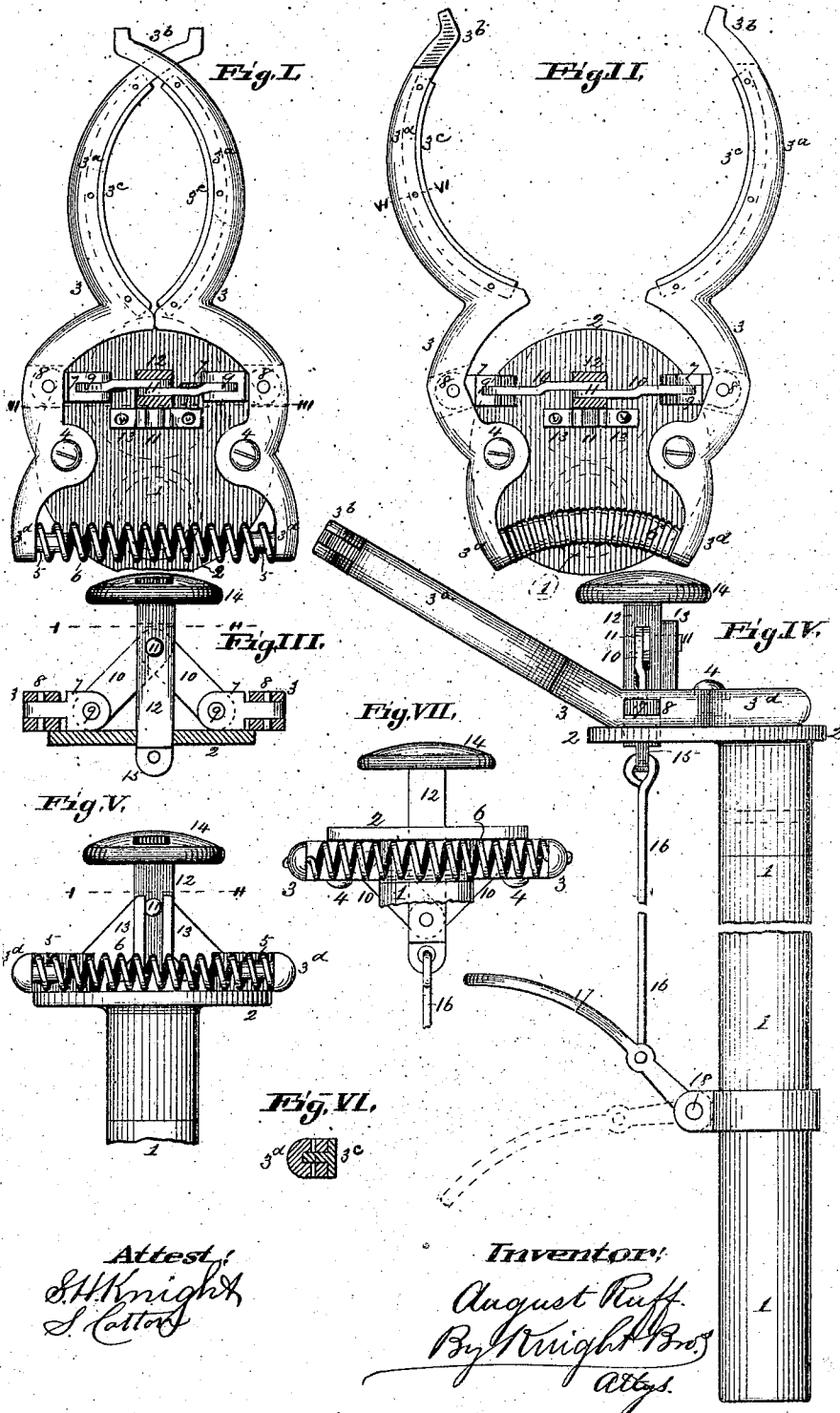


(No Model.)

A. RUFF.
INSTRUMENT FOR HANDLING BOTTLES, &c.

No. 461,805.

Patented Oct. 20, 1891.



Attest:
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Atty.

UNITED STATES PATENT OFFICE.

AUGUST RUFF, OF ST. LOUIS, MISSOURI, ASSIGNOR OF TWO-THIRDS TO
JACOB GRIMM AND HENRY POLST, BOTH OF SAME PLACE.

INSTRUMENT FOR HANDLING BOTTLES, &c.

SPECIFICATION forming part of Letters Patent No. 461,805, dated October 20, 1891.

Application filed March 3, 1891. Serial No. 383,550. (No model.)

To all whom it may concern:

Be it known that I, AUGUST RUFF, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Instruments for Handling Bottles, Cans, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings; forming part of this specification.

This instrument is for the purpose of reaching bottles, cans, &c., to or from an elevated position. To this end it has a pair of spring-jaws at the end of a long handle, with the described means of opening the jaws.

Figures I and II are horizontal sections taken at I II, Figs. IV and V, showing the jaws, respectively, closed and open. Fig. III is a transverse vertical section taken at III III, Fig. I, showing the jaws closed. Fig. IV is a side elevation with a large part of the handle or staff and of the connecting-rod removed. Fig. V is a rear elevation of the head. Fig. VI is a detail section taken at VI VI, Fig. II. Fig. VII is a detail rear elevation showing a modification.

1 is the staff, which may be of any suitable length.

2 is a head-plate.

3 are two jaws opening and closing on pivots 4, screwed into the head-plate 2 or otherwise connected to it. The outer parts 3^a of the jaws are of such form as to securely grasp any article it is intended to handle. In the present case they are shown curved for the handling of bottles, cans, and jars. The extreme ends 3^b are preferably made to loosely interlock, as shown in Figs. I and IV, so as to give mutual support to each other when closed. The concave inner side of the parts 3^a are cushioned with cushions 3^c, of india-rubber or other yielding or elastic material. The heels 3^d of the jaws have upon the inner sides studs 5, that enter the ends of a spiral spring 6, by whose extension the heels are forced apart and the active ends of the jaws forced together, as seen in Fig. I, or upon the object between the jaws, the pressure of the jaws being sufficient to sustain the object.

7 are ears, which are pivoted to the jaws at 8 and to which are pivoted at 9 the ends of the toggle-links 10, the other ends of the links

being pivoted at 11 to a vertically-sliding bar 12, working through the head-plate 2. The pivot 11 works in the vertical slot of a guide-standard 13, so as to prevent the transverse swaying of the slide-bar. At the top of the slide-bar is a knob 14, on which the hand is pressed to force the bar down and open the jaws. The lower end of the bar 12 has an eye 15, to which is connected the upper end of a rod 16, the rod being connected at the lower end to a hand-lever 17, fulcrumed at 18 to the staff 1. It will be seen that the jaws may be opened either by downward pressure on the end of the lever 17 or upon the knob 14. The jaws are opened both in taking hold of the object (at which time the device or instrument is of course in its elevated position) by actuating the lever 17 and in releasing the object (at which time the device is in its lowered position) by actuating the knob 4. It is preferred that the part of the jaws in front of the pivots 4 should incline upward, as seen in Fig. IV; but this is not essential.

I have described the jaws 3 as being closed by a spring 6 and opened by the toggle-arms 4. It is quite obvious that this may be reversed, the spring being used to open the jaws and the toggle to close them. (See Fig. VII, where 6 is a draw-spring and the toggle-arms 4 extend downward to the rod 16, so that the downward movement of the lever 17 will close the jaws, the head being inverted.)

I claim as my invention—

1. The combination of the staff and its head, the spring-pressed jaws pivoted to the head, the toggle-levers connected to said jaws and having their plane of movement at approximate right angles to that of said jaws, the slide connected to said toggle-levers to provide for the actuation of said jaws when the device is lowered with the clamped article, and means for actuating said slide from the ground when the device is elevated, substantially as set forth.

2. The combination of the staff and its head, the spring-pressed jaws pivoted to said head, the toggle-levers connected to said jaws and having their plane of movement at approximate right angles to that of the movement of said jaws, and the slide connected to said toggle-levers and passing through said

head, and means for actuating said slide from the ground when the device is elevated, substantially as described.

3. The combination of the staff and its
5 head, the spring-pressed jaws pivoted to the head, the toggle-levers connected to said jaws and having their plane of movement at approximate right angles to that of said jaws, the slide connected to said toggle-levers and
10 passing through said head, the rod connected to said slide, and the hand-lever connected to said rod, substantially as set forth.

4. The combination of the staff 1, the head-plate 2, with slotted standard 13, the slide-
15 bar 12, the jaws 3, fulcrumed to the head-plate, the toggle-links 10, pivoted to the jaws and connected to the slide-bar by a pivot working in the slot of the standard 13, and the

spring 6, forcing the jaws together, and means for actuating said slide from the ground when
20 the device is elevated, substantially as set forth.

5. The combination of the staff 1, the head-plate 2, with slotted standard 13, the slide-
25 bar 12, the jaws 3, provided with the cushions 3^a and fulcrumed to the head-plate, the toggle-links 10, pivoted to the jaws and connected to the slide-bar by a pivot working in the slot of the standard 13, and the spring 6,
30 forcing the jaws together, and means for actuating said slide from the ground when the device is elevated, substantially as set forth.

AUGUST RUFF.

In presence of--

A. M. EBERSOLE,
THOS. KNIGHT.