

No. 704,692.

Patented July 15, 1902.

P. BEIDER.
LIFTING DEVICE.

(Application filed Feb. 27, 1902.)

(No Model.)

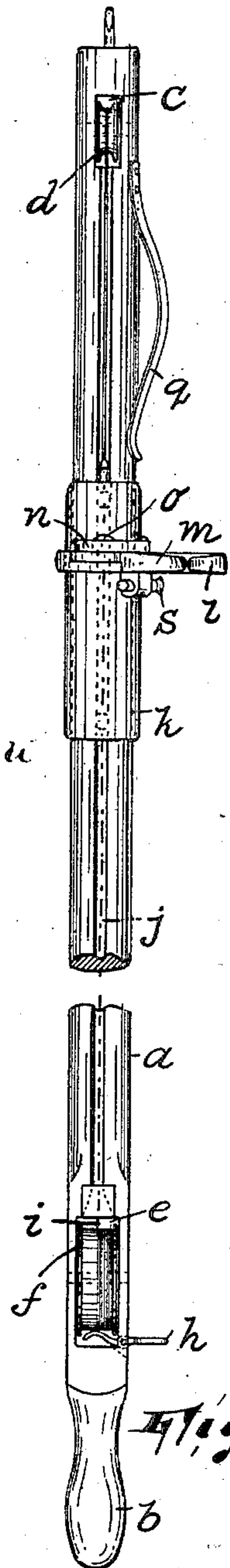


Fig. 2.

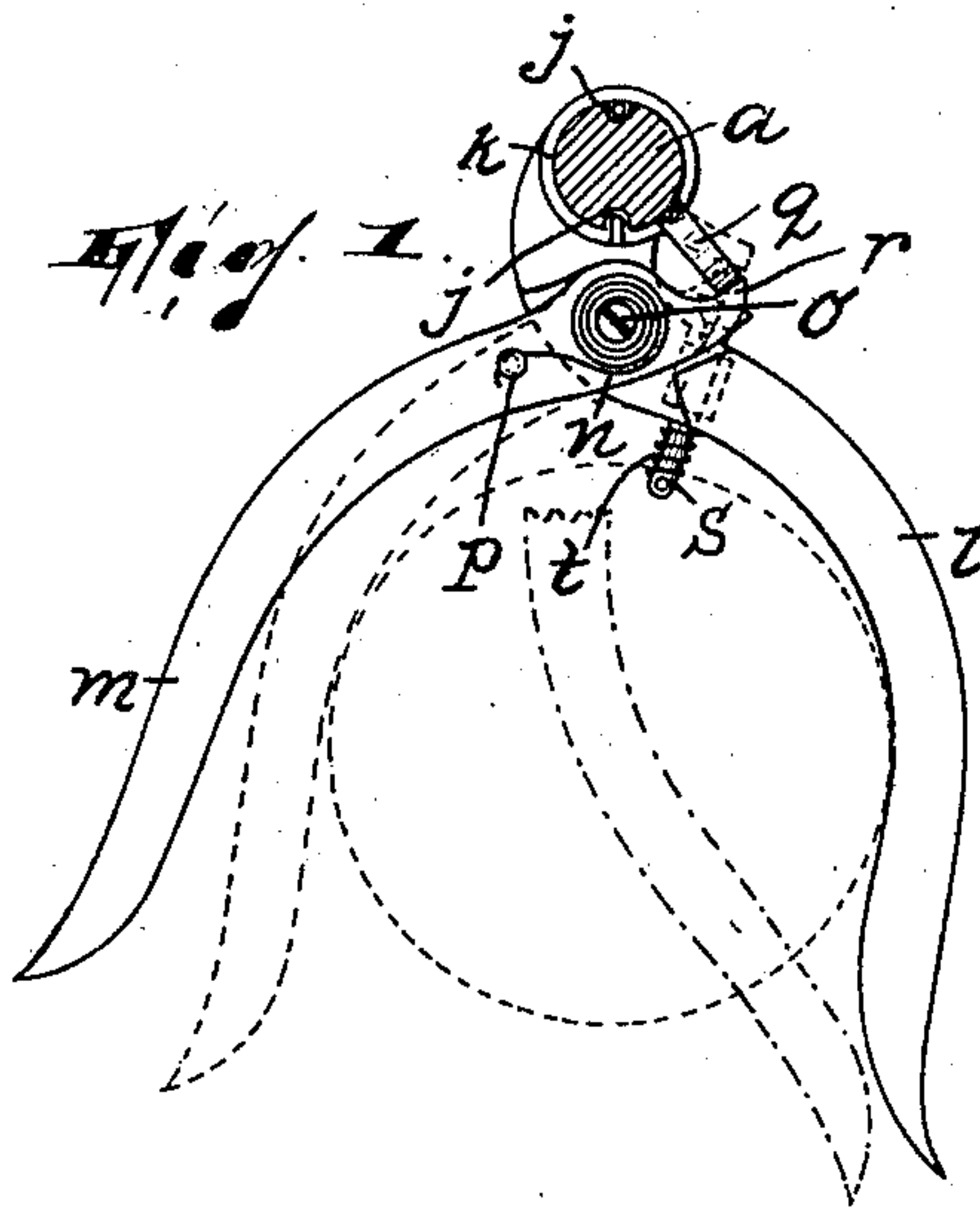


Fig. 1.

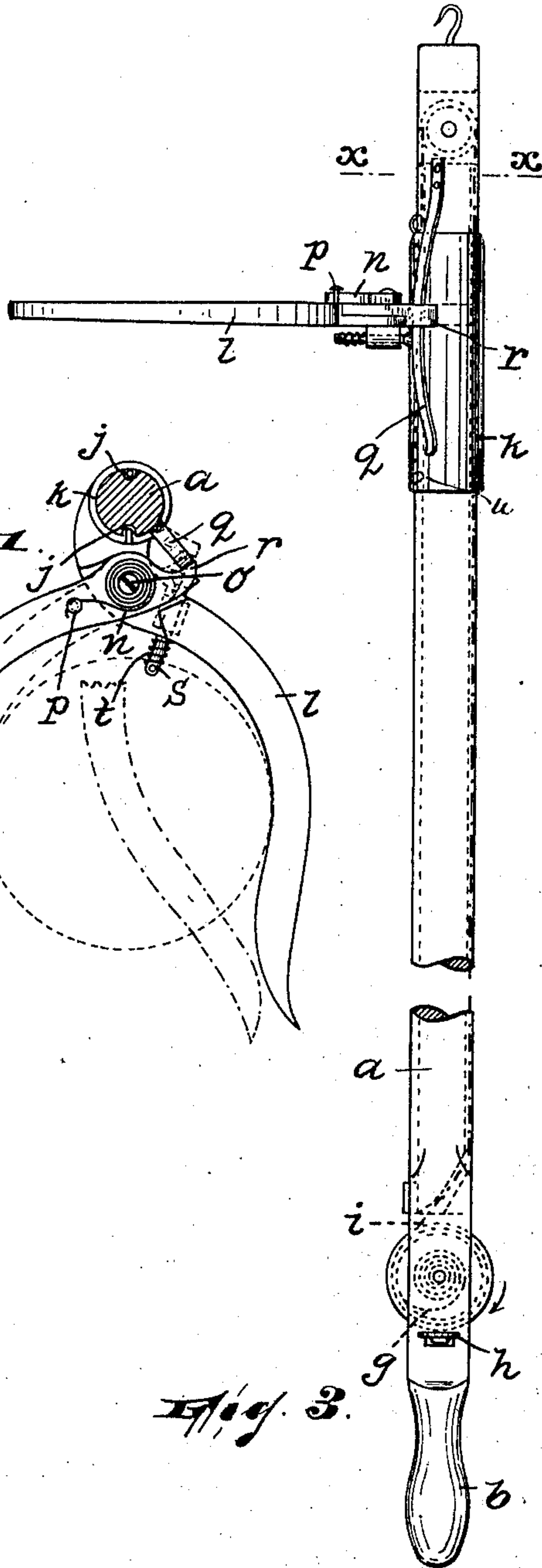


Fig. 3.

WITNESSES:

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PETER BEIDER, OF PATERSON, NEW JERSEY.

LIFTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 704,692, dated July 15, 1902.

Application filed February 27, 1902. Serial No. 95,839. (No model.)

To all whom it may concern:

Be it known that I, PETER BEIDER, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful Improvement in Lifting Devices, of which the following is a specification.

The object of this invention is to provide a contrivance for reaching down articles, like cans, bottles, &c., from shelves; and it consists in a device of this nature, substantially as will be hereinafter described and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, wherein corresponding letters of reference indicate like parts, Figure 1 is a sectional view taken on the line xx in Fig. 3. Fig. 2 is a side view of the contrivance, and Fig. 3 is another side view of the contrivance as seen if the same were turned from the position shown in Fig. 2 ninety degrees to the left.

In said drawings, a is a pole or staff formed at its lower end with a handle b and having at its upper end a recess c , in which is journaled a pulley d . Near the handle end of the staff or pole is another recess e , in which is journaled a reel f , normally turned in the direction of the arrow in Fig. 2 by a spring g . A spring-actuated clip h , mounted in the pole and projecting therefrom in easy reach of the operator's thumb, normally bears against the reel and acts to hold it from turning. On the reel is wound a cord i , which passes up along one side of the pole in a groove j therein, over the pulley, and down the other side of the pole in another groove j , being connected at its free end to a sleeve k , arranged to slide up and down on the pole. The sleeve k carries an arm l . The arm l in turn carries another arm m , which is pivoted thereto, being normally held closed (against the arm l) by a spiral spring n , which is wound about the pivot o between said arms and engages at its free end a lug p on the arm m . When the spring-actuated reel f is released, it winds up the cord and elevates the sleeve. Near the top of the pole and extending longitudinally thereof is a long plate-spring q . This plate-spring is of such form that it has movement

not only to and from the pole, but slightly sidewise. The pivotal end of the arm m is formed as a finger r , which as the reel through the cord elevates the sleeve rides up on the spring q , causing the arms to open, as seen in Fig. 1. They cannot again close except the spring q be removed out of engagement with the finger r .

s is a sliding pin arranged in the arm l , so as to take against the spring q and move it sidewise to clear the finger r . It is normally held retracted out of engagement with said spring q by a spiral spring t , which is wound around it, engaging said pin at one end and the arm l at the other end.

In using the contrivance, the arms l and m being in the position illustrated in Fig. 1 with the sleeve near the top of the pole, the operator so places said arms that they receive between them the article to be lifted down from a shelf. In doing this he presses the pin s against the article sufficiently to move said pin, which will in turn throw the spring q out of engagement with the finger r , permitting the arm m to move and so clasp with the arm l said article. The article is then drawn away from the shelf, whereupon its weight will be sufficient to act against the spring g in the reel f , and it will descend, sliding down the pole carried by said arms. The article is then removed from the arms, whereupon the spring g again causes the reel f to elevate the sleeve. As the sleeve approaches the upper end of the pole the finger r rides up on the spring q , so as to reset the arm m .

Some sort of guiding means for the sleeve k should be provided. u is therefore a lug or pin projecting inwardly from the sleeve and engaging one of the grooves j .

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

1. The combination of a pole, a carrier arranged to slide on said pole, a reel journaled in said pole, and a flexible connection between said carrier and the reel, substantially as described.

2. The combination of a pole, a carrier guided on said pole, a spring-actuated reel

journaled in said pole, a flexible connection between said carrier and the reel, and a brake for said reel, substantially as described.

3. The combination of a pole, a carrier ar-
5 ranged to slide on said pole, said carrier comprising arms one of which is pivoted, a spring pressing said pivoted arm toward the other arm, means for elevating said carrier, and means, carried by said pole, for moving said

pivoted arm against the tension of its spring as the carrier assumes its extreme elevated position, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

PETER BEIDER.

Witnesses:

ROBERT J. POLLITT,
JAMES B. NEWTON.