

No. 869,152.

PATENTED OCT. 22, 1907.

G. F. ALLINE.

CAN LIFTER.

APPLICATION FILED OCT. 4, 1906.

Fig. 1.

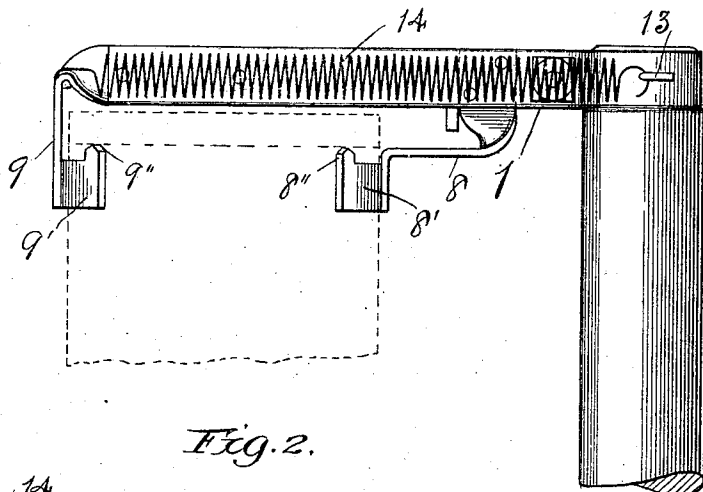


Fig. 2.

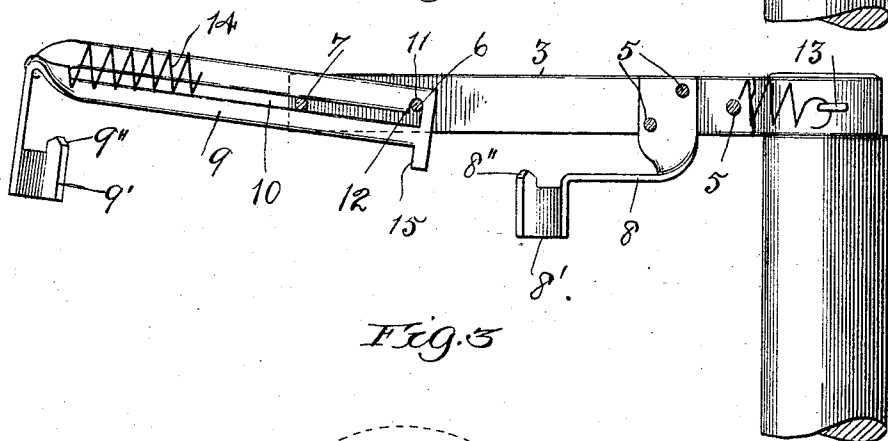
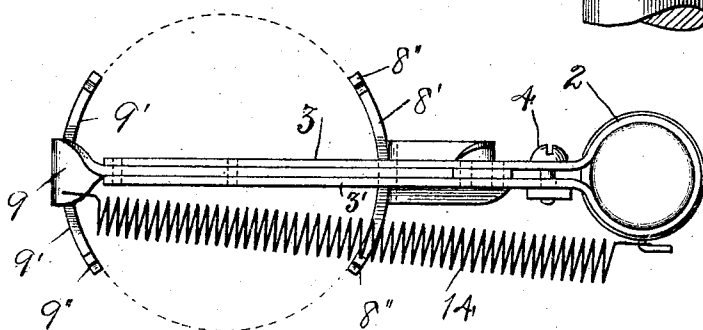


Fig. 3.



Witnesses:  
O. M. Kennel  
Amelia Cox;

Inventor  
Charles F. Alline,  
By Albert N. Gray,  
Att.

# UNITED STATES PATENT OFFICE.

CHARLES F. ALLINE, OF FORT DODGE, IOWA.

## CAN-LIFTER.

No. 869,152.

Specification of Letters Patent.

Patented Oct. 22, 1907.

Application filed October 4, 1906. Serial No. 337,399.

*To all whom it may concern:*

Be it known that I, CHARLES F. ALLINE, a citizen of the United States, residing at Fort Dodge, in the county of Webster and State of Iowa, have invented certain new and useful Improvements in Can-Lifters, of which the following is a specification.

This invention relates to improvements in can lifters and has for its salient objects to provide a simple and inexpensive tool whereby a can or analogous package may be grasped and lifted down from a shelf or other position, out of reach of the operator; to provide in such a device a simple mechanism which will automatically clasp the package when the tool is applied to the latter; to provide a construction so arranged that the simple act of opening the jaws to release a package will by the same movement set the device for a succeeding operation; and in general to provide an improved construction of the character referred to.

The invention will be readily understood from the following description, reference being had to the accompanying drawings in which:

Figure 1 is a side elevation of the principal part of such a tool, the lower end portion of the handle being broken off; Fig. 2 is a vertical sectional view taken in the plane of the joint between the side plate toward the observer and the movable jaw; Fig. 3 is a top or plan view.

Referring to the drawings, 1 designates as a whole the fixed frame member of the device, which takes the form of a strap bent upon itself to form a circular eye or socket 2 and two parallel arms 3, 3' respectively, which are united with each other by a bolt 4, and a plurality of pins or rivets 5, 6 and 7. Between the arms near the bolt 4 is inserted the shank end of a fixed jaw 8; this shank being rigidly united to the arms by the rivets 5 and serving also as a space block.

Between the arms is mounted to reciprocate a slotted movable jaw 9; this jaw being provided with a longitudinal slot 10 through which the pins 6 and 7 extend to form guides and supports for the jaw. At its inner end the slot 10 is provided with a notch or extension 11, the front or outer side of which forms a shoulder 12 serving to lock the jaw against retraction. When the jaw is extended and notch 11 engaged with the pin 6, the jaw is inclined and flexed at an angle relatively to the arms 3, 3', as shown clearly in Fig. 2.

13 designates a suitable eye or support with which is connected one end of a coiled contractile spring 14; the other end of said spring being attached to the outer end of the jaw 9. The tension of this spring holds the movable jaw in the locked position shown in Fig. 2, but when the movable jaw is flexed into alinement with the arms, it oscillates pivot fashion upon the pin 7. This disengages the shoulder 12 from the pin 6 and the jaw is released and snaps back under the action of the spring.

In order to release the movable jaw the latter is pro-

vided with a downwardly extending trigger lug 15 which when the device is applied to a can engages the top end of the latter and as the tool is drawn downwardly lifts the inner end of the jaw out of engagement with the pin 6 and thus releases it.

In the preferred construction in which the device is intended more especially for handling round cans, the engaging ends 8' and 9' respectively of the fixed and movable jaws take the form of curved transversely extending arms curved to approximately fit the sides of the can and each arm provided with upstanding teeth as 8'' and 9'', having sharpened beveled edges which readily and securely engage the cap flange which usually surrounds the upper end of the can. The shapes of these arms and teeth moreover are such that they readily grasp a rectangular or oval can as well as the cylindrical one indicated in dotted lines in the drawings.

The operation of the device will be obvious from the foregoing but may be briefly described as follows: assuming the operator wishes to remove a can from an upper shelf, with the tool set in open position he reaches up and applies the arms across the upper side of the can, thus bringing the jaws in horizontal register with the top of the can. The operator then lowers the device bringing the lug into engagement with the can and thus trips the movable jaw which being released springs back and clamps the can between the two jaws. The can is now lowered and the operator removes it from the jaws by grasping the can around the middle and forcing it in the direction of the opening movement of the movable jaw, taking care to force the latter jaw far enough open to cause it to reengage with the pin 6 in readiness for a succeeding operation. The tension of the spring holds the movable jaw locked in its open position.

The details of construction may obviously be modified without departing from the spirit of the invention.

I claim as my invention:

1. A can lifter comprising a handle, a pair of jaws mounted thereon, one of said jaws being spring-actuated, means for holding the spring-actuated jaw releasably locked in open position, and means adapted to automatically release the movable jaw by lowering it into engagement with the top of a can or analogous package.

2. A can lifter comprising a handle, a pair of jaws mounted upon said handle, one of said jaws being fixed and the other mounted to reciprocate toward and from the fixed jaw, a contractile spring arranged to act upon said movable jaw, a locking mechanism adapted to hold the movable jaw in extended or open position, and a trigger projecting between the jaws and adapted to release the movable one when the tool is lowered into engagement with the top of the can or analogous package.

3. In a can lifter, the combination of a handle, a frame arm extending substantially at right angles from the handle, a fixed jaw mounted upon said frame arm, a movable jaw mounted to reciprocate upon said frame arm and having both sliding and pivotal movement, a contractile spring connecting the movable jaw with a fixed part of the device, a locking mechanism adapted to hold the movable jaw extended when the latter is flexed relatively to the

frame arm, and a trigger projection upon the movable jaw extending downwardly between the jaws.

4. A can lifter comprising a handle, a frame comprising a pair of arms rigid with the handle and extending approximately at right angles thereto, a fixed jaw mounted upon said arms, a movable jaw slotted and guided to reciprocate longitudinally upon pins carried by said arms, a locking shoulder formed at the inner end of the slot of the movable arm and adapted to engage one of the pin supports of the latter, a coiled contractile spring connected with the outer end portion of the movable jaw and with a fixed part of the tool approximately in alinement with said jaw, and a trigger projection upon the movable jaw adapt-

ed to move the locking shoulder of the latter out of engagement with the said pin by engagement with the upper side of the package. 15

5. In a can lifter, the combination with a handle, and a pair of jaws mounted thereon, one of said jaws being spring-actuated, one or both of said jaws having a series of laterally separated and upstanding chisel-shaped teeth adapted to engage the edge of a can cap-flange. 20

CHARLES F. ALLINE.

Witnesses:

ALBERT H. GRAVES,  
TIMOTHY F. HASSETT.