging said lever in one direction, and releasable means intermediate the jaws and operating-lever for gripping said rod.

13. In can-tongs, the combination with a handle, of two jaws mounted thereon, one pivoted so as to swing toward and from the other, a longitudinally-movable rod pivotally connected to the pivoted jaw, an operating-lever connected to the rod and pivoted to the handle, a spring for swinging said lever in one direction, and a locking-lever pivoted to the handle and provided with means intermediate the jaws and operating-lever for releasably gripping said rod.

14. In can-tongs, the combination with a handle, of two jaws mounted thereon, one pivoted so as to swing toward and from the other, a longitudinally-movable rod pivotally
5 connected to the pivoted jaw, an operating-lever connected to the rod and pivoted to the handle, a spring for normally forcing said rod in one direction, and a lever pivoted to the handle intermediate the jaws and operating-

lever and provided with means for releasably gripping the rod.

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

BARNARD L. WARD.

Witnesses:

J. A. RECTOR,

A. M. MAXWELL.