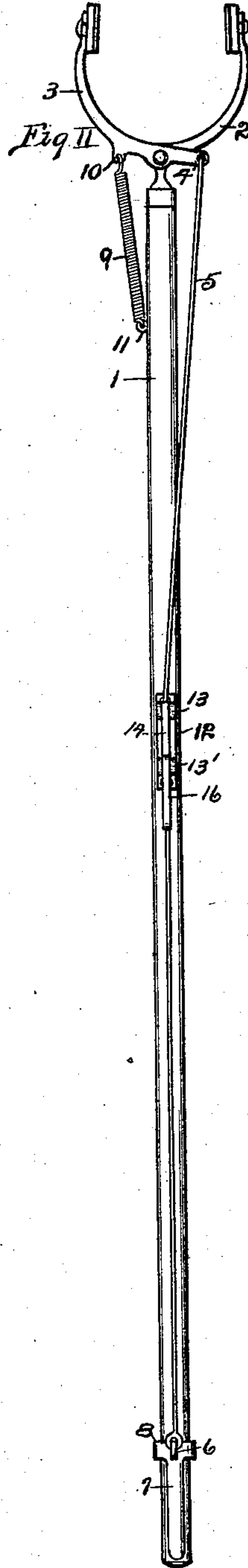
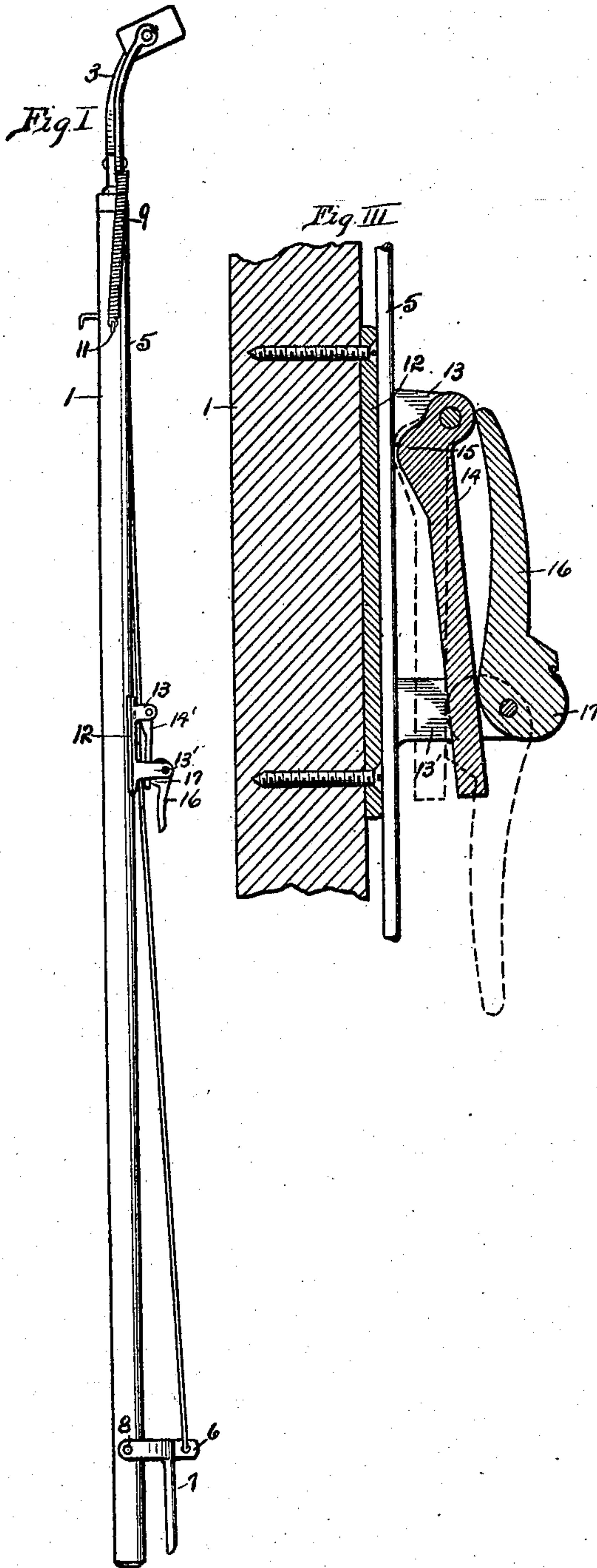


No. 858,492.

PATENTED JULY 2, 1907.

B. L. WARD.
SHELF TONGS.

APPLICATION FILED DEC. 7, 1906.



Witnesses:

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UNITED STATES PATENT OFFICE.

BERNARD L. WARD, OF OTTUMWA, IOWA.

SHELF-TONGS.

No. 858,492.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed December 7, 1906. Serial No. 346,743.

To all whom it may concern:

Be it known that I, BERNARD 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 shelf tongs, and is an improvement on the devices shown in my application for Letters Patent filed March 30, 1906, Serial No. 308,851; the present application relating more particularly to the means intermediate the handle and tong arms for locking the pull-rod after the arms have engaged the can or package. The object of the invention being to provide means for positively locking the pull-rod to obviate the necessity of the operator retaining the grip on the lock to hold the can between the tong arms while the package is being lowered from the shelf.

A further object is to provide the improved details of structure which will presently 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 I is a view in side elevation of a shelf tong provided with a locking device constructed according to my invention, the locking parts being closed. Fig. II is a side view showing the locking parts in their closed position. Fig. III is an enlarged detail sectional view of a portion of the arm, pull-rod, the latter being open but shown by dotted lines in its closed position.

Referring more in detail to the parts,—1 represents the tong arm, at one end of which is secured a clamping jaw 2. Pivoted to jaw 2 is a second jaw 3, the inner end of which is provided with a finger 4, having a perforation in which is secured the pull-rod 5, which rod extends almost the length of arm 1, and is secured to a lug 6 on a handle 7, which handle is pivoted at 8 to arm 1.

9 is a coil spring secured to a lug 10 on arm 3, and also to a lug or hook 11 on arm 1, so that jaw 3 is normally spread outwardly, or away from jaw 2. Intermediate the jaws and pull-rod handle is a bracket 12, having at each end a yoke 13—13', which straddles the pull-rod. Pivoted in yoke 13 is a lever bar 14, having a cam head 15 adapted to impinge against the pull-rod 5, and pivoted in yoke 13' is a lever 16 having a cam head 17 adapted to impinge against the loose end of lever 14.

When it is desired to lift a can or like article from a shelf or elevation above the reach of the operator, the clamping jaws are raised to embrace the package, and the lever handle 7 pressed inwardly toward the arm to rock the movable jaw into grasping relation with the

package. When a grip has been secured on the package, the latter is lifted from the shelf, and the lever 16 rocked to bring the cam head 17 against the free end of lever 14, rocking the lever 14 inwardly and binding the pull-rod 5 between the base of the bracket and the cam 15; the parts remaining in this position until the lever 16 is lifted to release lever 14, when the spring on jaw 3 will rock said jaw outwardly away from the package, and the latter will be released. By means of a positive lock of this nature, it is not only possible to handle the packages with more convenience by being able to lower the tongs without the necessity of retaining a hold on the handle lever 7, but the further advantage is secured of the retention of the package between the gripping jaws after the levers have once been set, without a continued grip on the intermediate lock, as the construction of the cam head on lever 16 will cause said lever to bind against lever 14, which being preferably of a springing material will itself yieldingly retain lever 16 in a locking position until the operator lifts it back against such spring tension.

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 jaws suitably mounted at one end and a lever handle at the other end of said arm, a pull rod connected with one of said jaws, and said lever handle, a locking device intermediate the jaws and lever adapted for impingement against said rod, and means for retaining said device in its locking position when set.

2. In a device of the class described, the combination with a handle, gripping jaws, a pull rod and lever operating said pull-rod, of a locking device carried by said handle, and comprising a cam lever adapted for impingement against said pull-rod, and a second lever for operating said locking lever, and for retaining same in its locking position when set.

3. In a device of the class described, the combination of a handle, gripping jaws carried at one end of said handle, a rocking lever carried at the other end of said handle, a pull-rod connecting said jaws and lever, a locking device intermediate said jaws and said handle, a pull-rod connecting said jaws and lever, a locking device intermediate said jaws and said lever, comprising a suitable bracket, a lever arm pivoted to said bracket and having a cam head adapted for engagement with said pull-rod, and a second lever arm pivoted to said bracket and having a cam head adapted for engagement with the loose end of said arm, substantially as and for the purpose set forth.

4. In a device of the class described, the combination with a pull-rod and handle, of a bracket carried on said handle, a lever pivoted to said bracket having a cam head adapted for engagement with said pull-rod and a spring arm extending from said head, a clamping lever having a cam head adapted for engagement with said spring arm, for the purpose set forth.

5. In a device of the class described, the combination with a pull-rod and handle, of a bracket carried on said handle, a lever pivoted to said bracket having a cam head adapted for engagement with said pull-rod and a spring arm extending from said head, and a clamping lever pivoted adjacent to said first lever having a cam head adapted for engagement with said spring arm and an operating handle,

said clamping lever being so arranged that when set, the spring arm will exert a tension thereagainst in its locking direction, for the purpose set forth.

6. In a device of the class described, the combination
5 with a pull-rod and handle, of a bracket carried by said handle, a pair of yokes on said bracket straddling said pull-rod, a lever pivoted between one of said yokes having a cam head adapted for engagement with said pull-rod and a spring arm extending from said head, a clamping
10 lever pivoted in the second yoke having a cam head

adapted for engagement with said spring arm, and a handle on said second lever, all substantially as and for the purpose set forth.

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

BERNARD L. WARD.

Witnesses:

J. T. ALLBRITAIN,
A. M. MAXWELL.