

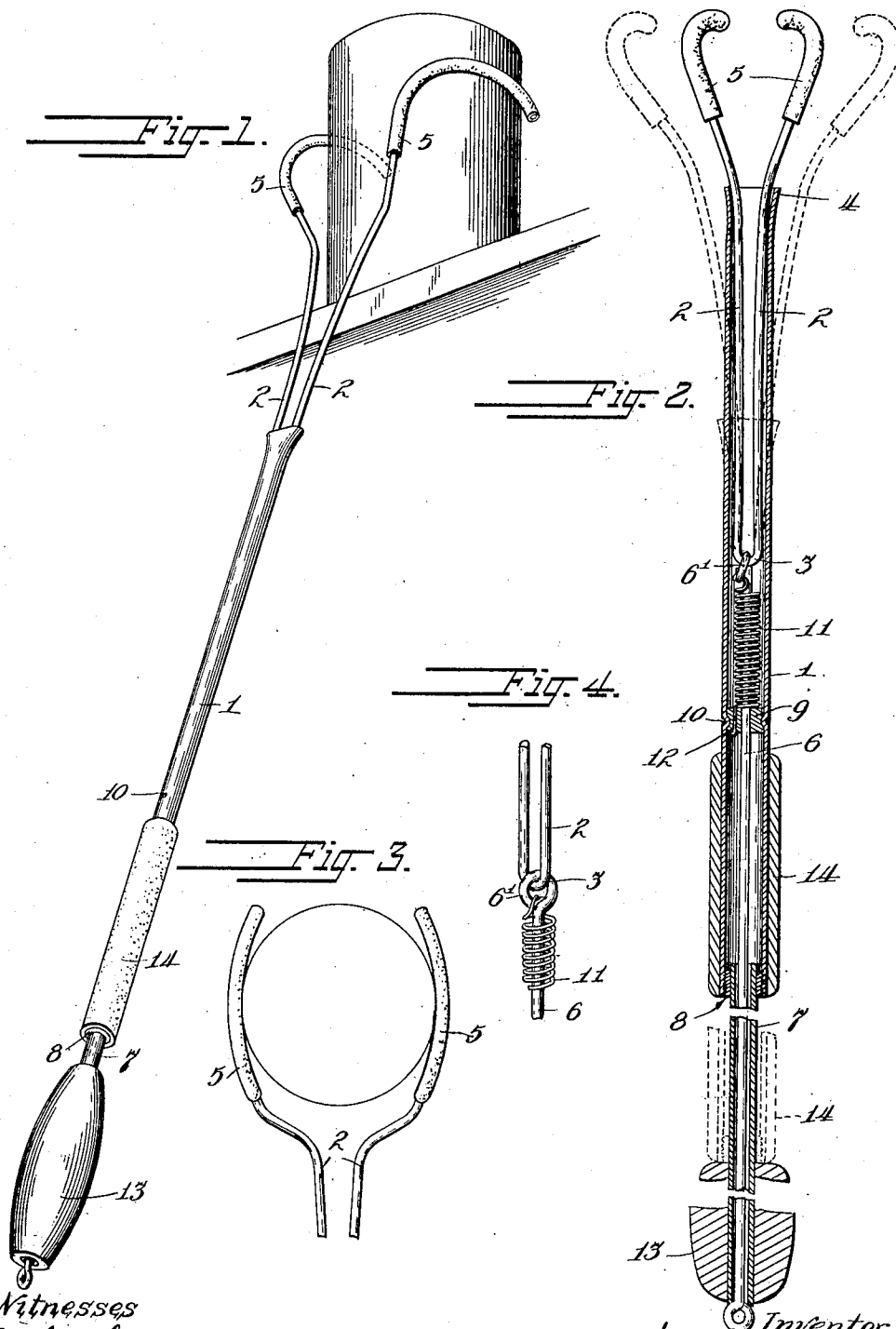
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W. G. KENNEDY.

CAN LIFTER.

APPLICATION FILED JAN. 2, 1908.



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CAN-LIFTER.

No. 892,162.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM G. KENNEDY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Can-Lifters, of which the following is a specification.

This invention relates to an improved can lifter or tool for handling cans and analogous articles; being more particularly designed for lifting down such articles from high shelves or transferring them to such shelves.

Among the salient objects of the invention are to provide a device which by reason of the peculiar configuration of its gripping jaws will readily adapt itself to articles of various shapes; to provide a device which automatically accommodates itself to articles of different size diametrically, as well as of different shapes; to provide a device the jaws of which may be opened manually, held open by the same hand which extends the device for picking up the article and will automatically close upon the article when the jaw actuating mechanism is released; to provide a device of extremely simple and economical construction, and in general to provide an improved device of the character referred to.

To the above ends the invention consists in the matters hereinafter described, and more particularly specified in the claims.

In the drawing—Figure 1 is a perspective view showing the manner in which the lifter is applied to a can to be moved to or from an elevated shelf; Fig. 2 is a view mainly in longitudinal or axial section of the lifter; general positions of the parts being shown in dotted lines and portions of the device being broken out to reduce the length of the figure; Fig. 3 is a plan view of the jaw end of the lifter shown applied to a cylindric can; Fig. 4 is a detail showing particularly the connection of the actuating spring with the jaw.

Referring to the drawing, 1 designates a tubular main body, within one end of which is arranged to reciprocate a pair of spring wire jaws 2, 2, which are desirably, and as shown herein, integrally united with each other by a loop 3 at their lower or inner ends and tend to spring into divergent relation when pushed out of the end of the tube. To more effectually guide and control these jaws, the end of the tube is flattened somewhat, as indicated at 4. Each jaw is at its gripping end curved in such manner that

when viewed in side elevation it is convexly curved, and when viewed in plan elevation it is slightly concavely curved, *i. e.* each jaw is first bent vertically and outwardly and then horizontally and inwardly as seen clearly in Figs. 1 and 3; this shape being imparted to each jaw to enable it to adjust itself into firm gripping engagement with articles having cylindric sides or approximately cylindric sides of various diameters. To further enhance the gripping function of the jaws, they are each desirably covered as to their gripping portions with rubber tubing, as indicated at 5.

With the inner ends of the jaws is connected an actuating rod 6 which extends axially down through the main tube and is seated or secured within a smaller handled tube section 7, upon which the main tube 1 slides. As shown, the lower end of the main tube is provided with a reducing ring 8 which fits around the exterior of the tube 7, and at a point intermediate the length of the main tube is inserted and fixed a block 9 through which the actuating rod 6 is guided. The block 9 is conveniently fastened in place by indentations 10 in the main tube which impinge a circumferential groove in the block 9.

In order to automatically retract the gripping jaws and thus close the latter upon the article to be gripped, a coiled contractile spring 11 is arranged within the main tube, having one of its ends attached to the block 9, as indicated at 12, and its other end attached to a part moving with the jaws, as for example in the eye 6 of the actuating rod which engages the loop 3 of the jaws.

The lower end of the tube 7, which constitutes in effect a handle rod and is not necessarily tubular, is mounted a handle or grip 13, and so also upon the lower end of the main tube which reciprocates upon the handle member 7 is mounted a second grip 14.

Normally the spring 11 holds the gripping jaws retracted within the main tube and therefore closed. When the operator wishes to pick up an article with the lifter, with one hand holding the handle grip 13, he grasps the other grip 14 and slides it downwardly, thus relatively extending the gripper jaws, and having thus extended the jaws he can readily hold the two grips against movement towards each other with one hand. He then reaches up, applies the jaws in proper relation to the can or other article to be elevated and releases his grasp upon the upper grip,

thus allowing the spring to draw up the main tube and so close the jaws upon the article. By reason of the gradual forcing together of the jaws as the main tube slides upwardly upon the latter, a moderately strong spring will afford a very powerful gripping action in the jaws, and, as will be obvious from the foregoing, the closing of the jaws is purely automatic and practically instantaneous when the operator releases his hold upon the upper grip.

I claim as my invention:

1. In a can lifter, the combination with a suitable elongated handle support, of a pair of spring arms connected with said handle support and each terminating in a gripper jaw which is formed by bending the end of each arm first vertically and outwardly and then horizontally and inwardly, a slide mounted to reciprocate upon said spring arms and suitable handle grips upon the end of the handle support and the contiguous end of the slide.

2. In a can lifter, the combination with a suitable elongated handle support, of a pair of spring arms connected with said handle support and each terminating in a gripper jaw which is first bent vertically and outwardly and then horizontally and inwardly so as to be convexly curved in side elevation

and concavely curved as viewed from above, and provided with rubber covering, a slide mounted to reciprocate upon the end of the handle support and the contiguous end of the slide.

3. A can lifter, comprising a tubular main body constituting a slide, a pair of spring arms united to extend alongside of each other, tensioned to normally spring away from each other, arranged to telescope as to their shank ends within the end of said tubular slide, and each terminating in a curved integral gripper jaw, an actuating rod connected with the inner ends of said spring arms extending thence through the remainder of the length of the tubular slide and terminating in a hand grip, said actuating rod constituting a handle extension which extends a substantial distance beyond the end of the tubular slide, a coiled contractile spring connected with said spring arms at one end and at its opposite end connected with a fixed member within said tubular slide and a hand grip upon the end of said tubular slide opposite that from which the spring arms protrude.

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