

(No Model.)

W. F. KIRCHER.

GRAPPLE.

Patented Jan. 19, 1886.

No. 334,667.

Fig.1.

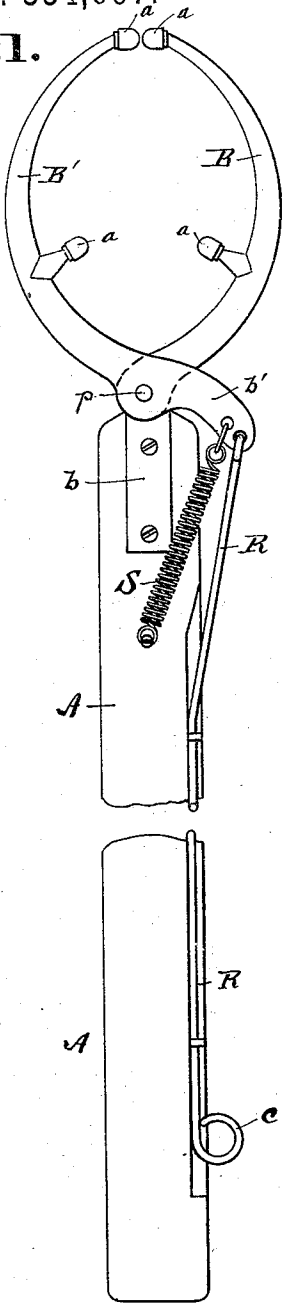


Fig. 2.

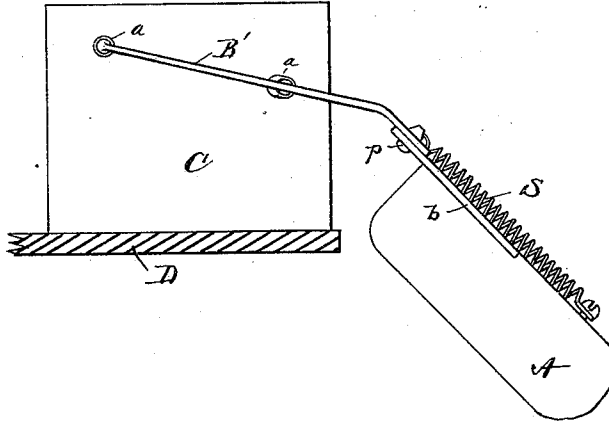
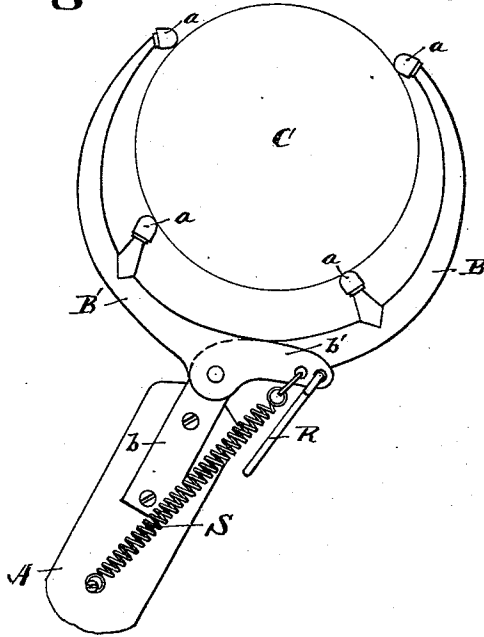


Fig. 3.



Attest.
C.D. Kerr.
Clerk.

Inventor.
William F. Kircher
By *K. H. Hosen*
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM F. KIRCHER, OF COVINGTON, KENTUCKY.

GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 334,667, dated January 19, 1886.

Application filed October 26, 1885. Serial No. 180,946. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. KIRCHER, a citizen of the United States, residing at Covington, Kentucky, have invented new and useful Improvements in Devices for Lifting Packages from Shelves, of which the following is a specification.

My invention relates to devices for lifting cans or other packages to or from elevated shelves in stores and elsewhere; and it consists in the utensil for this purpose herein described and illustrated, embodying a handle provided with a pivoted clamp of two pivoted members, an actuating spring, and rod.

In the drawings accompanying and forming part of this specification, Figure 1 is a front view of my device complete, the clamping-jaws being in form adapted to seize a cylindrical can or similar article or package. Fig. 2 is a partial side view of the device as applied to a can in the act of lifting it to or from a shelf; and Fig. 3, a plan view of the clamping-jaws as applied to a cylindrical package.

Referring now to the drawings, A designates the handle of the implement, which may be of any convenient length, and B B' the fixed and movable jaws of a clamping device, pivoted together at *p* and secured to the end of the handle by screws or otherwise by an extension *b* of the fixed member B.

In the present illustration the two members are shaped, and provided at their ends and at corresponding points near the butt-end of the curved fingers with studs for holding suitable friction pads, *a a a a*, preferably of rubber. The butt-end *b'* of the movable jaw is also extended beyond its pivot *p* to afford actuating connections for a coiled spring, S, attached to the handle A, and a controlling-rod, R, extending thence down the handle A in a suitably-formed guide-slot, and terminating in a loop, *c*, for its manipulation.

The jaws B B', with their extensions and studs, may be made of cast-iron, preferably malleable, and attached to a handle of wood.

The operation is as follows: The clamp por-

tion of the utensil is lifted to a can or package, C, standing upon a shelf, D, for example, and the jaws B B' spread apart against the force of the spring S by pushing upward the rod R until the jaws clasp the can or package laterally, as indicated in Figs 2 and 3, when the rod R is released and the spring S permitted to act in closing the jaws upon the object to be lifted. The pads *a* constitute the holding-surfaces, and by their frictional contact the package is lifted by means of the rod. If the force of the spring is insufficient to cause a proper grip, it may be aided by drawing the rod R downward.

The form of the jaws B B' and of the pads *a*, as well as the material, may be varied to suit the character of the packages.

The device will be found of great convenience in stores and various other places where cans or packages of goods are to be placed on or removed from shelves above ordinary reach. The spring S is preferable but not absolutely essential.

The device may be constructed entirely of metal in some cases, where, for example, it is to be used in pottery-kilns and similar situations. The spring may be so attached also as to hold the jaws normally open; but I prefer the arrangement shown. The friction-surfaces *a a* may also be made continuous upon the inner edges of the jaws, if desired.

I claim as my invention and desire to secure by Letters Patent of the United States—

The improved lifting utensil embodying in combination the pivoted jaws B B', provided with inner friction-surfaces, preferably of rubber or similar elastic material, the handle A, spring S, and actuating-rod R, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM F. KIRCHER.

Witnesses:

L. M. HOSEA,
C. D. KERR.